(A free translation of the original in Portuguese)

Votorantim Cimentos S.A.

Parent company and consolidated financial statements as at December 31, 2023

(A free translation of the original in Portuguese)

Independent auditor's report

To the Board of Directors and Shareholders
Votorantim Cimentos S.A.

Opinion

We have audited the accompanying parent company financial statements of Votorantim Cimentos S.A. ("VCSA" or "Parent company"), which comprise the balance sheet as at December 31, 2023 and the statements of income, comprehensive income, changes in equity and cash flows for the year then ended, as well as the accompanying consolidated financial statements of Votorantim Cimentos S.A. and its subsidiaries ("Company"), which comprise the consolidated balance sheet as at December 31, 2023 and the consolidated statements of income, comprehensive income, changes in equity and cash flows for the year then ended, and notes to the financial statements, including material accounting policies and other explanatory information.

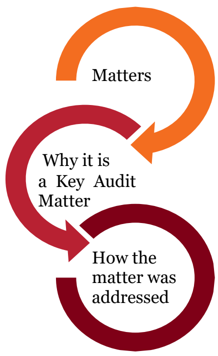
In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Company and of the Company and its subsidiaries as at December 31, 2023, and the financial performance and the cash flows for the year then ended, as well as the consolidated financial performance and the cash flows for the year then ended, in accordance with accounting practices adopted in Brazil and with the International Financial Reporting Standards (IFRS) as issued by the International Accounting Standards Board (IASB) (currently described as "IFRS Accounting Standards" by the IFRS Foundation).

Basis for opinion

We conducted our audit in accordance with Brazilian and International Standards on Auditing. Our responsibilities under those standards are described in the Auditor's Responsibilities for the Audit of the Parent Company and Consolidated Financial Statements section of our report. We are independent of the Company in accordance with the ethical requirements established in the Code of Professional Ethics and Professional Standards issued by the Brazilian Federal Accounting Council, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Key Audit Matters

Key Audit Matters are those matters that, in our professional judgment, were of most significance in our audit of the financial statements of the current year. These matters were addressed in the context of our audit of the parent company and consolidated financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.



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Why it is a Key Audit Matter	How the matter was addressed in the audit
Provisions for contingent liabilities (Note 22)	
At December 31, 2023, the Company and its subsidiaries present provisions for probable risks of losses from lawsuits. No provisions were recorded for certain tax, civil, environmental and labor lawsuits as Management, under the advice of internal and external legal counsel, believes that the likelihood of loss is only possible or remote. The determination of the likelihood of risk of loss, and the estimate of expected cash outflows requires Management to apply its judgment since these depend on future events that are not under its control. The final results from these lawsuits may differ from Management's prognosis and that of its internal and external legal advisors, since evolving legal interpretations and new case law may affect the estimates.	Our audit procedures included, among others, comparing the procedures adopted by Management with the Company's accounting policy for recording provisions and the related disclosures. We requested confirmation from the external legal advisors as to their assessment of the likelihood of loss and the respective amounts, classifying these among the categories of remote, possible and probable. With the assistance of our tax and legal specialists, we assessed the reasonableness of the estimates made by Management and its internal and external legal counsel for selected lawsuits, in the context of their progression through the legal system and existing case laws, when applicable. We also read the disclosures in the notes to the financial statements. We consider that the criteria and assumptions adopted by Management to determine the provisions and the disclosures in the notes to the financial statements to be consistent with the information obtained during our audit.

Other matters

Statements of Value Added

The parent company and consolidated Statements of Value Added for the year ended December 31, 2023, prepared under the responsibility of the Company's management and presented as supplementary information for IFRS Accounting Standards purposes, were submitted to audit procedures performed in conjunction with the audit of the Company's financial statements. For the purposes of forming our opinion, we evaluated whether these statements are reconciled with the financial statements and accounting records, as applicable, and if their form and content are in accordance with the criteria defined in Technical Pronouncement CPC 09 - "Statement of Value Added". In our opinion, these Statements of Value Added have been properly prepared, in all material respects, in accordance with the criteria established in the Technical Pronouncement, and are consistent with the parent company and consolidated financial statements taken as a whole.

Other information accompanying the parent company and consolidated financial statements and the auditor's report

The Company's management is responsible for the other information that comprises the Management Report.

Our opinion on the parent company and consolidated financial statements does not cover the Management Report, and we do not express any form of audit conclusion thereon.

Votorantim Cimentos S.A.

In connection with the audit of the parent company and consolidated financial statements, our responsibility is to read the Management Report and, in doing so, consider whether this report is materially inconsistent with the financial statements or our knowledge obtained in the audit or otherwise appears to be materially misstated. If, based on the work we have performed, we conclude that there is a material misstatement in the Management Report, we are required to report that fact. We have nothing to report in this regard.

Responsibilities of Management and those charged with governance for the parent company and consolidated financial statements

Management is responsible for the preparation and fair presentation of the parent company and consolidated financial statements in accordance with accounting practices adopted in Brazil and with the International Financial Reporting Standards (IFRS) as issued by the International Accounting Standards Board (IASB) (currently described as "IFRS Accounting Standards" by the IFRS Foundation), and for such internal control as Management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the parent company and consolidated financial statements, Management is responsible for assessing the ability of the Company and its subsidiaries, as a whole, to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Company or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the Company's financial reporting process.

Auditor's responsibilities for the audit of the parent company and consolidated financial statements

Our objectives are to obtain reasonable assurance about whether the parent company and consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Brazilian and International Standards on Auditing will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with Brazilian and International Standards on Auditing, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the parent company and consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the internal control of the Company and its subsidiaries.

Votorantim Cimentos S.A.

- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by Management.

- Conclude on the appropriateness of Management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the ability of the Company and its subsidiaries, as a whole, to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the parent company and consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Company and its subsidiaries, as a whole, to cease to continue as a going concern.

- Evaluate the overall presentation, structure and content of the parent company and consolidated financial statements, including the disclosures, and whether these financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the parent company and consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, actions taken to eliminate threats to our independence or safeguards applied.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the financial statements of the current year and are therefore the Key Audit Matters.

We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

Curitiba, February 29, 2024

PricewaterhouseCoopers

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Auditores Independentes Ltda.
CRC 2SP000160/F-6

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Signed By: CARLOS EDUARDO GUARANA MENDONCA:40137163649
CPF: 40137163649
Signing Time: 19 March 2024 | 08:38 BRT
O: ICP-Brasil, OU: Secretaria da Receita Federal do Brasil - RFB
C: BR
Issuer: AC SERASA RFB v5

Carlos Eduardo Guaraná Mendonça
Contador CRC 1SP196994/O-2

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Votorantim Cimentos S.A.

Balance sheet
As at December 31, 2023 and 2022

All amounts in thousands of reais unless otherwise stated

(A free translation of the original in Portuguese)

Assets	Note	Parent company 2023	Parent company 2022	Consolidated 2023	Consolidated 2022
Current					
Cash and cash equivalents	8(b)	1,144,468	1,105,029	4,856,956	3,943,513
Financial investments	9(b)	864,266	776,858	1,056,569	978,316
Derivative financial instruments	6.4.3(a)	670		1,027	48
Trade receivables	10(b)	711,286	661,250	1,641,634	1,521,320
Inventory	11(b)	1,015,058	1,057,242	3,499,964	3,358,792
Taxes recoverable	12(b)	52,042	53,001	126,731	297,755
Income tax and social contribution Recoverable		39,566	92,305	117,695	169,969
Dividends receivable	13(b)		33,145	1,230	
Securitization of receivables	10(e)			250,372	
Other assets		77,331	69,395	273,147	266,315
		3,904,687	3,848,225	11,825,325	10,536,028
Assets classified as held for sale		1,716	2,116	10,206	2,116
Total current assets		3,906,403	3,850,341	11,835,531	10,538,144
Non-current					
Long-term assets					
Derivative financial instruments	6.4.3(a)	439,356	543,924	612,194	708,600
Taxes recoverable	12(b)	76,480	81,008	177,217	197,816
Income tax and social contribution recoverable	21(h)	466,995	410,552	510,249	410,878
Deferred income tax and social contribution	21(c)			802,040	435,884
Related parties	13(b)	52,030	45,873	51,904	45,699
Judicial deposits	14(b)	127,081	110,989	241,671	215,833
Securitization of receivables	10(e)				217,740
Pension plan benefits	24(b)			82,762	126,335
Other assets		35,687	46,096	169,769	240,161
		1,197,629	1,238,442	2,647,806	2,598,946
Investments	15(c)	15,161,591	14,406,875	1,041,154	1,369,685
Investment properties				69,890	74,867
Property, plant and equipment	16(b)	5,346,099	4,853,603	18,481,961	18,122,764
Intangible assets	17(b)	821,675	781,376	8,069,767	8,702,080
Right-of-use assets	18(b)	97,186	52,951	973,378	1,126,723
Total non-current assets		22,624,180	21,333,247	31,283,956	31,995,065
Total assets		26,530,583	25,183,588	43,119,487	42,533,209

Liabilities and shareholders' equity	Note	Parent company 2023	Parent company 2022	Consolidated 2023	Consolidated 2022
Current					
Borrowings	19(b)	75,896	82,680	271,983	262,348
Derivative financial instruments	6.4.3(a)	189,824	215,707	238,826	271,647
Lease liabilities	18(c)	25,641	22,732	144,013	165,883
Confirming payables	20	205,190	251,701	1,559,780	1,880,761
Trade and other payables		1,517,703	1,936,463	3,899,031	4,275,707
Salaries and social charges		296,829	264,862	721,934	598,861
Income tax and social contribution Payable				34,290	32,842
Taxes payable		181,939	130,689	387,201	320,546
Advances from customers		32,399	25,463	97,632	58,292
Dividends payable	13(b)	557,360	218,911	559,040	221,185
Use of public assets	23(b)			53,947	54,932
Securitization of receivables	10(e)			95,338	
Other liabilities		59,220	269,558	236,318	507,492
Total current liabilities		3,142,001	3,418,766	8,299,333	8,650,496
Non-current					
Borrowings	19(b)	5,754,412	4,704,750	11,875,376	10,911,239
Derivative financial instruments	6.4.3(a)	427,418	466,285	547,342	603,182
Lease liabilities	18(c)	70,362	29,986	867,911	1,034,801
Deferred income tax and social contribution	21(c)	320,190	97,073	1,281,206	968,280
Related parties	13(b)	55,870	58,016	48,548	56,905
Provisions and judicial deposits	22(b)	755,185	801,317	1,246,835	1,397,535
Use of public assets	23(b)			589,400	656,858
Pension plan	24(b)			265,711	275,011
Securitization of receivables	10(e)				114,417
Other liabilities		363,978	224,138	553,754	458,910
Total non-current liabilities		7,747,415	6,381,565	17,276,083	16,477,138
Total liabilities		10,889,416	9,800,331	25,575,416	25,127,634
Shareholders' equity	25				
Share capital		7,708,353	7,708,353	7,708,353	7,708,353
Income reserves		5,100,536	3,947,562	5,100,536	3,947,562
Carrying value adjustments		2,832,278	3,727,342	2,832,278	3,727,342
Total equity attributable to the owners of the Company		15,641,167	15,383,257	15,641,167	15,383,257
Non-controlling interests				1,902,904	2,022,318
Total shareholders' equity		15,641,167	15,383,257	17,544,071	17,405,575
Total liabilities and shareholders' equity		26,530,583	25,183,588	43,119,487	42,533,209

The accompanying notes are an integral part of these parent company and consolidated financial statements.

Votorantim Cimentos S.A.

Statement of income
Years ended December 31, 2023 and 2022

All amounts in thousands of reais unless otherwise stated

(A free translation of the original in Portuguese)

		Parent company		Consolidated	
	Note	2023	2022	2023	2022
Net revenue from contracts with customers	26(b)	9,450,233	9,516,894	26,682,125	25,797,366
Cost of goods sold and services rendered	27	(7,245,741)	(7,384,906)	(20,799,481)	(20,982,540)
Gross profit		2,204,492	2,131,988	5,882,644	4,814,826
Operating income (expenses)					
Selling	27	(525,582)	(436,779)	(947,856)	(826,495)
General and administrative	27	(563,006)	(557,661)	(1,353,368)	(1,246,411)
Other operating income (expenses), net	28	63,257	48,159	359,790	180,841
		(1,025,331)	(946,281)	(1,941,434)	(1,892,065)
Operating profit before equity in the results of investees and financial results, net		1,179,161	1,185,707	3,941,210	2,922,761
Equity in the results of investees					
Equity in the results of investees	15(e)	2,049,503	632,266	55,078	52,100
Financial result, net	29(b)				
Financial income		511,619	649,628	943,306	938,458
Financial expenses		(1,168,972)	(1,228,313)	(2,039,149)	(2,346,821)
Exchange variations and effects of hyperinflation, net		143,428	110,633	97,755	112,938
		(513,925)	(468,052)	(998,088)	(1,295,425)
Profit before income tax and social contribution		2,714,739	1,349,921	2,998,200	1,679,436
Income tax and social contribution	21(b)	(281,039)	(350,634)	(380,320)	(533,982)
Profit for the year		2,433,700	999,287	2,617,880	1,145,454
Attributable to					
Owners of the Company				2,433,700	999,287
Non-controlling interests				184,180	146,167
Profit for the year				2,617,880	1,145,454
Weighted average number of shares, in thousands				9,525,614	9,525,614
Basic and diluted earnings per thousand shares attributable to owners of the Company, in Reais				255.49	104.91

The accompanying notes are an integral part of these parent company and consolidated financial statements.

Votorantim Cimentos S.A.

Statement of comprehensive income
Years ended December 31, 2023 and 2022

All amounts in thousands of reais unless otherwise stated

(A free translation of the original in Portuguese)

		Parent company		Consolidated	
	Note	2023	2022	2023	2022
Profit for the year		2,433,700	999,287	2,617,880	1,145,454
Other components of comprehensive income which will be subsequently reclassified to the statement of income					
Currency translation adjustment - foreign investments	25(e)	(950,773)	(698,668)	(1,077,871)	(885,070)
Hedge of net investment	25(e)	57,282	(135,073)	69,015	(162,739)
Share of other comprehensive income from investees	25(e)	13,500	22,005	12,947	(60,125)
		(879,991)	(811,736)	(995,909)	(1,107,934)
Other components of comprehensive income which will not be reclassified to the statement of income					
Adjustments of financial assets at fair value through other comprehensive income	25(e)	(842)	(3,137)	(1,044)	(3,779)
Remeasurements of retirement benefits in investees	25(e)	(17,772)	26,984	(22,168)	32,475
Credit risk of debts measured at fair value	25(e)	3,541	(8,533)	3,541	(8,533)
		(15,073)	15,314	(19,671)	20,163
Other components of comprehensive income for the year		(895,064)	(796,422)	(1,015,580)	(1,087,771)
Total comprehensive income for the year		1,538,636	202,865	1,602,300	57,683
Attributable to					
Owners of the Company				1,538,636	202,865
Non-controlling interests				63,664	(145,182)
				1,602,300	57,683

Amounts presented net of tax effects (Note 25(e)).

The accompanying notes are an integral part of these parent company and consolidated financial statements.

Statement of changes in equity
Years ended December 31, 2023 and 2022

All amounts in thousands of reais unless otherwise stated

(A free translation of the original in Portuguese)

		Attributable to owners of the parent company								
			Income reserves							
	Note	Share capital	Legal	Tax incentives	Profit retention	Carrying value adjustments	Retained earnings	Total	Non-non-controlling interests	Shareholders' equity
On January 1, 2022, before initial hyperinflation accounting adjustment - subsidiaries		7,708,353	639,991	1,484,375	1,264,807	4,490,978		15,588,504	2,307,743	17,896,247
Effect of initial hyperinflation accounting adjustment - subsidiaries							88,395	88,395	1,994	90,389
Exchange rate adjustment from hyperinflationary economies	25(e)				(32,786)	32,786				
On January 1, 2022, after effect of initial hyperinflation accounting adjustment - subsidiaries		7,708,353	639,991	1,484,375	1,232,021	4,523,764	88,395	15,676,899	2,309,737	17,986,636
Comprehensive income for the year										
Profit for the year							999,287	999,287	146,167	1,145,454
Other components of comprehensive income	25(e)					(796,422)		(796,422)	(291,349)	(1,087,771)
						(796,422)	999,287	202,865	(145,182)	57,683
Contributions by and distributions to shareholders										
Increase in non-controlling interests							(48,723)	(48,723)	48,723	
Capital reduction of non-controlling interests									(116,787)	(116,787)
Allocation of profit for the year										
Transfer to legal reserve	25(a)(iv)		49,964				(49,964)			
Transfer to tax incentive reserve	25(a)(v)			73,680			(73,680)			
Dividends approved					(231,785)		(218,911)	(450,696)	(74,173)	(524,869)
Reversal of prior year dividends					2,912			2,912		2,912
Retention of earnings	25(a)(iv)				696,404		(696,404)			
			49,964	73,680	467,531		(1,087,682)	(496,507)	(142,237)	(638,744)
On December 31, 2022		7,708,353	689,955	1,558,055	1,699,552	3,727,342		15,383,257	2,022,318	17,405,575
On January 1, 2023, before accounting adjustments from the adoption to CPC 32/IAS 12 - Income taxes		7,708,353	689,955	1,558,055	1,699,552	3,727,342		15,383,257	2,022,318	17,405,575
Accounting adjustments from the adoption of CPC 32/ IAS 12 - Income taxes	5.2.1(a)						(3,019)	(3,019)		(3,019)
On January 1, 2023, after effect of accounting adjustment from the adoption to CPC 32/IAS 12 - Income taxes		7,708,353	689,955	1,558,055	1,699,552	3,727,342	(3,019)	15,380,238	2,022,318	17,402,556
Comprehensive income for the year										
Profit for the year							2,433,700	2,433,700	184,180	2,617,880
Other components of comprehensive income	25(e)					(895,064)		(895,064)	(120,516)	(1,015,580)
						(895,064)	2,433,700	1,538,636	63,664	1,602,300
Contributions by and distributions to shareholders										
Capital reduction of non-controlling interests	25(d)								(96,572)	(96,572)
Allocation of profit for the year										
Transfer to legal reserve	25(a)(iv)		121,685				(121,685)			
Transfer to tax incentive reserve	25(a)(v)			82,574			(82,574)			
Dividends approved	25(c)				(720,347)		(557,360)	(1,277,707)	(86,506)	(1,364,213)
Retention of earnings	25(a)(iv)				1,669,062		(1,669,062)			
			121,685	82,574	948,715		(2,430,681)	(1,277,707)	(183,078)	(1,460,785)
On December 31, 2023		7,708,353	811,640	1,640,629	2,648,267	2,832,278		15,641,167	1,902,904	17,544,071

The accompanying notes are an integral part of these parent company and consolidated financial statements.

Statement of cash flows
Years ended December 31, 2023 and 2022

All amounts in thousands of reais unless otherwise stated

(A free translation of the original in Portuguese)

	Note	Parent company 2023	Parent company 2022	Consolidated 2023	Consolidated 2022
Profit before income tax and social contribution		2,714,739	1,349,921	2,998,200	1,679,436
Adjustments for non-cash items					
Depreciation, amortization and depletion	27	445,227	410,107	1,868,614	1,846,855
Derivative financial instruments, net	6.4.3(a) and 29(b)	299,848	444,907	310,719	539,165
Income from financial investments		(90,591)	(78,676)	(92,404)	(80,248)
Equity in the results of investees	15(e)	(2,049,503)	(632,266)	(55,078)	(52,100)
Inflation adjustments on use of public assets	29(b)			(22,216)	42,287
Provision for (reversal of) obsolete inventory	11(c)	14,715	302	40,341	(11,087)
Allowance for expected credit losses	10(c)	16,669	12,192	25,784	21,314
Net gain on sales of PP&E and intangible assets	28	(12,649)	(1,776)	(16,105)	(42,485)
Provision for civil, labor and tax lawsuits	22(b)	21,298	80,237	32,495	100,969
Future energy contracts - fair value	28		(55,918)	(42,162)	57,587
Provision for impairment of assets	28		4,316	(53,016)	4,316
Gain on acquisition of investments					(6,715)
Other components of financial results		319,229	290,635	961,213	1,070,168
Other non-cash items		(21,900)	(25,042)	40,910	(5,417)
		1,657,082	1,798,939	5,997,295	5,164,045
(Increase) decrease in assets					
Trade receivables		(53,955)	(130,664)	(203,286)	(153,945)
Inventory		27,469	(273,471)	(172,421)	(398,439)
Taxes recoverable		5,487	175,381	188,673	358,919
Related parties		13,700	9,166	4,601	26,242
Judicial deposits		(17,232)	(92,051)	(27,324)	(117,029)
Securitization of receivables				(96,842)	(71,894)
Other receivables and other assets		2,473	(1,548)	96,691	(213,639)
Increase (decrease) in liabilities					
Confirming payables		(46,511)	13,656	(229,686)	428,022
Trade and other payables		(418,760)	227,258	(249,578)	429,469
Salaries and social charges		31,967	25,682	143,420	(12,856)
Taxes payable		13,344	227	(93,945)	(224,791)
Advances from customers		6,936	9,164	39,685	19,609
Payments of tax, civil and labor lawsuits		(38,443)	(35,389)	(99,427)	(82,573)
Other payables and other liabilities		(70,498)	60,920	(142,852)	(298,423)
Cash provided by operating activities		1,113,059	1,787,270	5,155,004	4,852,717
Interest paid on borrowing	19(d)	(441,484)	(286,619)	(821,285)	(713,718)
Interest paid on the use of public assets				(54,517)	(51,542)
Interest received		22	767	443	2,337
Repurchase of bonds	29(b)				(171,812)
Income tax and social contribution (paid) refunded		(50,784)		(323,135)	107,264
Net cash provided by operating activities		620,813	1,501,418	3,956,510	4,025,246
Cash flows from investing activities					
Financial investments		(11,955)	(4,409)	(248,987)	(120,850)
Redemption of financial investments		15,116	103,751	258,465	164,828
Proceeds from disposal of PP&E and intangible assets		22,482	38,639	56,776	155,247
Acquisitions of investments, net of cash received from investees	16(b)(i)			(15,073)	(467,269)
Dividends received		433,860	34,282	90,370	71,120
Acquisitions of PP&E and intangible assets		(948,988)	(691,063)	(2,392,109)	(2,005,752)
Acquisition of associates and joint ventures	15(c)(i)			(26,076)	
Amounts paid to related parties		(13,618)		(22,177)	(5,299)
Amounts received from related parties				5,299	
Capital increase in investee	15(c)(i)		(1,572,839)	(2,410)	(17,114)
Net cash used in investing activities		(503,103)	(2,091,639)	(2,295,922)	(2,225,089)
Cash flows from financing activities					
New borrowings	19(d)	1,770,744	1,435,504	2,732,730	3,424,047
Payments of borrowings	19(d)	(612,284)	(6,845)	(1,225,609)	(3,840,588)
Leases paid	18(c)	(41,792)	(44,294)	(320,897)	(286,646)
Derivative financial instruments	6.4.3(a)	(255,681)	(132,288)	(296,900)	(169,658)
Capital decrease of non-controlling interests				(96,572)	(116,787)
Dividends paid	25(c)	(939,258)	(1,074,601)	(939,258)	(1,074,601)
Dividends paid to non-controlling interests				(86,506)	(74,173)
Amounts received from related parties					8,559
Net cash (used in) provided by financing activities		(78,271)	177,476	(233,012)	(2,129,847)
Increase (decrease) in cash and cash equivalents		39,439	(412,745)	1,427,576	(329,690)
Effect of exchange rate changes on cash and cash equivalents				(514,133)	(176,827)
Cash and cash equivalents at the beginning of the year		1,105,029	1,517,774	3,943,513	4,450,030
Cash and cash equivalents at the end of the year		1,144,468	1,105,029	4,856,956	3,943,513
Main non-cash transactions					
Settlement of CO2 obligations					176,701
Right-of-use assets		78,293	18,516	165,966	178,432

The accompanying notes are an integral part of these parent company and consolidated financial statements.

Votorantim Cimentos S.A.

Statement of value added
Years ended December 31, 2023 and 2022

All amounts in thousands of reais unless otherwise stated

(A free translation of the original in Portuguese)

		Parent company		Consolidated	
	Note	2023	2022	2023	2022
Revenues					
Sales of goods and services (less sales returns and rebates)		12,424,336	12,435,894	30,880,550	29,851,087
Other operating income		121,037	103,148	280,801	280,051
Allowance for expected credit losses	10(c)	(16,669)	(12,192)	(25,784)	(21,314)
		12,528,704	12,526,850	31,135,567	30,109,824
Inputs acquired from third parties					
Raw materials and other production inputs		(4,398,762)	(3,969,920)	(10,883,061)	(10,154,132)
Materials, energy, outsourced services and others	27	(2,679,274)	(2,886,160)	(6,268,988)	(7,581,432)
Reversal of (provision for) impairment of assets	28		(4,316)	53,016	(4,316)
		(7,078,036)	(6,860,396)	(17,099,033)	(17,739,880)
Gross wealth generated		5,450,668	5,666,454	14,036,534	12,369,944
Depreciation, amortization and depletion	27	(445,227)	(410,107)	(1,868,614)	(1,846,855)
Net value added		5,005,441	5,256,347	12,167,920	10,523,089
Value added received through transfer					
Equity in the results of investees	15(e)	2,049,503	632,266	55,078	52,100
Financial income and foreign exchange gains	29(b)	863,703	1,037,480	1,564,467	1,741,969
Dividends received	4.1	433,860	34,282	90,370	71,120
		3,347,066	1,704,028	1,709,915	1,865,189
Total value added to distribute		8,352,507	6,960,375	13,877,835	12,388,278
Distribution of value added					
Personnel and payroll charges					
Direct remuneration		625,063	598,276	2,425,953	2,192,161
Social charges		313,109	293,030	833,398	740,365
Benefits		242,823	211,604	490,131	427,227
Retirement plan and pension plan				22,622	21,359
		1,180,995	1,102,910	3,772,104	3,381,112
Taxes and contributions					
Federal taxes		927,631	1,080,555	1,595,816	1,592,460
State taxes		2,128,693	2,069,803	3,161,487	3,024,805
Municipal taxes		28,412	23,680	30,759	25,404
Deferred	21(b)	212,781	137,695	(38,611)	83,526
		3,297,517	3,311,733	4,749,451	4,726,195
Remuneration of third-party capital					
Financial costs and foreign exchange losses	29(b)	1,377,628	1,505,532	2,562,555	3,037,394
Leases	27	62,667	40,913	175,845	98,123
		1,440,295	1,546,445	2,738,400	3,135,517
Own capital remuneration					
Non-controlling interests				184,180	146,167
Dividends	25(c)	1,277,707	450,696	1,364,213	524,869
Profits distributed and retained		1,155,993	548,591	1,069,487	474,418
		2,433,700	999,287	2,617,880	1,145,454
Value added distributed		8,352,507	6,960,375	13,877,835	12,388,278

The accompanying notes are an integral part of these parent company and consolidated financial statements.

1 General information

Votorantim Cimentos S.A. ("VCSA" or the "Parent Company") and its subsidiaries (collectively the "Company") are principally engaged in the following activities: the production and sale of a wide portfolio of heavy building materials, including cement, aggregates, mortar, agricultural limestone and others, as well as services for raw materials and byproducts, similar and related products, research, mining, ready-mix concrete services, transportation, distribution and import, co-processing for energy generation, and holding investments in other companies.

The Company, a corporation headquartered in the City and State of São Paulo, Brazil, operates throughout Brazil, as well as in other countries in South America, North America, Europe, Asia and Africa.

The Company is directly controlled by Votorantim S.A. ("VSA"), a privately held company owned by a Brazilian family through an investment holding company which adopts a long-term investment approach.

On May 10, 2023, the Brazilian Securities Commission ("CVM") approved the Company's registration as issuer of securities admitted to trading on a regulated securities market, in Category A ("Registration as a Publicly held Company"), in accordance with CVM Resolution 80, of March 29, 2022, as amended ("CVM Resolution 80"). As a result, the Company is authorized to trade any securities of the Company on regulated securities markets in Brazil and is subject to compliance with the obligations associated with Category A issuers set forth in CVM Resolution 80 and other applicable regulations.

2 Approval of the financial statements

The issue of these parent company and consolidated financial statements was approved by the Board of Directors on February 28, 2024. Final approval is at the discretion of the Annual General Meeting, in accordance with Brazilian Corporate Law (Law 6,404/1976).

3 Main corporate events in 2023

3.1 Financing agreement for the Salto de Pirapora (SP) modernization project

In July 2023, the Company entered into a financing agreement for the modernization project of the cement plant located in Salto de Pirapora (SP). One of the main objectives of the project is to increase the unit's thermal replacement level and reduce CO_2 emissions. The project is part of the Company's long-term sustainability strategy.

The new credit facility was fully granted by the International Finance Corporation (IFC) in the total amount of USD 150 million, equivalent to R$ 747 million, with a tenure of 10 years. The resources were disbursed to the Company on August 16, 2023.

The loan includes sustainability performance indicators (KPIs) associated with the reduction of net greenhouse gas emissions in scope 1 (Kg CO_2/ton of cement). If the Company reaches the agreed CO_2 reduction target by December 2026, it will benefit from a reduction in interest of the financing agreement, characterizing the operation as a sustainability-linked loan (Note 19(b)).

After the disbursement, the Company contracted a derivative operation (cross-currency swap), aiming both to exchange exposure from the floating rate in US Dollars for a CDI floating rate and the exchange currency from US Dollars to Reais. This swap was contracted with another financial institution, resulting in a CDI floating rate + spread.

To mitigate the effects on the fair value of the exchange rate risk (USD) and interest rate (SOFR+) of this financing, protective instruments (cross-currency swaps) were designated in the funding to exchange flows from USD/SOFR+ to BRL/CDI+ as Fair Value Hedge Accounting. The Company obtained formal approval of the designation document, in accordance with the requirements of IFRS 9 (Note 6.4.3).

All amounts in thousands of reais unless otherwise stated

4 Financial information by reportable segment and entity group disclosure

4.1 Financial information by reportable segment

CPC 22 / IFRS 8 "Segment information" requires that operating segments be identified based on internal reports of components that are regularly reviewed by the Chief Operating Decision Maker ("CODM") to allocate resources to segments and assess their performance. The Chief Executive Officer is the Company's CODM.

The Company operates geographically and regionally with four operating segments identified by their similar economic characteristics. The business activities are directly related to the economic and seasonal characteristics of the locations. The reportable operating segments that correspond to the Company's corporate divisions are:

(1) Brazil: includes the production and sale of cement, aggregates and stabilized mortar, basic mortar, adhesive mortar, agricultural limestone and others, as well as services related to raw materials and byproducts, similar and related products, research, mining, precast concrete services, transportation, distribution, import, and co-processing for energy generation.
(2) North America (operations in Canada and the United States): includes the production and sale of cement, precast concrete and aggregates;
(3) Europe, Asia and Africa (operations in Spain, Turkey, Morocco and Tunisia): includes the production and sale of cement, precast concrete, aggregates and mortar;
(4) Latin America (operations in Argentina, Bolivia and Uruguay): includes the production and sale of cement, mortar and precast concrete;

The main financial performance metric for operating segment management is adjusted EBITDA, reported monthly for each of the reportable geographic segments. Adjusted EBITDA is defined as profit for the year before taxes and social contribution minus / plus depreciation, amortization and depletion, financial result (net), exchange variation (net), equity in the results of investees, dividends received and certain exceptional transactions, such as: mark-to-market of energy contracts surplus, impairment or reversal of non-financial assets, gains and/or losses on the acquisition, sale or exchange of assets:

						2023
	Brazil	North America	Europe, Asia and Africa	Latin America	Other (i)	Consolidated
Net revenue from contracts with customers	12,828,278	7,801,360	4,256,813	869,245	926,429	26,682,125
Profit (loss) for the year	1,046,410	487,285	1,113,585	55,587	(84,987)	2,617,880
Profit (loss) before income tax and social contribution	1,433,375	785,406	802,886	41,508	(64,975)	2,998,200
Depreciation, amortization and depletion	631,553	832,706	324,521	79,350	484	1,868,614
Financial result, net	482,608	277,520	119,015	37,868	81,077	998,088
Equity in the results of investees	(5,672)	(25,854)	(25,702)		2,150	(55,078)
Dividends received					90,370	90,370
Adjusted EBITDA items						
Future energy contracts - fair value (ii)	(42,162)					(42,162)
Provision for (reversal of) impairment of assets (iii)		47,083	(103,895)	3,796		(53,016)
Result from acquisitions and business dissolutions			3,934			3,934
Other immaterial adjustments			2,727			2,727
Adjustments and reclassifications between segments	25,064	4,791	(2,487)	1,355	(28,723)	
Adjusted EBITDA	2,524,766	1,921,652	1,120,999	163,877	80,383	5,811,677
Additions of PP&E and intangible assets (CAPEX)	1,194,810	867,570	279,631	50,098		2,392,109
Net debt	3,988,069	2,997,550	(469,895)	364,324	538,657	7,418,705

All amounts in thousands of reais unless otherwise stated

						2022
	Brazil	North America	Europe, Asia and Africa	Latin America	Other (i)	Consolidated
Net revenue from contracts with customers	12,726,135	7,447,555	3,380,067	811,539	1,432,070	25,797,366
Profit (loss) for the year	750,573	276,718	368,264	43,810	(293,911)	1,145,454
Profit (loss) before income tax and social contribution	1,174,365	334,195	401,710	45,137	(275,971)	1,679,436
Depreciation, amortization and depletion	593,642	893,682	280,384	79,180	(33)	1,846,855
Financial result, net	593,145	344,222	(9,141)	35,612	331,587	1,295,425
Equity in the results of investees	14,722	(15,679)	(19,768)		(31,375)	(52,100)
Dividends received					71,120	71,120
Adjusted EBITDA items						
Future energy contracts - fair value (ii)	57,587					57,587
Provision for impairment of assets (iii)	4,316					4,316
Result from acquisitions and business dissolutions (iv)			2,019			2,019
Other immaterial adjustments (v)	15,826					15,826
Adjustments and reclassifications between segments	42,811	1,535	20,750	(21,599)	(43,497)	
Adjusted EBITDA	2,496,414	1,557,955	675,954	138,330	51,831	4,920,484
Additions of PP&E and intangible assets (CAPEX)	900,502	691,779	289,244	124,201	26	2,005,752
Net debt	2,997,549	3,294,425	(577,747)	405,753	1,498,643	7,618,623

(i) "Others" refers to the result of the operations of Votorantim Cimentos Trading, as well as the holdings Votorantim Cimentos Latam ("VC LATAM") and Votorantim Cimentos Internacional ("VCI"), not included in the other operating segments reviewed by the Chief Operating Decision Maker.

(ii) The mark-to-market of energy contracts comprises the non-cash result of the fair value measurement of the future energy surplus of these contracts. The existing surplus related to future years is marked to market in the balance sheet and generates volatility in EBITDA from period to period, and may not result in effective cash losses or gains in operating income (expenses). As a result, Management believes that the effect of mark-to-market should be adjusted in the performance metrics.

(iii) Losses generated by impairment of non-current assets and the related reversals are adjusted since they are not determining factors to assess the operating performance for the period and to maintain the operational comparability of the indicator, as they are related to the expected return on these assets.

(iv) Refers to expenses and income after the closure of the corporate operation according to the agreement between the parties, such as reimbursement of expenses and conclusion of lawsuits. Similar to the results generated in the transaction that are not considered operating results, the effects generated for the Company after the corporate event are also adjusted in the EBITDA.

(v) These amounts include pre-operating expenses, considering that these items do not reflect the Company's operating activities, they were adjusted in the EBITDA. The amounts refer to costs with legal obligations arising from disposals and donations made with incentive.

All amounts in thousands of reais unless otherwise stated

4.2 Capital management

The Company's main objectives in managing its capital are to ensure its ability to continue operating as a going concern, providing returns and maintain an optimal debt/ equity structure to reduce the cost of capital.

The Company can adjust its capital structure, through its dividends paid to shareholders, return of capital to shareholders, issuance of shares or the sale of assets to reduce debt, for example.

The Company monitors its capitalization based on its financial leverage ratio, which corresponds to net debt divided by adjusted EBITDA. Net debt is calculated as total borrowing and lease liabilities less cash and cash equivalents, financial investments and derivative financial instruments.

The financial leverage ratios on December 31, 2023 and 2022 are summarized as follows:

		Consolidated	
	Note	2023	2022
Borrowings	19(b)	12,147,359	11,173,587
Lease liabilities	18(c)	1,011,924	1,200,684
Cash and cash equivalents	8(b)	(4,856,956)	(3,943,513)
Financial investments	9(b)	(1,056,569)	(978,316)
Derivative financial instruments	6.4.3(a)	172,947	166,181
Net debt - (A)		7,418,705	7,618,623
Adjusted EBITDA for the last 12 months - (B)		5,811,677	4,920,484
Financial leverage ratio - (A/B)		1.28	1.55

5 Basis of preparation and presentation of the parent company and consolidated financial Statements

5.1 Basis of preparation

The parent company and consolidated financial statements have been prepared and are being presented in accordance with accounting practices adopted in Brazil ("BR GAAP") and the International Financial Reporting Standards ("IFRS"), as issued by the International Accounting Standards Board ("IASB"), currently referred to as "IFRS® Accounting Standards", and presented consistently with the standards issued by the Brazilian Securities Commission ("CVM").

The accounting practices adopted in Brazil comprise those included in the Brazilian Corporate Law and the Pronouncements, Guidelines and Interpretations issued by the Accounting Pronouncements Committee ("CPC"), approved by the Brazilian Federal Accounting Council ("CFC").

IFRS includes interpretations of the IFRS® Interpretations Committee (IFRIC Interpretations) and of the Standing Interpretations Committee (SIC® Interpretations).

Disclosure is limited to all information of significance to the financial statements, which is consistent with that used by Management in the performance of its duties.

The financial statements were prepared on the historical cost basis except for certain financial assets and liabilities, including derivative instruments, which were adjusted to fair values.

The accounting policies applied in the preparation of these financial statements have been consistently applied for all years presented, unless otherwise stated. The accounting policies of subsidiaries, associates and joint ventures are adjusted, if necessary, to ensure consistency with the policies adopted by the Company. The material accounting policies are addressed in the respective notes, supplemented by a summary of the basis of recognition and measurement used by the Company

The preparation of financial statements requires the use of certain accounting estimates. It also requires management to exercise its judgment in the process of applying the Company's accounting policies. Those areas involving a higher degree of judgment or complexity, or areas where assumptions and estimates are significant to the financial statements, are disclosed in Note 5.6.

The Company prepared the parent company and consolidated statements of value added as an integral part of the financial statements, as required by the Brazilian corporate legislation and by the accounting practices adopted in Brazil, pursuant to the criteria set forth in CPC 09 - Statement of Value Added. The IFRS do not require the presentation of these statements and, therefore, they are considered supplementary information, without prejudice to the set of financial statements.

5.2 New accounting standards and interpretations

5.2.1 Accounting standards and interpretations adopted

A series of new standards, interpretations and amendments to accounting standards effective from January 1, 2023 were adopted with no material impact on the parent company and consolidated financial statements.

(a) Amendments to CPC 32/IAS 12 "Income taxes"- Single transaction

As of January 1, 2023, the Company adopted the amendments to CPC 32/IAS 12 which require companies to recognize deferred tax on transactions that, upon initial recognition, give rise to equal amounts of taxable and deductible temporary differences, such as lease agreements or asset retirement obligations. Deferred tax assets and liabilities of R$ 14,558 and R$ 17,577, respectively, were initially recognized, with a residual impact of R$ 3,019 recorded against shareholders' equity.

(b) Amendments to CPC 32 / IAS 12 "Income taxes"- International tax reform - Pillar Two model rules

The Company falls within the scope of Pillar Two rules, published by the OECD (Organization for Economic Cooperation and Development), which is an initiative to implement a global minimum tax of 15%. In jurisdictions where the Company has operations, the Pillar Two legislation has already been adopted in Luxembourg, with effects as of January 1, 2024, while in Spain a bill has been published with final approval expected for 2024. Since Pillar Two legislation was not in force at December 31, 2023, the Company did not have any impact on its current tax. In addition, the Company applied the temporary exception relating to the recognition and disclosure of information on deferred tax assets and liabilities arising from Pillar Two, as set out in the amendments to IAS 12 issued in May 2023.

The Company is conducting a study on the impact of this legislation and, based on the preliminary assessment made to date, it is expected that most jurisdictions will not be subject to the top-up tax due to eligibility for one of the three safe harbor prescribed in the guidelines. In 2024 the Company will refine and complete this assessment and thus it will be possible to identify the potential impact of the rules.

(c) Amendments to CPC 26(R1) / IAS 1 and IFRS Practice Statement 2 - Disclosure of accounting policies

As of January 1, 2023, the Company adopted the amendments to CPC 26 (R1) / IAS 1, which require entities to disclose their "material" rather than their "significant "accounting policies. The amendments define what is 'material accounting policy information' and explain how to identify when accounting policy information is material. IFRS Practice Statement 2 Making Materiality Judgments, also amended, provides guidance on how to apply the concept of materiality to accounting policy disclosures.

The adoption of these amendments did not result in changes in the identification of material accounting policies, the nomenclature was properly adjusted.

5.2.2 New standards and interpretations not yet effective

(a) Classification of liabilities as current or non-current and non-current liabilities with covenants (amendments to CPC 26 / IAS 1)

These amendments aim to clarify the requirements to determine whether a liability is current or non-current and require new disclosures for non-current liabilities that are subject to future covenants. These amendments are effective for annual periods beginning on or after January 1, 2024. The Company believes that the adoption of this standard will not have impacts on the presentation of its the financial statements.

(b) Supplier finance arrangements ("Confirming payables") (amendments to CPC 26 / IAS 1 and CPC 40 / IFRS 7)

The amendments introduce new disclosures related to supplier financing arrangements ("Confirming payables"), which help users of the financial statements to assess the effects of these arrangements on the Company's liabilities and cash flows and on the Company's exposure to liquidity risk. These amendments are effective for annual reporting periods beginning on or after January 1, 2024. The Company is assessing the impacts on the presentation of the financial statements.

(c) Other amendments

Other standards, interpretations and amendments to accounting standards have been issued, however, they are not yet mandatory for the year ended December 31, 2023 and have not been early adopted. The Company believes that the adoption of these standards, interpretations and amendments will not have a material impact on the preparation of the financial statements for the current and future years.

5.2.3 Sustainability standards and disclosures not yet effective

In June 2023, the International Sustainability Standards Board (ISSB) issued its first two sustainability reporting standards (IFRS S1 and IFRS S2), which were adopted by CVM in Brazil, with mandatory adoption for annual reporting periods beginning on or after January 1, 2026. These standards introduce requirements for disclosure of sustainability-related information and aim to promote the consistency, comparability and quality of this information, designed to meet the needs of investors and financial markets.

Concurrently, the European Union issued its European Sustainability Reporting Standards ("ESRS") in July 2023, applicable to the Group subsidiaries located in countries of the European Union, which shall report on a consolidated basis sustainability-related information in accordance with the ESRS as from the year ending December 31, 2025.

The Company is in the process of implementing these new standards, in order to align its current Integrated Reporting to the requirements of the standards and the expectations of investors and financial markets.

5.3 Functional and presentation currency

The Company's functional and presentation currency is the Brazilian Real / Reais ("R$").

5.4 Foreign currency transactions

Transactions in foreign currencies are translated into their respective functional currencies, using the exchange rates prevailing on the transaction or valuation dates for the remeasured items. Foreign exchange gains and losses resulting from the settlement of such transactions and from the translation at year-end exchange rates of monetary assets and liabilities denominated in foreign currencies are recognized in profit or loss as foreign exchange variation, except when recognized in equity as operations qualified as hedge of net investment in operations abroad.

5.5 Subsidiaries with a different functional currency

The results and financial position of all the Company's subsidiaries that have a functional currency different from the Company's presentation currency are translated into the presentation currency as follows:

(i) Assets and liabilities for each balance sheet are translated at the closing rate at balance sheet date;
(ii) Income and expenses for each statement of income and statement of comprehensive income presented are translated at average exchange rates for the period of that statement of income and statement of comprehensive income, which are a reasonable approximation of the cumulative effect of the rates prevailing on the transaction dates, except for subsidiaries considered in hyperinflationary economies (Note 5.5.6); and
(iii) All resulting foreign exchange differences are recognized as "Other comprehensive income" in a separate component of shareholders' equity, in the account "Carrying value adjustments"

The statement of cash flows reflects the changes in the assets, liabilities, income and expenses.

Upon consolidation, foreign exchange differences arising from the translation of the net investment in foreign operations, and of borrowings and other foreign currency instruments designated as hedging instruments of such investments, are recorded in equity. When a foreign operation is partially disposed of or sold, foreign exchange differences equivalent to the disposed investment and the designated hedging instrument that were recorded in equity are recognized in profit or loss as part of the gain or loss on the disposal. The amount of foreign exchange differences to be recognized in profit or loss is calculated based on the consolidation method adopted by the Company, which is the step-by-step consolidation method in which each entity is consolidated into the entity that holds direct interest in it, and so forth, until final consolidation into the Company.

Goodwill and fair value adjustments arising from the acquisition of a foreign entity are treated as assets and liabilities of the foreign entity and translated at the closing exchange rate. The effect of such translation is also recorded in "Other comprehensive income."

The functional currencies of the Company's significant foreign subsidiaries are presented in Note 5.5.5.

5.5.1 Subsidiaries

The Company controls an entity when it is exposed to, or has the right to, variable returns from its involvement with the entity, and can affect those returns through its power over the entity. The financial statements of subsidiaries are included in the consolidated financial statements from the date on which the Company obtains control, until the date on which that control ceases.

In the parent company financial statements, the financial information of direct subsidiaries is recognized using the equity method.

Balances and transactions, as well as any unrealized income or expenses derived from transactions between Company's subsidiaries are eliminated upon consolidation.

The Company treats transactions with non-controlling interests that do not result in a loss of control as transactions with equity owners of the Company. A change in equity interest results in an adjustment between the carrying amounts of the controlling and non-controlling interests to reflect their relative interests in the subsidiary. Any difference between the amount of the adjustment to non-controlling interests and any consideration paid or received is recognized within equity - "Carrying value adjustments."

When the Company ceases to have control over its subsidiaries, any retained interest in the entity is remeasured to its fair value, with any difference with the carrying amount recognized in profit or loss The amounts previously recognized in "Other comprehensive income" are reclassified to profit or loss.

5.5.2 Associates and joint arrangements

(i) Associates

Associates are all entities over which the Company, directly or indirectly, has significant influence on financial and operating policies, but not control or joint control. Investments in associates are accounted for using the equity method of accounting, after initially being recognized at cost.

(ii) Joint arrangements

Investments in joint arrangements are classified as either joint ventures or joint operations. In a joint venture the Company has the right to the net assets of the joint venture, and not to its specific assets and liabilities. Interests in joint ventures are accounted for using the equity accounting method, after initially being recognized at cost in the balance sheet.

In a joint operation the Company recognizes individually its right to the assets, liabilities, revenues and expenses, and its share of any jointly held or incurred assets, liabilities, revenues and expenses.

(iii) Equity method

Under the equity method of accounting, the investments are initially recognized at cost, which includes transaction costs, and adjusted thereafter to recognize the Company's share of the post-acquisition profits or losses of the investee in the statement of income, and the Company's share of movements in other comprehensive income of the investee in "Other comprehensive income", until the date when significant influence or joint control ceases to exist. Dividends received or receivable from associates and joint ventures are recognized as a reduction of the carrying amount of the investment.

The Company's investments in associates and joint ventures include goodwill identified upon acquisition, net of any accumulated impairment losses.

Unrealized gains arising from transactions with investees recognized under the equity method, are eliminated against the investment, in the proportion of the Company's interest in the investee. Unrealized losses are eliminated in the same way as unrealized gains, but only to the extent that there is no evidence of impairment.

Dilution gains and losses arising on investments in associates and joint ventures are recognized in profit or loss. The Company classifies dividends received from associates and joint ventures as cash flows from investing activities.

The carrying amount of equity-accounted investments is evaluated for impairment in accordance with the policy presented in Note 5.6.2(a).

5.5.3 Business combinations

The acquisition method is used to account for all business combinations, regardless of whether equity instruments or other assets are acquired. The consideration transferred for the acquisition of a subsidiary comprises the:

- fair values of the assets transferred;
- liabilities incurred to the former owners of the acquired business;
- equity interests issued by the Company;
- fair value of any asset or liability resulting from a contingent consideration arrangement, and
- fair value of any pre-existing equity interest in the subsidiary.

Identifiable assets acquired and liabilities and contingent liabilities assumed in a business combination are, with limited exceptions, measured initially at their fair values at the acquisition date. The Company recognizes any non-controlling interest in the acquired entity on an acquisition-by-acquisition basis either at fair value or at the non-controlling interest's proportionate share of the acquired entity's net identifiable assets.

Acquisition-related costs are expensed as incurred.

The excess of the:

- consideration transferred;
- amount of any non-controlling interest in the acquired entity, and
- acquisition-date fair value of any previous equity interest in the acquired entity over the fair value of the net identifiable assets acquired is recorded as goodwill.

If those amounts are less than the fair value of the net identifiable assets of the business acquired, the difference is recognized directly in profit or loss as a bargain purchase. Where settlement of any part of the cash consideration is deferred, the amounts payable in the future are discounted to their present value as at the date of exchange. The discount rate used is the entity's incremental borrowing rate, being the rate at which a similar borrowing could be obtained from an independent financier under comparable terms and conditions.

Any contingent consideration is classified either as equity or a financial liability. Amounts classified as a financial liability are subsequently remeasured to fair value, with changes in fair value recognized in profit or loss.

If the business combination is performed in stages, the acquisition date carrying value of the Company's previously held equity interest in the acquiree is remeasured to fair value at the acquisition date. Any gains or losses arising from such remeasurement are recognized in profit or loss.

5.5.4 Transactions between entities under common control

As the IFRS have not yet addressed transactions between entities under common control when non-monetary transfer occurs, the Company records the transferred assets and liabilities at their carrying amounts on the transfer date.

All amounts in thousands of reais unless otherwise stated

5.5.5 Consolidation

The parent company and consolidated financial statements include the financial statements of subsidiaries from the acquisition date (date on which the Company acquires control) until the date on which the Company ceases to exercise control over the subsidiary, and the Company's interest in joint ventures accounted for using the equity method. The main subsidiaries and changes in the interests held in subsidiaries in the year were as follows:

	Percentage of total and voting capital				
	2023	2022	Place of operation	Functional currency	Main activity
Votorantim Cimentos S.A. and subsidiaries					
Votorantim Cimentos Internacional S.A. - "VCI"	100.00	100.00	Luxembourg	US Dollar - USD	Holding
Votorantim Cimentos N/NE S.A. - "VCNNE"	100.00	100.00	Brazil	Real - BRL	Cement
Silcar Empreendimentos, Comércio e Participações Ltda.	100.00	100.00	Brazil	Real - BRL	Holding
Calmit Mineração Participação Ltda.	100.00	100.00	Brazil	Real - BRL	Aggregates
Pedreira Pedra Negra Ltda.	100.00	100.00	Brazil	Real - BRL	Aggregates
Lidermac Indústria e Comércio Ltda.	100.00	100.00	Brazil	Real - BRL	Aggregates
Fazenda São Miguel Ltda.	100.00	100.00	Brazil	Real - BRL	Forest
CRB Operações Portuárias S.A.	100.00	100.00	Brazil	Real - BRL	Port
Motz Transportes Ltda.	100.00	100.00	Brazil	Real - BRL	Transportation
Votorantim Cimentos International S.A. and subsidiaries					
St. Marys and subsidiaries					
St. Marys Cement Inc. (Canada)	83.00	83.00	Canada	Canadian Dollar - CAD	Cement
Québec Inc. (aka GP Co)	83.00	83.00	Canada	Canadian Dollar - CAD	Cement
McInnis Cement Limited Partnership Aka	83.00	83.00	Canada	Canadian Dollar - CAD	Cement
Ontario Limited	83.00	83.00	Canada	Canadian Dollar - CAD	Holding
Rosedale Securities Limited	83.00	83.00	Canada	Canadian Dollar - CAD	Holding
McInnis USA, LLC	83.00	83.00	USA	US Dollar - USD	Cement
McInnis Marine USA, LLC	83.00	83.00	USA	US Dollar - USD	Cement
Superior Materials Holdings LLC (i)		83.00	USA	US Dollar - USD	Cement
VCNA Prairie LLC	83.00	83.00	USA	US Dollar - USD	Aggregates
VCNA United Materials LLC	83.00	83.00	USA	US Dollar - USD	Concrete
VCNA Prairie Aggregate Holdings Illinois, Inc.	83.00	83.00	USA	US Dollar - USD	Aggregates
VCNA US Inc.	83.00	83.00	USA	US Dollar - USD	Aggregates
Votorantim Cimentos North America, Inc.	83.00	83.00	USA	US Dollar - USD	Holding
VCNA United Materials Builders LLC (ii)		83.00	USA	US Dollar - USD	Retail
Votorantim Cimentos EAA Inversiones S.L and subsidiaries					
Votorantim Cimentos EAA Inversiones S.L. "VCEAA"	100.00	100.00	Spain	Euro - EUR	Holding
Votorantim Cement Trading S.L.	100.00	100.00	Spain	Euro - EUR	Trading
Votorantim Cementos España, S.A.	99.77	99.77	Spain	Euro - EUR	Holding
Prebetong Áridos S.L.	99.77	99.77	Spain	Euro - EUR	Aggregates
Prebetong Hormigones S.A.	99.75	99.75	Spain	Euro - EUR	Mortar
Morteros de Galicia S.L.	99.77	99.77	Spain	Euro - EUR	Mortar
Cementos Asment EAA	100.00	100.00	Spain	Euro - EUR	Holding
Comercial Cosmos SUR S.L.	99.77	99.77	Spain	Euro - EUR	Cement
Sociedad Financiera y Minera Sur, S.L. (vi)		99.77	Spain	Euro - EUR	Cement
Compañía General de Canteras, S.A.	99.18	99.18	Spain	Euro - EUR	Aggregates
Asment de Temara S.A.	62.62	62.62	Morocco	Moroccan Dirham - MAD	Cement
Société Marocainee SMBRM (ix)	30.68	30.68	Morocco	Moroccan Dirham - MAD	Grinding
Votorantim Cimento Sanayive Ticaret A.S.	99.95	99.95	Turkey	Turkish Lira - TRY	Cement
Ybitas Yozgat Isci Birligi Insaat Malzemeleri Ticaret ve Sanayi A.S.	82.92	82.92	Turkey	Turkish lira - TRY	Cement
Societe Les Ciments de Jbel Oust - CJO	99.99	99.99	Tunisia	Tunisian Dinar - TND	Cement
Votorantim Cimentos Latam and subsidiaries					
Votorantim Cimentos Latam, S.à.r.l "VC LATAM"	100.00	100.00	Spain	US Dollar - USD	Holding
Yacuces S.L.	51.00	51.00	Spain	Euro - EUR	Holding
GB Minerales Y Agregados S.A.	51.00	51.00	Bolivia	Bolivian - BOB	Cement
Itacamba Cementos S.A. (x)	34.00	34.00	Bolivia	Bolivian - BOB	Cement
Cementos Artigas S.A.	51.00	51.00	Uruguay	Uruguayan Peso - UYU	Cement
Associates and joint ventures					
Juntos Somos Mais Fidelização S.A. (iv)	44.27	44.44	Brazil	Real - BRL	Cement
Great Lakes Slag Inc.	41.50	41.50	Canada	Canadian Dollar - CAD	Slag
Grundy-River Holdings LLC (v)	41.50		USA	US Dollar - USD	Biofuel
Grundy County Redi-Mix LLC (v)	41.50		USA	US Dollar - USD	Biofuel
River Red-Mix LLC (v)	41.50		USA	US dollar - USD	Biofuel
BWB LLC (iii)		83.00	USA	US Dollar - USD	Concrete
RCD La Gañanía, Sl. (vii)	39.91	39.91	Spain	Euro - EUR	Aggregates
Cementos del Marquesado S.A. (viii)		23.15	Spain	Euro - EUR	Cement
JSM Fidelização (Portugal), Unipessoal, Lda. (iv)	44.27	44.44	Portugal	Euro - EUR	Cement

(i) In January 2023, Superior Materials Holdings, LLC was merged into Superior Materials LLC.
(ii) In January 2023, the subsidiary VCNA United Materials Builders LLC was merged into VCNA Prairie LLC.
(iii) In January 2023, BWB LLC was merged into Superior Materials LLC.
(iv) In April 2023, Votorantim Cimentos S.A. reduced its interest in Juntos Somos Mais Fidelização S.A. and consequently, decreased its interest in JSM Fidelização (Portugal) Unipessoal, Lda.
(v) In June 2023, VCNA Prairie LLC acquired an interest in Grundy-River Holdings LLC and indirectly in Grundy County Redi-Mix LLC and River Red-Mix LLC (Note 15(c)(i)).
(vi) In August 2023, Sociedad Financiera y Minera Sur, S.L. was merged into Votorantim Cimentos España, S.A.

(vii) In September 2023, RCD LA Gañanía, SI was incorporated. Votorantim Cementos España S.A. has a 40% interest in the company.
(viii) In December 2023, Cementos del Marquesado S.A. was liquidated.
(ix) Votorantim Cimentos EAA Inversiones S.L. holds a 62.62% indirect interest in Asment de Temara S.A., which in turn holds 48.99% in Société Marocainee SMBRM, VCSA currently holds a 30.68% interest.
(x) Votorantim Cimentos Latam, S.à.r.l. holds a 51% interest in Yacuces S.L, which in turn holds a 66.66% interest in Cementos Itacamba S.A., VCSA currently holds a 34.00% interest.

5.5.6 Effect of hyperinflationary economies

CPC 42 / IAS 29 requires the financial statements of entities whose functional currency is the currency of a hyperinflationary economy to be adjusted for the effects of changes by applying an appropriate general price index, and to be expressed in the measurement unit current at the end of the reporting period. To determine whether an economy is classified as hyperinflationary, CPC 42 / IAS 29 specifies a number of factors to be considered, including the existence of a cumulative inflation rate over three years which approaches or exceeds 100%.

CPC 42 / IAS 29 is applied as if the country's economy had always been hyperinflationary. In accordance with this principle, the financial statements of an entity that reports in the currency of a hyperinflationary economy are measured using a monetary unit at the end of the reporting period.

All balance sheet accounts not expressed in such unit current are restated by applying a general price index. Therefore, inflationary adjustments are made from the acquisition date or the revaluation date, for all non-monetary items. All components of the statement of income are remeasured to the balance sheet date by the general price index from the date on which the income and expenses were originally recognized in the financial statements.

The main procedures for the adjustment are as follows:

(a) Monetary assets and liabilities recorded at current values at the balance sheet date are not restated because they are already expressed in monetary units current at the balance sheet date;
(b) Non-monetary assets and liabilities that are not recorded at current values at the balance sheet date and the components of shareholders' equity are adjusted by applying the applicable conversion factors;
(c) All items of the statement of income are restated by applying the applicable conversion factors;
(d) The effects of inflation on the Company's net monetary position are presented in the statement of income, under "Exchange variations and effects of hyperinflation, net."
(e) All balance sheet (assets and liabilities) and profit or loss (income and expenses) balances must be translated at the closing rate at the most recent financial statement date.

The comparative figures in these financial statements presented in non-hyperinflationary currency were not adjusted for subsequent changes in price levels or exchange rates. The adoption of hyperinflationary accounting caused an adjustment between the closing balance of shareholders' equity for the prior year and the opening balance of shareholders' equity for the current year. The Company recognized this initial difference directly in the statement of changes in equity under "Inflation adjustments for hyperinflationary economies".

The translation of comparative figures at the closing rates under IAS 21 - "Effects of Changes in Foreign Exchange Rates" and the hyperinflation adjustments required by IAS 29 will lead to an additional difference upon adoption of hyperinflation accounting. These additional differences are presented in the statement of comprehensive income under the heading "Currency translation adjustments - foreign investments".

The balance of inflation indexed non-monetary assets are reduced when they exceed their recoverable amount and the difference is recognized in profit or loss.

When the economy is no longer considered hyperinflationary and the investee discontinues the preparation and presentation of its financial information in accordance with CPC 42/IAS 29, the inflation indexed amounts become the base carrying amount for subsequent periods.

(a) Turkey

By early 2022, cumulative inflation in Turkey had exceeded 100% over three years, as per the International Monetary Fund ("IMF"). Hence, the Company considered that there was sufficient evidence to conclude that Turkey is a hyperinflationary economy under CPC 42 / IAS 29 as of April 2022 and therefore applied CPC 42 / IAS 29 as of that date in the financial reports of its subsidiaries that have the Turkish Lira as their functional currency.

(b) Argentina

In July 2018, the Argentine Peso suffered a sharp devaluation, resulting in an accumulated inflation in the three-year period in Argentina of more than 100%, thus triggering the requirement to transition to a basis of accounting as a hyperinflationary economy. Since 2018, accounting standard has also been adopted for the Company's investment in Cementos Avellaneda S.A. ("Avellaneda"), an associate whose functional currency is the Argentine Peso.

5.6 Critical accounting estimates and judgments

Based on assumptions, the Company makes estimates concerning the future. Accounting estimates and judgments are periodically reviewed, based on historical experience and other factors, including expectations of future developments that are believed to be reasonable under the circumstances. Revisions to estimates are recognized prospectively.

The estimates and assumptions that carry a significant risk of causing material adjustments to the carrying amounts of assets and liabilities within the next financial year are addressed below.

5.6.1 Fair value estimation

The Company discloses fair value measurements based on the following hierarchy:

Level 1 - Quoted prices (unadjusted) in active markets for identical assets or liabilities;

Level 2 - Inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly (that is, as prices) or indirectly (that is, derived from prices).

Level 3 - Inputs for the asset or liability that are not based on observable market data (that is, unobservable inputs, for which fair value is determined based on specific valuation techniques). This is the case of unquoted securities and instruments in which the risk (for example, ESG or lack of liquidity, among others) gives rise to a significant unobservable adjustment.

Specific valuation techniques used to measure assets and liabilities at fair value include:

- Quoted market prices or quotations from financial institutions or brokers for similar instruments;
- The fair value of interest rate swaps calculated at the present value of the estimated future cash flow, based on the yield curves adopted by the market;
- The fair value of future foreign exchange contracts determined based on future exchange rates at the balance sheet date, with the resulting amount discounted to present value; and
- Analysis of discounted cash flow.

The Company did not change any valuation techniques in the determination of fair values of Level 2 and Level 3.

The Company uses its judgment to select among a variety of methods, and to make assumptions that are mainly based on the market conditions existing at the balance sheet date.

5.6.2 Impairment of goodwill and non-current assets

(a) Accounting policies

Non-financial assets with indefinite useful lives, such as goodwill, are not subject to amortization and are evaluated for impairment at least annually.

Assets that are subject to depreciation or amortization are reviewed for impairment annually and whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. An impairment loss is recognized in "Other operating income (expenses), net" (Note 28) for the amount by which the asset's carrying amount exceeds its recoverable amount. The recoverable amount is the higher of an asset's fair value less any selling costs and its value in use. For the purposes of assessing impairment, assets are grouped at the lowest levels for which there are separately identifiable cash flows (cash-generating units - "CGU").

Non-financial assets other than goodwill that suffered impairment are subsequently reviewed for possible reversal of the impairment at each reporting date.

Goodwill arising on acquisitions is allocated to a CGU or group of CGUs, with each CGU or group of CGUs being the lowest level at which goodwill is monitored for internal management purposes and not being larger than an operating segment. The goodwill related to our operations in North America, Europe, Asia and Africa was allocated to each corresponding operating segment, where the level is monitored. Europe, Asia and Africa comprise a group of four CGUs determined by acting countries (Spain, Morocco, Turkey and Tunisia), but goodwill is not monitored or allocated to CGU level. For the Latin America operating segment, the goodwill was allocated per country of business, and for goodwill related to businesses acquired in Brazil the allocation was made to the specific business acquired or the regional for which the business acquired was integrated (Note 17(c)).

Where an impairment loss is subsequently reversed, except goodwill, the carrying amount of the asset or CGU is changed to the revised estimate of its recoverable amount, but so that the changed carrying amount does not exceed the carrying amount that would have been determined had no impairment loss been recognized for the asset or CGU in prior years. A reversal of an impairment loss is recognized as income in "Other operating income (expenses), net" (Note 28). The impairment loss of goodwill recognized in profit or loss is not reversed.

(b) Impairment tests

An impairment test is carried at least annually for all CGUs or group of CGUs to which goodwill has been allocated, as well as for other CGUs of group of CGUs that do not contain goodwill but present impairment indicators. The recoverable amount is measured by the discounted cash flow model and determined from the value in use of each CGU or group of CGUs. The process of estimating these values involves the use of assumptions, judgments and estimates of future cash flows and represents the Company's best estimate.

These calculations use post-tax cash flow projections based on financial budgets approved by the Company's Management covering a five-year period. A ten-year horizon is used under specific circumstances, such as economic crises or businesses with restructuring processes or strategic revisions, to better reflect the CGU business and economic cycle. Cash flows in perpetuity are calculated using the last year projections (nil growth rate).

Management considered the key assumptions to calculate the recoverable amount of the CGUs to be projected sales price and volume, and discount rate. Management projected budgeted sales price and volume based on past performance and its expectations of future market development. The discount rates used are post-tax and reflect specific risks relating to the operating segment (geographic region) or the CGU being tested.

The following table sets out the key assumptions for those CGUs or group of CGUs that have significant goodwill allocated to them, as well as other CGUs not having goodwill allocated but important for its significance to the Company's operations:

All amounts in thousands of reais unless otherwise stated

Segment	Country	Currency	Discount rate in real terms in 2023	Discount rate in real terms in 2022
Brazil	Brazil	BRL	10.10%	9.46%
Latin America	Bolivia	BOB	15.01%	10.88%
	Uruguay	UYU	8.74%	8.30%
	Argentina	ARS	19.67%	16.62%
North America	Canada	CAD	7.60%	6.97%
	United States	USD	7.60%	6.97%
Europe, Asia and Africa	Turkey	TRY	12.91%	12.13%
	Tunisia	TND	17.29%	15.72%
	Morocco	MAD	9.66%	8.21%
	Spain	EUR	8.12%	7.48%

(c) Impairment test result

Impairment tests performed on December 31, 2023 did not result in material losses in the consolidated to be recognized, as follows.

Based on the impairment test performed for VCNA (North America operational segment), the Company concluded that there was no need to record impairment considering that the recoverable amount exceeds the carrying amount. However, the Company recognized a provision for impairment of R$ 47,083 for certain individual assets related to discontinued projects.

On December 31, 2020, the Company recognized an impairment of R$ 145,982 for its CGU Turkey (Europe, Asia and Africa operational segment). However, despite the continuing hyperinflation in Turkey in 2023, the Company decided to reverse the entire provision, since the impairment test presented a significant recoverable amount compared to the carrying amount of the assets. The impact of this reversal in profit or loss was R$ 103,895 and the difference in amounts between years refers to exchange variations between periods.

For the prior year, ended December 31, 2022, tests identified:

(i) CGU Cajamar (Brazil operational segment): R$ 5,212 of impairment, due to delay in obtaining licensing in the area.

The amount was fully allocated to "Property, plant and equipment" (Note 16) and recognized in "Other operating income (expenses), net" on December 31, 2022.

(d) Sensitivity analysis

The Company conducted a sensitivity analysis for each of the key assumptions used in determining the value in use of its CGUs of group of CGUs included in the 2023 impairment test. Sensitivity analysis was performed individually for each key assumption (selling price, volume and discount rate).

Based on the result of the sensitivity analysis, Management concluded that there are no reasonably possible changes in these assumptions that would result in the carrying amount of the CGUs significantly exceeding their estimated recoverable amount or that could result in a material impairment for the financial statements on December 31, 2023.

5.6.3 Recoverability of deferred income tax and social contribution

The Company is subject to the payment of income taxes and contributions on income in all jurisdictions in which it operates. The provision for deferred taxes is calculated individually for each entity based on the tax rates and tax laws enacted at the balance sheet date. The Company also recognizes provisions based on estimates of whether additional taxes will be due. Where the final tax outcome is different from the amounts initially estimated and recorded, such differences impact the current and deferred tax assets and liabilities in the period in which such determination is made.

Deferred tax assets are periodically assessed to determine their recoverability, based on estimated future taxable profits deriving from Management's best estimate of projected future results, which are prepared based on internal judgments and assumptions, and future economic scenarios which may change. The key assumptions considered in such projections are sales price and volume. The result of the impairment test for the year is presented in Note 21.

5.6.4 Provisions and contingencies

The Company is a party to ongoing tax, civil, labor and environmental lawsuits, which are pending at different court levels. The provisions for probable losses from unfavorable outcomes of litigations in progress are recognized and updated based on Management's evaluation, under the advice of external legal counsel, requiring a high level of judgment of the matters involved.

The provision is accrued based on the best estimate of probable loss; and is regularly updated to reflect the developments in the lawsuits.

5.6.5 Asset retirement obligations

Expenditures related to mine decommissioning are recorded as Asset Retirement Obligations ("ARO"). Obligations consist of costs associated with termination of activities. The asset decommissioning cost is equivalent to the present value of the obligation (liability) and is capitalized as part of the book value of the underlying asset and depreciated over its useful life. The Company considers the use of accounting estimates related to the costs necessary to close the mining activities and recover the deteriorated areas as being a critical accounting estimate, since it involves various assumptions such as discount rates, inflation and the useful life of the asset.

These estimates are reviewed annually by the Company. The discount rates used on December 31, 2023 were between 3.2% and 16.3% p.a., and on December 31, 2022, between 2.8% and 14.9% p.a.

5.6.6 Pension plan

The present value of the healthcare plan obligations or rights and defined benefit plan depends on a number of factors that are determined through an actuarial calculation using various assumptions. Among the assumptions used in determining the net cost of actuarial obligations or rights is the discount rate, computed based on the rates of government bonds. The pension obligations are denominated in the currency in which the benefits will be paid, and have maturities approximating those of the respective healthcare and defined benefit plan obligations.

6 Risk management

6.1 Socioenvironmental and climate risks management

The Company operates in various countries, and consequently its activities are subject to local, state, national, and international social, environmental, and climatic laws and regulations, treaties, and conventions regulating the activities, establishing measures for mitigation, compensation, management, and monitoring of these risks, including those regulating the obligations of the owner of the venture and/or activity regarding social, environmental, and climatic care and protection. Violations of such regulations can lead to substantial fines and financial penalties and may require the implementation of technical measures to ensure compliance with the applicable mandatory standards.

The Company periodically updates its surveys and assessments of socioenvironmental and climatic risks and addresses them through mitigation, compensation, or provisions for future obligations.

6.2 Seasonality of operations in the northern hemisphere

In the north hemisphere markets - North America, Europe, Asia and Africa - the demand for cement, concrete, aggregates and other building materials is seasonal due to the cyclical nature of activities in the construction sector, which is affected by weather events, snow and rain, which adversely affect the construction industry and can cause stoppages in the construction process. Operations are normalized as of the second half of the year, with the start of the summer season in these markets.

The Company has available a revolving credit facility (Note 19(f)) whose main purpose is to provide additional liquidity to subsidiaries based in the northern hemisphere during the seasonality period. Historically, withdrawals were concentrated in the first half of the year and settled by the end of the period according to the operational resumption.

6.3 Financial risk management

The Company's activities expose it to various financial risks, such as: (a) market risk (including currency and interest rate risk); (b) credit risk; and (c) liquidity risk.

The products and services offered by the Company are sold in several currencies and indexes reflecting is its global presence, and potential risks of currency mismatches between income and costs can arise.

The Company has borrowing linked to different indices and denominated in foreign currencies, which may have an impact on its cash flows.

To mitigate the adverse effects of each of these risk factors, the Company prepared a financial policy approved by the Board of Directors, to establish governance and macro guidelines in the financial risk management process, as well as metrics for measurement and monitoring. The purpose of this process is to protect the cash flows against adverse financial market events, such as fluctuations in exchange rates and interest rates and against adverse credit events of financial counterparties. This process aims to manage leverage and other financial or operating exposure in line with the criteria of ratings agencies for investment grade companies. The financial policy of Company is aimed at preserving the liquidity of the Company, diversifying the financing sources, providing unrestricted access to the capital markets at competitive costs, and generating value for shareholders.

All amounts in thousands of reais unless otherwise stated

The following derivative instruments may be used to hedge and manage financial risks: swaps, call options, put options, collars, futures contracts (currencies, interest rates or commodities) and forward contracts known as Non-Deliverable Forwards (currencies, interest rates or commodities). The main guideline for the Company's hedging strategy follows transactions that do not involve financial instruments for speculative purposes or transactions that can be characterized as leverage (that is, that the exposure to the risk factor via derivative is greater than the hedged item), and any other instrument requires the approval of the Board of Directors

6.4 Market risk

6.4.1 Foreign exchange risk

Foreign exchange risk is the exposure of the Company to fluctuations in foreign currencies' exchange rates, which comprise commercial, operational and financial relationships and, consequently, have an impact on its cash flows or results.

Presented below are the assets and liabilities denominated in foreign currencies (Euro, Tunisian Dinar, US Dollar, Canadian Dollar, Moroccan Dirham, Turkish Lira and Bolivian and Uruguayan Pesos), which differ from the functional currency of each entity holding the balances as follows:

	Parent company		Consolidated	
	2023	2022	2023	2022
Assets denominated in foreign currency				
Cash and cash equivalents	30,467	14,612	401,225	307,561
Financial investments			30,556	88,406
Derivative financial instruments (ii)	2,081,759	1,693,254	2,323,824	1,939,904
Trade receivables			337,213	318,974
Related parties	12,223	8,521	42,516	46,833
	2,124,449	1,716,387	3,135,334	2,701,678
Liabilities in foreign currency				
Borrowings (i)	2,066,255	1,683,380	5,372,056	5,403,572
Lease liabilities			100,912	206,226
Trade and other payables	7,619	993	465,214	161,930
Related parties	11,616	4,592	344,006	323,903
	2,085,490	1,688,965	6,282,188	6,095,631
Net exposure	38,959	27,422	(3,146,854)	(3,393,953)

(i) Excludes transaction costs.
(ii) The balances of derivative financial instruments are the reference values (notional) of the instruments.

The Company also has investments in foreign operations, in which the net assets expose the Company to foreign exchange risk. The foreign exchange exposure arising from investments in foreign operations is partially hedged by borrowings in the same currency as these investments, which are designated as a hedge of net investment in foreign operations (Note 6.4.3(c)).

The Company revised the criteria for presenting the amounts exposed to foreign exchange risk and now presents balances in foreign currencies of financial assets and liabilities other than the functional currency of subsidiaries located abroad, thus reflecting the balances exposed to exchange variations with impact on profit or loss. This change was applied retrospectively for comparability purposes and the previously presented comparative balances were changed.

6.4.2 Cash flow and fair value associated with interest rate risk

The Company's interest rate risk arises from long-term borrowings. Borrowings issued at floating rates and fixed rates expose the Company to cash flow and fair value risk, respectively, associated with interest rates. The Company discloses the interest rate exposure and hedge derivative financial instruments held by the Company in Note 19(b). See further details in Note 6.7.

6.4.3 Derivative financial instruments

(a) Accounting policies

Derivatives are initially recognized at fair value at the date the derivative contract is entered into, and are subsequently remeasured at fair value, changes to which are recognized in profit or loss as a financial result item.

All derivative transactions were conducted in the over-the-counter market. The main practices adopted for protection of exposures are presented below.

Hedging program for exchange rate exposure - hedging instruments contracted for the purpose of hedging the cash flow in Reais against foreign exchange exposure. The risk is mitigated through the purchase/sale of forward contracts in US Dollars, Euros and other currencies.

Hedging program for interest rates - derivative financial instruments contracted to adjust the Company's exposure to SOFR, US Dollars fixed rates and to IPCA (Brazil's consumer price index) to ensure compliance with the requirements established by the Company's financial policy. The risk is mitigated through swaps. The Company also uses the hedge accounting to manage volatility in the result.

All amounts in thousands of reais unless otherwise stated

On December 31, 2023 and 2022, the Company held the following financial instruments for hedges of interest rate and exchange rate exposures:

												Parent company
	Principal			2022				2023	Fair value by maturity			
Programs	2023	2022	Currency	Total (net between assets and liabilities) (i)	Impact on financial results	Loss realized with cash effect	Other comprehensive income	Total (net) between assets and liabilities) (i)	2024	2025	2026	2027 and onwards
Hedging of interest rates and currencies not designated for hedge accounting												
USD fixed rate vs. CDI floating rate swap	230,000	280,000	USD thousands	(142,714)	(236,069)	179,471	7,137	(192,175)	(92,147)	(69,055)	(57,410)	26,437
IPCA floating rate vs. CDI floating rate swap	1,026,904	615,793	BRL thousands	(8,386)	20,178	58,730		70,522	(54,410)	(36,613)	(36,618)	198,163
SOFR floating rate vs. CDI floating rate swap	50,000	50,000	USD thousands	13,032	(41,555)	17,480	827	(10,216)	(10,428)	(10,295)	10,507	
Fixed rate vs. CDI floating rate swap	112,453		USD thousands		2,966			2,966	562	1,449	670	285
				(138,068)	(254,480)	255,681	7,964	(128,903)	(156,423)	(114,514)	(82,851)	224,885
Hedging of interest rates and currencies designated for fair value hedge												
SOFR floating rate in USD vs. CDI floating rate in BRL swap	150,000		USD thousands		(45,368)		(2,945)	(48,313)	(32,732)	(27,048)	(27,506)	38,973
Current assets								670				
Non-current assets				543,924				439,356				
Current liabilities				(215,707)				(189,824)				
Non-current liabilities				(466,285)				(427,418)				
				(138,068)				(177,216)				

All amounts in thousands of reais unless otherwise stated

Consolidated

	Principal			2022	Loss (gain)			2023	Fair value by maturity			
Programs	2023	2022	Currency	Total (net between assets and liabilities) (i)	Impact on financial results	realized with cash effect	Other comprehensive income	Total (net between assets and liabilities) (i)	2024	2025	2026	2027 and onwards
Foreign exchange hedge												
Turkish Lira forward (TRY/USD)	10,100	6,000	USD thousands	(1,776)	19,143	(18,440)		(1,073)	(1,073)			
Hedging of interest rates and currencies not designated for hedge accounting												
USD fixed rate vs. CDI floating rate swap	280,000	330,000	USD thousands	(157,643)	(277,374)	205,311	9,171	(220,535)	(110,290)	(82,310)	(70,387)	42,452
IPCA floating rate vs. CDI floating rate swap	1,643,066	1,020,170	BRL thousands	(19,794)	29,940	92,549		102,695	(84,129)	(56,285)	(56,163)	299,272
SOFR floating rate vs. CDI floating rate swap	50,000	50,000	USD thousands	13,032	(41,555)	17,480	827	(10,216)	(10,429)	(10,295)	10,508	
Fixed rate vs. CDI floating rate swap	170,384		USD thousands		4,495			4,495	853	2,196	1,015	431
				(166,181)	(265,351)	296,900	9,998	(124,634)	(205,068)	(146,694)	(115,027)	342,155
Hedging of interest rates and currencies designated for fair value hedge												
SOFR floating rate in USD vs. CDI floating rate in BRL swap	150,000		USD thousands		(45,368)		(2,945)	(48,313)	(32,733)	(27,048)	(27,506)	38,974
Current assets				48				1,027				
Non-current assets				708,600				612,194				
Current liabilities				(271,647)				(238,826)				
Non-current liabilities				(603,182)				(547,342)				
				(166,181)				(172,947)				

(i) The total amount (net between assets and liabilities) is measured at the fair value of the financial instruments considering the credit risk of the Company and/or the counterparty.

All amounts in thousands of reais unless otherwise stated

(b) Fair value hedge

The Company designated fair value hedge accounting for certain borrowing operations in foreign currency for which it has contracted derivative financial instruments with the purpose of hedging the fair value risk associated with interest and exchange rates. In operations designated for hedge accounting, the Company formally documents the relationship between the hedge instrument and the hedged item, including the risk management objectives and the methods used to assess the effectiveness.

The changes in the fair value of contracted hedged instruments (derivatives) are recorded in the statement of income as financial income and expenses. The changes in designated borrowings that are exclusively attributable to hedged risks are also recorded in the statement of income as financial income or expenses. The gain or loss related to the ineffective portion is recognized as financial income or expenses.

The effectiveness ratio measured in the year is presented below:

								Parent company and consolidated
Fair value hedge - Derivative instruments	**Hedged item**	**Maturity**	**Assets**	**Liabilities**	**Notional**	**Fair value of the instrument**	**Changes in the fair value of the instrument**	**Changes in the fair value of the hedged item**
Exchange rate and interest swap	Development agency - USD 150 million SOFR + 1.40% p.a.	2033	USD SOFR + 1.40 % p.a.	BRL CDI + 0.60 % p.a.	747,180	(45,368)	(2,333)	(1,913)

The change relates to the accumulated value of the fair value adjustments on hedged items, including the carrying amount of borrowings.

The fair value of derivatives designated for fair value hedge purposes is shown separately in Note 6.4.3(a).

All amounts in thousands of reais unless otherwise stated

(c) Hedging of net investments in foreign operations

Hedges of net investments in foreign operations are accounted for in a manner similar to cash flow hedges.

Any gain or loss on the hedging instrument relating to the effective portion of the hedge is recognized in shareholders' equity in the account "Carrying value adjustments". The gain or loss relating to the ineffective portion is recognized immediately in the statement of income. Accumulated gains and losses in shareholders' equity are included in profit or loss for the year when the foreign investment is realized or sold.

										2023
	Investor					Hedged item			Instrument	Gain
Entity	Currency	Investment	Currency	Designated percentage	Designated net amount	Amount in reais	Currency	Original amount	Amount in reais	Carrying value adjustments
St. Marys Cement Inc. (Canada)	CAD	VCNA US, Inc.	USD thousands	75.23%	500,000	2,503,800	USD thousands	500,000	2,503,800	69,015

										2022
	Investor					Hedged item			Instrument	Loss
Entity	Currency	Investment	Currency	Designated percentage	Designated net amount	Amount in reais	Currency	Original amount	Amount in reais	Carrying value adjustments
St. Marys Cement Inc. (Canada)	CAD	VCNA US, Inc.	USD thousands	44.96%	500,000	2,608,850	USD thousands	500,000	2,608,850	(162,739)

The gain is net of tax effects (Note 25 (e)).

There were no cases of ineffectiveness of the hedge transactions designated in the year and, therefore, no gain or loss was recognized in profit or loss.

All amounts in thousands of reais unless otherwise stated

6.5 Credit risk

Credit risk is the risk that a counterparty will not meet its obligations under a financial instrument or customer contract. The Company is exposed to credit risk from its operating activities (primarily trade receivables) and from its financing activities, including deposits with banks and financial institutions, foreign exchange transactions and other financial instruments.

To mitigate adverse effects, the Company adopted the credit and collection policies approved by Management.

The Company has a policy to select issuers with a rating from one of the following rating agencies, of at least: Fitch Ratings, Moody's or Standard & Poor's, a national rating equal to or better than AA- (or Aa3), or a global scale rating equal to or better than BBB- (or Baa3). For countries where issuers do not meet these minimum ratings, alternative criteria approved by the Board of Directors are applied.

The limits on the exposure of the Company to each financial counterparty is determined by the financial policy of the Company and are linked to the ratings and the balance sheet of each institution.

The pre-settlement risk methodology is used to assess counterparty risks on derivative transactions. This methodology consists of determining, through Monte Carlo simulations, the value at risk associated with non-compliance with the financial commitments defined in the contract for each counterparty.

6.5.1 Credit quality of trade receivables

Trade receivables, excluding overdue receivables, net of allowance for expected credit losses, and net of balances with related parties are presented below.

	Parent company		Consolidated	
	2023	2022	2023	2022
High risk	40,349	44,845	159,940	155,195
Medium risk	64,824	96,772	188,837	227,643
Low risk	388,636	350,748	838,843	796,178
AAA	87,577	63,283	318,587	232,097
	581,386	555,648	1,506,207	1,411,113

High risk Customers with a high risk of default in the market and/or a history of recurring payment delays.
Medium risk Customers with a medium risk of default in the market and/or a history of occasional payment delays.
Low risk Customers with good market indicators and/or good payment history
Customers AAA Strategic and/or significant customers, whose assignment to this risk class is approved by the credit committee.

The quality of the credit risk is defined according to internal statistical models of risk scoring, according to the risk standards accepted by the Company, as established in the credit and collection policy.

All amounts in thousands of reais unless otherwise stated

6.6 Liquidity risk

Liquidity risk is managed based on the financial policy of the Company, which aims to ensure the availability of sufficient funds to honor the Company's short-term commitments. One of the main tools for measuring and monitoring liquidity is cash flows, over a projection horizon of 12 months.

These are the outstanding principal balances plus interest if applicable, at the maturity dates. In the case of the fixed rate liabilities, interest expense was calculated based on the rate established in each debt contract. Interest expense on floating rate liabilities was calculated based on a market forecast in this balance sheet date.

The table below present the undiscounted contractual future cash flow; these amounts may not agree directly with the amounts in the balance sheet.

							Parent company
	Note	Up to 1 year	Between one and two years	Between two and five years	Between five and ten years	Over ten years	Total
On December 31, 2023							
Borrowings		462,567	445,418	4,057,394	3,233,916	308,395	8,507,690
Derivative financial instruments	6.4.3(a)	189,824	143,012	241,633	42,202	571	617,242
Lease liabilities		44,672	39,912	29,475	535		114,594
Confirming payables	20	205,190					205,190
Trade and other payables		1,517,703					1,517,703
Related parties		16,907	55,871				72,778
Dividends payable	13(b)	557,360					557,360
		2,994,223	684,213	4,328,502	3,276,653	308,966	11,592,557
On December 31, 2022							
Borrowings		387,367	408,384	2,863,911	3,259,132	104,860	7,023,654
Derivative financial instruments	6.4.3(a)	215,707	162,568	263,707	40,010		681,992
Lease liabilities		27,640	12,848	16,467	721		57,676
Confirming payables	20	251,701					251,701
Trade and other payables		1,936,463					1,936,463
Related parties		12,068	52,583				64,651
Dividends payable	13(b)	218,911					218,911
		3,049,857	636,383	3,144,085	3,299,863	104,860	10,235,048

							Consolidated
	Note	Up to 1 year	Between one and two years	Between two and five years	Between five and ten years	Over ten years	Total
On December 31, 2023							
Borrowings		919,424	923,418	8,726,300	4,481,852	2,971,549	18,022,543
Derivative financial instruments	6.4.3(a)	238,826	175,986	307,918	62,574	864	786,168
Lease liabilities		183,255	155,804	274,502	139,038	495,086	1,247,685
Confirming payables	20	1,559,780					1,559,780
Trade and other payables		3,899,031					3,899,031
Related parties		16,907	48,548				65,455
Dividends payable	13(b)	559,040					559,040
Use of public assets		54,519	55,247	187,040	397,000	1,157,338	1,851,144
Pension plan benefits		63,855	63,793	173,610	262,921	768,731	1,332,910
		7,494,637	1,422,796	9,669,370	5,343,385	5,393,568	29,323,756
On December 31, 2022							
Borrowings		807,504	837,586	7,409,146	4,699,890	2,998,262	16,752,388
Derivative financial instruments	6.4.3(a)	271,647	201,924	345,507	55,751		874,829
Lease liabilities		179,614	98,357	178,249	130,146	664,192	1,250,558
Confirming payables	20	1,880,761					1,880,761
Trade and other payables		4,275,707					4,275,707
Related parties		12,068	47,086				59,154
Dividends payable	13(b)	221,185					221,185
Use of public assets		54,932	57,257	193,843	411,440	1,312,743	2,030,215
Pension plan benefits		65,409	64,660	187,669	365,427	1,136,211	1,819,376
		7,768,827	1,306,870	8,314,414	5,662,654	6,111,408	29,164,173

All amounts in thousands of reais unless otherwise stated

6.7 Sensitivity analysis

The main risk factors with an impact on the pricing of cash and cash equivalents, financial investments, borrowings, related parties and derivative financial instruments are the exposure to the fluctuations of the currencies US Dollar, Euro, Moroccan Dirham, Boliviano, Turkish Lira, Canadian Dollar, Uruguayan Peso and Tunisian Dinar, as well as fluctuations of the interest rates CDI, SOFR, IPCA inflation index and the US Dollar coupon. The scenarios for these factors are prepared using market data and specialized sources, according to the Company's governance framework. The scenarios on December 31, 2023 are described below:

Scenario I: based on future market curves and quotations that correspond to the most likely scenario based on Management's view.
Scenario II: stressed by + or - 25% of market yield curves on December 31, 2023.
Scenario III: stressed by + or - 50% of market yield curves on December 31, 2023.

										Parent company
					Impact in profit or loss					
					Scenario I		Scenarios II & III			
Risk factors	Cash and cash equivalents and financial investments (i)	Borrowings and related parties (i)	Principal of derivative financial instruments	Currency	Shock in curves in 2023	Results of scenario I	-25%	-50%	25%	50%
Foreign exchange rate										
USD	11,527	2,090,810	430,000	USD	1.21%	23,124	(1,578)	(3,155)	1,578	3,155
Interest rates										
BRL - CDI	1,970,531	2,501,939	3,221,116	BRL thousands	-69 bps	(12,300)	199,144	441,550	(165,474)	(304,503)
BRL - IPCA	1,762	1,183,771	1,026,904	BRL thousands	38 bps	34,326	64,807	(168,922)	63,716	(66,395)
USD - SOFR		984,814	200,000	USD thousands	6 bps	(37,788)	1,327,810	2,655,634	(1,327,796)	(2,655,579)
US Dollar coupon			380,000	USD thousands	6 bps	(7,502)	(521,398)	(1,042,797)	521,398	1,042,797

All amounts in thousands of reais unless otherwise stated

															Consolidated
						Impact in profit or loss					Impacts on comprehensive income				
						Scenario I	Scenarios II & III				Scenario I	Scenarios II & III			
Risk factors	Cash and cash equivalents and financial investments (i)	Borrowings and related parties (i)	Principal of derivative financial instruments	Currency	Shock in curves in 2023	Results of scenario I	-25%	-50%	25%	50%	Results of scenario I	-25%	-50%	25%	50%
Foreign exchange rate															
USD	1,638,514	6,452,998	330,000	USD	1.21%	28,478	(58,169)	(116,338)	58,169	116,338	(62,396)	1,286,528	2,573,056	(1,286,528)	(2,573,056)
EUR	730,399	574,455		EUR	-0.20%	(84)	(10,665)	(21,330)	10,665	21,330	(224)	(28,321)	(56,642)	28,321	56,642
MAD	95,179			MAD	-0.80%	(758)	(23,795)	(47,589)	23,795	47,589					
BOB	47,169	507,049		BOB	0.48%						(2,227)	114,970	229,940	(114,970)	(229,940)
TRY	65,251		10,100	TRY	-4.33%	(22)	(33,851)	(85,254)	26,830	50,151					
CAD	122,972	169,724		CAD	-0.06%	29	11,688	23,376	(11,688)	(23,376)					
UYU	36,636	102,569		UYU	-3.11%						2,048	16,483	32,966	(16,483)	(32,966)
TND	177,819			TND	-0.30%	(533)	(44,455)	(88,909)	44,455	88,909					
Interest rates															
BRL - CDI	9,002,067	2,501,939	4,137,274	BRL thousands	-69 bps	(69,014)	94,489	255,176	(42,914)	(45,273)					
BRL - IPCA	1,762	1,862,470	1,643,066	BRL thousands	38 bps	(28,966)	(37,737)	(75,895)	37,323	74,241					
USD - SOFR		984,814	200,000	USD thousands	6 bps	(37,788)	1,327,810	2,655,634	(1,327,796)	(2,655,579)					
US dollar coupon			480,000	USD thousands	6 bps	(8,170)	(580,693)	(1,161,385)	580,693	1,161,385					
TJLP		27,735		BRL thousands	-2 bps	6	453	906	(453)	(906)					

(i) The balances presented do agree directly with "Cash and cash equivalents" (Note 8(b)), "Financial investments" (Note 9(b)), "Related parties" (Note 13(b)) and "Borrowings" (Note 19(b)), as the analysis only includes the most significant currencies.

7 Financial instruments by category

(a) Financial assets - Classification, recognition and measurement

The Company classifies financial assets upon initial recognition according to the business model under which the financial assets were acquired, in the following categories:

(i) Financial instruments at amortized cost

These are financial instruments that are held for the purpose of receiving contractual cash flows, with payments related exclusively to principal and interest. The instruments thus classified are measured at amortized cost.

(ii) Financial instruments at fair value through other comprehensive income

Financial instruments where the contractual cash flow derives solely from payments of principal and interest, and the objective of the Company's business model is both the collection of contractual cash flow and the sale of financial assets. The instruments thus classified are measured at fair value through other comprehensive income.

(iii) Financial instruments at fair value through profit or loss

All financial instruments that do not fall under the above definitions are classified in this category. The instruments under this classification are measured at fair value through profit or loss.

(b) Financial liabilities - Classification, recognition and measurement

The Company classifies its financial liabilities in the following categories: (i) measured at amortized cost and (ii) fair value through profit or loss. Financial liabilities at fair value through profit or loss include financial liabilities designated on initial recognition at fair value through profit or loss and their variations, including interest, are recognized in profit or loss. Changes in other financial liabilities measured as amortized cost, including interest, are recognized in profit or loss under "Financial results," and the exchange rate variation is recognized as "Exchange variations."

Financial liabilities are derecognized when contractual obligations are withdrawn, canceled or expire. The difference between the extinguished book value and the consideration paid (including transferred assets or assumed liabilities) is recognized in the statement of income.

(c) Offsetting of financial instruments

Financial assets and liabilities are offset, and the net amount is presented in the balance sheet, when there is a legally enforceable right to offset the recognized amounts, and there is an intention to settle on a net basis or to realize the asset and settle the liability simultaneously. The legally enforceable right cannot be contingent on future events and must be enforceable in the normal course of business as well as in the event of default, insolvency or bankruptcy of the Company or the counterparty.

All amounts in thousands of reais unless otherwise stated

(d) Impairment of financial assets measured at amortized cost

The Company assesses at each balance sheet date whether there is objective evidence that a financial asset or group of financial assets is impaired.

Except for the impairment of "Trade receivables and securitization of receivables" (Note 10), the amount of any impairment is measured as the difference between the asset's carrying amount and the present value of estimated future cash flows (excluding future credit losses that have not been incurred) discounted at the financial asset's original effective interest rate. The carrying amount of the asset is reduced, and the amount of the loss is recognized in profit or loss.

If, in a subsequent period, the amount of the impairment loss decreases and this decrease can be related objectively to an event occurring after the impairment was recognized (such as an improvement in the debtor's credit rating), the reversal of the previously recorded loss is recognized in profit or loss.

(e) Analysis

				Parent company
				2023
	Note	Amortized cost	Fair value through profit or loss	Total
Assets				
Cash and cash equivalents (i)	8(b)		1,144,468	1,144,468
Financial investments	9(b)		864,266	864,266
Trade receivables	10(b)	711,286		711,286
Derivative financial instruments	6.4.3(a)		440,026	440,026
Related parties	13(b)	52,030		52,030
		763,316	2,448,760	3,212,076
Liabilities				
Borrowings	19(b)	4,249,090	1,581,218	5,830,308
Derivative financial instruments	6.4.3(a)		617,242	617,242
Lease liabilities	18(c)	96,003		96,003
Confirming payables	20	205,190		205,190
Trade and other payables		1,517,703		1,517,703
Salaries and social charges		296,829		296,829
Related parties	13(b)	55,870		55,870
		6,420,685	2,198,460	8,619,145

				Parent company
				2022
	Note	Amortized cost	Fair value through profit or loss	Total
Assets				
Cash and cash equivalents (i)	8(b)		1,105,029	1,105,029
Financial investments	9(b)		776,858	776,858
Trade receivables	10(b)	661,250		661,250
Derivative financial instruments	6.4.3(a)		543,924	543,924
Related parties	13(b)	45,873		45,873
		707,123	2,425,811	3,132,934
Liabilities				
Borrowings	19(b)	3,880,552	906,878	4,787,430
Derivative financial instruments	6.4.3(a)		681,992	681,992
Lease liabilities	18(c)	52,718		52,718
Confirming payables	20	251,701		251,701
Trade and other payables		1,936,463		1,936,463
Salaries and social charges		264,862		264,862
Related parties	13(b)	58,016		58,016
		6,444,312	1,588,870	8,033,182

All amounts in thousands of reais unless otherwise stated

				Consolidated
				2023
	Note	Amortized cost	Fair value through profit or loss	Total
Assets				
Cash and cash equivalents (i)	8(b)		4,856,956	4,856,956
Financial investments	9(b)		1,056,569	1,056,569
Trade receivables	10(b)	1,641,634		1,641,634
Derivative financial instruments	6.4.3(a)		613,221	613,221
Related parties		51,904		51,904
Securitization of receivables	10(e)	250,372		250,372
		1,943,910	6,526,746	8,470,656
Liabilities				
Borrowings	19(b)	10,569,375	1,577,984	12,147,359
Derivative financial instruments	6.4.3(a)		786,168	786,168
Lease liabilities	18(c)	1,011,924		1,011,924
Confirming payables	20	1,559,780		1,559,780
Trade and other payables		3,899,031		3,899,031
Salaries and social charges		721,934		721,934
Related parties		48,548		48,548
Use of public assets		643,347		643,347
Securitization of receivables	10(e)	95,338		95,338
		18,549,277	2,364,152	20,913,429

				Consolidated
				2022
	Note	Amortized cost	Fair value through profit or loss	Total
Assets				
Cash and cash equivalents (i)	8(b)		3,943,513	3,943,513
Financial investments	9(b)		978,316	978,316
Trade receivables	10(b)	1,521,320		1,521,320
Derivative financial instruments	6.4.3(a)		708,648	708,648
Related parties		45,699		45,699
Securitization of receivables	10(e)	217,740		217,740
		1,784,759	5,630,477	7,415,236
Liabilities				
Borrowings	19(b)	10,266,709	906,878	11,173,587
Derivative financial instruments	6.4.3(a)		874,829	874,829
Lease liabilities	18(c)	1,200,684		1,200,684
Confirming payables	20	1,880,761		1,880,761
Trade and other payables		4,275,707		4,275,707
Salaries and social charges		598,861		598,861
Related parties		56,905		56,905
Use of public assets		711,790		711,790
Securitization of receivables	10(e)	114,417		114,417
		19,105,834	1,781,707	20,887,541

(i) The amortized cost approximates fair value due to the liquid nature of the amounts.

All amounts in thousands of reais unless otherwise stated

(f) Fair value of financial instruments and derivatives

The Company discloses fair value measurements based on the hierarchy level of the main assets and liabilities, as shown below:

				Parent company
		Fair value measured based on		2023
		Price quoted in an active market	Valuation technique supported by observable prices	
	Note	Level 1	Level 2	Fair value
Assets				
Cash and cash equivalents	8(b)	492,608	651,860	1,144,468
Financial investments	9(b)	855,305	8,961	864,266
Derivative financial instruments	6.4.3(a)		440,026	440,026
		1,347,913	1,100,847	2,448,760
Liabilities				
Borrowings	19(b)	1,173,507	4,687,739	5,861,246
Derivative financial instruments	6.4.3(a)		617,242	617,242
		1,173,507	5,304,981	6,478,488

				Parent company
		Fair value measured based on		2022
		Price quoted in an active market	Valuation technique supported by observable prices	
	Note	Level 1	Level 2	Fair value
Assets				
Cash and cash equivalents	8(b)	144,377	960,652	1,105,029
Financial investments	9(b)	769,628	7,230	776,858
Derivative financial instruments	6.4.3(a)		543,924	543,924
		914,005	1,511,806	2,425,811
Liabilities				
Borrowings	19(b)	610,253	4,143,942	4,754,195
Derivative financial instruments	6.4.3(a)		681,992	681,992
		610,253	4,825,934	5,436,187

All amounts in thousands of reais unless otherwise stated

				Consolidated
		Fair value measured based on		2023
		Price quoted in an active market	Valuation technique supported by observable prices	
	Note	Level 1	Level 2	Fair value
Assets				
Cash and cash equivalents	8(b)	2,759,140	2,097,816	4,856,956
Financial investments	9(b)	909,477	147,092	1,056,569
Derivative financial instruments	6.4.3(a)		613,221	613,221
		3,668,617	2,858,129	6,526,746
Liabilities				
Borrowings	19(b)	6,095,129	6,327,129	12,422,258
Derivative financial instruments	6.4.3(a)		786,168	786,168
		6,095,129	7,113,297	13,208,426

				Consolidated
		Fair value measured based on		2022
		Price quoted in an active market	Valuation technique supported by observable prices	
	Note	Level 1	Level 2	Fair value
Assets				
Cash and cash equivalents	8(b)	1,943,432	2,000,081	3,943,513
Financial investments	9(b)	846,823	131,493	978,316
Derivative financial instruments	6.4.3(a)		708,648	708,648
		2,790,255	2,840,222	5,630,477
Liabilities				
Borrowings	19(b)	5,498,552	5,581,148	11,079,700
Derivative financial instruments	6.4.3(a)		874,829	874,829
		5,498,552	6,455,977	11,954,529

Other financial instruments not included above are measured at amortized cost which approximates their fair values. The fair values are determined based on observable prices (Level 2) in arm's length transactions between market participants or equivalent conditions when among related parties.

All amounts in thousands of reais unless otherwise stated

8 Cash and cash equivalents

(a) Accounting policies

Cash and cash equivalents include cash, deposits with banks and other highly liquid investments, with original maturities of up to three months, which are readily convertible into a known amount of cash and with an insignificant risk of change in value.

(b) Analysis

	Parent company		Consolidated	
	2023	2022	2023	2022
Local currency				
Cash and banks	5,974	2,375	17,174	44,417
Bank Deposit Certificates ("CDBs")	651,860	960,653	1,312,774	1,537,834
Leveraged operations - Government notes	456,167	127,389	730,651	249,717
	1,114,001	1,090,417	2,060,599	1,831,968
Foreign currency				
Cash and banks	30,467	14,612	1,735,292	1,649,299
Time deposits			1,061,065	462,246
	30,467	14,612	2,796,357	2,111,545
	1,144,468	1,105,029	4,856,956	3,943,513

Cash and cash equivalents in local currency represent cash available in bank accounts and government notes (overnight transactions) or financial institution bonds, indexed to the interbank deposit rate. Cash and cash equivalents in foreign currency comprise fixed-income financial instruments in local currency.

The average return on cash and cash equivalents in local currency is 101.85% p.a. of the CDI rate (December 31, 2022 - 102.83% p.a. of CDI).

All amounts in thousands of reais unless otherwise stated

9 Financial investments

(a) Accounting policies

Most financial investments have immediate liquidity and, therefore, are classified in current assets. They are classified as financial investments when they do not meet the definition of cash and cash equivalents and/or are held with the intention of investing, considering the expected destination of the resources.

(b) Analysis

	Parent company		Consolidated	
	2023	2022	2023	2022
Local currency				
Treasury Financial Bills (*Letras Financeiras do Tesouro* - "LFTs")	855,360	769,676	909,533	846,872
Bank Deposit Certificates ("CDBs")	7,144	6,168	114,718	40,024
Certificates of Real Estate Receivables ("CRIs")	1,762	1,014	1,762	1,014
	864,266	776,858	1,026,013	887,910
Foreign currency				
Time deposits			30,556	90,406
Current	864,266	776,858	1,056,569	978,316

Local currency investments include bonds issued by the government or financial institutions, indexed to the interbank deposit rate. Foreign currency investments are mainly fixed-income financial instruments in local currency (time deposits).

The average return for financial investments in local and foreign currency was 102.29% % p.a. of CDI and 5.53% p.a., respectively (December 31, 2022 - 102.98% p.a. of CDI and 4.06% p.a., respectively).

10 Trade receivables and securitization of receivables

(a) Accounting policies

(i) Trade receivables

Trade receivables are amounts due from customers for goods sold or services rendered in the ordinary course of the Company's business. They are recognized initially at the transaction amount and subsequently measured at amortized cost using the effective interest rate method, allowance for doubtful expected credit losses.

The allowance for expected credit losses is recognized at an amount considered sufficient to cover probable losses on the realization of trade receivables. The Company applies the simplified approach of CPC 48 / IFRS 9 "Financial instruments" to calculate expected credit losses. Based on the customers' payment profile, the Company classifies them based on their risk. For each risk class, the Company developed a provision matrix considering the history of unpaid bills and other relevant prospective data through risk analysis to calculate the expected credit loss.

The matrix has different loss rates for different trade receivable delinquency groupings and is applied in all receivables from third parties, including receivables not yet due. Receivables from related parties of the Parent Company and Consolidated are not considered in this analysis. All third-party receivables overdue for more than 120 days are accrued and receivables overdue for more than 365 days are reviewed quarterly to assess whether they will be written off.

(ii) Securitization of receivables

In March 2016, the subsidiary St. Marys entered into a revolving receivables securitization transaction with financial institutions for the sale of trade receivables to a Special Purpose Entity - SPE. The SPE was established for this purpose and it is not controlled by the Company. The initial acquisition of receivables by the SPE was funded through: (i) senior shares; (ii) senior subordinated shares; (iii) intermediate subordinated shares; and (iv) junior subordinated shares. This securitization operation was renewed, with a current maturity date of March 2024, and the amount of the credit facility is R$ 1,174 million (USD 225 million).

St. Marys holds the senior subordinated shares as well as the junior subordinated shares. Accordingly, the Company's maximum exposure to loss due to its continued involvement in derecognized financial assets corresponds to its share in senior and junior subordinated certificates.

St. Mary's sells receivables to SPE on a daily and revolving basis. When St. Marys transfers the receivables to the SPE, it derecognizes the receivables, in exchange for cash and notes receivable from the SPE. The SPE deducts from the amount transferred to St. Marys the acquisition cost of receivables, which is recorded as a financial expense by the Company (Note 29).

St. Marys manages the collection of receivables included in this transaction through the provision of services to the SPE. Fees incurred with the collection service are recorded as financial income by the investee. In 2023 and 2022, the Company's gains and losses are presented under securitization commission, reversal of securitization guarantee, provision for securitization guarantee and securitization expenses accounts (Note 29).

The SPE is not controlled by the Company and therefore is not included in the consolidated financial statements, in accordance with CPC 36 (R3)/IFRS 10 - "Consolidated financial statements". Balances transacted with the SPE are presented as balances with related parties (Note 13).

The Company has neither transferred nor retained substantially all the risks and rewards of ownership of the transferred assets and has retained control of the transferred assets as the SPE does not have the practical ability to sell the transferred assets. Receivables are recognized by the Company to the extent of the continued involvement thereof and associated liabilities are also recognized. The extent of the continued involvement of the investees is equivalent to their exposure to changes in the amount of the assets transferred. The net carrying amount of the partially transferred assets and associated liabilities reflects the rights and obligations that the Company has retained, which are not materially different from their fair value, given the nature of the receivables.

St. Marys recognizes part of the transferred assets to the extent of its involvement considering:

- Its continued involvement in connection with the portion of junior and senior shares, and
- Its continued involvement in connection with the guarantee representing the subordination - St. Marys holds the first loss exposure within its subordination tranche;

Receivables continue to be recognized with maturity in less than three months. On December 31, 2023, assets and liabilities related to the securitization operation were reclassified from non-current to current due to the maturity of the current securitization agreement. The Company is in the process of renewing its current securitization agreement.

All amounts in thousands of reais unless otherwise stated

(b) Analysis

		Parent company		Consolidated	
	Note	2023	2022	2023	2022
Brazilian customers		610,793	587,964	795,900	759,503
Customers outside Brazil				857,075	792,970
Related parties	13(b)	119,638	88,512	55,615	43,130
		730,431	676,476	1,708,590	1,595,603
Allowance for expected credit losses	10(c)	(19,145)	(15,226)	(66,956)	(74,283)
		711,286	661,250	1,641,634	1,521,320

(c) Changes in allowance for expected credit losses

	Parent company		Consolidated	
	2023	2022	2023	2022
Balance at the beginning of the year	(15,226)	(30,494)	(74,283)	(96,626)
Additions	(18,596)	(14,566)	(37,024)	(32,183)
Reversals	1,927	2,374	11,240	10,869
Receivables written off during the the year as uncollectible	12,750	27,460	28,384	44,379
Acquisition of subsidiary				(6,636)
Exchange variations			4,727	5,914
Balance at the end of the year	(19,145)	(15,226)	(66,956)	(74,283)

(d) Aging of trade receivables

The aging of the balances below does not include the allowance for expected credit losses.

	Parent company		Consolidated	
	2023	2022	2023	2022
Not yet due	701,024	644,160	1,561,822	1,454,243
Overdue for up to 3 months	23,386	23,390	79,631	86,003
From 3 to 6 months overdue	3,903	3,846	12,034	8,388
Overdue for over 6 months	2,118	5,080	55,103	46,969
	730,431	676,476	1,708,590	1,595,603

The credit risk on trade receivables from third parties that are not overdue and do not have a provision for impairment is presented in Note 6.5.1.

(e) Assets and liabilities recognized as securitization of receivables

	Consolidated	
	2023	2022
Notes receivable from the SPE	208,616	176,807
Capital contribution to the SPE	41,756	40,933
Securitization of receivables (assets)	250,372	217,740
Security guarantee	(92,438)	(91,391)
Junior note losses guarantee	(2,900)	(23,026)
Securitization of receivables (liabilities)	(95,338)	(114,417)
Net carrying amount (i)	155,034	103,323

(i) The fair value of assets and liabilities representing the entity's continuing involvement in financial assets derecognized is not materially different from the net carrying amount of those assets and liabilities.

All amounts in thousands of reais unless otherwise stated

11 Inventory

(a) Accounting policies

Inventory is stated at the lower of the cost and net realizable value. Cost is determined using the weighted average method. The cost of finished goods and work in progress includes raw materials, direct labor, other direct and indirect costs and related production overheads.

Net realizable value is the estimated selling price in the ordinary course of business, less completion costs and selling expenses. Imports in transit are stated at the accumulated cost of the respective product.

The Company carries out a cyclical physical inventory during the year of the goods in its inventory, and inventory adjustments are recorded under the line item "Cost of goods sold and services rendered", except for adjustments resulting from the distribution process, which are accounted for as "selling expenses".

A provision for loss of obsolete inventories is recognized based primarily on the history of slow-moving items. Obsolete inventory is written off when it is sold or scrapped.

(b) Analysis

	Parent company		Consolidated	
	2023	2022	2023	2022
Finished products	66,345	67,053	250,383	245,629
Semi-finished products	383,750	382,254	1,273,785	1,142,979
Raw materials	83,657	92,737	466,285	419,751
Fuels	239,203	288,852	747,692	818,210
Auxiliary materials and consumables	59,249	52,793	118,179	109,747
Maintenance materials	242,917	209,791	819,194	790,697
Imports in transit	748	830	73,870	28,972
Other	7,148	16,176	30,390	51,372
Provision for inventory losses (i)	(67,959)	(53,244)	(279,814)	(248,565)
	1,015,058	1,057,242	3,499,964	3,358,792

(i) The provision for inventory losses refers to slow-moving materials.

All amounts in thousands of reais unless otherwise stated

(c) Changes in the provision for inventory losses

							Parent company
							2023
	Finished products	Semi-finished products	Raw materials	Auxiliary materials and consumables	Maintenance materials	Other	Total
Balance at the beginning of the year	(410)	(16,900)	(1,481)	(3,311)	(30,849)	(293)	(53,244)
Additions	(765)	(867)	(2,345)	(5,271)	(27,884)	(425)	(37,557)
Reversals and write-offs	632	2,347	2,593	3,487	13,371	412	22,842
Balance at the end of the year	(543)	(15,420)	(1,233)	(5,095)	(45,362)	(306)	(67,959)

							Parent company
							2022
	Finished products	Semi-finished products	Raw materials	Auxiliary materials and consumables	Maintenance materials	Other	Total
Balance at the beginning of the year	(447)	(20,698)	(1,141)	(3,982)	(26,660)	(14)	(52,942)
Additions	(570)	(1,259)	(4,415)	(1,346)	(13,162)	(439)	(21,191)
Reversals and write-offs	607	5,057	4,075	2,017	8,973	160	20,889
Balance at the end of the year	(410)	(16,900)	(1,481)	(3,311)	(30,849)	(293)	(53,244)

All amounts in thousands of reais unless otherwise stated

							Consolidated
							2023
	Finished products	Semi-finished products	Raw materials	Auxiliary materials and consumables	Maintenance materials	Other	Total
Balance at the beginning of the year	(20,585)	(32,090)	(19,452)	(34,415)	(136,219)	(5,804)	(248,565)
Additions	(1,008)	(17,858)	(9,094)	(12,020)	(57,932)	(745)	(98,657)
Reversals and write-offs	1,633	15,214	4,594	17,293	17,467	2,115	58,316
Exchange variations	563	762	125	4,963	2,679		9,092
At the end of the year	(19,397)	(33,972)	(23,827)	(24,179)	(174,005)	(4,434)	(279,814)

							Consolidated
							2022
	Finished products	Semi-finished products	Raw materials	Auxiliary materials and consumables	Maintenance materials	Other	Total
Balance at the beginning of the year	(5,747)	(40,160)	(19,194)	(35,043)	(151,735)	(6,650)	(258,529)
Additions	(1,952)	(10,810)	(3,433)	(4,036)	(45,711)	(1,056)	(66,998)
Reversals and write-offs	1,651	17,585	3,196	4,664	49,087	1,902	78,085
Exchange variations	781	2,306	85		17,509		20,681
Acquisition of subsidiary	(15,318)	(1,011)	(106)		(5,369)		(21,804)
At the end of the year	(20,585)	(32,090)	(19,452)	(34,415)	(136,219)	(5,804)	(248,565)

All amounts in thousands of reais unless otherwise stated

12 Taxes recoverable

(a) Accounting policies

Recoverable taxes are recorded when the Company's rights of receipt are assured. Contingent assets with a possible recovery probability, from a past event, are only recorded once confirmed.

Taxes recoverable are presented net of losses on tax credits; the recoverability of balances is reviewed annually by the Company.

Recoverable taxes represent the rights that will be realized through offset against future obligations arising from the Company's operations. The Company continually reviews the realization capacity of these assets and, when necessary, provisions are recognized to ensure that these assets are accounted for based on their realizable value.

(b) Analysis

	Parent company		Consolidated	
	2023	2022	2023	2022
Social Contribution on Revenues ("COFINS") (i)	26,952	33,677	92,111	182,168
Social Integration Program ("PIS") (i)	6,535	7,827	20,414	48,218
State Value-added Tax on Sales and Services ("ICMS")	12,997	13,911	41,811	35,382
Value-added Tax ("VAT") (foreign companies)			19,327	96,661
State Valued-added Tax on Sales and services and PP&E	31,088	26,866	39,016	33,746
Exercise Tax ("IPI")	22,712	23,678	27,970	28,232
Social security credits	25,753	25,571	30,496	30,223
Other	2,485	2,479	32,803	40,941
	128,522	134,009	303,948	495,571
Current	52,042	53,001	126,731	297,755
Non-current	76,480	81,008	177,217	197,816
	128,522	134,009	303,948	495,571

(i) The balances refer to tax credits receivable related to the exclusion of ICMS from the calculation basis of PIS and COFINS of the Company and its subsidiary VCNNE following a final and unappealable court decision in a lawsuit filed by them. The reduction in Parent Company and Consolidated balances reflects the use of these credits to offset federal taxes throughout the year.

All amounts in thousands of reais unless otherwise stated

13 Related parties

(a) Accounting policies

Related-party transactions are conducted by the Company without generating returns to its counterparties or losses to the Company. In the normal course of its operations, the Company enters into agreements with related parties (associates, joint ventures, shareholders and joint operations), related to the purchase and sale of products, loans, leases of assets, sales of raw materials and services.

(b) Asset and liability balances

	Cash, financial investments and derivatives, net		Trade receivables		Dividends receivable		Other assets (Parent company)	
	2023	2022	2023	2022	2023	2022	2023	2022
Subsidiaries, associates, joint ventures or members of the same economic group								
Auren Energia S.A.							36,879	36,661
Banco Votorantim S.A. (i)	15	167,543						
Juntos Somos Mais Fidelização S.A. (v)							5,940	
Supermix Concreto S.A.			33,816	22,264				
Votorantim Cement Trading S.L.			6,475	6,646				
Votorantim Cimentos N/NE S.A.			70,893	56,089		33,145	6,600	6,600
Other			8,454	3,513			2,611	2,612
	15	167,543	119,638	88,512		33,145	52,030	45,873
Current	15	167,543	119,638	88,512		33,145		
Non-current							52,030	45,873
	15	167,543	119,638	88,512		33,145	52,030	45,873

	Trade payables		Lease liabilities		Dividends payable (iv)		Other liabilities (Parent company)	
	2023	2022	2023	2022	2023	2022	2023	2022
Parent company								
Votorantim S.A.	34,634	7,918	8,841	5,770	557,360	218,911		
Subsidiaries, associates, joint ventures or members of the same economic group								
Auren Comercializadora de Energia Ltda.	51,056	57,813						
Auren Energia S.A.							42,375	49,678
Companhia Brasileira de Alumínio	56	13					401	8,959
Juntos Somos Mais Fidelização S.A.	1,599	1,088						
Motz Transporte Ltda. (ii)	41,613	35,769						
Votorantim Cimentos N/NE S.A.	1,193	314						
Other	4,702	3,353					9,452	11,799
	134,853	106,268	8,841	5,770	557,360	218,911	52,228	70,436
Current	116,485	106,268	3,515	5,770	557,360	218,911	14,726	12,420
Non-current	18,368		5,326				37,502	58,016
	134,853	106,268	8,841	5,770	557,360	218,911	52,228	70,436

All amounts in thousands of reais unless otherwise stated

	Cash, financial investments and derivatives, net		Trade receivables		Dividends receivable		Other assets (Consolidated)	
	2023	2022	2023	2022	2023	2022	2023	2022
Associates, joint ventures or members of the same economic group								
Auren Energia S.A.							36,878	36,661
Banco Votorantim S.A. (i)	(3,240)	239,678						
Cementos Avellaneda S.A.			2,451	2,641				5,299
Cementos Granadilla			2,182	2,061				
Juntos Somos Mais Fidelização S.A. (v)							5,940	
Midway Group LLC			2,213	6,471				
Supermix Concreto S.A.			44,251	28,189				
VCNA SPE, LCC (iii)							250,372	217,740
Other			4,518	3,768	1,230		9,086	3,739
	(3,240)	239,678	55,615	43,130	1,230		302,276	263,439
Current	(1,251)	242,833	55,615	43,130	1,230			
Non-current	(1,989)	(3,155)					302,276	263,439
	(3,240)	239,678	55,615	43,130	1,230		302,276	263,439

	Trade payables		Lease liabilities		Dividends payable (iv)		Other liabilities (Consolidated)	
	2023	2022	2023	2022	2023	2022	2023	2022
Parent company								
Votorantim S.A.	37,655	9,191	8,841	5,770	557,360	218,911		
Associates, joint ventures or members of the same economic group								
Auren Comercializadora de Energia Ltda.	51,056	62,197						
Auren Energia S.A.							42,375	49,678
Cementos Avellaneda S.A.	6,071	5,293						
Cementos Granadilla	1,740	1,818						
Juntos Somos Mais Fidelização S.A.	1,599	1,088						
Midway Group LLC	9,820	5,499						
Société Marocainee SMBRM								8,559
VCNA SPE, LCC (iii)							95,338	114,417
Other	3,363	2,143					2,531	11,088
	111,304	87,229	8,841	5,770	557,360	218,911	140,244	183,742
Total non-controlling interests					1,680	2,274		
Current	92,936	87,229	3,515	5,770	559,040	221,185	14,726	12,420
Non-current	18,368		5,326				125,518	171,322
	111,304	87,229	8,841	5,770	559,040	221,185	140,244	183,742

(i) Refers to cash balances, financial investments and derivative financial instruments, net, with Banco Votorantim S.A.
(ii) The balances with Motz Transportes Ltda. (formerly MOV C Transportes Ltda.) refer to payables for road cargo transport services in general.
(iii) Other assets and other liabilities with VCNA SPE, LLC are related to the securitization of receivables (Note 10(e)).
(iv) As per Note 25(c).
(v) In October 2023, VCSA made a contribution of R$ 5,940 to joint venture Juntos Somos Mais Fidelização S.A. related to a future capital increase, with no right of return.

All amounts in thousands of reais unless otherwise stated

(c) Profit and loss balances

						Parent company
	Sales		Purchases		Financial income (expenses)	
	2023	2022	2023	2022	2023	2022
Parent company						
Votorantim S.A. (i)			70,348	57,345		
Subsidiaries, associates, joint ventures or members of the same economic group						
Auren Comercializadora de Energia Ltda. (iv)			565,863	573,301		
Banco Votorantim S.A.					3,455	8,901
Juntos Somos Mais Fidelização S.A.			30,756	27,186		
Motz Transporte Ltda. (ii)			1,165,283	1,048,931		
St. Marys Cement Inc. (v)					11,985	9,608
Supermix Concreto S.A. (iii)	289,459	349,776				
Votorantim Cimentos N/NE S.A.	133,040	119,385	13,087	7,961		(349)
Other	8,879	11,931	28,297	22,462	(7,055)	(954)
	431,378	481,092	1,873,634	1,737,186	8,385	17,206

						Consolidated
	Sales		Purchases		Financial income (expenses)	
	2023	2022	2023	2022	2023	2022
Parent company						
Votorantim S.A. (i)			88,083	68,284		
Associates, joint ventures or members of the same economic group						
Auren Comercializadora de Energia Ltda. (iv)	17,315	32,658	790,671	698,257		
Banco Votorantim S.A.					8,124	8,348
Cementos Avellaneda S.A.	19,249		11,346			
Cementos Especiales de las Islas, S.A.	40,849	35,047	1,804	1,026		
Cementos Granadilla	29,120	23,112	2,722	2,275		
Great Lakes Slag Inc.	50,529					
Juntos Somos Mais Fidelização S.A.			30,756	27,186		
Midway Group LLC	49,181	47,154				
Supermix Concreto S.A. (iii)	372,017	414,596				
VCNA SPE, LLC (vi)					(42,733)	(51,625)
Other	24,806	23,570	42,757	25,042	(7,181)	245
	603,066	576,137	968,139	822,070	(41,790)	(43,032)

(i) Shared activities with the Excellence Center of VSA, principally administrative activities, human resources, accounting, taxes, technical assistance and IT. These services are provided to all Votorantim Group companies, and VSA is reimbursed based on the proportion of the cost of the activities performed to the Company.
(ii) Refers to the provision of cargo loading, unloading and cargo road transport services in general.
(iii) Refers to sale of cement and aggregates to Supermix Concreto S.A.
(iv) Refers to the purchase of electricity from Auren Comercializadora de Energia Ltda.
(v) Refers to the net amount arising from the amounts of income and expense for guarantees provided for intercompany loans.
(vi) As per Note 13(b)(iii).

(d) Guarantees of Company's debts by related parties

Type	Guarantor	2023	2022
Eurobonds - USD (Voto 41)	VSA (100%) / VCSA (100%)	1,645,802	1,774,464

All amounts in thousands of reais unless otherwise stated

(e) Key management compensation

Expenses related to the remuneration of the Company's key management, including the Board of Directors ("BoD"), Board of Executive Officers and advisory committees to the BoD, recognized in profit or loss for the year, are shown in the table below:

	Parent company and Consolidated	
	2023	**2022**
Short-term compensation		
Salaries or fees	16,626	12,903
Short-term benefits to key management	3,287	3,089
Post-employment benefits	328	387
Variable compensation	10,517	10,196
	30,758	26,575
Long-term compensation		
Long-term incentives	14,932	19,383
	45,690	45,958

The short-term benefits include: fixed compensation (salaries and fees, paid vacations and 13th month's salary), short-term benefits (healthcare plan, meal vouchers, life insurance, private pension), social charges including contributions to the National Institute of Social Security ("INSS"), the Government Severance Indemnity Fund for Employees ("FGTS"), post-employment benefit (pension plan) and the short-term variable compensation program.

Long-term compensation includes the long-term incentive plan granted to the Board of Executive Officers.

All amounts in thousands of reais unless otherwise stated

14 Judicial deposits

(a) Accounting policies

The Company is party to ongoing tax, civil, labor and environmental lawsuits and is contesting these matters at both the administrative and judicial levels, backed by judicial deposits, when applicable.

Judicial deposits bear interest and are presented net in the line item "Provisions" in liabilities when there is a corresponding provision (Note 22(b)). Judicial deposits without corresponding provisions are presented in non-current assets.

(b) Analysis

Parent company

			2023			2022
	Judicial deposits classified in assets without provision	Judicial deposits classified in liabilities with provision	Total Judicial deposits	Judicial deposits classified in assets without provision	Judicial deposits classified in liabilities with provision	Total Judicial deposits
Tax	125,902	116,712	242,614	108,591	113,318	221,909
Civil	173	9,309	9,482	1,462	10,213	11,675
Labor		35,461	35,461		54,703	54,703
Environmental	1,006	575	1,581	936	560	1,496
	127,081	162,057	289,138	110,989	178,794	289,783

Consolidated

			2023			2022
	Judicial deposits classified in assets without provision	Judicial deposits classified in liabilities with provision	Total Judicial deposits	Judicial deposits classified in assets without provision	Judicial deposits classified in liabilities with provision	Total Judicial deposits
Tax	239,050	140,307	379,357	211,951	136,984	348,935
Civil	1,066	11,224	12,290	2,299	12,005	14,304
Labor	502	42,732	43,234	617	67,322	67,939
Environmental	1,053	575	1,628	966	560	1,526
	241,671	194,838	436,509	215,833	216,871	432,704

All amounts in thousands of reais unless otherwise stated

15 Investments

(a) Accounting policies

Accounting policies for investments are described in Notes 5.5.1 and 5.5.2.

(b) Main companies included in the consolidated financial statements

The main companies are listed in Note 5.5.5.

(c) Analysis

							Parent company
	Information on December 31, 2023			Investments accounted for using the equity method		Balance	
	Shareholders' equity	Profit (loss) for the year	Percentage of voting and total capital (%)	2023	2022	2023	2022
Investments accounted for using the equity method							
Subsidiaries and associates							
Votorantim Cimentos International S.A.	12,484,389	1,408,454	100.00	1,408,454	271,120	12,484,389	11,981,996
Votorantim Cimentos N/NE S.A.	2,379,763	565,683	100.00	565,683	328,643	2,379,763	2,197,604
Silcar Empreendimentos Comércio e Participações Ltda.	126,631	20,778	100.00	20,778	16,615	126,631	100,818
Motz Transportes Ltda.	148,184	57,763	100.00	57,763	46,279	148,184	89,112
Other investments				14,109	9,326	22,733	21,832
Joint venture							
Juntos Somos Mais Fidelização S.A. (Note 13(b)(v))	(11,678)	(39,045)	44.27	(17,284)	(39,717)	(5,170)	10,452
Investments accounted for at cost						5,061	5,061
				2,049,503	632,266	15,161,591	14,406,875

All amounts in thousands of reais unless otherwise stated

							Consolidated
	Information on December 31, 2023			Investments accounted for using the equity method		Balance	
	Shareholders' equity	Profit (loss) for the year	Percentage of voting and total capital (%)	2023	2022	2023	2022
Investments accounted for using the equity method							
Associates							
Votorantim Cimentos International S.A.							
Cementos Avellaneda S.A. (ii)	932,578	70,379	49.00	(2,150)	31,374	456,963	727,427
Cementos Especiales de las Islas, S.A.	218,654	49,404	50.00	24,702	18,842	109,327	105,307
Silcar Empreendimentos Comércio e Participações Ltda.							
Supermix Concreto S.A.	440,177	84,572	25.00	21,143	23,661	110,044	94,320
Imix Empreendimentos Imobiliários Ltda.	15,990	7,255	25.00	1,814	1,777	3,998	3,980
Joint ventures - St. Marys							
Grundy-River Holdings LLC (i)	56,976	2,396	50.00	1,198		28,488	
Hutton Transport Limited	70,920	33,864	25.00	8,466	7,508	17,730	15,799
Midway Group, LLC	73,634	30,078	50.00	15,039	7,477	36,817	39,315
RMC Leasing LLC	38,266	2,300	50.00	1,150	694	19,133	19,360
Joint venture - VCSA							
Juntos Somos Mais Fidelização S.A. (Note 13(b)(v))	(11,678)	(39,045)	44.27	(17,284)	(39,717)	(5,170)	10,452
Other investments				1,000	484	79,821	70,070
				55,078	52,100	857,151	1,086,030
Goodwill							
Cementos Avellaneda S.A.						171,074	272,194
Hutton Transport Limited						10,828	11,461
Grundy-River Holdings LLC (i)						2,101	
				55,078	52,100	1,041,154	1,369,685

(i) In June 2023, the Company acquired a 50% interest in Grundy, a concrete company located in Illinois, USA, for USD 5,411 thousand (R$ 26,076) fully settled in cash. The investment was initially recognized at cost and will be subsequently accounted for using the equity method.

(ii) An exchange rate effect arose on the remittance of dividends received by VC Latam from its associate Avellaneda, in the amount of R$ 36,636 (December 31, 2022 - R$ 26,628), recorded by the subsidiary VC Latam and accounted for in the statement of income under "Equity in the results of investees". This is reconciling item when analyzing the equity in the results of this investee.

All amounts in thousands of reais unless otherwise stated

(d) Information on investees

A summary of the financial information on the Company's main associates, subsidiaries and joint ventures for 2023 and 2022, follows:

(i) Balance sheet accounts

								Parent company
								2023
	Percentage of voting and total capital	Current assets	Non-current assets	Current liabilities	Non-current liabilities	Non-controlling interests	Other comprehensive income	Shareholders' equity
Investments accounted for using the equity method								
Subsidiaries and associates								
Votorantim Cimentos International S.A.	100.00	706,606	13,392,615	34,444	1,618,102	(37,714)	502,393	12,484,389
Votorantim Cimentos N/NE S.A.	100.00	1,732,856	3,635,439	788,291	2,200,241		565,683	2,379,763
Silcar Empreendimentos Comércio e Participações Ltda.	100.00	19,921	122,154	2,384	13,060		20,778	126,631
Motz Transportes Ltda.	100.00	166,289	18,901	36,492	514		57,763	148,184
Joint venture - VCSA								
Juntos Somos Mais Fidelização S.A. (Note 13(b)(v))	44.27	49,331	22,382	70,191	13,200		(38,980)	(11,678)

								Parent company
								2022
	Percentage of voting and total capital	Current assets	Non-current assets	Current liabilities	Non-current liabilities	Non-controlling interests	Other comprehensive income	Shareholders' equity
Subsidiaries and associates								
Votorantim Cimentos International S.A.	100.00	14,622	13,705,954	35,889	1,751,226	(48,535)	(776,966)	11,981,996
Votorantim Cimentos N/NE S.A.	100.00	1,548,570	3,510,870	878,322	1,983,514		233	2,197,604
Silcar Empreendimentos Comércio e Participações Ltda.	100.00	13,258	105,262	2,377	15,325			100,818
Motz Transportes Ltda.	100.00	150,471	7,954	68,724	589			89,112
Joint venture - VCSA								
Juntos Somos Mais Fidelização S.A.	44.44	84,354	31,669	92,465	39			23,519

All amounts in thousands of reais unless otherwise stated

							Consolidated
							2023
	Percentage of voting and total capital	Current assets	Non-current assets	Current liabilities	Non-current liabilities	Other comprehensive income	Shareholders' equity
Investments accounted for using the equity method							
Associates							
Votorantim Cimentos International S.A.							
Cementos Avellaneda S.A.	49.00	386,582	1,270,173	395,914	328,263	70,670	932,578
Cementos Especiales de las Islas, S.A.	50.00	163,264	96,347	32,485	8,472		218,654
Silcar Empreendimentos Comércio e Participações Ltda.							
Supermix Concreto S.A.	25.00	596,704	550,182	456,822	249,887	84,572	440,177
IMIX Empreendimentos Imobiliários Ltda.	25.00	9,899	6,376	285		7,255	15,990
Joint ventures - St. Marys							
Hutton Transport Limited	25.00	70,870	33,278	16,007	17,221		70,920
Midway Group, LLC.	50.00	55,394	30,480	12,240			73,634
RMC Leasing	50.00	12,471	25,795				38,266
Grundy-River Holdings, LLC	50.00	30,529	35,090	8,550			57,069
Joint venture - VCSA							
Juntos Somos Mais Fidelização S.A. (Note 13(b)(v))	44.27	49,331	22,382	70,191	13,200	(38,980)	(11,678)

All amounts in thousands of reais unless otherwise stated

							Consolidated
							2022
	Percentage of voting and total capital	Current assets	Non-current assets	Current liabilities	Non-current liabilities	Other comprehensive income	Shareholders' equity
Investments accounted for using the equity method							
Associates							
Votorantim Cimentos International S.A.							
Cementos Avellaneda S.A.	49.00	750,783	2,031,916	685,766	612,389	(756)	1,484,544
Cementos Especiales de las Islas, S.A.	50.00	169,854	95,648	45,318	9,570		210,614
Silcar Empreendimentos Comércio e Participações Ltda.							
Supermix Concreto S.A.	25.00	460,392	525,469	366,141	242,439		377,281
IMIX Empreendimentos Imobiliários Ltda.	25.00	9,719	6,471	272			15,918
Joint ventures - St. Marys							
Hutton Transport Limited	25.00	62,493	43,474	19,024	23,746	(16,481)	63,197
Midway Group, LLC.	50.00	63,218	32,204	16,792		(5,406)	78,630
RMC Leasing	50.00	5,218	33,502			(2,936)	38,720
Joint venture - VCSA							
Juntos Somos Mais Fidelização S.A.	44.44	84,354	31,669	92,465	39		23,519

All amounts in thousands of reais unless otherwise stated

(ii) Profit and loss accounts

	Parent company							
	2023							
	Revenue from contracts with customers	Cost of goods sold and services rendered	Gross profit	Operating expenses	Results of investees	Financial results, net	Income tax and social contribution	Profit (loss) for the year
Investments accounted for using the equity method								
Subsidiaries and associates								
Votorantim Cimentos International S.A.				(8,311)	1,517,591	(100,826)		1,408,454
Votorantim Cimentos N/NE S.A.	3,258,901	(2,608,754)	650,147	(25,994)	3,071	24,581	(86,122)	565,683
Silcar Empreendimentos Comércio e Participações Ltda.				(4,900)	22,957	1,570	1,151	20,778
Motz Transportes Ltda.	1,171,962	(1,037,027)	134,935	(57,315)		2,172	(22,029)	57,763
Joint venture - VCSA								
Juntos Somos Mais Fidelização S.A.	124,341	(31,596)	92,745	(131,233)	(5,278)	4,721		(39,045)

	Parent company							
	2022							
	Revenue from contracts with customers	Cost of goods sold and services rendered	Gross profit	Operating expenses	Results of of investees	Financial results, net	Income tax and social contribution	Profit (loss) for the year
Investments accounted for using the equity method								
Subsidiaries and associates								
Votorantim Cimentos International S.A.				(11,948)	619,739	(336,671)		271,120
Votorantim Cimentos N/NE S.A.	3,207,677	(1,936,472)	1,271,205	(760,113)	(776)	(128,593)	(53,080)	328,643
Silcar Empreendimentos Comércio e Participações Ltda.				(14,036)	25,437	669	4,545	16,615
Motz Transportes Ltda.	928,023	(837,440)	90,583	(21,685)		57	(22,676)	46,279
Joint venture - VCSA								
Juntos Somos Mais Fidelização S.A.	96,957	(25,405)	71,552	(167,397)	(394)	6,868		(89,371)

All amounts in thousands of reais unless otherwise stated

								Consolidated
								2023
	Revenue from contracts with customers	Cost of goods sold and services rendered	Gross profit	Financial results, expenses	Results of investees	Financial results, net	Income tax and social contribution	Profit (loss) for the year
Investments accounted for using the equity method								
Associates								
Votorantim Cimentos International S.A.								
Cementos Avellaneda S.A.	1,555,831	(1,132,720)	423,111	(152,024)		(102,133)	(98,575)	70,379
Cementos Especiales de las Islas, S.A.	380,964	(328,181)	52,783	692	1,149	379	(5,599)	49,404
Silcar Empreendimentos Comércio e Participações Ltda.								
Supermix Concreto S.A.	2,703,841	(2,433,400)	270,441	(100,353)	1,843	(41,437)	(45,922)	84,572
IMIX Empreendimentos Imobiliários Ltda.	8,021	(95)	7,926	(307)		1,048	(1,412)	7,255
Joint ventures - St. Marys								
Hutton Transport Limited	107,246	(74,535)	32,711	1,019		134		33,864
Midway Group, LLC.	205,960	(180,549)	25,411	4,528		139		30,078
RMC Leasing		(5,498)	(5,498)	7,798				2,300
Grundy-River Holdings, LLC	11,854	(9,303)	2,551	(154)				2,397
Joint venture - VCSA								
Juntos Somos Mais Fidelização S.A.	124,341	(31,596)	92,745	(131,233)	(5,278)	4,721		(39,045)

								Consolidated
								2022
	Revenue from contracts with customers	Cost of goods sold and services rendered	Gross profit	Financial results, expenses	Results of investees	Financial results, net	Income tax and social contribution	Profit (loss) for the year
Investments accounted for using the equity method								
Associates								
Votorantim Cimentos International S.A.								
Cementos Avellaneda S.A.	2,554,021	(1,913,700)	640,321	(182,554)		(49,170)	(288,045)	120,552
Cementos Especiales de las Islas, S.A.	375,563	(320,456)	55,107	(7,054)		689	(11,059)	37,683
Silcar Empreendimentos Comércio e Participações Ltda.								
Supermix Concreto S.A.	2,813,787	(2,564,116)	249,671	(91,236)	4,631	(23,943)	(44,479)	94,644
IMIX Empreendimentos Imobiliários Ltda.	7,788	(96)	7,692	(286)		563	(863)	7,106
Joint ventures - St. Marys								
Hutton Transport Limited	137,779	(104,511)	33,268	(3,752)		515		30,031
Midway Group, LLC.	180,936	(164,049)	16,887	(1,944)		11		14,954
RMC Leasing	8,123	(6,735)	1,388					1,388
Joint venture - VCSA								
Juntos Somos Mais Fidelização S.A.	96,957	(25,405)	71,552	(167,397)	(394)	6,868		(89,371)

All amounts in thousands of reais unless otherwise stated

(e) Changes

		Parent company		Consolidated	
	Note	2023	2022	2023	2022
Balance at the beginning of the year		14,406,875	12,936,567	1,369,685	1,329,101
Equity in the results of investees		2,049,503	632,266	55,078	52,100
Approved dividends (i)		(400,715)	(42,144)	(94,541)	(94,755)
Currency translation adjustment - foreign investments	25(e)	(950,773)	(698,668)	(293,829)	17,150
Hedge of net investment	25(e)	57,282	(135,073)		
Capital increase - Votorantim Cimentos International S.A.			1,555,725		
Capital increase - Juntos Somos Mais S.A.			13,500		13,500
Capital increase - Pinheiro Machado Participações S.A.			3,614		3,614
Financial costs assumed by VC Latam on the conversion of approved dividends in local currency by the investee in Argentina	15(c)(ii)				26,628
Reversal of accrued dividends in 2021			66,214		
Accounting adjustments from the adoption of CPC 32 / IAS 12	5.2.1(a)	(3,019)			
Acquisition of interest - Grundy	15(c)(i)			26,076	
Increase in interest - Grundy	15(c)(i)			2,410	
Effect from investee of the credit risk of the debt measured at fair value recorded in "Other comprehensive income"		(493)	(2,171)		
Effect of initial hyperinflation accounting adjustments - subsidiaries			88,395		
. Effect from investees of other comprehensive income			23,034		
Other		2,931	(34,384)	(23,725)	22,347
Balance at the end of the year		15,161,591	14,406,875	1,041,154	1,369,685

(i) Dividends declared are presented in the table below:

	Original amount	Currency	Amount in reais	Participation (%)	Attributable to the Company
Parent company					
Votorantim Cimentos N/NE S.A.	383,215	BRL	383,215	100.00	383,215
Pinheiro Machado Participações S.A.	17,500	BRL	17,500	100.00	17,500
					400,715
Consolidated					
Cementos Avellaneda S.A.	9,779,518	ARS	139,945	49.00	68,573
Supermix Concreto S.A.	35,000	BRL	35,000	25.00	8,750
Midway Group, LLC	4,000	USD	24,618	50.00	12,309
Imix Empreendimentos Imobiliários Ltda.	14,000	BRL	14,000	25.00	3,500
Hutton Transport Limited	1,139	USD	5,637	25.00	1,409
					94,541

16 Property, plant and equipment

(a) Accounting policies

Property, plant and equipment are stated at their historical cost of acquisition or construction, less accumulated depreciation. The historical cost includes borrowing costs related to the acquisition or construction of qualifying assets.

Subsequent costs are included in the asset's carrying amount, or recognized as a separate asset, as appropriate, only when it is probable that future economic benefits associated with these costs will flow to the Company, and they can be measured reliably. The carrying amounts of the replaced items or parts are derecognized.

All other repairs and maintenance are charged to the statement of income during the financial period in which they are incurred. The cost of major refurbishments is included in the carrying value of the asset when the future economic benefits exceed the performance initially expected from the original asset. Refurbishment expenses are depreciated over the remaining useful life of the asset.

Except for land that is not depreciated, the depreciation of assets is calculated using the straight-line method to reduce their cost to their residual values over their estimated useful lives. The assets' residual values and useful lives are reviewed annually and adjusted if appropriate.

An asset's carrying amount is written down immediately to its recoverable amount when it is greater than its estimated recoverable amount.

Gains and losses on disposals are determined by comparing the proceeds with the carrying amount and are recognized within "Other operating income (expenses), net" (Note 28).

The accounting policy for impairment of non-financial assets is presented in Note 5.6.2(a).

All amounts in thousands of reais unless otherwise stated

(b) Analysis and changes

								Parent company
								2023
	Land and improvements	Buildings	Machinery, equipment and facilities	Vehicles	Furniture and fixtures	Construction in progress	Leasehold improvements	Total
Balance at the beginning of the year								
Cost	373,770	1,384,671	7,232,254	334,619	53,296	438,468	38,704	9,855,782
Accumulated depreciation	(50,175)	(650,069)	(4,005,018)	(224,898)	(50,210)		(21,809)	(5,002,179)
Net balance	323,595	734,602	3,227,236	109,721	3,086	438,468	16,895	4,853,603
Additions			2,720			830,108		832,828
Disposals	(730)		(8,223)	(476)	(4)			(9,433)
Depreciation	(3,325)	(24,112)	(269,164)	(30,966)	(1,936)		(1,396)	(330,899)
Transfers	6,256	17,221	257,774	8,717	892	(313,439)	22,579	
Balance at the end of the year	325,796	727,711	3,210,343	86,996	2,038	955,137	38,078	5,346,099
Cost	388,635	1,413,698	7,469,141	333,801	51,201	955,137	40,365	10,651,978
Accumulated depreciation	(62,839)	(685,987)	(4,258,798)	(246,805)	(49,163)		(2,287)	(5,305,879)
Net balance at the end of the year	325,796	727,711	3,210,343	86,996	2,038	955,137	38,078	5,346,099
Average annual depreciation rates - %	5	2	5	20	10		2	

All amounts in thousands of reais unless otherwise stated

								Parent company
								2022
	Land and improvements	Buildings	Machinery, equipment and facilities	Vehicles	Furniture and fixtures	Construction in progress	Leasehold improvements	Total
Balance at the beginning of the year								
Cost	376,259	1,380,915	7,063,503	272,874	58,957	265,317	43,078	9,460,903
Accumulated depreciation	(48,062)	(638,932)	(3,847,923)	(242,699)	(53,913)		(21,701)	(4,853,230)
Net balance	328,197	741,983	3,215,580	30,175	5,044	265,317	21,377	4,607,673
Additions			2,830			588,921		591,751
Disposals	(109)	(552)	(13,215)	(457)	(267)		(806)	(15,406)
Depreciation	(2,773)	(23,821)	(259,749)	(16,153)	(2,198)		(1,743)	(306,437)
(Provision for) reversal of impairment	(4,425)	(34)	83		60			(4,316)
Transfers to intangible assets						(19,662)		(19,662)
Transfers	2,705	17,026	281,707	96,156	447	(396,108)	(1,933)	
Balance at the end of the year	323,595	734,602	3,227,236	109,721	3,086	438,468	16,895	4,853,603
Cost	373,770	1,384,671	7,232,254	334,619	53,296	438,468	38,704	9,855,782
Accumulated depreciation	(50,175)	(650,069)	(4,005,018)	(224,898)	(50,210)		(21,809)	(5,002,179)
Net balance at the end of the year	323,595	734,602	3,227,236	109,721	3,086	438,468	16,895	4,853,603
Average annual depreciation rates - %	5	2	5	20	10		2	

All amounts in thousands of reais unless otherwise stated

									Consolidated
									2023
	Land and improvements	Buildings	Machinery, equipment and facilities	Vehicles	Furniture and fixtures	Construction in progress	Leasehold improvements	Other	Total
Balance at the beginning of the year									
Cost	1,546,838	7,496,235	27,105,552	1,825,628	217,581	1,904,690	755,177	87,237	40,938,938
Accumulated depreciation	(72,117)	(3,788,162)	(16,961,075)	(1,213,847)	(184,341)		(535,470)	(61,162)	(22,816,174)
Net balance	1,474,721	3,708,073	10,144,477	611,781	33,240	1,904,690	219,707	26,075	18,122,764
Additions	394	14,983	38,750	1,235	919	2,159,835		2,682	2,218,798
Disposals	(1,426)	(106)	(18,002)	(599)	(643)	(27)			(20,803)
Depreciation	(5,481)	(143,629)	(1,033,375)	(147,823)	(8,890)		(31,624)		(1,370,822)
Exchange variations	(37,739)	(142,510)	(259,470)	(20,715)	(1,164)	(72,152)	(7,137)		(540,887)
Acquisition of subsidiary (i)	1,292	2,219	2,172	3,772					9,455
Reclassification for assets held for sale	(84)	(58)	(8)						(150)
(Provision for) reversal of impairment	(2,695)	47,143	53,407	400	467	(35,116)			63,606
Transfers	5,514	80,907	1,041,044	127,238	3,836	(1,339,049)	80,510		
Balance at the end of the year	1,434,496	3,567,022	9,968,995	575,289	27,765	2,618,181	261,456	28,757	18,481,961
Cost	1,522,764	7,344,472	27,211,516	1,854,575	209,522	2,618,181	762,430	89,919	41,613,379
Accumulated depreciation	(88,268)	(3,777,450)	(17,242,521)	(1,279,286)	(181,757)		(500,974)	(61,162)	(23,131,418)
Net balance at the end of the year	1,434,496	3,567,022	9,968,995	575,289	27,765	2,618,181	261,456	28,757	18,481,961
Average annual depreciation rates - %	5	3	6	16	12		10	4	

(i) Refers to the acquisition of a concrete business in the US by the indirect subsidiary Superior Materials Holdings, LLC for a total consideration of R$ 15,073, of which R$ 9,455 of the net assets acquired were allocated to property, plant and equipment and R$ 5,299 to intangible assets (Note 17(b)).

All amounts in thousands of reais unless otherwise stated

Consolidated
2022

	Land and improvements	Buildings	Machinery, equipment and facilities	Vehicles	Furniture and fixtures	Construction in progress	Leasehold improvements	Other	Total
Balance at the beginning of the year									
Cost	1,603,343	6,535,747	25,447,598	1,747,457	260,677	1,273,979	818,752	85,888	37,773,441
Accumulated depreciation	(68,009)	(2,531,839)	(14,904,845)	(1,180,979)	(223,897)		(534,893)	(61,151)	(19,505,613)
Net balance	1,535,334	4,003,908	10,542,753	566,478	36,780	1,273,979	283,859	24,737	18,267,828
Effect of initial hyperinflation accounting adjustment	4,317	35,609	65,270	1,465		3,695			110,356
Additions	1,522	6,467	28,301	813	3,688	1,800,152		2,886	1,843,829
Disposals	(14,098)	(2,854)	(52,340)	(1,369)	(414)	(6)	(1,322)	(1,537)	(73,940)
Depreciation	(4,751)	(153,838)	(996,887)	(130,144)	(11,153)		(35,111)	(11)	(1,331,895)
Exchange variations	(104,043)	(247,532)	(493,973)	(41,853)	(3,196)	(37,486)	(29,051)		(957,134)
Acquisition of subsidiary	38,682	24,499	242,284		409	35,712			341,586
(Provision for) reversal of impairment	(4,425)	(34)	83		60				(4,316)
Transfers to intangible assets	(2,446)	5				(71,109)			(73,550)
Transfers	24,629	41,843	808,986	216,391	7,066	(1,100,247)	1,332		
Balance at the end of the year	1,474,721	3,708,073	10,144,477	611,781	33,240	1,904,690	219,707	26,075	18,122,764
Cost	1,546,838	7,496,235	27,105,552	1,825,628	217,581	1,904,690	755,177	87,237	40,938,938
Accumulated depreciation	(72,117)	(3,788,162)	(16,961,075)	(1,213,847)	(184,341)		(535,470)	(61,162)	(22,816,174)
Net balance at the end of the year	1,474,721	3,708,073	10,144,477	611,781	33,240	1,904,690	219,707	26,075	18,122,764
Average annual depreciation rates - %	5	3	6	15	12		10	4	

All amounts in thousands of reais unless otherwise stated

(c) Construction in progress

The construction in progress reflects investments and projects under construction by the Company and its subsidiaries that have not yet started operating at the end of the year, mainly represented by the acquisition or replacement of industrial machinery and equipment for plants and mines (sustaining), investments in industrial modernization projects and expansion of production capacity, as well as new technologies related to decarbonization goals (environment and safety).

On December 31, 2023 and 2022, works balances are for the following categories:

	Parent company		Consolidated	
	2023	2022	2023	2022
Sustaining	411,124	176,086	1,024,030	848,335
Industrial modernization	303,626	134,066	955,640	618,962
Environment and safety	133,902	78,212	271,289	193,993
Expansion	76,285	37,260	286,048	153,003
Other	30,200	12,844	81,174	90,397
	955,137	438,468	2,618,181	1,904,690

The balance of construction in progress at the end of the year reflects diverse projects dispersed among the plants, mines and regions where the Company operates, with no significant concentration on specific projects.

Borrowing costs capitalized as part of construction in progress totaled R$ 20,526 in the parent company (December 31, 2022 - R$ 9,717) and R$ 23,787 in the consolidated (December 31, 2022 - R$ 23,833). For the companies located in Brazil, the capitalization rate used was 9.01% p.a. (December 31, 2022 - 8.96% p.a.).

17 Intangible assets

(a) Accounting policies

(i) Goodwill

The goodwill arising from acquisitions of subsidiaries is recognized at the acquisition date and is measured as the amount exceeding the sum of (i) the consideration transferred in exchange for the control over the acquiree generally the fair value at the acquisition date; (ii) any non-controlling interests in the acquiree; (iii) if the business combination is performed in stages, the fair value, at the acquisition date, of the acquirer's equity interest in the acquiree immediately before the combination; and (iv) the net value, at the acquisition date, of the identifiable assets acquired and liabilities assumed. Acquisition-related costs are expensed as incurred.

Goodwill on acquisitions of subsidiaries is recorded as "Intangible assets" in the consolidated financial statements and as "Investments" in the parent company financial statements. The goodwill of associates and joint ventures is recorded as "Investments". The recoverability of goodwill is evaluated annually for impairment losses. Goodwill is allocated for the purpose of impairment testing to those cash-generating units ("CGUs") or groups of CGUs that are expected to benefit from the business combination in which the goodwill arose. The accounting policy for impairment of non-financial assets is presented in Note 5.6.2(a).

Gains and losses on the disposal of an entity include the carrying amount of goodwill relating to the entity sold.

(ii) Exploration rights over mineral resources

When the economic feasibility of the mineral reserves is proven, the consideration paid to acquire the mining exploration rights is capitalized. In mining operations related to the cement business, it is necessary to remove overburden and other waste materials to access ore. The process of mining overburden and waste materials is referred to as stripping. During the development of a mine, before production commences or when opening a new front, stripping costs are capitalized as intangible assets. During the production phase, and to access new deposits, removal costs are capitalized as intangible assets; for other cases these costs are recognized as part of inventory.

When the mine becomes operational the cumulative costs capitalized in relation to exploration rights are amortized over the useful life of the mine using units of production or the straight-line method.

(iii) Software

The costs of acquiring software are capitalized and amortized using the straight-line method over their useful lives. Costs associated with maintenance are recognized as expenses as incurred. Currently, the Company does not have internal software development projects.

(iv) Use of public assets

Use of public assets refer to the exploration rights of hydroelectric power plants, through a contract with the government that establishes the term, conditions and amount to be paid by the Company. Assets recognized as use of public assets are designated for own use only and not for public use or sale of services to third parties.

The future obligations discounted to present value by the future payment flow is recognized upon the release of the operating license, regardless of the disbursement schedule established in the contract. The amount is initially recognized as a liability (obligation) and intangible asset (asset of right of use of public assets).

Amortization of intangible assets is calculated using the straight-line method over the remaining term of the concession (which is the same as the period of operation). Financial liabilities increase to reflect interest on present value adjustments and decrease with payments made.

(v) Contractual customer relationships and non-compete agreements

Customer relationship clauses and non-compete agreements acquired in business combinations are recognized at fair value on the acquisition date. These clauses have a finite useful life and are measured at cost, less accumulated amortization. Amortization is calculated using the straight-line method over the estimated useful life, being 15 years for "customer relationships" and five years for "non-compete agreements".

(vi) Asset Retirement Obligation (ARO)

The Company has decommissioning obligations as a result of the natural resource extraction activities. The accounting policies related to the liability entry of the Asset Retirement Obligations are presented in Note 22(a)(ii).

The decommissioning costs, equivalent to the present value of the obligation (liability), are capitalized as part of the carrying amount of the mining asset. The asset is amortized on a straight-line basis over the remaining useful life of the mine. The Company periodically reviews the useful lives of its mines and the estimated future value necessary for the recovery of the explored area.

(vii) CO2 emission rights

Some subsidiaries are subject to regulatory cap-and-trade mechanisms in relation to greenhouse gas emissions. Emission rights granted free of charge are initially measured at a nominal value of zero. Emission rights acquired for consideration are accounted for at cost and are subject to reduction in the event of impairment.

A provision is recognized if actual CO2 emissions up to the reporting date are not covered by freely granted emission rights. The provision for such insufficiency is measured at market value on the balance sheet date and presented under "Other liabilities" in the consolidated balance sheet with a corresponding entry in "Other operating income (expenses), net" (Note 28).

All amounts in thousands of reais unless otherwise stated

(b) Analysis and changes

							Parent company 2023
	Exploration rights over natural resources	Goodwill	ARO and terms of commitment	Software	Intangible assets in progress (i)	Other	Total
Balance at the beginning of the year							
Cost	1,074,541	75,882	171,991	273,200	52,441	2,577	1,650,632
Accumulated amortization and depletion	(599,691)		(45,983)	(223,576)		(6)	(869,256)
Net balance	474,850	75,882	126,008	49,624	52,441	2,571	781,376
Additions			627		136,686		137,313
Disposals			(10,143)				(10,143)
Amortization and depletion	(47,993)		(8,592)	(23,685)			(80,270)
Review of provision due to change in estimate (ii)			(6,601)				(6,601)
Transfers	59,540			33,442	(92,982)		
Balance at the end of the year	486,397	75,882	101,299	59,381	96,145	2,571	821,675
Cost	1,134,082	75,882	155,659	306,644	96,145	2,577	1,770,989
Accumulated amortization and depletion	(647,685)		(54,360)	(247,263)		(6)	(949,314)
Net balance at the end of the year	486,397	75,882	101,299	59,381	96,145	2,571	821,675
Average annual amortization and depletion rates - %	4		3	20			

							Parent company 2022
	Exploration rights over natural resources	Goodwill	ARO and terms of commitment	Software	Intangible assets in progress (i)	Other	Total
Balance at the beginning of the year							
Cost	1,014,037	75,882	98,618	265,124		2,987	1,456,648
Accumulated amortization and depletion	(560,272)		(43,764)	(208,841)		(302)	(813,179)
Net balance	453,765	75,882	54,854	56,283		2,685	643,469
Additions			16,346		109,029		125,375
Disposals	(91)		(1,080)	(2)		(122)	(1,295)
Amortization and depletion	(39,477)		(3,239)	(22,242)		(4)	(64,962)
Review of provision due to change in estimate (ii)			59,127				59,127
Transfers from property, plant and equipment					19,662		19,662
Transfers	60,653			15,585	(76,250)	12	
Balance at the end of the year	474,850	75,882	126,008	49,624	52,441	2,571	781,376
Cost	1,074,541	75,882	171,991	273,200	52,441	2,577	1,650,632
Accumulated amortization and depletion	(599,691)		(45,983)	(223,576)		(6)	(869,256)
Net balance at the end of the year	474,850	75,882	126,008	49,624	52,441	2,571	781,376
Average annual amortization and depletion rates - %	3		3	20			

All amounts in thousands of reais unless otherwise stated

									Consolidated
									2023
	Exploration rights over natural resources	Goodwill	Use of public assets and renegotiation of hydrological risk	ARO and terms of commitment	Contractual customer relationships and agreements	Software	Intangible assets in progress (i)	Other	Total
Balance at the beginning of the year									
Cost	4,650,956	4,886,656	256,171	634,871	665,663	566,850	119,676	66,104	11,846,947
Accumulated amortization and depletion	(1,898,730)		(112,341)	(230,591)	(425,640)	(454,651)		(22,914)	(3,144,867)
Net balance	2,752,226	4,886,656	143,830	404,280	240,023	112,199	119,676	43,190	8,702,080
Additions	41			627		9,751	187,231	116	197,766
Disposals	(241)			(7,919)				(19,868)	(28,028)
Amortization and depletion	(100,908)		(6,742)	(60,863)	(27,553)	(48,221)		(676)	(244,963)
Exchange variations	(112,422)	(282,989)		(32,667)	(12,453)	(1,146)	(12,924)	(449)	(455,050)
Review of provision due to change in estimate (ii)				(14,868)					(14,868)
Acquisition of subsidiary		5,299							5,299
Provision for impairment	(70,172)			(22,297)					(92,469)
Transfers	81,338			516		52,315	(134,852)	683	
Balance at the end of the year	2,549,862	4,608,966	137,088	266,809	200,017	124,898	159,131	22,996	8,069,767
Cost	3,998,951	4,608,966	256,171	546,000	622,090	613,345	159,131	45,750	10,850,404
Accumulated amortization and depletion	(1,449,089)		(119,083)	(279,191)	(422,073)	(488,447)		(22,754)	(2,780,637)
Net balance at the end of the year	2,549,862	4,608,966	137,088	266,809	200,017	124,898	159,131	22,996	8,069,767
Average annual amortization and depletion rates - %	5		3	6	7	21		20	

All amounts in thousands of reais unless otherwise stated

									Consolidated
									2022
	Exploration rights over natural resources	Goodwill	Use of public assets and renegotiation of hydrological risk	ARO and terms of commitment	Contractual customer relationships and agreements	Software	Intangible assets in progress (i)	Other	Total
Balance at the beginning of the year									
Cost	4,313,987	5,349,707	256,171	604,228	713,699	517,491		257,499	12,012,782
Accumulated amortization and depletion	(1,381,812)		(105,599)	(230,700)	(407,249)	(414,808)		(22,504)	(2,562,672)
Net balance	2,932,175	5,349,707	150,572	373,528	306,450	102,683		234,995	9,450,110
Effect of initial adoption of accounting for a hyperinflationary economy	239					319			558
Additions				31,410		9,086	176,122	548	217,166
Disposals	(11,726)	(4,418)		(2,050)	(464)	(2)		(176,701)	(195,361)
Amortization and depletion	(93,276)		(6,742)	(30,692)	(42,479)	(47,545)		(604)	(221,338)
Exchange variations	(168,073)	(458,633)		(48,456)	(19,867)	(5,530)	1,686	(35,366)	(734,239)
Review of provision due to change in estimate (ii)				54,450					54,450
Acquisition of subsidiary	25,607			12,428		27		19,122	57,184
Transfers from property, plant and equipment				2,441			70,746	363	73,550
Transfers	67,280			11,221	(3,617)	53,161	(128,878)	833	
Balance at the end of the year	2,752,226	4,886,656	143,830	404,280	240,023	112,199	119,676	43,190	8,702,080
Cost	4,650,956	4,886,656	256,171	634,871	665,663	566,850	119,676	66,104	11,846,947
Accumulated amortization and depletion	(1,898,730)		(112,341)	(230,591)	(425,640)	(454,651)		(22,914)	(3,144,867)
Net balance at the end of the year	2,752,226	4,886,656	143,830	404,280	240,023	112,199	119,676	43,190	8,702,080
Average annual amortization and depletion rates - %	5		3	6	7	21		20	

(i) The additions to "Intangible assets in progress" refer to stripping costs to access new mineral deposits in operating mines, as well as to software projects.

(ii) The effect of reviewing the provision for changes in the ARO estimate mainly refers to updating closure plans, revising the useful lives of mines and updating future disbursement flow inflation rates and discount rates.

All amounts in thousands of reais unless otherwise stated

(c) Goodwill

The table below shows the goodwill recorded under "Intangible Assets" allocated for purposes of impairment tests to Cash Generating Units (CGUs) and at the operating segment level:

	Parent company		Consolidated	
	2023	2022	2023	2022
North America (i)			2,802,572	3,012,296
Europe, Asia and Africa			1,653,547	1,720,843
Latin America (ii)			12,780	13,450
Brazil	75,882	75,882	140,067	140,067
	75,882	75,882	4,608,966	4,886,656

(i) Goodwill recorded in the North America operating segment is also allocated as part of the carrying amount of the investment in the associate Hutton Transport Limited in the amount of R$ 10,828 (R$ 11,461 in 2022) (Note 15(c)).

(ii) In the Latin America operating segment, goodwill from operations in Argentina is also allocated, which is recorded as part of the carrying amount of the investment in the associate Cementos Avellaneda S.A. in the amount of R$ 171,074 (R$ 272,194 in 2022) (Note 15(c)).

18 Right-of-use assets

(a) Accounting policies

The Company recognizes, on the commencement date of the contract, a lease liability that reflects future agreed payments, against a right-of-use asset.

The asset is amortized monthly over the lease term, which is defined as the non-cancellable term, plus the term covered by the extension option, plus the term covered by the termination option and Management's intention as to exercise or not such options based on facts and circumstances specific to each lease contract.

The liability is adjusted to the present value of the obligation based on the internal rate implicit in the contract or the incremental rate, which must reflect the cost of acquisition by the Company of debt with characteristics similar to those determined by the lease contract, with regard to the term, amount, guarantee and economic environment. The liability is settled according to the flow of payments made to the lessor.

The Company does not recognize the right-of-use asset and the lease liability of lease agreements for low-value assets or contracts with a duration of less than twelve months. For these contracts, the lease expense is recognized on a straight-line basis in profit or loss over the term of the contract. The amount of these expenses recognized in profit or loss was presented in Note 27.

The amortization expense on the right-of-use asset is recorded as part of the cost of the product sold or as an operating expense, depending on the characteristics of use of the leased asset, and the interest expense of discounting the lease liability to its present value is recorded in the financial results, net.

All amounts in thousands of reais unless otherwise stated

(b) Analysis and changes in right-of-use assets

				Parent company
				2023
	Buildings	Machinery and equipment	Vehicles	Total
Balance at the beginning of the year				
Cost	135,551	69,946	6,653	212,150
Accumulated amortization	(92,049)	(61,219)	(5,931)	(159,199)
Net balance	43,502	8,727	722	52,951
Additions	16,142	59,869	2,282	78,293
Amortization	(13,933)	(19,015)	(1,110)	(34,058)
Balance at the end of the year	45,711	49,581	1,894	97,186
Cost	151,694	129,815	8,935	290,444
Accumulated amortization	(105,983)	(80,234)	(7,041)	(193,258)
Net balance at the end of the year	45,711	49,581	1,894	97,186
Average annual amortization rates - %	18	26	33	

				Parent company
				2022
	Buildings	Machinery and equipment	Vehicles	Total
Balance at the beginning of the year				
Cost	117,037	69,945	6,654	193,636
Accumulated amortization	(71,497)	(44,505)	(4,491)	(120,493)
Net balance	45,540	25,440	2,163	73,143
Additions	18,516			18,516
Amortization	(20,554)	(16,713)	(1,441)	(38,708)
Balance at the end of the year	43,502	8,727	722	52,951
Cost	135,551	69,946	6,653	212,150
Accumulated amortization	(92,049)	(61,219)	(5,931)	(159,199)
Net balance at the end of the year	43,502	8,727	722	52,951
Average annual amortization rates - %	18	25	33	

All amounts in thousands of reais unless otherwise stated

							Consolidated
							2023
	Land	Buildings	Machinery and equipment	Vehicles	Vessels	IT equipment	Total
Balance at the beginning of the year							
Cost	566,290	180,986	282,896	225,672	838,209	1,163	2,095,216
Accumulated amortization	(90,616)	(120,434)	(212,394)	(166,036)	(378,729)	(284)	(968,493)
Net balance	475,674	60,552	70,502	59,636	459,480	879	1,126,723
Remeasurement of principal		(1,467)					(1,467)
Additions	9,034	21,686	106,787	15,961	12,498		165,966
Disposals	(1,302)	(147)	(952)	(137)			(2,538)
Amortization	(29,190)	(19,310)	(71,715)	(24,674)	(107,664)	(276)	(252,829)
Exchange variations and effects of hyperinflation, net	(27,238)	(556)	(5,517)	(3,793)	(25,308)	(65)	(62,477)
Balance at the end of the year	426,978	60,758	99,105	46,993	339,006	538	973,378
Cost	533,660	198,674	371,393	221,572	794,415	1,120	2,120,834
Accumulated amortization	(106,682)	(137,916)	(272,288)	(174,579)	(455,409)	(582)	(1,147,456)
Net balance at the end of the year	426,978	60,758	99,105	46,993	339,006	538	973,378
Average annual amortization rates - %	15	18	29	29	9	33	

							Consolidated
							2022
	Land	Buildings	Machinery and equipment	Vehicles	Vessels	IT equipment	Total
Balance at the beginning of the year							
Cost	570,192	163,003	265,918	231,006	855,566	1,097	2,086,782
Accumulated amortization	(68,088)	(93,498)	(156,558)	(150,858)	(265,893)	(295)	(735,190)
Net balance	502,104	69,505	109,360	80,148	589,673	802	1,351,592
Effect of initial adoption of accounting for a hyperinflationary economy	440	240	378	617			1,675
Additions	30,439	20,335	39,302	10,780	77,191	385	178,432
Acquisition of subsidiary	4,814		4,496	591			9,901
Disposals				(106)			(106)
Amortization	(27,549)	(27,468)	(77,753)	(31,902)	(128,716)	(234)	(293,622)
Exchange variations and effects of hyperinflation, net	(34,574)	(2,060)	(5,281)	(492)	(78,668)	(74)	(121,149)
Balance at the end of the year	475,674	60,552	70,502	59,636	459,480	879	1,126,723
Cost	566,290	180,986	282,896	225,672	838,209	1,163	2,095,216
Accumulated amortization	(90,616)	(120,434)	(212,394)	(166,036)	(378,729)	(284)	(968,493)
Net balance at the end of the year	475,674	60,552	70,502	59,636	459,480	879	1,126,723
Average annual amortization rates - %	10	12	25	25	9	26	

All amounts in thousands of reais unless otherwise stated

(c) Analysis and changes of lease liabilities

	Parent company		Consolidated	
	2023	2022	2023	2022
Balance at the beginning of the year	52,718	74,638	1,200,684	1,367,885
Remeasurement of principal			1,467	
Additions	78,293	18,516	165,966	178,432
Acquisition of subsidiary				10,432
Disposals			(2,538)	(96)
Payments	(41,792)	(44,294)	(320,897)	(286,646)
Present value adjustment	6,784	3,858	47,076	47,553
Exchange variations			(79,834)	(116,876)
Balance at the end of the year	96,003	52,718	1,011,924	1,200,684
Current	25,641	22,732	144,013	165,883
Non-current	70,362	29,986	867,911	1,034,801
	96,003	52,718	1,011,924	1,200,684

(d) Term and average discount rate

Terms	Consolidated
2 years	3.19%
4 years	13.04%
6 years	11.11%
8 years	3.10%
Over 8 years	3.86%

(e) Other disclosures

Pursuant to CVM guidance in CVM Circular Letter SNC/SEP 02/2019, the Company the nominal effects on lease liabilities, right-of-use assets, financial expenses and amortization expenses, considering the estimated payment flows with inflation adjustments of 4.0% for the Parent Company and subsidiaries in Brazil, and 2.3% for subsidiaries abroad.

	Consolidated	
	2023	2022
Lease liability		
Accounting - IFRS16/CPC 06	293,329	286,646
Payment flow with projected inflation	301,047	294,172
Variation	2.63%	2.63%
Right-of-use assets		
Accounting - IFRS16/CPC 06	973,378	1,126,723
Payment flow with projected inflation	997,784	1,153,658
Variation	2.51%	2.39%
Financial expenses		
Accounting - IFRS16/CPC 06	47,075	47,553
Payment flow with projected inflation	48,298	48,727
Variation	2.60%	2.47%
Amortization expenses		
Accounting - IFRS16/CPC 06	252,827	293,623
Payment flow with projected inflation	259,368	301,191
Variation	2.59%	2.58%

19 Borrowings

(a) Accounting policies

(i) Measurement at amortized cost

Borrowings are recognized initially at fair value, net of transaction costs incurred, and subsequently carried at amortized cost. Any difference between the proceeds (net of transaction costs) and the total amount payable is recognized in profit or loss over the period of the borrowings using the effective interest rate method.

(ii) Measurement at fair value through profit or loss

Derivative financial instruments are contracted for foreign currency borrowings raised under Law 4,131/1962, which regulates foreign capital in Brazil, exchanging US Dollar exposure for Reais and as hedges of interest rates by exchanging fixed rates for floating rates linked to the CDI. The Company also has an operation which exchange the floating LIBOR rate for CDI, in addition to the hedge of the exchange flow, whose benchmark was changed due to the IBOR reform (Note 19(b).

Borrowings related to the International Finance Corporation (IFC) in the total amount of USD 150 million, equivalent to R$ 747 million, with a total term of 10 years, include derivative financial instruments (cross-currency swaps) aiming both to exchange exposure to the floating rate in Dollars for the CDI floating rate, and to exchange currency from Dollars to Reais. This swap was contracted with another financial institution, resulting in a CDI floating rate + spread.

The terms and conditions of the borrowings are equivalent to those of the respective derivatives, achieving a floating CDI rate and Reais debt profile. The difference in the measurement between the two instruments (borrowing at amortized cost x derivative at fair value), creates an accounting mismatch in profit or loss. The Company designated at fair value the contracts up to 2020 (fair value option), resulting in the measurement of the debt being at fair value through profit or loss.

The fair value of these financial instruments takes into account the Company's credit risk, which is calculated based on market data. The change in the fair value of a financial liability that is attributable to changes in credit risk is recorded in shareholders' equity in "Carrying value adjustments". If the classification of credit risk in shareholders' equity creates or increases an accounting mismatch in profit or loss, the Company presents all gains or losses in profit or loss for the year. The accumulated effects of changes in credit risk remains in "Carrying value adjustments" until the settlement of the financial instrument, when they are reclassified to retained earnings, without affecting profit or loss.

To mitigate the effects of market volatilities and, consequently, the implicit credit risk, contracts made from 2021 onwards were not designated as fair value hedges and, therefore, borrowings are measured at amortized cost to mitigate fluctuations in profit or loss, while the corresponding swaps, as they are derivatives, are measured at fair value through profit or loss (Note 6.4.3(b)).

(iii) Calculation method

For floating rate debt, the future value is estimated based on the cash flow projected at the market interest rate of the currency in which the debt is denominated, plus the spread established in the contract. The exceptions are fixed-rate contracts, where the future value is estimated by the projected cash flow at the fixed rate established upon the contracting date.

The present value of US Dollar-denominated debt is measured by discounting the cash flow using the foreign exchange coupon curve (the remuneration, in US Dollars, of the reais invested in Brazil), considering the Company's credit risk based on external risk classifications and internal assessment methodologies.

Due to the term and materiality of these loans, variations in the market rates in which these borrowings are denominated as well as in the discount rates, however small these may be, can cause significant variations in the amount recognized.

The future values of the short and long positions of swaps linked to these borrowings are also estimated at the market rates of the currencies in which the swap positions are denominated. As with debt, the present value of a US Dollar-denominated position is measured by discounting the cash flow using the foreign exchange coupon curve - discounted, in the case of a Reais-denominated position, using the Brazilian interest rate yield curve, with the future DI curve as disclosed by B3 S.A. - Brasil, Bolsa, Balcão, considering both the credit risk of the Company and of the counterparty depending on the estimated adjustment.

(iv) Borrowing costs

Borrowing costs related to the acquisition, construction or production of a qualifying asset for completion over longer periods (usually 12 months) to prepare them for intended use or sale are capitalized as part of the cost of that asset. Borrowing costs consist of interest and other costs that an entity incurs in connection with funding. Other borrowing costs, including changing rates, are recognized as an expense in the period in which they are incurred.

All amounts in thousands of reais unless otherwise stated

(b) Analysis and fair value

		Parent company							
		Current		Non-current		Total		Fair value (ii)	
Type	Average annual cost	2023	2022	2023	2022	2023	2022	2023	2022
Local currency									
Debentures	CDI + 1.54%	49,882	71,537	2,442,069	2,308,519	2,491,951	2,380,056	2,642,150	2,493,928
Debentures CRI	IPCA + 4.85%/11.51% Fixed BRL	3,465	3,928	1,259,537	718,114	1,263,002	722,042	1,173,507	610,253
FINAME	3.91% Fixed BRL	55	1,897		55	55	1,952	55	1,887
		53,402	77,362	3,701,606	3,026,688	3,755,008	3,104,050	3,815,712	3,106,068
Foreign currency									
Borrowings - Law 4,131/1962 (i)	SOFR (iii) + 1.87% / 3.09% Fixed USD	5,114	5,318	1,336,475	1,678,062	1,341,589	1,683,380	1,311,823	1,648,127
Development and/or multilateral agency	SOFR + 1.40%	17,380		716,331		733,711		733,711	
		75,896	82,680	5,754,412	4,704,750	5,830,308	4,787,430	5,861,246	4,754,195
Interest on borrowings		82,352	85,237						
Current portion of long-term borrowings (principal)		(6,456)	(2,557)						
		75,896	82,680						

All amounts in thousands of reais unless otherwise stated

									Consolidated
		Current		Non-current		Total		Fair value (ii)	
Type	Average annual cost	2023	2022	2023	2022	2023	2022	2023	2022
Local currency									
Debentures	CDI + 1.54%	49,883	71,537	2,442,069	2,308,519	2,491,952	2,380,056	2,642,150	2,493,928
Debentures CRI	IPCA + 4.85% / 11.51 Fixed BRL	5,224	5,928	1,908,249	1,087,913	1,913,473	1,093,841	1,777,874	924,462
BNB	IPCA + 1.54%	10,977	11,065	57,880	68,729	68,857	79,794	70,151	82,672
FINAME	5.79% Fixed BRL	643	3,188		640	643	3,828	636	3,673
Other		6,803	6,376	20,932	10,502	27,735	16,878	27,735	16,836
		73,530	98,094	4,429,130	3,476,303	4,502,660	3,574,397	4,518,546	3,521,571
Foreign currency									
Eurobonds - USD	6.35% Fixed USD	79,053	86,377	3,915,854	4,326,517	3,994,907	4,412,894	4,317,254	4,574,089
Borrowings - Law 4,131/1962 (i)	SOFR (iii)1.87%/3.14% Fixed USD	6,327	6,599	1,568,997	1,926,080	1,575,324	1,932,679	1,545,558	1,897,426
Syndicated loans / bilateral agreements	1.20% CDOR/ 3.95% Fixed BOB/ 10.74% Fixed UYU EURIBOR + 1.61% 1.62% Fixed EUR	59,548	51,577	910,508	784,443	970,056	836,020	976,326	755,692
Local issuance in Bolivia - BOB	5.40% Fixed BOB	33,479	14,149	332,233	393,219	365,712	407,368	325,873	320,712
Development and/or multilateral agency	SOFR + 1.40%	17,380		716,331		733,711		733,711	
Other		2,666	5,552	2,323	4,677	4,989	10,229	4,990	10,210
		198,453	164,254	7,446,246	7,434,936	7,644,699	7,599,190	7,903,712	7,558,129
		271,983	262,348	11,875,376	10,911,239	12,147,359	11,173,587	12,422,258	11,079,700
Interest on borrowings		186,155	198,489						
Current portion of long-term borrowings (principal)		85,828	63,859						
		271,983	262,348						

CDI - Interbank Deposit Certificate
IPCA - Extended Consumer Price Index
FINAME - Financing of new machinery and equipment manufactured in Brazil at subsidized rates
BNB - Banco do Nordeste do Brasil S.A. (Bank of Northeast Brazil)
SOFR - Secured Overnight Financing Rate
EURIBOR - Euro Interbank Offered Rate
BRL - Reais

BOB - Boliviano
EUR - Euro
USD - US Dollar
TRY - Turkish Lira
CAD - Canadian Dollar
CDOR - Canadian Dollar Offered Rate
UYU - Uruguayan Peso

(i) Borrowings raised under Law 4,131/1962 include swap agreements (derivative financial instruments) exchanging a floating SOFR rate and a fixed rate for a floating CDI rate and exchanging US Dollar to Real. The accounting policy for these instruments is presented in Note 19(a).
(ii) The fair value of bonds is the unit price on the last trading day of the reporting period multiplied by the quantity issued. For other borrowings, the fair value is based on the amounts of contractual cash flow, and the discount rate used is based on the rate for contracting a new transaction in similar conditions or in the lack thereof, on the future yield curve for the flow of each obligation.
(iii) Benchmark changed to SOFR during 2023 (Note 19(h)).

All amounts in thousands of reais unless otherwise stated

(c) Maturity profile

The balances presented below do not agree directly to the balances presented in Note 19 (b), as the funding costs, fair value adjustment and credit risk adjustment are not included.

Parent company

	2024	2025	2026	2027	2028	2029	2030	As of 2031	Total
Local currency									
Debentures	51,939		450,000		500,000	1,000,000	500,000		2,501,939
Debentures CRI	6,975			149,038	149,038	149,038		842,573	1,296,662
FINAME	55								55
	58,969		450,000	149,038	649,038	1,149,038	500,000	842,573	3,798,656
% amortized per year	1.56%	0.00%	11.85%	3.92%	17.09%	30.24%	13.16%	22.18%	100.00%
Foreign currency									
Borrowings - Law 4,131/1962 (i)	5,639		484,130	77,461	793,973				1,361,203
Development and/or multilateral agency	18,467		48,413	96,826	96,826	96,826	96,826	290,478	744,662
	24,106		532,543	174,287	890,799	96,826	96,826	290,478	2,105,865
% amortized per year	1.14%	0.00%	25.29%	8.28%	42.30%	4.60%	4.60%	13.79%	100.00%
	83,075		982,543	323,325	1,539,837	1,245,864	596,826	1,133,051	5,904,521
% amortized per year	1.42%	0.00%	16.64%	5.48%	26.07%	21.10%	10.11%	19.19%	100.00%

All amounts in thousands of reais unless otherwise stated

Consolidated

	2024	2025	2026	2027	2028	2029	2030	As of 2031	Total
Local currency									
Debentures	51,939		450,000		500,000	1,000,000	500,000		2,501,939
Debentures CRI	10,568			225,815	225,815	225,815		1,276,626	1,964,639
FINAME	643								643
BNB	10,980	10,852	10,862	10,848	10,840	10,869	3,628		68,879
Other	6,803	10,502	10,431						27,736
	80,933	21,354	471,293	236,663	736,655	1,236,684	503,628	1,276,626	4,563,836
% amortized per year	1.77%	0.47%	10.33%	5.19%	16.14%	27.10%	11.04%	27.97%	100.00%
Foreign currency									
Eurobonds - USD	86,467			2,314,683				1,618,103	4,019,253
Local issuance in Bolivia - BOB	33,479	51,456	59,111	103,444	59,111	59,111			365,712
Borrowings - Law 4,131/1962 (i)	7,114		484,130	77,461	1,036,038				1,604,743
Syndicated loans/Bilateral agreements	62,208	58,116	299,045	477,964	13,253	13,253	13,253	46,005	983,097
Development and/or multilateral agency	18,467		48,413	96,826	96,826	96,826	96,826	290,478	744,662
Other	2,667	2,322							4,989
	210,402	111,894	890,699	3,070,378	1,205,228	169,190	110,079	1,954,586	7,722,456
% amortized per year	2.72%	1.45%	11.53%	39.76%	15.61%	2.19%	1.43%	25.31%	100.00%
	291,335	133,248	1,361,992	3,307,041	1,941,883	1,405,874	613,707	3,231,212	12,286,292
% amortized per year	2.37%	1.08%	11.09%	26.92%	15.81%	11.44%	5.00%	26.30%	100.00%

(i) As per item (i) (b) above.

All amounts in thousands of reais unless otherwise stated

(d) Changes

		Parent company		Consolidated	
	Note	2023	2022	2023	2022
Balance at the beginning of the year		4,787,430	3,413,025	11,173,587	12,394,635
New borrowings		1,770,744	1,435,504	2,732,730	3,424,047
Acquisition of subsidiary					7,292
Exchange variations		(144,680)	(108,568)	(584,242)	(868,380)
Indexation accruals		35,402	42,478	53,638	64,361
Accrued interest		439,251	336,333	818,465	743,120
Interest paid		(441,484)	(286,619)	(821,285)	(713,718)
Amortization of funding costs, net of additions		(26,438)	(1,412)	(28,370)	7,381
Fair value adjustments	29(b)	15,777	(42,252)	17,737	(58,857)
Credit risk of debts measured at fair value		7,409	6,150	9,687	7,868
Payments		(612,284)	(6,845)	(1,225,609)	(3,840,588)
(Gain) loss on renegotiation of debts, net of amortization	29(b)	(819)	(364)	1,021	6,426
Balance at the end of the year		5,830,308	4,787,430	12,147,359	11,173,587

The main funding and amortizations in 2023 were as follows:

(i) Financing from the International Finance Corporation ("IFC")

The Company obtained a financing from IFC in the amount of USD 150 million (R$ 747 million), with a total term of 10 years, for the modernization project of the cement plant located in Salto de Pirapora, State of São Paulo (Note 3.1).

(ii) Issuance of Certificates of Real Estate Receivables ("CRI") by VCSA and by its subsidiary Votorantim Cimentos N/NE S.A. ("VCNNE")

In December 2023, VCSA and its subsidiary VCNNE issued their third Certificate of Real Estate Receivables ("CRI") on the Brazilian capital market in the amount of R$ 793,280.

- VCSA: R$ 112,453 maturing on December 13, 2033, with remuneration of 11.5148% p.a. and without indexation + R$ 411,111 maturing on December 13, 2035, with remuneration of IPCA + 6.3% p.a. and indexation based on the accumulated variation of the IPCA.
- VCNNE: R$ 57,931 maturing on December 13, 2033, with remuneration of 11.5148% p.a. and without indexation + R$ 211,785 maturing on December 13, 2035, with remuneration of IPCA + 6.3% p.a. and indexation based on the accumulated variation of the IPCA.

The proceeds from the issuance of debentures will be used for payment of expenses, costs and expenditures not yet incurred, directly related to the acquisition, construction and/or renovation of business units located in VCSA and VCNNE properties, and the reimbursement of rents paid by the Company and by VCNNE under the rental agreements of certain properties.

(iii) 10th issue of debentures by VCSA

In December 2023, VCSA placed its 16th public issue of debentures, with automatic distribution registration, in the amount of R$ 500,000.

(iv) Early payment of debentures by VCSA

In December 2023, VCSA early redeemed R$ 366,890 related to the 6th and 8th issues of debentures with original maturity in 2025. The proceeds used came from the 16th issue of debentures.

(v) Repurchase of Voto 27 bonds by VCI

During 2023, subsidiary Votorantim Cimentos International S.A. ("VCI") repurchased on the secondary market USD 21,468 thousand (R$ 106,343) in principal relating to the bond of the parent company St. Marys due in 2027. On December 31, 2023, the remaining balance of principal of the bonds due in 2027 was approximately USD 478,532 thousand (R$ 2,316,717).

All amounts in thousands of reais unless otherwise stated

(vi) Early redemption of Law 4,131/1962 loans

In December 2023, VCSA settled in advance a Law 4,131/1962 loan, with original maturity in 2025, in the amount of USD 50,000 (RS 247,678). The proceeds used were partially derived from the 16th issue of debentures. Consequently, the swap associated with this borrowing was also settled.

(e) Analysis by currency

						Parent company
	Current		Non-current		Total	
	2023	2022	2023	2022	2023	2022
Real	53,402	77,362	3,701,606	3,026,688	3,755,008	3,104,050
US Dollar	22,494	5,318	2,052,806	1,678,062	2,075,300	1,683,380
	75,896	82,680	5,754,412	4,704,750	5,830,308	4,787,430

						Consolidated
	Current		Non-current		Total	
	2023	2022	2023	2022	2023	2022
US Dollar	102,759	92,975	6,201,182	6,252,598	6,303,941	6,345,573
Real	73,530	98,094	4,429,130	3,476,303	4,502,660	3,574,397
Euro	5,608	2,756	563,799	585,298	569,407	588,054
Boliviano	47,227	28,436	451,831	536,270	499,058	564,706
Canadian Dollar	3,240	5,552	166,484	4,677	169,724	10,229
Uruguayan Pesos	39,619	28,685	62,950	56,093	102,569	84,778
Turkish Lira		5,850				5,850
	271,983	262,348	11,875,376	10,911,239	12,147,359	11,173,587

(f) Use of available credit facilities

						USD thousands
Credit facilities	Companies	Contract date	Aging of trade receivables	Contract amount	Contract amount	Available amount
Global Revolving Credit Facility	VCSA/VCI/VCEAA/St. Marys	Sept/21	Sept/26	250,000		250,000
Committed Credit Facility	VCI / VCEAA / St. Marys	Jun/22	Jun/27	300,000	(33,273)	266,727
				550,000	(33,273)	516,727

The amount used in US dollars considers the conversion at the foreign exchange rate in effect at the withdrawal dates for the amounts withdrawn in Canadian Dollars and, consequently, reflected in the available balance of the Committed Credit Facility.

Up to the authorization date of these parent company and consolidated financial statements, St. Marys drew down an additional CAD 27,500 thousand (R$ 100,792) and USD 105,000 thousand (R$ 516,506) from the available line of credit above.

(g) Guarantees

On December 31, 2023, R$ 1,645,802 (December 31, 2022 - R$ 1,774,464) of the balance of borrowing of the Company was guaranteed by sureties from related parties (Note 13(b)), a further R$ 1,117,673 (December 31, 2022 - R$ 268,516) was secured by property, plant and equipment items under fiduciary disposals and mortgages.

(h) Reform of LIBOR and other Interbank Offered Rates ("IBOR")

Certain borrowings of the Company were impacted by the LIBOR reform, and for these transactions (i) the initial contractual terms were changed through amendments to determine the replacement of the benchmark, or (ii) the original agreements already had provisions for the transition to a new benchmark, in both cases applicable from the discontinuity of the LIBOR during 2023. The Company determined that the criterion for applying the practical expedient described in the amendments to IFRS 9 / CPC 48 - Financial Instruments was met in these impacted contracts, therefore, the replacement of the index in 2023 not generate a gain or loss in profit or loss for the year.

All amounts in thousands of reais unless otherwise stated

20 Confirming payables

The Company and its subsidiaries entered into vendor financing partnership agreements with financial institutions to allow suppliers in the domestic and foreign markets to obtain advances against their receivables. In these operations, suppliers transfer the right to receive securities from the sale of goods to financial institutions and, in exchange, receive an advance from the financial institutions, less a discount charged directly by the financial institutions at the time of assignment; the financial institutions become creditors of the transaction. These commercial terms and conditions with financial institutions are subject to the mutual agreement of Company and its subsidiaries and the supplier.

The Company, as part of the normal course of its business, also receives from its suppliers, notification of request for credit assignment to various financial institutions, with the purpose of anticipating receipts for its receivables. When notified, the Company pays the amounts due directly with the financial institutions, under the exact terms and conditions agreed with the supplier. As these do not meet the definition of confirming payables, they continue to be classified as accounts payable to suppliers.

Pursuant to IFRS 9 / CPC 48 - Financial Instruments, Management concluded that these transactions do not affect the nature of the original liabilities with suppliers and, therefore, they are presented as operating activities within the statement of cash flows, in accordance with IAS 7 / CPC 03 (R2). Management believes that the economic substance of these transactions is operational by nature and that any adjustment to present value are not significant for purposes of disclosure.

Management believes that the presentation of these transactions as "Confirming payables" is the most appropriate for understanding its financial position.

The accounts payable included in these contracts are presented below:

		Parent company		Consolidated	
Confirming payables	**Due**	**2023**	**2022**	**2023**	**2022**
Payables - Local suppliers	Up to 180 days	205,190	251,701	293,910	403,564
Payables - Foreign suppliers	Up to 180 days			957,795	1,058,994
Payables - Foreign suppliers	Up to 360 days			308,075	418,203
		205,190	251,701	1,559,780	1,880,761

All amounts in thousands of reais unless otherwise stated

21 Income tax and social contribution payable and deferred

(a) Accounting policies

The income tax and social contribution benefit or expense is calculated based on the tax laws enacted at the balance sheet date in the tax jurisdictions where the Company operates and are recognized in profit or loss, except to the extent that they relate to items recognized directly in shareholders' equity.

The current income tax and social contribution are presented net, separated by taxpaying entity, in liabilities when there are amounts payable, or in assets when the amounts prepaid exceed the total amount due on the reporting date.

Deferred tax liabilities are recognized on temporary differences between the tax bases of assets and liabilities and their carrying amounts in the financial statements. The deferred taxes are determined based on the rates in effect at the reporting date corresponding to the rates to be applied when they are realized or settled.

The Company also recognizes deferred income tax and social contribution assets on recoverable balances of tax loss carryforwards. Deferred tax assets are periodically reviewed for recoverability (Note 5.6.3).

(b) Reconciliation of income tax (IRPJ) and social contribution (CSLL) expenses

The income tax and social contribution amounts presented in the statement of income for the years ended December 31 are reconciled with their Brazilian statutory rates as follows:

	Parent company		Consolidated	
	2023	2022	2023	2022
Profit before income tax and social contribution	2,714,739	1,349,921	2,998,200	1,679,436
Statutory rates (Brazil)	34%	34%	34%	34%
IRPJ and CSLL at the standard rates	(923,011)	(458,973)	(1,019,388)	(571,008)
Reconciling items				
Equity in the results of investees	696,831	214,970	18,726	17,714
Donations and grants for investment	25,513	21,234	88,516	74,412
Tax incentives	10,105	15,383	69,600	50,589
Impact on taxation of companies abroad - tax rate differences and others			43,512	41,354
Credit (reversal) referring to the non-levy of IRPJ and CSLL on SELIC of undue payments (i)	(62,026)	34,196	(63,155)	7,689
Write-off of income tax paid abroad (ii)		(173,880)		(173,880)
Tax loss carryforwards, not recorded as deferred tax assets			(38,022)	(138,234)
Recognition of deferred tax asset as a result of changes in Turkish law - Hyperinflation (iv)			292,714	
Tax amortization of goodwill not recorded as deferred assets from prior years			9,474	9,540
Profits abroad IN 1,520/2014	(29,073)	(26,108)	(29,073)	(26,108)
Recognition of tax losses from prior years (iii)			363,074	192,423
Minimum tax and state tax expense			(79,447)	(55,865)
IRRF expense			(48,545)	(2,227)
Other permanent differences	622	22,544	11,694	39,619
IRPJ and CSLL expense	(281,039)	(350,634)	(380,320)	(533,982)
Current	(68,258)	(212,939)	(418,931)	(450,456)
Deferred	(212,781)	(137,695)	38,611	(83,526)
IRPJ and CSLL expense	(281,039)	(350,634)	(380,320)	(533,982)
Effective rate - %	10.35	25.97	12.68	31.80

(i) In 2023, as a result of an unfavorable decision by the Supreme Court of Justice (STJ) published on May 8, 2023 determining the exemption from Income Tax and Social Contribution ("IRPJ/CSLL") of SELIC interest on judicial deposits, the Company reversed tax credits R$ 62,026 in the Parent Company, which were recorded as "Income tax and social contribution" for the year. In the balance sheet, the amounts reversed were R$ 11,010 under "Income tax and social contribution recoverable" and R$ 51,016 under "Deferred income tax and social contribution". The direct parent company Votorantim Cimentos N/NE S.A. ("VCNNE") received a final and unappealable favorable decision on October 25, 2023, for non-taxation of SELIC on refunds for offset, on deposits withdrawn and on interest and fines for contractual default. These credits are recognized based on standards CPC 32 / IAS 12 "Income taxes" and Technical Interpretation ICPC 22 / IFRIC 23 "Uncertainty over income tax treatments".

All amounts in thousands of reais unless otherwise stated

(ii) The Company reversed tax credits accumulated abroad, totaling R$ 173,880, previously recognized under "Income tax and social contribution recoverable" (non-current), following a refund of income tax paid in prior years received by its subsidiary St. Mary's. The refund was deposited directly into the subsidiary's bank account.
(iii) In 2023, the subsidiary St. Marys and Votorantim Cement EAA Inversiones S.L. reassessed their study of projected taxable profit, which is carried out annually to support the recognition of deferred income tax assets on tax losses, and as a result recorded an increase of R$ 363,074 (R$ 192,423 in 2022).
(iv) The subsidiaries located in Turkey, a hyperinflationary economy, recognized deferred tax assets on December 31, 2023, arising from the temporary difference between the accounting and tax bases. The tax legislation for hyperinflation was enacted in December 2023, and before this change in legislation, the temporary difference resulted in a deferred tax liability.

(c) Analysis of deferred tax balances

		Parent company		Consolidated	
	Note	2023	2022	2023	2022
Tax credits on tax loss carryforwards	21(b)	343,518	498,537	1,179,126	1,347,713
Tax credits on temporary differences					
Judicial provisions		153,234	170,979	219,515	237,680
Provision for profit-sharing, bonuses and collective bargaining agreements		80,561	89,759	90,201	99,199
Provision for electricity charges		72,932	69,889	74,003	70,926
Use of public assets				63,839	68,102
Provision for inventory losses		16,911	11,901	57,713	57,280
Asset retirement obligation		28,453	26,824	37,389	49,091
Provision for social security obligations				34,484	37,691
Deductions - Legislation in Morocco and Spain (government benefit)				12,786	34,948
Asset impairment provision		18,232	27,191	18,572	27,531
Fair value adjustment and hyperinflation	21(b)			196,101	22,010
Financial instrument - firm commitment				28,346	42,681
Deferred exchange variations - effect on profit or loss			10,037		14,790
Deferred losses on derivative agreements		59,276	44,259	57,387	52,419
Provision for CO2					5,969
Allowance for expected credit losses		6,509	5,177	15,323	11,400
Social benefits				31,474	3,160
Investment Tax Credit (ITC)				176,921	82,680
Ontario (CA) minimum tax				38,247	35,903
Other credits		26,781	25,003	103,700	87,904
Tax debts on temporary differences					
Adjustments to the useful lives of property, plant and equipment (depreciation)		(756,271)	(735,937)	(2,207,059)	(2,146,793)
Goodwill on assets incorporated into the cost of property, plant and equipment		(7,727)	(8,827)	(282,132)	(381,140)
Tax amortization of goodwill		(288,912)	(288,912)	(302,254)	(297,927)
Interest capitalized		(26,221)	(25,098)	(45,888)	(46,856)
Renegotiation of hydrological risk				(17,258)	(18,107)
Present value adjustment		(3,990)	(5,536)	(8,453)	(10,407)
Deferred exchange variations - effect on profit or loss		(36,733)		(38,347)	
Fair value adjustment - Law 4,131/1962		(5,119)	(10,206)	(7,353)	(12,811)
Other debts		(1,624)	(2,113)	(5,549)	(7,432)
Net		(320,190)	(97,073)	(479,166)	(532,396)
Net deferred tax assets of the same legal entity				802,040	435,884
Net deferred tax liabilities of the same legal entity		(320,190)	(97,073)	(1,281,206)	(968,280)

All amounts in thousands of reais unless otherwise stated

(d) Effects of deferred income tax and social contribution and comprehensive income

		Parent company		Consolidated	
	Note	2023	2022	2023	2022
Balance at the beginning of the year		(97,073)	37,100	(532,396)	(452,904)
Effect on income		(212,781)	(137,695)	38,611	(83,526)
Effect of initial adoption of accounting for a hyperinflationary economy					(23,146)
Effect on other components of comprehensive income - hedge accounting	25(e)				11,164
Effect on other components of comprehensive income - credit risk of debts measured at fair value	25(e)	812	3,522	896	4,640
Effect of exchange variations on other components of comprehensive income				27,233	19,777
Acquisition of subsidiary					(15,328)
Effect on other components of comprehensive income - actuarial losses and measurements with benefits of retirement	25(e)			7,079	6,857
Realization of tax carryforward losses - Joint Ordinance PGFN/RFB No. 1/2023 (i)		(11,148)		(14,592)	
Other				(5,997)	70
Balance at the end of the year		(320,190)	(97,073)	(479,166)	(532,396)

(i) In early 2023, the Company and its subsidiaries adhered to an installment payment program for certain federal tax disputes under the "Zero Litigation Program" established by Joint Ordinance PGFN/RFB No. 1/2023, which allowed the installment payment of disputes included in the program and the partial offsets with tax carryforward losses.

(e) Realization of deferred income tax and social contribution on tax losses

The recoverability of tax loss balances is evaluated annually, based on the Company's expected future taxable profit, with deferred tax assets being recorded only for the portion of the tax loss balances against which offsets are forecast in a period consistent with Management's operating projections, as follows:

	2023
	Consolidated
Up to 12 months	334,081
After 12 months	845,045
	1,179,126

(f) Unrecognized deferred tax asset

Deferred tax assets were not recognized on tax loss carryforwards, as it is unlikely that future taxable profits will be available for the Company for offset, as shown below:

	Consolidated	
	2023	2022
Unused tax losses for which no deferred tax assets have been recognized	4,027,655	6,030,536
Potential tax benefit - rate between countries from 24.94% to 34.00%	1,011,686	1,518,025

All amounts in thousands of reais unless otherwise stated

(g) Tax basis of tax losses

The tax base balances of tax losses for which the Company recognizes deferred tax are as follows:

				Consolidated
Year	Brazil	North America	Europe, Asia and Africa	Total
2023	1,061,489	1,916,160	1,360,174	4,337,823
2022	1,514,696	3,300,940	641,680	5,457,316

(h) Realization of non-current IRPJ and CSLL balances recoverable

Long-term consolidated balances refer to income tax credits paid abroad, pursuant to Law 12,973/2014, subject to deduction of income tax and social contribution that are due in Brazil on profits earned by the same subsidiaries in subsequent years, observing the legal limits. The Company's current expectation is that the balance of credit on income tax paid by foreign operations, recorded as of December 31, 2022, will be fully offset by 2027.

22 Provisions and judicial deposits

(a) Accounting policies

(i) Provision for legal claims relating to tax, civil, labor and environmental matters

The Company is party to ongoing tax, civil, labor and environmental lawsuits and is contesting these matters at both at the administrative and judicial levels, backed by judicial deposits, when applicable.

A provision for legal claims is recognized when: (i) the Company has a present legal or constructive obligation as a result of past events; (ii) it is probable that an outflow of resources will be required to settle the obligation; and (iii) the amount can be reliably estimated. The losses classified as possible are not recorded in the balance sheet as provisions, but are disclosed in the explanatory notes. Contingencies classified as remote are neither accrued nor disclosed, except when the Company considers disclosure justified. The classification of losses as possible, probable or remote is supported by the advice of the Company's legal advisors.

The provision for legal claims relating to tax, civil and environmental matters is measured at the present value of the expenditure expected to be required to settle the obligation that reflects the current market assessments of the time value of money and the risks specific to the obligation, and these variations are recognized in the statement of income. The provision does not include future operating losses.

The labor provision is recognized based on the historical average settlement amounts of the lawsuits, the average is determined separately by business and for: (i) Company lawsuits; and (ii) third party lawsuits in which the Company is jointly and severally liable.

For lawsuits from own employee claims with probable likelihood of loss above R$ 1,000, the provisions are measured according to the effective risk, being the present value of the outlay necessary to settle the obligation.

The provisions for lawsuits in the execution phase are updated to the present value of the outlay required to settle the obligation (effective risk), for own employees and/or insolvent third parties.

(ii) Asset retirement obligations - "ARO"

The measurement of asset retirement obligations involves the use of judgment to select assumptions. Obligations are to restore the environment to an ecological condition to that existing now when the project was initiated, or to take compensatory measures, agreed with government agencies, due to the impossibility of returning to these pre-existing conditions. These obligations arise from the environmental degradation of the occupied area, the objective of the operation, or from formal commitments assumed to the environmental agency, under which the degradation must be compensated. The retirement of an asset occurs when it is permanently withdrawn through stoppage, sale or disposal.

Obligations consist mainly of costs associated with the termination of activities. Since they are long-term obligations, they are adjusted to present value. The asset retirement cost, equivalent to the present value of the obligation (liability), is capitalized as part of the carrying amount of the asset, which is depreciated over its useful life. The accounting policies related to the asset entry of the asset retirement obligations are presented in Note 17(a)(vi).

The interest rate used to discount the asset retirement obligation to its present value is estimated based on the United States market risk-free rate (Treasury USA 30y Yield), plus country risk and inflation differential. The amount of the provision increases progressively over time as the effect of the adjustment to present value is complemented, resulting in an expense recognized in the financial result.

The liability recorded is updated by annual reviews that include:

- review of mine useful life according to estimated reserves;
- revision of the estimated recovery of mines that had their closure plans updated;
- review of discount rate.

Estimate for closures are added to or deducted from the related asset, up to the limit of the asset's residual balance, and amortized on a prospective basis over the remaining useful life. The change in the estimate that exceeds the limit of the residual balance of the asset is recognized in profit or loss for the year under "Other operating income (expenses), net".

The expected timing of cash outflows associated with the restoration and recovery process ranges from 2 to 50 years.

All amounts in thousands of reais unless otherwise stated

(b) Analysis and changes

						Parent company
						2023
		Legal claims				
	ARO and terms of commitment (i)	Tax	Civil	Labor	Environmental	Total
Balance at the beginning of the year	204,903	334,117	192,418	66,199	3,680	801,317
Additions	627	7,294	21,344	34,292	1,124	64,681
Reversals		(10,723)	(12,693)	(19,076)	(264)	(42,756)
Write-offs	(11,859)					(11,859)
Judicial deposits, net of write-offs		(3,394)	904	19,242	(15)	16,737
Settlements subject to judicial deposits		(4,392)	(1,694)	(11,791)		(17,877)
Settlements affecting cash	(5,704)	(3,759)	(5,433)	(22,892)	(655)	(38,443)
Settlement with tax carryforward losses - Joint Ordinance PGFN/RFB No. 1/2023		(5,558)				(5,558)
Review of provision due to change in estimate - P&L	(10,591)					(10,591)
Review of provision due to change in estimate - assets	(6,601)					(6,601)
Present value adjustment	14,211					14,211
Inflation adjustments, net of reversals		(10,856)	13,696	(11,832)	916	(8,076)
Balance at the end of the year	184,986	302,729	208,542	54,142	4,786	755,185
Provisions	184,986	419,441	217,851	89,603	5,361	917,242
Judicial deposits		(116,712)	(9,309)	(35,461)	(575)	(162,057)
Balance at the end of the year	184,986	302,729	208,542	54,142	4,786	755,185
Non-current	184,986	302,729	208,542	54,142	4,786	755,185

All amounts in thousands of reais unless otherwise stated

						Parent company
						2022
		Legal claims				
	ARO and terms of commitment (i)	Tax	Civil	Labor	Environmental	Total
Balance at the beginning of the year	136,684	263,859	176,384	85,214	5,005	667,146
Additions	16,346	44,961	32,662	43,450	1,141	138,560
Reversals		(2,013)	(13,164)	(20,523)	(1,171)	(36,871)
Write-offs	(6,514)					(6,514)
Judicial deposits, net of write-offs		(32,715)	1,592	935	(19)	(30,207)
Settlements subject to judicial deposits			(1,660)	(7,336)		(8,996)
Settlements affecting cash	(4,553)	(2,296)	(4,730)	(23,679)	(131)	(35,389)
Review of provision due to change in estimate - assets	59,127					59,127
Review of provision due to change in estimate - P&L	(11,241)					(11,241)
Present value adjustment	15,054					15,054
Inflation adjustments, net of reversals		62,321	1,334	(11,862)	(1,145)	50,648
Balance at the end of the year	204,903	334,117	192,418	66,199	3,680	801,317
Provisions	204,903	447,435	202,631	120,902	4,240	980,111
Judicial deposits		(113,318)	(10,213)	(54,703)	(560)	(178,794)
Balance at the end of the year	204,903	334,117	192,418	66,199	3,680	801,317
Non-current	204,903	334,117	192,418	66,199	3,680	801,317

(i) Asset retirement obligation ("ARO") and terms of commitment.

All amounts in thousands of reais unless otherwise stated

						Consolidated
						2023
		Legal claims				
	ARO and terms of commitment (i)	Tax	Civil	Labor	Environmental	Total
Balance at the beginning of the year	555,883	535,927	217,866	78,746	9,113	1,397,535
Additions	14,062	19,869	28,187	45,916	2,793	110,827
Reversals		(22,460)	(17,089)	(24,398)	(323)	(64,270)
Disposals	(11,863)					(11,863)
Judicial deposits, net of write-offs		(3,323)	781	24,591	(16)	22,033
Settlements subject to judicial deposits		(8,653)	(1,741)	(13,124)		(23,518)
Settlements affecting cash	(44,692)	(16,550)	(9,108)	(26,767)	(2,310)	(99,427)
Settlement with tax carryforward losses - Joint Ordinance PGFN/RFB No. 1/2023 (i)		(6,491)				(6,491)
Present value adjustment	33,473					33,473
Review of provision due to change in estimate - P&L	(90,391)					(90,391)
Review of provision due to change in estimate - assets	(14,868)					(14,868)
Inflation adjustments, net of reversals	(2,189)	8,176	16,168	(11,565)	2,060	12,650
Exchange variations	(17,392)	(1,179)	(260)	(24)		(18,855)
Balance at the end of the year	422,023	505,316	234,804	73,375	11,317	1,246,835
Provisions	422,023	645,623	246,028	116,107	11,892	1,441,673
Judicial deposits		(140,307)	(11,224)	(42,732)	(575)	(194,838)
Balance at the end of the year	422,023	505,316	234,804	73,375	11,317	1,246,835
Non-current	422,023	505,316	234,804	73,375	11,317	1,246,835

All amounts in thousands of reais unless otherwise stated

						Consolidated
						2022
		Legal claims				
	ARO and terms of commitment (i)	Tax	Civil	Labor	Environmental	Total
Balance at the beginning of the year	528,955	442,939	209,702	102,337	7,894	1,291,827
Additions	31,410	59,306	38,862	52,656	5,471	187,705
Reversals	(129)	(8,964)	(18,906)	(25,840)	(1,616)	(55,455)
Write-offs	(6,514)					(6,514)
Judicial deposits, net of write-offs		(39,760)	1,548	1,815	(19)	(36,416)
Settlements subject to judicial deposits			(1,704)	(10,304)		(12,008)
Settlements affecting cash	(43,755)	(2,952)	(6,998)	(28,728)	(140)	(82,573)
Present value adjustment	22,714					22,714
Review of provision due to change in estimate - assets	54,450					54,450
Review of provision due to change in estimate - P&L	(31,822)					(31,822)
Acquisition of subsidiary	35,075	568	40			35,683
Exchange variations	(32,305)	(3,370)	(1,193)	(75)		(36,943)
Inflation adjustments, net of reversals	(2,196)	88,160	(3,485)	(13,115)	(2,477)	66,887
Balance at the end of the year	555,883	535,927	217,866	78,746	9,113	1,397,535
Provisions	555,883	672,911	229,871	146,068	9,673	1,614,406
Judicial deposits		(136,984)	(12,005)	(67,322)	(560)	(216,871)
Balance at the end of the year	555,883	535,927	217,866	78,746	9,113	1,397,535
Non-current	555,883	535,927	217,866	78,746	9,113	1,397,535

(i) Asset retirement obligation ("ARO") and terms of commitment.

(c) Probable risk of loss provisions

(i) Tax provision

These refer to disputes concerning federal, state and municipal taxes. The main tax lawsuits refer to collection of ICMS (State Value-added Tax), PIS (Social Integration Program), COFINS (Contribution to Social Security Financing) IRPJ and CSLL ('Corporate Income Tax' and 'Social Contribution on Net Income').

a. Financial Compensation for the Exploration of Mineral Resources ("CFEM")

The Company has received various tax assessment notices issued by the National Department of Mineral Production for alleged non-payment or underpayment of CFEM for the period from 1991 to 2016. On December 31, 2023, the legal dispute totaled R$ 601,950 (December 31, 2022 - R$ 499,213). The Company believes that R$ 143,327 (December 31, 2022 - R$ 124,627) represented probable losses, with this amount being recorded as a provision, and R$ 458,624 (December 31, 2022 - R$ 374,586) represented possible losses. Currently, the lawsuits are at the administrative or judicial levels.

b. Exclusion of ICMS and ISSQN from the calculation basis of PIS and COFINS

The Company filed lawsuits to exclude ICMS and ISSQN taxes from the PIS and COFINS taxable bases. Currently, only ISSQN lawsuits are covered by a judicial deposit. On December 31, 2023, the amount of judicial deposits totaled R$ 5,446 (December 31, 2022 - R$ 5,132).

(ii) Civil provision

This refers mainly to civil lawsuits of an administrative or judicial nature. These contingencies arise from various lawsuits being mainly claims for compensation for property damage and personal damages, collection and execution and administrative claims.

(iii) Environmental provision

The Company is subject to laws and regulations in the various countries in which it operates. The Company has established policies and procedures for complying with environmental laws.

The Company performs analyses on a regular basis to identify environmental legal risks and ensure that the systems in place are adequate to manage these risks.

The Company is party to environmental litigation mainly public civil actions determining environmental responsibilities related to the Company's activities, including licensing of manufacturing units, infraction notices issued by the competent environmental agencies, as well as indemnity actions for alleged damages arising from alleged environmental impacts from the Company's activities.

All amounts in thousands of reais unless otherwise stated

(d) Possible risk of loss lawsuits

The Company is party to lawsuits which management believes present a possible risk of loss, based on legal advice, and for which no provision is required.

	Parent company		Consolidated	
Nature of the lawsuits	**2023**	**2022**	**2023**	**2022**
Civil				
Administrative Proceeding (PA) from Brazilian antitrust agency ("CADE") and Annulment Action (i)	2,394,326	2,280,032	2,394,326	2,280,032
Civil class actions - from PA (ii)	6,532,017	6,065,219	6,532,017	6,065,219
Other lawsuits	457,303	450,691	729,023	703,733
	9,383,646	8,795,942	9,655,366	9,048,984
Tax				
Tax assessment notices - IRPJ/CSLL (iii)	1,938,368	1,796,446	1,938,368	1,796,446
PIS/COFINS - credits from the exclusion of ICMS from the calculation basis (v)	478,911	428,380	478,911	428,380
Financial Compensation for the Exploration of Mineral Resources - "CFEM" (Note 23(c)(i)(a))	265,821	193,994	458,624	374,586
IRPJ/CSLL - Profits earned abroad (iv)	177,756	265,497	177,756	265,497
Other lawsuits	1,885,390	1,914,722	3,064,550	3,019,407
	4,746,246	4,599,039	6,118,209	5,884,316
Environmental	24,269	25,468	49,011	50,062
	14,154,161	13,420,449	15,822,586	14,983,362

(i) Administrative Proceeding (PA) of the Administrative Council for Economic Defense (CADE) and Annulment Action

In 2006, the Secretariat of Economic Law (SDE) initiated an investigation that culminated in the filing of an Administrative Proceeding (PA) against several companies in the cement sector in Brazil, including the Company, based on alleged anti-competitive practices, including the formation of a cartel with other cement companies to fix prices and quantities of products. In January 2011, a Technical Note was issued by SDE and, after completing the investigation phase, in July 2015, CADE reached the final terms of its decision, determining the following sanctions, among others, for the Company: (1) fine of approximately R$ 1,563,781 (20% of gross annual sales in 2016, based on Law 12,529/11); (2) several structural penalties, in short: (2.i) sale of all its equity interests in other cement companies and concrete companies in Brazil, (2.ii) sale of 20% of its installed capacity of concreting services in Brazil, in relevant markets where the Company has more than one concrete plant and (2.iii) sale of a specific cement asset, which, in CADE's opinion, was directly related to the alleged anti-competitive practice; (3) other penalties which, in summary, include: (3.i) the prohibition of carrying out acts of concentration for a period of five years in the cement (among the convicted companies) and concrete (any act) markets and association (among the condemned companies) for greenfield projects in the cement, slag and concrete sectors; (3.ii) the prohibition of contracting with official financial institutions in the case of credit facilities subsidized by public programs or resources; (3.iii) recommendation to the Federal Revenue of Brazil not to grant federal tax installments or cancel, in whole or in part, tax incentives or public subsidies already granted.

In October 2015, the Company filed an ordinary action to annul (Annulment Action) the decision within the scope of the PA or, at least, reduce the penalties applied. At the end of November 2015, an injunction was granted to suspend the effects of the decision in the PA, preventing CADE from demanding compliance with the obligations until judgment on the merits of the Annulment Action. CADE was summoned and presented its defense, while the Company presented its reply in November 2016. Economic expert evidence was granted, and, in May 2021, the judicial expert's report was presented. The parties presented their manifestation and technical opinion in relation to the expert report in November 2021. On May 30, 2023, a hearing was held, however, an expert report is awaited, as determined at the hearing.

The Company classified the likelihood of loss in the Annulment Action as possible and, therefore, no amounts have been accrued. On December 31, 2023, the updated amount of the Company's possible contingency estimate (comprised exclusively of the fine) is R$ 2,394,326 (December 31, 2022 - R$ 2,280,032). The quantification of such estimate does not represent any agreement by the Company for the CADE or penalties imposed in the PA, but is a mere estimate for purposes of reporting possible contingencies.

(ii) Civil Class Actions arising from the PA

a. Civil Class Action of State Public Prosecution Office of Rio Grande do Norte (ACP-MPE/RN)

In January 2012, the State Public Prosecution Office of Rio Grande do Norte (MPE/RN) filed a civil class action against the Company and another five cement companies and entities representing the cement and concrete industry, for alleged violation of the Brazilian competition law, based on the SDE Technical Note of 2011, referred to above.

MPE/RN made the following generic requests: (1) collective moral damages of R$ 5,600,000 (including accruals to January 2012), with solidarity between the defendants, to the Fund for the Defense of Universal Rights; (2) property damage to consumers equivalent to 10% of the amounts paid for cement or concrete purchased by consumers of brands negotiated by the defendants between 2002 and 2006, for settlement and individual collection by each consumer; (3) a fine of 1% to 30% of the gross income of the last fiscal year, not less than the supposed benefits (art. 23, I, Law 8,884/1994); and (4) other requests, including (4.i) prohibition, for a period of at least five years, from obtaining financing from governmental financial institutions or from participating in bidding processes by the federal, state or municipal, government entities or agencies; and (4.ii) determination not to grant federal taxes in installments and cancellation of tax incentives or public subsidies.

In September 2021, the preliminaries raised by the defendants were rejected. The production of an appraisal was also determined, establishing that the burden of proving the damage is on the MPE/RN. At the moment, the appeals against the decision that rejected the preliminaries are awaiting judgment. There has not yet been an appraiser appointed.

b. Civil Class Action of Federal Public Prosecution Office of São Paulo (ACP-MPF/SP)

Similarly, based on the PA, in October 2021, the Federal Public Prosecution Office of São Paulo (MPF/SP) filed a Civil Class Action against all persons and entities convicted in the PA, alleging violation of Brazilian competition law, because of alleged cartel formation.

The MPF/SP made, among others, the following requests in the ACP-MPF/SP: (1) preliminary injunction to prohibit alteration of the corporate structure of the defendant companies (and their subsidiaries or affiliates); (2) economic-financial damages with solidarity between the Respondents: (i) total principal claim of R$ 28.92 billion (accruals to January 2014) based on an alleged overprice of 20% between 1987 and 2007 (of which 49.78% allocated to the Company); and (ii) total subsidiary order of R$ 7.78 billion (accruals to June 2021) based on an alleged overprice of 2.7% between 1994 and 2004 (49.78% allocated to the Company); (3) moral damage of R$ 10 billion accruals to October 2021 (49.78% allocated to the Company); (4) deposit of the value of the condemnation; (5) recognition of effects for future individual claims; (6) prohibition of contracting with official financial institutions; and (7) non-payment of taxes in installments or cancellation of all or part of incentives and subsidies.

The request for an injunction (item (1) above) was denied by the lower court in November 2021. The Company was summoned and presented its defense within the legal deadline.

Following the ACP-MPF/SP and the similarity with the requests of the ACPs, including those of the same nature, evidenced by information obtained from the ACP-MPF/SP, the Company revised the estimates of loss expectations of the ACPs and of each of the requests made in these ACPs to assess the amounts disclosed as a possible contingency. The Company calculated a consolidated possible contingency for both ACPs, based on the following assumptions: (a) assessment based on the amounts (of moral and property damages) indicated by the public prosecutors, which means that the Company agrees with these values; (b) given the similarities of orders, the values of orders of the same nature are not duplicated; (c) the calculations represent best estimates, at the time, based on available data (internal and public), on the procedural progress in the current jurisprudence and in the evaluation of its legal advisors, including in relation to requests that are, at this moment, illiquid, priceless or without material impact for the Company; (d) finally, the Company used several assumptions to estimate the amounts and percentages of the orders allocated to it, however the Company cannot guarantee that such assumptions will prevail, including considering the current stage of the proceedings and even the joint and several requests made by the public prosecutors, as described above, estimating the updated amount of the possible contingency for both ACPs on December 31, 2023 of R$ 6,532,017 (December 31, 2022 - 6,065,219). The quantification of such estimate does not represent any agreement by the Company with the MPs, but is a mere estimate for purposes of reporting possible contingencies and, therefore, there are no amounts accrued.

(iii) Tax assessment notices - IRPJ/CSLL

In December 2016, the Company received an assessment from the Federal Revenue of Brazil for the original amount of R$ 470,306 for the collection of IRPJ and CSLL relating to the year 2011, due to the alleged incorrect deduction of operating expenses and costs. In January 2018, the Company became aware of the Lower Court's decision from the Federal Revenue's Judgment Office, which judged the appeal in part, reducing the lawsuit by approximately R$ 114,000. In December 2018, the Appeal of the PGFN was dismissed and the Voluntary Appeal was judged partially favorable to the Company. PGFN filed a Special Appeal which was partially granted; the Company presented counterarguments to the PGFN Special Appeal and filed a Special Appeal against the part judged unfavorably by CARF. The Company is awaiting judgment of the Special Appeals by the Superior Chamber of CARF. On December 31, 2023, the contingency including interest accruals totals R$ 671,699 (December 31, 2022 - R$ 619,310), of which R$ 65,190 was classified as representing a probable loss and provisioned, R$ 225,715 was assessed as a possible loss, and the remaining amount was classified as remote, totaling R$ 380,795.

In December 2017, the Company was assessed by the Brazilian Federal Revenue Office in the amount of R$ 1,294,680 for the alleged non-payment or underpayment of IRPJ and CSLL relating to the period from 2012 to 2013, due to: (i) capital gain allegedly obtained due to a barter made by the Company; and (ii) amortization of goodwill supposedly incorrect. In October 2018, the Company became aware of the Lower Court decision, which considered the Company's challenge unfavorable. At the moment, the lawsuit awaits the judgment of the Voluntary Appeal by the Administrative Board of Tax Appeals (CARF). On December 31, 2023, the contingency including interest accruals classified as representing a possible loss was R$ 1,712,653 (December 31, 2022 - R$ 1,588,286).

(iv) IRPJ/CSLL - Profits earned abroad

In December 2018, the Company received an assessment from the Brazilian Federal Revenue Office in the amount of R$ 261,933, for the alleged non-payment of IRPJ and CSLL on profits earned abroad in 2013 to 2014, through its subsidiaries and associates. The Company filed a challenge, which was judged unfavorably. The Voluntary Appeal filed by the Company was partially accepted for 97% of the infraction notice. As the PGFN did not file a Special Appeal, the Federal Revenue of Brazil recalculated the updated amount on December 31, 2023, with only R$ 13,198 (December 31, 2022 - R$ 20,347) remaining under discussion, which is assessed as a possible loss. In October 2023, the Special Appeal for the remaining portion was judged unfavorably by casting vote, and is currently awaiting a final decision for subsequent enrollment as an active debt by the PGFN.

In December 2020, the Company received two infraction notices from the Brazilian Federal Revenue Office in the amount of R$ 184,550, for the alleged non-payment of IRPJ and CSLL on profits earned abroad in 2015, through its subsidiaries and associates. In 2023, there was a favorable ruling on the challenge filed, which is currently awaiting analysis of the Official Appeal filed by the Federal Revenue Service. The other tax assessment notice is awaiting judgment of the appeal. On December 31, 2023, the contingency including interest accruals assessed as representing a possible loss is R$ 164,558 (December 31, 2022 - R$ 200,748).

(v) PIS/COFINS - Disallowance of credits referring to the thesis of exclusion of ICMS from the calculation base

In June 2022, the Company received a tax assessment notice from the Federal Revenue of Brazil in the amount of R$ 402,954, as a partial disallowance of credits from the exclusion of ICMS from the PIS/COFINS calculation bases. The Company filed a challenge and is currently awaiting judgment. On December 31, 2023,the contingency plus interest accruals totals R$ 478,911 (December 31, 2022 - R$ 428,380).

All amounts in thousands of reais unless otherwise stated

23 Use of public assets

(a) Accounting policies

The use of public assets is originally recognized as a financial liability (obligation) and as an intangible asset (right of use of a public asset), which corresponds to the total annual expenses over the period of the agreement discounted to present value (present value of the future payment cash flow).

The accounting policy for recognition of intangible assets is presented in Note 17(a)(iv).

(b) Analysis

The Company has an electrical energy concession contract for the operation of a hydroelectric plant (Pedra do Cavalo) as a self-producer. The plant is located on the Paraguaçu River, in the state of Bahia, with a total installed capacity of 160 MW and a physical guarantee of 60 MW. This contract provides for annual payments from the commencement of operations indexed to the General Market Price Index ("IGP-M") for the use of public assets with a term of up to April 2044 (42 years), and the amount of the obligation is shown below:

									Consolidated
							2023		2022
Plant	Investor	Equity interest	Concession start date	Concession end date	Payment start date	Intangible assets	Liabilities	Intangible assets	Liabilities
Pedra do Cavalo	Votorantim Cimentos N/NE S.A.	100%	Mar/02	Apr/44	Apr/06				
Current							53,947		54,932
Non-current						137,088	589,400	143,830	656,858
						137,088	643,347	143,830	711,790

24 Pension plan benefits

(a) Accounting policies

(i) Pension obligations

The Company, through its foreign subsidiaries (St. Marys, VCEAA and Artigas) and in Brazil (VCNNE), participates in pension plans managed by a private pension entity, which provide post-employment benefits to employees based on periodic actuarial calculations. The Company has defined benefit plans and also defined contribution plans.

The liability for defined benefit pension plans is the present value of the defined benefit obligation at the end of the reporting period, less the fair value of the plan assets. The defined benefit obligation is calculated annually by independent actuaries using the projected unit credit method. The present value of the defined benefit obligation is determined by discounting the estimated future cash outflows using market interest rates, which are denominated in the currency in which the benefits will be paid, and that have terms to maturity approximating the terms of the related pension obligations. In countries like Brazil where there is not an active market for such obligations, the market rates of government securities are used. Actuarial gains and losses, also called "remeasurements" arising from changes in actuarial assumptions are recognized in "Other comprehensive income" and will not be reclassified to profit or loss in the period when they are realized.

Past service costs are recognized immediately in profit or loss, unless changes to the pension plan are conditional on the employees remaining in service for a specified period (the vesting period). In this case, past service costs are amortized on a straight-line basis over the vesting period.

For defined contribution plans, the Company pays contributions to the managers of the pension plans on a compulsory, contractual or voluntary basis. The Company has no further payment obligations once the contributions have been paid. The contributions are recognized as employee benefit expense when they are due. Prepaid contributions are recognized as an asset to the extent that a cash refund or a reduction in the future payments is available.

(ii) Healthcare (post-retirement)

Some of the Company's entities offer post-retirement healthcare benefits to their employees. The liability related to the healthcare plan for retired employees is stated at the present value of the obligation, less the market value of the plan assets, adjusted by actuarial gains and losses and past service costs, similar to the accounting methodology used for defined benefit pension plans. The healthcare benefit obligation is calculated annually by independent actuaries. The present value of the defined benefit obligation is determined through an estimate of the future cash outflow.

Gains and losses arising from changes in actuarial assumptions are fully recognized in "Other components of comprehensive income" that will not be reclassified to the statement of income in the period in which they arise.

All amounts in thousands of reais unless otherwise stated

(b) Analysis

The table presents the allocation of the balances and activities related to post-employment benefit in the Company's financial statements.

For defined benefit plans, the Company offsets the obligations of each plan against their respective assets. Balances are presented net in assets, for surplus plans, and net in liabilities, for deficit plans.

	Consolidated	
	2023	2022
Assets recorded in the balance sheet		
Surplus pension plans	82,762	126,335
Asset recorded in the balance sheet	82,762	126,335
Obligations recorded in the balance sheet		
Deficit pension plans	71,031	79,702
Post-employment health benefits	194,680	195,309
Liabilities recorded in the balance sheet	265,711	275,011
Expenses recognized in profit or loss		
Defined benefit pension plan	8,604	4,711
Post-employment health benefits	14,018	16,648
	22,622	21,359
Remeasurements recognized in comprehensive income		
Pension plan - gross amount	18,356	31,611
Post-employment health benefits	10,317	(66,265)
Deferred income tax and social contribution	(6,505)	2,179
Pension plan - net amount	22,168	(32,475)

(c) Defined contribution plan

The VCSA and its subsidiary VCNNE sponsor private pension plans managed by Fundação Senador José Ermírio de Moraes ("FUNSEJEM"), a private, not-for-profit pension fund, which is available to all employees. Under the fund regulations, the contributions from employees to FUNSEJEM are matched based on their level of compensation. For employees with compensation lower than the limits established by the regulations, contributions up to 1.50% of their monthly compensation amount are matched. For employees with compensation higher than the limits, contributions from employees up to 6% of their monthly compensation amount are matched. Voluntary contributions can also be made to FUNSEJEM. After the contributions to the plan are made, no further payments are required from the Company.

Contributions made by the Company are recognized in profit or loss for the year in which they are due.

All amounts in thousands of reais unless otherwise stated

(d) Defined benefit plan and post-employment benefits (pension and healthcare)

The Company has defined benefit plans in North America, Latin America, Brazil and Europe, which follow similar regulatory standards. The defined benefit plans for Latin America, Europe and North America also offer healthcare and life insurance, among other benefits. The costs of retirement benefits and other benefits under these plans were granted to eligible employees and were determined using the projected benefit method pro rata, based on Management's best estimates of the return on plan assets, wage readjustments, cost trends and mortality rates, and the average retirement ages of employees.

The Company operates post-employment benefit health plans through its subsidiary in North America. The method of accounting, the assumptions and frequency of valuations are similar to those used for the defined benefit pension plans. Most of these plans are not funded.

The amounts recognized in the balance sheet are shown below by region:

					2023
	Brazil	Europe	North America	Latin America	Total
Present value of funded obligations	42,286	1,996	537,492		581,774
Fair value of plan assets	(73,716)	(1,862)	(618,123)		(693,701)
(Deficit) surplus of funded plans	(31,430)	134	(80,631)		(111,927)
Present value of unfunded obligations		67,855	193,957	3,765	265,577
Total (deficit) surplus of pension benefit plans	(31,430)	67,989	113,326	3,765	153,650
Impact of the minimum funding requirement/assets ceiling	29,299				29,299
Liability net of asset	(2,131)	67,989	113,326	3,765	182,949

					2022
	Brazil	Europe	North America	Latin America	Total
Present value of funded obligations	37,437	13,991	536,614		588,042
Fair value of plan assets	(70,244)		(661,359)		(731,603)
(Deficit) surplus of funded plans	(32,807)	13,991	(124,745)		(143,561)
Present value of unfunded obligations		65,660	191,161	4,199	261,020
Total (deficit) surplus of pension benefit plans	(32,807)	79,651	66,416	4,199	117,459
Impact of the minimum funding requirement/assets ceiling	30,674		543		31,217
Liability net of asset	(2,133)	79,651	66,959	4,199	148,676

All amounts in thousands of reais unless otherwise stated

The changes in defined benefit obligation/post-employment benefit health plans and the fair value of the plan assets during the year are shown below:

	Present value of obligations	Fair value of plan assets	Total	Impact of minimum funding requirement/asset ceiling	Total
On January 1, 2023	849,062	(731,603)	117,459	31,217	148,676
Current service cost	11,508		11,508		11,508
Financial income (expenses)	43,093	(35,923)	7,170	3,135	10,305
Past service cost and curtailments	809		809		809
	55,410	(35,923)	19,487	3,135	22,622
Remeasurements					
Return on assets, excluding the amount included as financial income		(24,024)	(24,024)		(24,024)
Losses arising from changes in financial assumptions	32,300		32,300		32,300
Losses arising from experience	25,411		25,411		25,411
Changes in asset ceiling, excluding the amount included as financial expense	2,579	(2,579)		(5,014)	(5,014)
	60,290	(26,603)	33,687	(5,014)	28,673
Exchange variations	(43,704)	34,081	(9,623)	(39)	(9,662)
Employer contributions		12,650	12,650		12,650
Plan payments - benefits	(73,707)	53,697	(20,010)		(20,010)
On December 31, 2023	847,351	(693,701)	153,650	29,299	182,949

All amounts in thousands of reais unless otherwise stated

	Present value of obligations	Fair value of plan assets	Total	Impact of minimum funding requirement/asset ceiling	Total
On January 1, 2022	1,235,147	(1,078,639)	156,508	27,426	183,934
Current service cost	12,101		12,101		12,101
Financial income (expenses)	37,288	(30,735)	6,553	2,346	8,899
Past service cost and curtailments	359		359		359
	49,748	(30,735)	19,013	2,346	21,359
Remeasurements					
Return on assets, excluding the amount included as financial income		194,762	194,762		194,762
Gains arising from changes in demographic assumptions	(9,194)		(9,194)		(9,194)
Gains arising from changes in financial assumptions	(227,801)		(227,801)		(227,801)
Losses arising from experience	3,831		3,831		3,831
Changes in asset ceiling, excluding the amount included as financial expense	2,305		2,305	1,445	3,750
	(230,859)	194,762	(36,097)	1,445	(34,652)
Exchange variations	(138,238)	113,737	(24,501)		(24,501)
Employer contributions		14,403	14,403		14,403
Plan payments					
Plan payments - benefits	(66,736)	54,869	(11,867)		(11,867)
On December 31, 2022	849,062	(731,603)	117,459	31,217	148,676

All amounts in thousands of reais unless otherwise stated

The plan assets include:

	2023	2022
Shares		
Global market	115,591	169,310
Emerging markets	58,105	58,198
Financial institutions	25,151	24,944
Government notes	48,333	45,299
Bonds	441,338	433,852
Other	5,183	
	693,701	731,603

The actuarial assumptions used were as follows:

2023	Brazil	Europe	North America	Latin America	Average
Discount rate	9.82%	10.20%	4.93%	7.71%	8.17%
Inflation rate	4.00%	6.89%	2.00%	5.11%	4.50%
Expected return on plan assets					
Future salary increases	4.03%	9.64%	2.50%	3.71%	4.97%

2022	Brazil	Europe	North America	Latin America	Average
Discount rate	10.22%	10.67%	5.24%	8.43%	8.64%
Inflation rate	3.98%	9.82%	2.00%	8.19%	6.00%
Expected return on plan assets					
Future salary increases	2.87%	7.50%	2.50%	4.43%	4.33%

The assumptions relating to mortality are set based on the advice of actuaries in accordance with published statistics and experience in each territory. The mortality assumptions for the most significant countries are based on the following post-retirement mortality tables:

- Brazil: AT-2000;
- Uruguay: GAM 1983;
- Morocco: TPG93;
- Tunisia: Men - TVTun -H-99; Women - TVTun-F-99;
- Turkey: TUIK 2015; and
- North America: CPM-B.

Considering that the benefit plans of the North America segment are the most significant in the consolidated, we performed the sensitivity of the obligation to changes in the main assumption, keeping the other assumptions steady:

		Impact on the defined benefit obligation	
	Change in assumption	Increase in assumption	Decrease in assumption
Discount rate	0.50%	Decrease of 4.76%	Increase of 5.22%
Salary growth rate	0.50%	Increase of 0.40%	Decrease of 0.38%
		Increase of 1 in assumption	Reduction of 1 in assumption
Life expectancy		Increase of 2.82%	Decrease of 2.78%

These sensitivity analyses are based on changes in individual assumptions while keeping all other assumptions constant. In practice, this is unlikely to occur, and changes in some of the assumptions may be correlated. When calculating the sensitivity of the defined benefit obligation for significant actuarial assumptions the same method (present value of the defined benefit obligation calculated using the projected unit credit method at the balance sheet date) has been applied as that used for calculating the pension liability recognized in the balance sheet.

The methods and types of assumptions used in preparing the sensitivity analysis had not changed compared to the previous year.

25 Shareholders' equity

(a) Accounting policies

(i) Share capital

Common and preferred shares are classified in shareholders' equity.

(ii) Distribution of dividends

The distribution of dividends is recognized as a liability in the financial statements at the year-end based on the Company bylaws. Any amount that exceeds the minimum mandatory dividend, which is 25% of the profit for the year less the legal reserve and tax incentive reserve, is only provided on the date on which it is approved by the shareholders at the General Meeting. When the Company reports a loss for the year, no minimum mandatory dividend is recognized.

(iii) Basic earnings per share

Earnings per share are computed by dividing profit attributable to the owners of Company by the weighted average number of shares outstanding for each reporting year. The weighted average number of shares is computed based on the periods in which the shares were outstanding. For purposes of computing earnings per share the Company considers both common and preferred shares as they have the same rights with respect to dividends and distribution of earnings.

The Company does not have instruments or arrangements that could have a dilutive effect on the basic earnings per share calculation.

(iv) Legal reserve and profit retention reserve

The legal reserve is credited annually with 5% of the profit for the year, and cannot exceed 20% of the share capital. The purpose of the legal reserve is to retain sufficient capital, and this reserve can only be used to increase capital and offset accumulated losses. When the Company reports a loss for the year, no legal reserve is recognized.

The profit retention reserve was created to preserve the undistributed balance of retained earnings in order to fund expansion projects pursuant to the Company's investment plan.

(v) Tax incentive reserve

The Company receives, in Brazil, incentives from state and federal programs to promote industrial development, as explained below:

The tax incentives are related to:

ICMS benefits: The Company has tax incentives with respect to ICMS from state industrial development programs consisting of financing or deferral of payment of taxes and the reductions of the taxes due. The purpose of these state programs is to promote in the long term the development of industrial activities, job generation and to foster the economic and social development of such states. The periods and terms of the reduction in the taxes are established in each program. These incentives are recorded in profit or loss for the period of the tax calculation and when the Company meets the conditions established by state programs.

Income tax on profit from operations in certain regions: The Company has a benefit of partial reduction of the income tax due, related to some regional operations with cement, mortar and clinker. The tax incentive is measured based on the taxable operating profit measured as determined by the tax incentive (identified as "exploration profit") of the specific projects that are benefited from the incentive during a fixed period established by the tax authorities. The Company's tax incentives expire in different periods from 2025 to 2029. Under the program rules for the benefit an amount equal to the tax benefit (the reduction in income tax) is appropriated to a reserve account ("Tax incentive reserve") within shareholders' equity of the legal entity which has the benefit; the balance of such reserve cannot be distributed to the shareholders.

Income earned with government grants of the Company is allocated from the income for the year to the tax incentive reserve in shareholders' equity. These incentives are not included in the calculation of the minimum mandatory dividend.

(vi) Other comprehensive income

Other comprehensive income includes:

- Cumulative translation adjustments on exchange differences arising from the translation of
- financial statements of foreign operations;
- The effective portion of exchange differences on the Company's hedge of net investments in a foreign operation;
- Actuarial losses (gains) and measurement of retirement benefits; and
- Other components of the investee's comprehensive income.

(b) Share capital

On December 31, 2023 and 2022, the Company's fully subscribed and paid-up share capital is R$ 7,708,353 consisting of 9,225,042,782 common shares and 300,571,428 preferred shares.

(c) Payment of dividends

On March 1, 2023, the Company's Board of Directors approved the distribution of dividends in the amount of R$ 476,500, of which R$ 218,911 as interim dividends, attributed to the minimum mandatory dividend for 2022, approved at the Annual General Meeting held on April 28, 2023 and R$ 257,589 to the profit retention reserve, which were paid to shareholders in March 2023.

On August 23, 2023, the Company paid interim dividends to shareholders allocated from the profit retention reserve in the amount of R$ 462,758, which were approved by the Board of Directors on August 16, 2023.

	2023	2022
Profit for the year attributable to owners of Company	2,433,700	999,287
Legal reserve - 5%	(121,685)	(49,964)
Tax incentive reserve	(82,574)	(73,680)
Dividend calculation basis	2,229,441	875,643
Minimum mandatory dividends - 25% as per the bylaws	557,360	218,911
Total number of shares, in thousands	9,525,614	9,525,614
Dividends per thousand shares - R$	58.51	22.98

(d) Return of capital to non-controlling interests

On June 29, 2023, the Company, through its direct subsidiary VCI, and other shareholders of St. Marys Cement Inc. reduced its capital in the amount of USD 114,600 thousand (R$ 552,280), through the return of cash by the investee to the shareholders. The amount of R$ 96,572 refers to 17% of the non-controlling interest returned and paid on the same date.

All amounts in thousands of reais unless otherwise stated

(e) Other comprehensive income of the parent company

	Note	Exchange variations on investments in foreign operations	Hedge of net investments (Note 6.4.3(c))	Actuarial losses and remeasurement of retirement benefits	Transactions with non-controlling interests	Other components of income (loss)	Total
On January 1, 2022, after effect of initial hyperinflation accounting adjustment - subsidiaries		5,384,656	(2,361,324)	(44,556)	1,513,187	(985)	4,490,978
Currency translation adjustment - foreign investments		(1,249,244)					(1,249,244)
Inflation adjustment for hyperinflationary economies - subsidiaries		6,261					6,261
Inflation adjustment for hyperinflationary economies - associates		544,315					544,315
Hedge of net investment	15(e)		(146,237)				(146,237)
Interest in other comprehensive income of investees						22,005	22,005
Losses on the investees' pension plan assets				20,127			20,127
Credit risk of debts measured at fair value						(13,173)	(13,173)
Adjustments of financial assets at fair value through other comprehensive income						(3,137)	(3,137)
Exchange rate adjustment from hyperinflationary economies		32,786					32,786
Deferred taxes	21(d)		11,164	6,857		4,640	22,661
On December 31, 2022		4,718,774	(2,496,397)	(17,572)	1,513,187	9,350	3,727,342
On January 1, 2023, after effect of accounting adjustment from the adoption to CPC 32/IAS 12 - Income taxes		4,718,774	(2,496,397)	(17,572)	1,513,187	9,350	3,727,342
Currency translation adjustment - foreign investments		(1,689,752)					(1,689,752)
Inflation adjustment for hyperinflationary economies - subsidiaries		5,512					5,512
Inflation adjustment for hyperinflationary economies - associates		733,467					733,467
Hedge of net investment	15(e)		57,282				57,282
Interest in other comprehensive income of investees						13,500	13,500
Gains on the investees' pension plan assets				(24,851)			(24,851)
Credit risk of debts measured at fair value						4,437	4,437
Adjustments of financial assets at fair value through other comprehensive income						(842)	(842)
Deferred taxes	21(d)			7,079		(896)	6,183
On December 31, 2023		3,768,001	(2,439,115)	(35,344)	1,513,187	25,549	2,832,278

26 Net revenue from contracts with customers

(a) Accounting policies

Revenue is determined based on the amount that the Company expects to receive from the sale of products and services rendered in the normal course of the entity's business, less expected losses, and less any events that may impact the measurement of the transaction amount. Revenue is shown net of value added tax, returns, rebates and discounts and, in the consolidated financial statements, after eliminating sales among consolidated companies.

The Company recognizes revenue when: (i) there is a contract or agreement with a customer and the Company that creates enforceable rights and obligations; (ii) the performance obligation in the contract is identifiable and includes a promise to transfer products or services to a customer; (iii) the transaction price is the amount of consideration defined in the contract that can be reliably measured and can be allocated to each performance obligation; (iv) the transaction price is allocated to each performance obligation based on its stand-alone selling price for each distinct product or service promised in the contract; (v) the entity recognizes revenue when it satisfies performance obligations by transferring a product or service to the customer, which occurs at the time the customer obtains control over that service or product. The value of the recognized revenue is the value allocated to the satisfied performance obligation.

The Company's general practice is to recognize revenue, and associated costs, when the entity satisfies a performance obligation:

(i) Contracts with customers related to the sale of cement, aggregates, mortar, raw materials and other include the performance obligation to deliver products to the customer. Thus, revenue is recognized when the performance obligation is fulfilled, i.e., when the product is delivered to the customer;

(ii) Concrete-pouring services include the performance obligation to deliver ready-mix concrete according to specifications in relation to concrete resistance levels specified in the contract. Revenue is recognized when the performance obligation is fulfilled upon actual delivery of ready-mix concrete to the customer. For contracts where a certain volume of concrete is delivered over a period, such as long-term construction projects (which are generally no longer than one year), the performance obligation is satisfied over time based on volumes delivered over the contract period.

A contract liability is recognized when the Company has an obligation to transfer products or services to a customer from whom the consideration has already been received. The recognition of the contractual liability occurs at the time when the consideration is received and settled, and when the entity complies with the performance obligation. Such contract liabilities are presented as advances from customers.

For some contracts with customers, the Company provides retrospective volume rebates, which are settled in the form of cash or products to be delivered free of charge to said customers when certain established purchase volumes are reached. The Company applies the expected value method to estimate the variable consideration in the contract. The Company then applies the requirements on constraining estimates of variable consideration to determine the amount of variable consideration that can be included in the transaction price and recognized as revenue. A refund liability is recognized for the expected future rebates (i.e., the amount not included in the transaction price), according to the amount that the entity estimates to deliver to the customer. The Company bases its estimates on past history, taking into consideration the type of customer, the type of transaction and the specifics of each arrangement. The Company updates its estimates of refund liabilities (and the corresponding change in the transaction price) at the end of each reporting period.

All amounts in thousands of reais unless otherwise stated

(b) Analysis

	Parent company		Consolidated	
	2023	2022	2023	2022
Gross sales				
Customers in Brazil	12,666,587	12,611,615	18,038,721	18,006,901
Customers outside Brazil		7,152	13,096,773	12,013,355
	12,666,587	12,618,767	31,135,494	30,020,256
Taxes on sales and services and other deductions	(3,216,354)	(3,101,873)	(4,453,369)	(4,222,890)
Revenue from contracts with customers	9,450,233	9,516,894	26,682,125	25,797,366

(c) Net revenue by product line

	Consolidated	
	2023	2022 (i)
Cement	17,666,897	17,295,701
Concrete	5,405,295	4,635,936
Mortar	933,043	819,675
Aggregates	843,466	780,465
Other	1,833,424	2,265,589
Revenue from contracts with customers	26,682,125	25,797,366

(i) On December 31, 2022, the Company made reclassifications between lines to improve transparency and present revenues by product line. Among these, revenues previously recorded under "Cement" in the amount of R$ 1,539,270 were reclassified to "Other".

27 Expenses by nature

	Parent company		Consolidated	
	2023	2022	2023	2022 (i)
Employee benefit expenses	1,180,995	1,102,910	3,772,104	3,381,112
Raw materials and consumables	1,341,390	1,311,934	3,698,226	3,509,598
Freight costs	1,659,075	1,686,617	3,937,640	3,916,454
Depreciation, amortization and depletion	445,227	410,107	1,868,614	1,846,855
Electric power	777,144	896,078	1,588,050	1,896,336
Fuels	1,412,657	1,566,052	3,242,715	3,955,474
Maintenance and upkeep	568,513	544,616	1,605,862	1,488,765
Services, miscellaneous	489,473	424,030	1,438,223	1,239,488
Packaging materials	251,308	207,678	470,714	412,451
Taxes, fees and contributions	31,739	36,662	194,139	200,197
Commercial and marketing expenses	70,785	86,312	99,369	130,655
Rents and leases	62,667	40,913	175,845	98,123
Insurance	10,484	8,227	88,095	83,778
Other	32,872	57,210	921,109	896,160
	8,334,329	8,379,346	23,100,705	23,055,446
Reconciliation				
Cost of goods sold and services rendered	7,245,741	7,384,906	20,799,481	20,982,540
Selling	525,582	436,779	947,856	826,495
General and administrative	563,006	557,661	1,353,368	1,246,411
	8,334,329	8,379,346	23,100,705	23,055,446

(i) On December 31, 2022, the Company made reclassifications between lines to improve transparency and present balances by nature. Among these, expenses previously recorded under "Other," in the amounts of R$ 103,991 and R$ 490,134, were reclassified to "Freight costs" and "Fuels", respectively.

All amounts in thousands of reais unless otherwise stated

28 Other operating income (expenses), net

	Parent company		Consolidated	
	2023	2022	2023	2022
Tax benefits - investments	75,038	62,452	260,341	218,860
(Provision for) reversal of impairment of assets		(4,316)	53,016	(4,316)
Future energy contracts - fair value		55,918	42,162	(57,587)
Net gain on sales of scrap	15,929	11,355	31,765	14,252
Recovery of taxes	27,489	31,339	30,260	32,545
Reversal of credit rights on CO2 emissions			17,203	32,876
Net gain on sales of PP&E and intangible assets	12,649	1,776	16,105	42,485
Income from rents and leases	1,943	3,387	15,895	11,840
Revenue from co-processing	10,202	16,375	11,263	18,145
Judicial provisions, net	(45,437)	(98,597)	(66,400)	(123,238)
Expenses involving inactive units	(19,335)	(18,812)	(22,308)	(19,324)
Expenses on projects	(5,316)	(2,426)	(5,636)	(3,936)
Other operating income (expenses), net	(9,905)	(10,292)	(23,876)	18,239
	63,257	48,159	359,790	180,841

29 Financial result, net

(a) Accounting policies

The Company's financial income and expenses comprise, mainly:

- Interest income and expenses recognized in profit or loss using the effective interest rate;
- Costs for prepayment of borrowings, including amortization of borrowing costs;
- Gains and losses generated by the remeasurement of financial assets and liabilities measured at fair value through profit or loss;
- Net gains/losses on exchange variations on financial assets and liabilities;
- Impairment of financial assets (other than trade receivables);
- Net gains/losses on hedge instruments which are recognized in profit or loss; and
- Reclassifications of net gains/losses previously recognized in other comprehensive income.

The Company treats interest on borrowings paid and the costs of repurchasing debt securities (Eurobonds) as cash flow from operating activities.

All amounts in thousands of reais unless otherwise stated

(b) Analysis

		Parent company		Consolidated	
	Note	2023	2022	2023	2022
Financial income					
Income from financial investments		164,450	210,772	288,823	269,524
Derivative financial instruments	6.4.3(a)	73,489	83,471	151,768	103,388
Reversal of inflation adjustments to provisions		99,057	61,944	125,000	80,442
Fair value of borrowings	19(d)	88,136	103,056	118,430	139,351
Inflation adjustment to assets		40,097	71,530	54,117	94,765
Interest on financial assets		18,384	51,145	42,009	83,230
Inflation adjustment to use of public assets				39,239	
Securitization commission	13(c)			36,548	34,402
Reversal of guarantee for securitization	13(c)			19,637	
Interest on related party transactions	13(c)	8,545	12,000	13,763	19,446
Gain on renegotiation of debts, net of amortization	19(d)	7,468	3,319	7,468	3,319
Income from collateralized borrowings by related parties	13(c)	11,985	12,175		
Gain on settlement of CO2 borrowing					53,747
Discounts obtained		8	40,216	369	40,220
Other financial income				46,135	16,624
		511,619	649,628	943,306	938,458
Financial expenses					
Interest payable on borrowings and other		(439,251)	(336,333)	(819,228)	(793,038)
Capitalization of interest on borrowings	16(c)	20,526	9,717	23,787	23,833
Derivative financial instruments	6.4.3(a)	(373,337)	(528,378)	(451,202)	(638,502)
Inflation adjustments to provisions and other liabilities		(136,209)	(144,926)	(188,558)	(187,675)
Fair value of borrowings	19(d)	(103,913)	(60,804)	(136,167)	(80,494)
Securitization charges	13(c)			(98,763)	(68,411)
Present value adjustment		(20,979)	(32,385)	(71,572)	(48,149)
Inflation adjustment to borrowings	19(d)	(35,402)	(42,478)	(53,638)	(64,361)
Commission on financial transactions				(46,821)	(102,430)
Borrowing costs		(10,285)	(8,313)	(19,587)	(17,459)
Inflation adjustment to use of public assets				(17,023)	(42,287)
PIS and COFINS on financial income		(8,924)	(16,848)	(16,071)	(20,375)
Derivative financial instruments with related parties	6.4.3(a) and 13(c)			(11,285)	(4,051)
Income tax on remittances of interest abroad		(7,804)	(4,892)	(9,323)	(5,976)
Losses on renegotiation of debts, net of amortization	19(d)	(6,649)	(2,955)	(8,489)	(9,745)
Interest on taxes payable		(7,002)	(8,200)	(7,711)	(8,517)
Interest on related party transactions	13(c)	(10,619)	(2,156)	(1,533)	
Charges on discounting transactions		(414)	(228)	(426)	(299)
Provision for guarantees on securitization	13(c)			(157)	(24,418)
Expenses for collateralized borrowings by related parties	13(c)	(1,526)	(4,813)		
Repurchase of bonds					(171,812)
Other financial expenses		(27,184)	(44,321)	(105,382)	(82,655)
		(1,168,972)	(1,228,313)	(2,039,149)	(2,346,821)
Net monetary gain in a hyperinflationary subsidiary				137,529	228,835
Foreign exchange gain, net		143,428	110,633	(39,774)	(115,897)
		(513,925)	(468,052)	(998,088)	(1,295,425)

30 Long-term commitments

The Company has contracts for the purchase of specific raw materials that are intended to partially replace clinker, which is the main component of cement product. It has also entered into other purchase agreements with the purpose of replacing the usage of fossil energy with alternative energy sources. The maturities vary from contract to contract, with the longest ending in 2042.

The Company has long-term electrical power supply agreements for the Brazilian operations, which aim to supplement its own hydroelectric plants. Some of these are related parties' agreements.

Other less significant long-term commitments include mainly contracts for the purchase of property, plant and equipment.

31 Events after the balance sheet date

(a) Repurchase of Voto 27 bonds by Votorantim Cimentos International ("VCI")

In January 2024, the subsidiary VCI repurchased on the secondary market USD 20,000 thousand (R$ 99,070) in principal relating to the bonds of the subsidiary St. Mary's maturing in 2027. On January 31, 2024, the remaining balance of principal of the bonds due in 2027 was approximately USD 458,532 thousand (R$ 2,271,338).

(b) Long-term energy supply contract with Atlas Brasil Energia Holding 4 S.A. ("Atlas")

On December 29, 2023, the Parent Company signed an energy supply agreement with nine special purpose companies (SPEs) for a 15-year period. The SPEs hold authorizations to operate solar parks to generate electricity ("Solar Parks"). The Solar Parks, located in the State of Minas Gerais, with 100 MW of installed capacity, are expected to begin supplying energy in March 2026. This strengthens the Company's investments in diversifying its renewable energy mix.

To implement the operation, the Parent Company completed the acquisition of the interest in Atlas Brasil, being 10% of the total share capital and 99% of the company's voting capital, for R$ 65,997, which will be paid in March 2026, and the balance receivable for the future purchase option will be received in a single installment. The future call option of the equity interest held by the Parent Company can be exercised unilaterally by Atlas Brasil Energia Holding 4 S.A. ("Atlas") at the end of the energy supply agreement. Based on the terms and conditions established in the Shareholders' Agreement and the future purchase option held by Atlas, the Company concluded that it does not have significant influence over Atlas's business.

On December 31, 2023, this operation was subject to approval by the General Superintendence of the Administrative Council for Economic Defense (CADE)., which was duly approved on January 22, 2024 and published in the Federal Official Gazette.

(c) Law 14,789/2023 - Subsidy for investments

On December 29, 2023, Law 14,789/2023 was published, effective from 2024, which changed the tax treatment of ICMS tax benefits for IRPJ/CSLL and PIS/COFINS purposes, introducing a new system of taxation. The Company is assessing the procedures and impacts for future year.

(d) Offer for the acquisition of assets of Intercement Brasil S.A.

In February 2024, VCSA announced to the market an individual and independent offer to acquire part of the assets of Intercement Brasil S.A.

The offer's confidential terms describe conditions precedent for carrying out the transaction, usual for this type of operation, including the approval by the Brazilian antitrust authority, CADE.

Up to the date of authorization of these parent company and consolidated financial statements, the offer is still under assessment by the seller and, therefore, no documents have been signed with any other counterparty that would entail an obligation or a firm commitment for the acquisition of assets subject of the offer.

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VOTORANTIM cimentos