Companhia Brasileira de Alumínio

Parent company and consolidated financial statements at December 31, 2019 and independent auditor's report.

(A free translation of the original in Portuguese)

Independent auditor's report

To the Board of Directors and Stockholders
Companhia Brasileira de Alumínio

Opinion

We have audited the accompanying parent company financial statements of Companhia Brasileira de Alumínio (the "Company"), which comprise the balance sheet as at December 31, 2019 and the statements of income, comprehensive income, changes in shareholder's equity and cash flows for the year then ended, as well as the accompanying consolidated financial statements of Companhia Brasileira de Alumínio and its subsidiaries ("Consolidated"), which comprise the consolidated balance sheet as at December 31, 2019 and the consolidated statements of income, comprehensive income, changes in shareholder's equity and cash flows for the year then ended, and notes to the financial statements, including a summary of significant accounting policies.

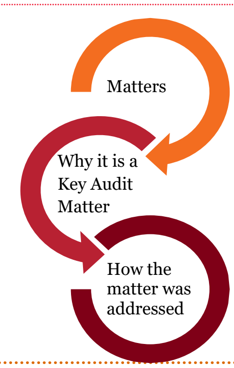
In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of Companhia Brasileira de Alumínio and of Companhia Brasileira de Alumínio and its subsidiaries as at December 31, 2019, and the financial performance and the cash flows for the 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).

Basis for opinion

We conducted our audit in accordance with Brazilian and International Standards on Auditing. Our responsibilities under those standards are further 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 and its subsidiaries 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 (KAM) are those matters that, in our professional judgment, were of most significance in our audit of the financial statements of the current period. 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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Our audit for the year ended December 31, 2019 was planned and performed considering that the operations of the Company and Consolidated did not present significant changes in comparison with the prior year. The key audit matters, and our audit approach, were similar to those of the prior year.

Why it is a key audit matter	How the matter was addressed in the audit
Recovery of deferred taxes (Note 22)	
At December 31, 2019, the Company and its subsidiaries present deferred tax assets from tax losses, social contribution losses and temporary differences. These credits were recorded to the extent management considers it is possible the generation of sufficient future taxable profits for their utilization. We consider this an area of focus in our audit, since the analysis of the realization of these assets involves important and subjective judgments to determine the future taxable bases, arising from the projections of results of the Company and its subsidiaries, which take into consideration several assumptions.	As an audit response, we performed the following procedures, among others: We obtained the impairment analysis of deferred tax assets prepared by the Company's management and checked that the main assumptions are consistent with the long-term business plan approved by the Board of Directors. We performed an assessment, on a test basis, of the calculation of tax credits and in relation to the models and main assumptions used by management to estimate the timing of the realization of deferred taxes. We compared these assumptions, when applicable, with market and macroeconomic information disclosed in the market. We analyzed the reasonableness of the term for using accumulated losses and temporary differences over future years, as well as tested the logical and arithmetic consistency of the calculations presented in the projections made by management. We consider that the criteria and assumptions adopted by the Company's management to determine deferred taxes, as well as the disclosures made, are reasonable, in all material respects, in the context of the financial statements.
ICMS on the PIS and COFINS calculation basis (Notes 1.1 (d) and 14 (b))	
The Company recognized in the year ended December 31, 2019, tax credit arising from the payment of Programa de Integração Social ("PIS") and Contribuição para Financiamento da Seguridade Social ("COFINS") taxes, in its	In addressing this matter, we obtained the legal positions of the Company's external legal counsel and involved our tax specialists in the assessment of the risks involved in recognizing such credit. We assessed, on a test basis, the calculations of tax

Why it is a key audit matter	How the matter was addressed in the audit
calculation bases the Imposto sobre Operações Relativas à Circulação de Mercadorias e Serviços ("ICMS"). We consider this an area of focus in our audit, since the Company's assessment of the realization of these credits involves important and subjective judgments to determine the future taxable bases for the utilization of these amounts.	credits and the models and critical assumptions used by Management to determine them. We consider that the criteria and assumptions used by Management to determine tax credits and the disclosures in the related explanatory notes are consistent with the information received during our audit.

Other matters

Statements of Value Added

The parent company and consolidated Statements of Value Added for the year ended December 31, 2019, prepared under the responsibility of the Company's management and presented as supplementary information for IFRS 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.

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), 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 Company's ability 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 financial reporting process of the Company and its subsidiaries.

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.

- 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 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 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.

Companhia Brasileira de Alumínio

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, related safeguards.

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 period 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 20, 2020

PricewaterhouseCoopers
Auditores Independentes
CRC 2SP000160/O-5

Adriano Machado
Contador CRC 1PR042584/O-7

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Companhia Brasileira de Alumínio

Balance Sheet
Fiscal years ended December 31
In thousands of Brazilian Reais

Assets	Note	Parent company 2019	Parent company 2018 Restated	Consolidated 2019	Consolidated 2018 Restated
Current					
Cash and cash equivalents	10	190,171	115,747	190,321	116,811
Financial investments	11	323,519	379,752	416,345	453,158
Derivative financial instruments	6.2 (d)	42,272	168,312	42,272	168,312
Accounts receivable from customers	12	380,456	495,072	404,296	489,708
Inventory	13	902,375	810,240	928,142	827,467
Recoverable taxes	14	631,897	350,445	640,190	357,018
Dividends receivable	15	9,519	1,401	6,295	416
Financial instruments – firm commitment	15		116,174		116,174
Other assets		38,624	47,525	41,377	52,354
		2,518,833	2,484,668	2,669,238	2,581,418
Non-current assets					
Long-term receivables					
Financial investments	11	64	64	2,094	2,394
Derivative financial instruments	6.2 (d)	92,343		92,343	
Recoverable taxes	14	737,335	656,166	737,340	656,187
Deferred income tax and social contribution	22 (b)	836,642	771,755	840,730	781,710
Related parties	15	28,043	531	28,043	529
Judicial deposits	23 (f)	114,468	128,057	115,259	128,107
Other assets		15,998	18,187	17,715	21,827
		1,824,893	1,574,760	1,833,524	1,590,754
Investments	16	568,590	551,234	205,081	196,879
Property, Plant and Equipment	17	4,213,369	4,299,218	4,722,113	4,833,590
Intangible assets	18	387,535	395,939	491,738	501,014
Right to use	19	13,013		15,306	
		7,007,400	6,821,151	7,267,762	7,122,237
Total assets		9,526,233	9,305,819	9,937,000	9,703,655

Liabilities and shareholders' equity	Note	Parent company 2019	Parent company 2018 Restated	Consolidated 2019	Consolidated 2018 Restated
Current					
Loans and financing	20	94,722	85,459	126,484	118,095
Leases	19	7,308		9,277	
Derivative financial instruments	6.2 (d)	20,535	57,786	20,535	57,786
Suppliers		405,862	400,978	407,215	390,816
Supplier Finance Programs	21	335,130	256,645	335,130	256,645
Wages and social charges		121,136	116,903	123,054	118,724
Taxes to be collected		13,047	9,384	41,926	32,336
Advances from customers		20,281	29,021	20,413	29,049
Dividends payable	15	79	10,338	14,072	12,652
Use of public assets – UBP	24	39,314	39,148	44,878	44,156
Financial instruments – firm commitment	15	16,636		16,636	
Related parties	15	27,287	223,521	27,201	223,369
Other liabilities		24,827	31,117	49,546	48,837
		1,126,164	1,260,300	1,236,367	1,332,465
Non-current assets					
Loans and financing	20	1,969,555	1,849,597	2,030,381	1,940,772
Leases	19	6,134		6,506	
Derivative financial instruments	6.2 (d)	217,723		217,723	
Related parties	15	2,330	13,287	2,330	13,287
Provisions	23	681,672	473,684	683,604	475,387
Use of public assets – UBP	24	533,322	512,214	580,080	559,432
Financial instruments – firm commitment	15	76,642	82,284	76,642	82,284
Other liabilities		38,527	50,037	43,269	53,499
		3,525,905	2,981,103	3,640,535	3,124,661
Total liabilities		4,652,069	4,241,403	4,876,902	4,457,126
Shareholders' equity	25				
Share capital		4,950,095	4,950,095	4,950,095	4,950,095
Profit reserves			36,928		36,928
Accrued losses		(58,073)		(58,073)	
Equity valuation adjustments		(17,858)	77,393	(17,858)	77,393
Shareholders' equity assigned to controlling shareholders		4,874,164	5,064,416	4,874,164	5,064,416
Share of non-controlling shareholders				185,934	182,113
Total shareholders' equity		4,874,164	5,064,416	5,060,098	5,246,529
Total liabilities and shareholders' equity		9,526,233	9,305,819	9,937,000	9,703,655

The explanatory notes are an integral part of these individual and consolidated financial statements.

Income statement
Fiscal years ended December 31
In thousands of Brazilian Reais, except when indicated otherwise

		Parent company		Consolidated	
	Note	2019	2018	2019	2018
Net revenue of products sold and services rendered	26	5,179,393	5,387,929	5,263,684	5,417,476
Cost of products sold and services rendered	27	(4,657,538)	(4,521,354)	(4,606,117)	(4,468,043)
Gross profit		521,855	866,575	657,567	949,433
Operating expenses					
Selling	27	(35,299)	(34,215)	(35,922)	(35,952)
General and administrative	27	(206,562)	(190,211)	(213,997)	(197,155)
Other operating expenses	29	(179,867)	(36,996)	(177,746)	(35,309)
		(421,728)	(261,422)	(427,665)	(268,416)
Operating profit before holdings interest and financial results		100,127	605,153	229,902	681,017
Equity income					
Equity	16	56,321	(7,903)	14,497	(27,037)
		56,321	(7,903)	14,497	(27,037)
Net financial result	30				
Financial revenue		306,906	149,454	313,145	151,977
Financial expenses		(497,944)	(376,331)	(515,031)	(394,531)
Exchange variations, net		(45,775)	(283,034)	(45,611)	(283,275)
		(236,813)	(509,911)	(247,497)	(525,829)
Profit (loss) before income tax and social contribution		(80,365)	87,339	(3,098)	128,151
Income tax and social contribution	22 (a)				
Current			7,757	(42,110)	(26,215)
Deferred		16,140	(51,902)	10,663	(47,871)
Net profit (loss) for the year		(64,225)	43,194	(34,545)	54,065
Net profit (loss) for the year attributable to controlling shareholders		(64,225)	43,194	(64,225)	43,194
Net profit assigned to non-controlling shareholders				29,680	10,871
Net profit (loss) for the year		(64,225)	43,194	(34,545)	54,065
Weighted average number of shares, in thousands		1,420,294	1,482,186	1,420,294	1,482,186
Basic and diluted profit (loss) per share in Brazilian reais		(0.05)	0.03	(0.05)	0.03

The explanatory notes are an integral part of these individual and consolidated financial statements.

Comprehensive income statement
Fiscal years ended December 31
In thousands of Brazilian Reais

		Parent company		Consolidated	
	Note	2019	2018	2019	2018
Net profit (loss) for the year		(64,225)	43,194	(34,545)	54,065
Other components of comprehensive income to be subsequently reclassified to the result					
Operational hedge accounting, before taxes	25 (c)	(95,251)	171,861	(95,251)	171,861
		(95,251)	171,861	(95,251)	171,861
Total comprehensive income for the year		(159,476)	215,055	(129,796)	225,926
Comprehensive income attributable to shareholders					
Controlling				(159,476)	215,055
Non-controlling				29,680	10,871
				(129,796)	225,926

The explanatory notes are an integral part of these individual and consolidated financial statements.

Companhia Brasileira de Alumínio

Statement of changes in shareholders' equity
In thousands of Brazilian Reais

		Attributable to controlling shareholders							
			Profit reserves						
	Note	Share capital	Legal	Retention	Accrued profits (losses)	Equity valuation adjustments	Total	Share of non-controlling shareholders	Shareholders' equity
On January 1, 2018, after the impacts of the adoption of IFRS 9		5,637,299	518	4,267		(94,468)	5,547,616	113,044	5,660,660
Initial adoption of IFRS 9					(792)		(792)		(792)
On January 1, 2018, after the impacts of the adoption of IFRS 9		5,637,299	518	4,267	(792)	(94,468)	5,546,824	113,044	5,659,868
Comprehensive income for the year									
Net profit for the year					43,194		43,194	10,871	54,065
Other components of comprehensive income						171,861	171,861		171,861
					43,194	171,861	215,055	10,871	225,926
Contributions and distributions to shareholders									
Capital reduction		(687,204)					(687,204)		(687,204)
Constitution of the legal reserve			2,160		(2,160)		-		-
Dividends considered	1.1 (b)				(10,259)		(10,259)	(2,232)	(12,491)
Sale of subsidiary interest							-	60,430	60,430
Profit retention				29,983	(29,983)				
		(687,204)	2,160	29,983	(42,402)		(697,463)	58,198	(639,265)
On December 31, 2018		4,950,095	2,678	34,250		77,393	5,064,416	182,113	5,246,529
Comprehensive income for the year									
Net profit (loss) for the year					(64,225)		(64,225)	29,680	(34,545)
Other components of comprehensive income						(95,251)	(95,251)		(95,251)
					(64,225)	(95,251)	(159,476)	29,680	(129,796)
Contributions and distributions to shareholders									
Dividends approved	1.1 (b)				(30,776)		(30,776)	(25,859)	(56,635)
Compensation for accumulated losses			(2,678)	(34,250)	36,928		-		-
			(2,678)	(34,250)	6,152		(30,776)	(25,859)	(56,635)
On December 31, 2019		4,950,095			(58,073)	(17,858)	4,874,164	185,934	5,060,098

The explanatory notes are an integral part of these individual and consolidated financial statements.

Companhia Brasileira de Alumínio

Cash flow statement
Fiscal years ended December 31
In thousands of Brazilian Reais

	Note	Parent company 2019	Parent company 2018 Restated	Consolidated 2019	Consolidated 2018 Restated
Cash flow from operational activities					
Profit (loss) before income tax and social contribution		(80,365)	87,339	(3,098)	128,151
Adjustments to items that do not represent changes in cash and cash equivalents					
Interest, monetary and exchange variations		179,191	424,902	181,671	431,349
Equity	16	(56,321)	7,903	(14,497)	27,037
Depreciation, amortization and depletion	17, 18 and 19	428,512	271,836	462,561	303,202
ACR – Financial instrument realization – firm commitment	29	105,304	116,115	105,304	116,115
ACL – Financial instrument realization – firm commitment	29	17,051	9,341	17,051	9,341
ACL – Financial instrument recognition – firm commitment	29	(179)	22,719	(179)	22,719
ACR – Financial instrument volume reduction (increase) – firm commitment	29	4,993	(1,660)	4,993	(1,660)
Net loss on sale of assets	29	57,528	1,103	57,528	2,146
Net investment gain	29		(111,070)		(111,070)
Provision (reversal) for asset depreciation (Impairment)	29	144,917	(40,727)	144,917	(40,727)
Recognition of credit arising from the exclusion of ICMS from the calculation base for PIS/COFINS and recognition of social security credit	1.1 (d) and 1.1 (f)	(271,856)		(275,798)	
(Reversals) of provisions, net	12, 13 and 23	(8,396)	(86,134)	(7,704)	(86,400)
		520,379	701,667	672,749	800,203
Decrease (increase) in assets					
Financial investments		85,464	583,894	71,347	564,445
Accounts receivable from customers		112,536	(108,436)	82,719	(100,771)
Inventory		(86,940)	(170,223)	(95,480)	(166,719)
Recoverable taxes		(90,765)	(11,669)	(88,527)	(13,076)
Judicial deposits		13,589	(8,041)	12,848	(9,095)
Other credits and other assets		(9,739)	(21,279)	(7,592)	(16,083)
Increase (decrease) in liabilities					
Suppliers		4,884	(50,840)	16,399	(31,847)
Supplier Finance Programs		78,485	218,212	78,485	218,212
Wages and social charges		4,233	(18,510)	4,330	(18,814)
Taxes to be collected		3,663	(1,509)	2,852	(1,969)
Payments of tax, civil and labor proceedings		(30,556)	(44,677)	(30,556)	(44,677)
Use of public assets – UBP		9,502	14,721	9,597	18,551
Derivative financial instruments		(80,476)	142,501	(80,086)	142,501
Other obligations and other liabilities		8,631	(22,246)	19,017	(20,700)
Cash from operating activities		542,890	1,203,565	668,102	1,320,161
Interest paid on loans, financing and use of public assets – UBP		(111,891)	(140,592)	(120,001)	(151,377)
Income tax and social contribution paid				(35,372)	(36,388)
Net cash from operating activities		430,999	1,062,973	512,729	1,132,396
Cash flow from investment activities					
Acquisition of property, plant and equipment and intangible assets	17, 18 and 19	(345,807)	(236,992)	(351,461)	(242,261)
Receipt for sale of property, plant and equipment		13,094	9,061	13,118	8,018
Increase in interest in investees	16	(260)	(6,088)		(5,316)
Related parties		(27,512)	536	(27,514)	393
Receipt of Dividends		31,107	28,608	416	5,246
Net cash applied to investment activities		(329,378)	(204,875)	(365,441)	(233,920)
Cash flow from financing activities					
Fund raising	20 (c)	1,175,168	34,902	1,175,168	34,902
Amortization of loans and financing	20 (c)	(1,091,233)	(177,517)	(1,121,676)	(217,641)
Derivative financial instruments		150,647	(147,873)	150,647	(147,873)
Capital reduction			(205,983)		(205,983)
Dividends paid		(41,035)	(12,717)	(55,215)	(12,635)
Lease payments made	19	(13,553)		(15,577)	
Related parties		(207,191)	(251,354)	(207,125)	(251,289)
Net cash applied to financing activities		(27,197)	(760,542)	(73,778)	(800,519)
Increase in cash and cash equivalents		74,424	97,556	73,510	97,957
Cash and cash equivalents at the beginning of the year		115,747	18,191	116,811	18,854
Cash and cash equivalents at the end of the year		190,171	115,747	190,321	116,811
Transactions that did not affect cash					
Revisions to cash flow estimates related to asset demobilization		170,709	(7,083)	170,709	(7,083)
Capital reduction			(481,222)		(481,222)

The explanatory notes are an integral part of these individual and consolidated financial statements.

Companhia Brasileira de Alumínio

Value added statement
Fiscal years ended December 31
In thousands of Brazilian Reais

		Parent company		Consolidated	
	Note	2019	2018 Restated	2019	2018 Restated
Revenue					
Sales of products and services (excluding sales returns and rebates)		5,929,928	6,195,097	6,100,200	6,300,574
Other operating revenues		271,856	111,070	275,798	111,070
Provision (reversal) for doubtful accounts	12 (c)	(2,080)	6,011	(2,080)	6,011
		6,199,704	6,312,178	6,373,918	6,417,655
Inputs purchased from third parties					
Raw materials and other production inputs		(3,164,565)	(3,235,037)	(3,066,752)	(3,139,163)
Materials, electricity, third-party services and others		(926,898)	(774,719)	(943,110)	(777,833)
		(4,091,463)	(4,009,756)	(4,009,862)	(3,916,996)
Gross added value		2,108,241	2,302,422	2,364,056	2,500,659
Depreciation, amortization and depletion	17, 18 and 19	(428,512)	(271,836)	(462,561)	(303,202)
Provision (reversal) for asset depreciation (Impairment)	17 and 18	(144,917)	40,727	(144,917)	40,727
Net added value produced		1,534,812	2,071,313	1,756,578	2,238,184
Added value received in transfer					
Equity income	16	56,321	(7,903)	14,497	(27,037)
Financial revenues		306,906	149,454	313,145	151,977
		363,227	141,551	327,642	124,940
Total added value to be distributed		1,898,039	2,212,864	2,084,220	2,363,124
Distribution of added value					
Personnel and social charges	28				
Direct remuneration		348,556	330,006	356,481	337,397
Social charges		204,493	191,234	208,744	195,025
Benefits		91,767	85,417	94,307	87,262
		644,816	606,657	659,532	619,684
Taxes and contributions					
Federal		533,885	587,650	643,147	688,427
State		229,706	226,536	240,297	235,838
Deferred taxes	22	(16,140)	51,902	(10,663)	47,871
		747,451	866,088	872,781	972,136
Remuneration of third-party capital					
Financial expenses and exchange variations, net		543,719	659,365	560,642	677,806
Rentals		26,278	37,560	25,810	39,433
		569,997	696,925	586,452	717,239
Remuneration of equity					
Share of non-controlling shareholders				29,680	10,871
Net profit (loss) for the year		(64,225)	43,194	(64,225)	43,194
		(64,225)	43,194	(34,545)	54,065
Distributed added value		1,898,039	2,212,864	2,084,220	2,363,124

The explanatory notes are an integral part of these individual and consolidated financial statements.

1 General considerations

Companhia Brasileira de Alumínio ("Company" or "CBA") is controlled by Votorantim S.A. ("VSA"), headquartered in the city of São Paulo, whose main activities are the exploration of bauxite minings in the national territory, producing and/or trading bauxite, alumina, primary aluminum and processed products in Brazil and abroad. The Company has a wide range of products, such as ingots, billets, plates, coils, sheets and extruded products. The Company also controls electrolytic cobalt and nickel operations, in addition to trading of surplus electricity generated on the local market through Votener – Votorantim Comercializadora de Energia.

The bauxite processed by the Company mainly comes from two of its own mining units, located in Minas Gerais (Poços de Caldas and Miraí), and a small part from a supplier located in the state of Goiás (Barro Alto).

The Company has its own hydroelectric power plants and participates in consortia, which enables it to reduce the cost of energy consumed during the primary aluminum production process.

1.1 Key events that occurred during the 2019 fiscal year

(a) Dividends received

On April 23, 2019 at the annual shareholders' meeting, the subsidiary Metalex, based on net profit calculated on December 31, 2018, deliberated to distribute dividends in the amount of BRL 20,000, credited to the Company's current account on April 24, 2019.

(b) Dividend distribution

On April 30, 2019, in addition to the mandatory minimum dividends recorded on December 31, 2018 in the amount of BRL 10,259, during the annual shareholders' meeting, the Board of Directors deliberated to distribute the remaining balance of net profit calculated on December 31, 2018 as dividends to shareholders, in the amount of BRL 30,776, for a total distribution of BRL 41,034.

(c) Sale of the distribution center (CD) in Rio de Janeiro

On May 31, 2019, the Rio de Janeiro distribution center was sold in the amount of BRL 25,000, to be received in local currency within 5 years. The sale value of the establishment was determined in an appraisal report issued by a third-party consultant, considering macroeconomic assumptions. The operation generated a net loss in the sale of assets in the amount of BRL 23,747, recorded under "Other operating expenses."

(d) Exclusion of ICMS from the PIS and COFINS calculation base

During the year 2019, the final decision was recognized in the Company's judicial proceedings related to the thesis of ICMS exclusion on the PIS and COFINS calculation basis, with assets recorded in the amount of BRL 473,315, of which BRL 256,091 was recorded as principal under "Other operating revenues (expenses), net" and BRL 217,224 as monetary restatement, recorded under "Financial results."

In thousands of Brazilian Reais, except when indicated otherwise

(e) ARO remeasurement

In December 2019, the Company updated its environmental obligations for asset decommissioning, in the amount of BRL 4,045 for the Aluminum units and BRL166,664 for the Nickel units, recorded under "Property, Plant and Equipment" and "Provisions".

The table below shows the main areas that impacted the updating of environmental obligations:

	Parent company and consolidated		
	Remeasurement 2019	remeasurement 2008/2012	Variations
General	65,149	26,432	38,717
Power Plant Caron	57,204	39,001	18,203
Tailing dam of Jacuba	54,718	11,934	42,784
Piles of Sterile	21,888	4,511	17,377
Industrial factory of São Miguel Paulista	16,203		16,203
Post-Closing	15,270	6,210	9,060
Others	98,754	70,389	28,365
	329,186	158,477	170,709

The Company provisioned impairment for units with shutdown operations – Itamarati de Minas, São Miguel Paulista and Niquelândia, in the amount of BRL 170,709.

(f) Social security credit

In December 2019, the Company recorded credits as a result of reviews on social security contributions improperly withheld in previous years, recorded under assets in the amount of BRL 19,519, of which BRL 15,765 was recorded as principal under "Other operating expenses" and BRL 3,754 as monetary restatement, recorded under "Financial results".

2 Presentation of the financial statements and summary of accounting practices

2.1 Presentation base

(a) Individual (parent company) and consolidated financial statements

The financial statements were prepared and are being submitted in accordance with accounting practices adopted in Brazil, in effect on December 31, 2019, which include the pronouncements issued by the Technical Pronouncements Committee (CPCs) and in accordance with the International Financial Reporting Standards (IFRS) issued by the International Accounting Standards Board (IASB) and "IFRIC" interpretations, and disclose all relevant information pertaining to the financial statements, and only thereto, which are consistent with those used by the Board of Directors in its management.

The financial statements were prepared considering the historical cost as a value base, which in the case of certain financial assets and liabilities, including derivative instruments, was measured at fair value.

The accounting policies applied to the financial statements are consistent with those adopted and disclosed in the financial statements for previous years. The accounting policies of the subsidiaries, affiliates and joint ventures are adjusted to ensure consistency with the policies adopted by the Company.

The accounting policies that are significant and relevant in understanding the financial statements were included in the respective explanatory notes, with a summary of the recognition and measurement bases used by the Company.

The financial statements require the use of certain critical accounting estimates and also the exercise of judgment by the Company's Board of Directors in the process of applying its accounting practices. The areas that require a higher level of judgment and are more complex, as well as the areas in which assumptions and estimates are most significant, are disclosed in Note 4.

The Company spontaneously discloses its value added statement, in accordance with accounting practices adopted in Brazil, applicable to publicly-held companies, and are presented as an integral part of the financial statements. This statement is presented as additional information for international practices, without prejudice to the set of financial statements.

(b) Approval of the financial statements

The issuance of these financial statements was approved by the Board of Directors on February 20, 2020.

2.2 Consolidation

The Company consolidates all entities over which it holds control, i.e. when it is exposed or has rights to variable returns from its involvement with the investee and has the capacity to direct the relevant activities of the investee.

The subsidiaries included in the consolidation are set forth in Note 2.2 (c).

(a) Subsidiaries

Subsidiaries are fully consolidated from the date on which control is transferred to the Company.

Transactions, balances and unrealized gains on transactions between the Company's companies are eliminated. Unrealized losses are also eliminated, unless the transaction provides evidence of impairment of the transferred asset. During the acquisition, the subsidiaries' accounting policies are adjusted when needed to ensure consistency with the policies adopted by the Company.

(b) Affiliates and joint ventures

Joint transactions are recorded in the financial statements to represent the Company's contractual rights and obligations. Accordingly, assets, liabilities, income and expenses related to their interests in joint operation are recorded individually in the financial statements.

Investments in affiliates and joint ventures are recorded using the equity method and are initially recognized at cost. The Company's investment in associates and joint ventures includes the goodwill identified during the acquisition, net of any accumulated impairment loss.

Dilution gains and losses, incurred in investments in associates and joint ventures, are recognized in the income statement.

In thousands of Brazilian Reais, except when indicated otherwise

(c) Main companies included in the consolidated financial statements

	Percentage of total capital		Percentage of voting			
	2019	2018	2019	2018	Headquarter locations	Core activity
Metalex Ltda.	100.00	100.00	100.00	100.00	São Paulo - Brazil	Production of aluminum and its alloys in primary forms
CBA Energia Participações S.A.	33.33	33.33	100.00	100.00	São Paulo - Brazil	Interest in energy generation companies
CBA Machadinho Geração de Energia Ltda.	100.00	100.00	100.00	100.00	São Paulo - Brazil	Interest in energy generation companies
Exclusive financial application funds						
Pentágono CBA Investment Fund Multimarket – Private credit	100.00	100.00	100.00	100.00	Brazil	Financial resource management

2.3 Foreign currency conversion

(a) Functional currency and presentation of the financial statements

The Company's functional currency is the Brazilian Reais ("BRL").

(b) Transactions and balances

Transactions in foreign currencies are converted into Brazilian Reais. Current exchange rates on the dates of the transaction or of the assessment are used for remeasured items. Exchange gains and losses resulting from the settlement of these transactions and from the conversion by exchange rates at the end of the fiscal year, regarding monetary assets and liabilities in foreign currencies, are recognized in the income statement as "exchange variations, net".

3 Changes in accounting practices and disclosures

3.1 Changes to standards applicable as of January 1, 2019

3.1.1 IFRS 16 / CPC 06 (R2) – "Leases"

(i) Key aspects introduced by the standard – effective January 1, 2019

IFRS 16 establishes principles for the recognition, measurement, presentation and disclosure of lease agreements. The standard introduces lessees to a unique balance sheet accounting model where they are required to recognize a lease liability reflecting future payments and the right to use of the leased asset. The nature of the expense related to these leases was changed from a linear operating lease expense to an amortization of the right to use and interest expense by restatement of the lease liability.

This standard replaces existing lease standards, including CPC 06 (IAS 17) – "Commercial Lease Operations" and ICPC 03 (IFRIC 4, SIC 15 and SIC 27) – "Complementary Aspects of Commercial Lease Operations."

(ii) Impacts of adoption

The Company has adhered to IFRS 16 as of its adoption on January 1, 2019, in accordance with the simplified cumulative effect approach in which assets and liabilities are recorded at the same amount in the initial moment without any effect on shareholders' equity. The Company and its subsidiaries recognized the amount of BRL 28,318 related to right to use assets and liabilities with lease agreements.

(a) Scope in the analysis and identification of assets

The Company reviewed all active lease agreements on the initial adoption date of the standard, when leasing of machinery and equipment, light and heavy vehicles, and real estate were identified for initial measurement.

As permitted by the standard, the scope of the analysis disregarded the following: (i) short-term leases (less than 12 months); and (ii) agreements with amounts less than USD 5 thousand (BRL 19).

With regard to the right to use assets within the scope of identified contracts, the following were also disregarded: (i) agreements with variable payments; (ii) agreements under which the leased asset was considered unidentifiable; (iii) agreements under which the Company is not entitled to substantially all of the economic benefits from the use of the asset; and (iv) agreements under which the company does not posses substantial control to define the manner in which asset will be used

It is important to highlight that the Company analyzed, but failed to identify: (i) agreements that present fixed and variable payments concurrently negotiated; (ii) agreements that address identifiable and non-identifiable assets concurrently negotiated; or (iii) service agreements where assets within the scope of the standard were identified.

(b) Lease term

The Company analyzed the lease terms for all agreements according to the combination of the non-cancellable term, the term covered by the extension option, the term covered by the termination option and, mainly, management's intentions regarding the term remaining in each such agreement.

(c) Discount rate

For initial adoption purposes, the Company selected the average cost of outstanding debt on December 31, 2018 (6.94%) for all agreements classified in accordance with IFRS 16.

The incremental rate for each lease agreement will be identified for new agreements, renewals and addenda. The incremental rate will reflect the cost of acquisition, by the Company, of debt with characteristics similar to those set forth in the lease regarding term, amount, guarantee and economic environment.

3.1.2 IFRIC 23 / ICPC 22 – "Uncertainty about tax treatment on profit"

(i) Key aspects introduced by the standard – effective from January 1, 2019

This interpretation clarifies how the recognition and measurement requirements of CPC 32 – Taxes on Profit should be applied when there is uncertainty about tax treatment on profit. In such circumstances, the Company will recognize and measure its assets or liabilities by current or deferred taxes by applying the requirements of CPC 32 – Taxes on Profit, based on taxable profit (tax loss), taxable income, unused tax losses, unused tax credits and tax rates determined pursuant to this interpretation.

(ii) Impacts on adoption

The Company and its subsidiaries have adhered to the standard as of its effective date of January 1, 2019. However, based on the Board of Directors' understanding, there is no material impact on accounting arising from uncertain positions regarding tax on profit due to the adoption of this new accounting standard.

In thousands of Brazilian Reais, except when indicated otherwise

3.1.3 Accounting estimate change – Electrolytic Reduction Vats

In accordance with its accounting policy, the Company reviews the estimated service life and standard of use for future economic benefits of its property, plant and equipment on an ongoing basis. This review indicated a change in the future standard of use for electrolytic reduction vats, recognized in the "Machinery, equipment and facilities" class.

As a result, as of 2019, the Company changed the specific depreciation rate for the electrolytic reduction vats prospectively recorded as a change in the accounting estimate in accordance with CPC 23 and IAS 8 – "Accounting Policies, Changes in Accounting Estimates and Errors."

3.2 Review of comparative balances

The Company revised and updated the comparative balances related to the disclosures in the latest annual financial statements by reiterating that the changes were reallocations between line items and did not represent changes in the results for this comparative period.

The reclassifications were made in the explanatory notes on Exchange rate risk (suppliers and drawee risk), Cash and cash equivalents, Financial investments, Liquidity risk (UBP) and Expenses by nature (best opening in the current period and corresponding adjustment in the comparative period).

The Company classified the Odessa Fund as cash and cash equivalents, according to the characteristics of the financial product and adherence to the current standard.

				Parent company
	As originally submitted	Odessa Fund Reclassification	Reclassification of category	Resubmitted
Current				
Cash and cash equivalents	40,641	75,106		115,747
Financial investments	454,858	(75,106)		379,752
Non-current assets				
Property, Plant and Equipment	4,265,893		33,325	4,299,218
Intangible assets	362,614		(33,325)	329,289
				Consolidated
	As originally submitted	Odessa Fund Reclassification	Reclassification of category	Resubmitted
Current				
Cash and cash equivalents	41,705	75,106		116,811
Financial investments	528,264	(75,106)		453,158
Non-current assets				
Property, Plant and Equipment	4,800,265		33,325	4,833,590
Intangible assets	534,339		(33,325)	501,014

4 Critical accounting estimates and judgments

Based on assumptions, the Company makes estimates regarding the future. By definition, accounting estimates and judgments are continually assessed and are based on historical experience and other factors, including expectations of future events, considered reasonable under the circumstances.

Accounting estimates will rarely be equal to their respective actual results. The estimates and assumptions that present significant risk, with the probability of causing a relevant adjustment in the book values of assets and liabilities for the next fiscal year, are included in the respective notes:

– Accounts receivable from customers (Note 12)

– Financial instruments – firm commitment (Note 8)

– Recoverable taxes (Note 14)

– Property, Plant and Equipment (Note 17)

– Intangible assets (Note 18)

– Leases (Note 19)

– Deferred income tax and social contribution (Note 22)

– Provisions (Note 23)

5 Socio-environmental Risk Management

The Company and its subsidiaries operate in several segments and, therefore, their activities are subject to numerous national and international environmental laws, regulations, treaties and conventions, including those that regulate the discharge of materials into the environment, which require removal and cleaning, avoiding contamination of the environment, or related to environmental protection.

Violations of existing environmental regulations expose offenders to substantial fines and financial penalties and may require technical measures or investments to ensure compliance with mandatory emission limits.

The Company and its subsidiaries periodically conduct surveys for the purpose of identifying potentially impacted areas and record, based on the best cost estimate, the estimated values for investigation, treatment and cleaning of potentially impacted sites.

6 Capital management

6.1 Financial risk factors

The activities of the Company and its subsidiaries expose them to various financial risks, namely: (a) market risk (currency, commodity prices and interest rates); (b) credit risk; and (c) liquidity risk.

A significant portion of the products sold by the Company are commodities, whose prices are benchmarked in international quotations and denominated in U.S. dollars.

Costs, however, are predominantly denominated in Brazilian Reais, resulting in the natural mismatch of currencies between revenues and costs. Additionally, the Company and its subsidiaries have loans linked to different interest rates and currencies, which may affect their cash flow.

In order to mitigate the various effects of each market risk factor, the Company and its subsidiaries follow a Financial Policy, approved by the Board of Directors, with the purpose of establishing governance and its macro guidelines in the financial risk management process, as well as measurement and monitoring indicators.

In thousands of Brazilian Reais, except when indicated otherwise

Proposals made to comply with the policies are discussed and approved by the Executive Board or Board of Directors, according to the governance structure described in the Financial Policy and the Company's Bylaws.

In accordance with this Policy, financial instruments that may be contracted for financial protection and risk mitigation include: conventional swaps, calls or puts, collars, currency futures contracts and non-deliverable forward (NDF) contracts. Strategies that contemplate calls and puts simultaneously are only authorized if the net result of the operation is not short in volatility of the underlying asset. The Company and its subsidiaries do not enter into financial instruments for speculative purposes.

(a) Market risk

(i) Foreign Exchange risk

The Financial Policy emphasizes that the purpose of derivative operations is to reduce cash flow volatility, reduce foreign exchange exposure and avoid mismatching between the Company's currencies.

The Brazilian Reais (BRL) is the Company's functional currency, and all efforts of the market risk management process are intended to protect cash flow in this currency, preserving the ability to pay financial obligations and maintain liquidity and debt levels defined by the Board of Directors. This protection is done considering the net foreign exchange exposure.

The table below shows the balance of assets and liabilities indexed in foreign currency at the balance sheet closing date:

		Parent company and consolidated	
	Note	2019	2018 Restated
Assets in foreign currency			
Cash and cash equivalents	10	135,748	39,098
Derivative financial instruments		134,615	168,312
Accounts receivable from customers	12 (b)	89,320	169,957
		359,683	377,367
Liabilities in foreign currency			
Loans and financing (i) (ii)		581,090	1,552,579
Derivative financial instruments		238,258	57,786
Suppliers		28,821	24,200
Supplier Finance Programs	21	283,969	164,999
		1,132,138	1,799,564
Net exposure		(772,455)	(1,422,197)

(i) Fundraising costs are not considered in this amount.

(ii) Substantially refers to Eurobonds settlement, as described in note 20 (g) (ii).

(ii) Cash flow or fair value risk associated with interest rate

The Company's interest rate risk arises from loans and financing. Loans and financing issued at floating rates expose the Company to the risk of interest rate fluctuations, thus affecting the Company's cash flow. Loans and financing issued at fixed rates expose the Company to fair value risk associated with the interest rate.

The Financial Policy establishes guidelines and standards to protect against interest rate volatility that affect the cash flow of the Company and its subsidiaries. Based on projected exposures to key interest rate indexers (mainly CDI, IPCA and TJLP), the Treasury department prepares proposals for hedging, when applicable, and submits them for approval by the Executive Board or the Board of Directors.

(iii) Commodity risk

The Financial Policy establishes guidelines to protect against commodity price fluctuations that affect the cash flow of the Company and its operational subsidiaries.

Exposures to each commodity consider the monthly production projections, volume of metal purchased and maturity flows of hedges associated thereto. The executed hedges are classified in the following modalities:

(iii.1) Strategic hedge – aims to ensure a reduction in cash flow volatility through commodity and foreign exchange rates;

(b) Credit risk

Derivative financial instruments, time deposits, CDBs and repo operations backed by debentures and federal government securities generate exposure to counterparty and issuer credit risk.

The Company's Financial Policy defines that only issuers with at least two ratings from the following rating agencies should be considered: Fitch Ratings, Moody's or Standard & Poor's. The minimum rating required for counterparties is "A" (on a local scale) for onshore operations or "BBB-" (on a global scale) for offshore operations, or equivalent. For financial assets whose issuers do not meet the aforementioned minimum credit risk ratings, a different criteria proposed by the Treasury department and approved by the Board of Directors may be applied instead.

The credit quality of the financial assets is described in note 9. The ratings disclosed in this note are always the most conservative of the agencies mentioned.

The methodology used to assess counterparty risks in derivative instrument operations is pre-settlement risk. This methodology consists of determining, through simulations using the Monte Carlo model, the value at risk associated with non-compliance with the financial commitments defined in the agreement with each counterparty. The use of this methodology follows guidelines defined in the Financial Policy.

(c) Liquidity risk

Liquidity risk is managed in accordance with the Financial Policy, in order to guarantee adequate liquid position to meet the Company's financial commitments on time and at no additional cost. The main liquidity measurement and monitoring instrument is cash flow projection for a minimum projection term of 12 months from the reference month.

The following table sets forth the Company's main financial liabilities by maturity range (remaining period in the balance sheet until the contractual maturity date). Derivative financial liabilities are included in the analysis when their contractual maturities are essential for an understanding of temporary cash flows. The amounts disclosed in the table are future cash flows, including interest to be incurred, which is why these amounts cannot be reconciled with the amounts disclosed in the balance sheet for loans and financing, leases and use of public assets.

In thousands of Brazilian Reais, except when indicated otherwise

						Consolidated
	Up to 1 year	From 1 to 3 years	From 3 to 5 years	From 5 to 10 years	Over 10 years	Total
On December 31, 2019						
Loans and financing	221,962	389,826	809,195	1,255,469	33,275	2,709,726
Derivative financial instruments	20,535	2,834	932	212,303	1,654	238,258
Suppliers	407,215					407,215
Supplier Finance Programs	335,130					335,130
Related parties	27,201	2,330				29,531
Use of public assets – UBP	47,097	101,978	113,241	338,255	657,889	1,258,460
Leases	9,960	5,537	1,374	41		16,912
Dividends payable	14,072					14,072
	1,083,172	502,505	924,742	1,806,068	692,818	5,009,304

						Consolidated (Restated)
	Up to 1 year	From 1 to 3 years	From 3 to 5 years	From 5 to 10 years	Over 10 years	Total
On December 31, 2018						
Loans and financing	218,824	412,752	262,008	1,665,804		2,559,388
Derivative financial instruments	57,786					57,786
Suppliers	390,816					390,816
Supplier Finance Programs	256,645					256,645
Related parties	223,369	13,287				236,656
Use of public assets – UBP	44,175	110,736	171,165	243,589	702,044	1,271,709
Dividends payable	12,652					12,652
	1,204,267	536,775	433,173	1,909,393	702,044	4,785,652

6.2 Derivative financial instruments

Accounting policy

Derivatives are initially recognized at fair value on the date a derivative contract is entered into and are subsequently re-measured at their fair value. The method for recognizing the resulting gain or loss depends on whether or not the derivative is designated as a hedge accounting instrument. That being the case, the method depends on the nature of the item being hedged.

The Company adopts hedge accounting and designates certain derivatives as:

(a) Cash flow hedge

In order to reduce cash flow volatility in Brazilian Reais, the Company hires derivative financial instruments to sell the commodity forward in conjunction with the forward sale of the US Dollar. The effective portion of changes in the fair value of derivatives designated and qualified as cash flow hedge is recognized in shareholders' equity under "Equity valuation adjustments."

Gains or losses related to the non-effective portion are recognized in the income statement for the period. The amounts accrued in shareholders' equity are taken to the income statement in the periods during which the respective LME (London Metals Exchange) sales are made.

Metal operating results hedging program (strategic hedge) – In order to reduce the cash flow volatility, the Company contracts derivative financial instruments to perform the commodity forward sale in conjunction with the sale of US Dollar forwards. The effective portion of changes in the fair value of designated derivatives and qualified as cash flow hedges is recognized in shareholders' equity under "Equity valuation adjustments." Gains or losses related to the non-effective portion are immediately recognized in the income statement for the period. The amounts accumulated in shareholders' equity are taken to the income statement in the periods during which the respective LME (London Metals Exchange) sales are made.

Downstream Premium Hedging Program – In order to reduce cash flow volatility, the Company contracts derivative financial instruments to protect a portion of the premium adopted on the downstream business sales against currency exchange rate fluctuations. The hedge, in this case, was created through the purchase and sale of options, forming the Zero Cost Collar ("ZCC") structure. This strategy provides a protection range in which the premium traded in US Dollars may float between an upper and a lower limit for the exchange rate. The effective portion of changes in the fair value of derivatives designated and qualifying as cash flow hedges is recognized in shareholders' equity under "Equity valuation adjustments." Gains or losses related to the non-effective portion are immediately recognized in the income statement for the period. The amounts accumulated in shareholders' equity are taken to the income statement in the periods when the respective amounts expressed in dollars are received.

US Dollar Debt Hedging Instruments – derivative financial instruments contracted for the purpose of converting floating rates in CDI or IPCA in Brazilian Reais to fixed rates in U.S. Dollars, partially matching the currency of financial expenses and amortization of debts against revenue, thus reducing the company's currency exposure to the dollar. Protection is provided through swaps, with the effective portion of changes in the fair value of derivatives designated and qualified as cash flow hedge being recognized in shareholders' equity under "Equity valuation adjustments." Gains or losses related to the non-effective portion are immediately recognized in income for the period under "Financial Result." The amounts accrued in shareholders' equity are taken to profit or loss in the periods in which the referred amortizations of interest and principal of the debt and the swap adjustment payments are made.

(b) Fair value of derivatives and other financial instruments

Established pricing models are used to determine the fair value of financial instruments that are not traded in active markets. The Company uses its judgment to choose certain methods and to make assumptions that are based primarily on market conditions prevailing on the balance sheet date:

All derivative financial instrument transactions were traded in over-the-counter markets.

In thousands of Brazilian Reais, except when indicated otherwise

(c) Effects of the derivatives on the balance sheet, financial result and cash flow

The following summary table presents the derivative financial instruments and the object hedged by them:

Parent company and consolidated

		Main value			12/31/2018	Fair value					12/31/2019
Programs	Unit	12/31/2019	12/31/2018	Unit	Total (net between assets and liabilities)	Revenue	Other operating income	Financial result	Other comprehensive income	Gain (loss) performed	Total (net between assets and liabilities)
Quotation period hedge											
Aluminum forward	ton		1,000	thousands of BRL	36		(1)			35	
					36		(1)			35	
Operating income hedge											
Aluminum forward	ton	151,800	127,750	thousands of BRL	157,442	172,536			(167,803)	180,855	(18,680)
US Dollar collars	thousands of USD	17,900		thousands of BRL					2,964		2,964
US Dollar forward	thousands of USD	272,784	279,282	thousands of BRL	(46,952)	(24,347)			74,405	(38,988)	42,094
					110,490	148,189			(90,434)	141,867	26,378
Interest rate hedge											
Swaps floating rate in CDI vs. fixed rate in USD	thousands of BRL	747,140		thousands of BRL				(67,522)	(50,821)	8,735	(127,078)
Swaps floating rate in IPCA vs. fixed rate in USD	thousands of BRL	139,119		thousands of BRL				(816)	(2,117)	10	(2,943)
								(68,338)	(52,938)	8,745	(130,021)
					110,526	148,189	(1)	(68,338)	(143,372)	150,647	(103,643)

Parent company and consolidated

Programs	Unit	Unit	2020	2021	2022	2023	2024	2025	2026	2027	As of 2028
Operating income hedge											
Aluminum forward	ton	thousands of BRL	(16,503)	(2,177)							
US Dollar collars	thousands of USD	thousands of BRL	2,721	243							
US Dollar forward	thousands of USD	thousands of BRL	37,666	4,428							
			23,884	2,494							
Interest rate hedge											
Swaps floating rate in CDI vs. fixed rate in USD	thousands of BRL	thousands of BRL	(2,540)	10,228	18,082	18,994	17,174	(63,436)	(80,118)	(45,462)	
Swaps floating rate in IPCA vs. fixed rate in USD	thousands of BRL	thousands of BRL	395	362	87	(155)	(301)	(337)	(399)	(417)	(2,178)
			(2,145)	10,590	18,169	18,839	16,873	(63,773)	(80,517)	(45,879)	(2,178)
			21,739	13,084	18,169	18,839	16,873	(63,773)	(80,517)	(45,879)	(2,178)

(i) Negative values refer to the US Dollar fluctuation in the period, which exceeded the maximum limit range for the exchange rate fluctuation.

In thousands of Brazilian Reais, except when indicated otherwise

6.3 Fair value estimation

The main financial assets and liabilities are described below, as well as the assumptions for their valuation:

Financial assets – considering the nature and terms, the amounts recorded are close to the realizable values.

Financial liabilities – subject to market interest rates. The market value was used based on the present value of the future cash disbursement, in accordance with the interest rates currently available for issuing debts with similar maturities and terms.

The Company discloses fair value measurements in accordance with the following levels hierarchy:

- Quoted prices (not adjusted) in active markets for identical assets and liabilities (level 1).

- Information, in addition to quoted prices, included in level 1 that is adopted by the market for the asset or liability, either directly (as prices) or indirectly (derived from the prices) (level 2).

- Inputs for assets or liabilities that are not based on data adopted by the market (non-observable inputs) (level 3).

On December 31, 2019 and 2018, the financial assets and liabilities measured at fair value were classified into levels 1 and 2 of the fair value hierarchy, as shown below:

			Parent company
	Fair value measured based on		2019
	Prices quoted in the active market	Price-supported valuation technique	
	Level 1	Level 2	Fair value
Assets			
Cash and cash equivalent	190,171		190,171
Financial investments	243,243	80,340	323,583
Derivative financial instruments		134,615	134,615
	433,414	214,955	648,369
Liabilities			
Loans and financing	610,864	1,481,388	2,092,252
Derivative financial instruments		238,258	238,258
Financial instruments – firm commitment		93,278	93,278
	610,864	1,812,924	2,423,788

In thousands of Brazilian Reais, except when indicated otherwise

			Parent company (Restated)
	Fair value measured based on		2018
	Prices quoted in the active market	Price-supported valuation technique	
	Level 1	Level 2	Fair value
Assets			
Cash and cash equivalent	115,747		115,747
Financial investments	319,121	60,695	379,816
Derivative financial instruments		168,312	168,312
Financial instruments – firm commitment		116,174	116,174
	434,868	345,181	780,049
Liabilities			
Loans and financing	1,493,770	381,947	1,875,717
Derivative financial instruments		57,786	57,786
Financial instruments – firm commitment		82,284	82,284
	1,493,770	522,017	2,015,787

			Consolidated
	Fair value measured based on		2019
	Prices quoted in the active market	Price-supported valuation technique	
	Level 1	Level 2	Fair value
Assets			
Cash and cash equivalent	190,321		190,321
Financial investments	243,243	175,196	418,439
Derivative financial instruments		134,615	134,615
	433,564	309,811	743,375
Liabilities			
Loans and financing	610,864	1,574,640	2,185,504
Derivative financial instruments		238,258	238,258
Financial instruments – firm commitment		93,278	93,278
	610,864	1,906,176	2,517,040

			Consolidated (Restated)
	Fair value measured based on		2018
	Prices quoted in the active market	Price-supported valuation technique	
	Level 1	Level 2	Fair value
ssets			
Cash and cash equivalent	41,705		41,705
Financial investments	319,121	136,431	455,552
Derivative financial instruments		168,312	168,312
Financial instruments – firm commitment		116,174	116,174
	360,826	420,917	781,743
iabilities			
Loans and financing	1,493,770	506,079	1,999,849
Derivative financial instruments		57,786	57,786
Financial instruments – firm commitment		82,284	82,284
	1,493,770	646,149	2,139,919

In thousands of Brazilian Reais, except when indicated otherwise

6.3.1 Sensitivity analysis statement

The following sensitivity analysis presents the main risk factors that impact the pricing of outstanding cash and cash equivalent instruments, financial investments, loans and financing, and derivative financial instruments. Key risk factors include exposure to fluctuation of the US Dollar, CDI and commodity prices. The scenarios for these factors are prepared using market and specialized sources, following the Company's governance.

The scenarios on December 31, 2019 are described below:

Scenario I – considers shock to the curves and market quotations on December 31, 2019, according to the base scenario defined by the Board of Directors for December 31, 2020.

Scenario II – considers shock of + or - 25% in the market curves of December 31, 2019.

Scenario III – considers shock of + or - 50% in the market curves of December 31, 2019.

																Parent company and consolidated
							Impacts on the result					Impacts on comprehensive income				
							Scenario I	Scenarios II & III				Scenario I	Scenarios II & III			
Risk Factors	Cash and cash equivalents and financial investments (i)	Loans and financing (i)	Unit	Principal from derivative financial instruments and firm commitment	Unit	Shock in the 12/31/2019 curves	Scenario I results	-25%	-50%	+25%	+50%	Scenario I results	-25%	-50%	+25%	+50%
Exchange																
USD	135,748	580,094	thousands of USD	783,345	thousands of USD	-2.00%	8,892	111,033	222,067	(111,033)	(222,067)	49,669	626,817	1,253,959	(625,240)	(1,252,258)
Interest rates																
BRL – CDI	420,112	1,176,203	thousands of BRL	1,918,799	thousands of BRL	-16 bps	1,210	8,317	16,634	(8,317)	(16,634)	(23)	(3,854)	(8,707)	2,985	5,213
USD – LIBOR				273,240	thousands of USD	2 bps						(139)	2,330	4,675	(2,315)	(4,616)
Dollar coupon				510,561	thousands of USD	-19 bps						(13,799)	(54,567)	(113,539)	50,698	97,974
Price – commodities																
Aluminum				151,800	ton							34,443	262,698	525,396	(262,698)	(525,396)
Firm commitment – electricity																
Purchase and sale agreement				(92,764)	thousands of BRL			(2,071)	(4,225)	1,994	3,913					

(i) The balances shown do not reconcile with remaining explanatory notes, as the analysis conducted only included the most significant currencies.

In thousands of Brazilian Reais, except when indicated otherwise

6.3.2 Capital management

The Company's objectives in managing its capital are to safeguard its ability to consistently offer returns to shareholders and benefits to other stakeholders, while maintaining an optimal capital structure.

This supplementary information is not defined by Brazilian and international accounting standards, but the Company uses adjusted EBITDA as an indicator of its operational performance. Adjusted EBITDA is calculated from net profit plus/minus financial income, plus income tax and social contribution, plus depreciation, amortization and depletion, minus equity income, plus dividends received from investees and minus exceptional non-cash items (non-cash items considered by the Board of Directors as exceptional are excluded from the adjusted EBITDA measurement), in accordance with CVM Instruction No. 527, dated October 4, 2012.

		Consolidated
	December 31, 2019	December 31, 2018 (Restated)
Loans and financing	2,156,865	2,058,867
Cash and cash equivalents	(190,321)	(116,811)
Derivative financial instruments	103,643	(110,526)
Leases	15,783	
Financial investments	(418,439)	(455,552)
Net debt – (A)	**1,667,531**	**1,375,978**

		Consolidated
	Year ended on December 31, 2019	Year ended on December 31, 2018
Net profit (loss) for the year	(34,545)	54,065
Income tax and social contribution	31,447	74,086
Income before taxes	(3,098)	128,151
Equity	(14,497)	27,037
Depreciation, amortization and depletion	462,561	303,202
Financial result, net	247,497	525,829
EBITDA	**692,463**	**984,219**
Exceptional items		
Net gain in investment sales		(111,070)
Net loss in asset sales to related parties	23,747	
Impairment constitution (reversal) of property, plant and equipment and intangible assets	144,917	(40,727)
Adjusted EBITDA (B)	**861,127**	**832,422**
Financial leverage index – (A/B)	**1.94**	**1.65**

7 Financial instruments by category

Accounting policy

Normal purchases and sales of financial assets and liabilities are recognized on the trade date, the date on which the Company commits to buying or selling the asset. Financial assets are initially recognized at fair value plus transaction costs for all financial assets not classified using fair value through profit or loss, where transaction costs are charged to the income statement.

Financial assets are written off when the rights to receive cash flows from investments have expired or the Company has substantially transferred all risks and benefits of these assets. Financial assets through profit or loss are subsequently recorded at fair value. Loans and receivables are recorded at amortized cost, using the effective interest rate method.

Gains or losses resulting from changes in the fair value of financial assets classified as fair value through profit or loss are recorded in the income statement under "Net financial result" in the year in which they occur.

In thousands of Brazilian Reais, except when indicated otherwise

(a) Classification, recognition and measurement

The Company and its subsidiaries classify their financial instruments according to the purpose for which they were purchased and determine their classification upon initial recognition, according to the following categories:

(i) Amortized cost

Financial assets measured at amortized cost are assets maintained within a business model in which the purpose is to maintain financial assets in order to collect contractual cash flows and for which the contractual terms of the financial asset originate, on specific dates, principal cash flows and interest on the outstanding principal amount.

(ii) Fair value through profit or loss

Financial assets that an entity manages for the purpose of realizing cash flows through the sale of such assets and financial assets that do not generate cash flows that are only payments of principal and interest over the outstanding principal amount.

(iii) Fair value through other comprehensive income

Financial instruments where the contractual cash flows are solely payments of principal and interest and the objective of the Company's business model is achieved both by collecting contractual cash flows and selling financial assets. The instruments under this classification are measured at fair value through other comprehensive income.

					Parent company
					2019
	Note	Amortized cost	Fair value through profit or loss	Fair value through other comprehensive income	Total
Assets					
Cash and cash equivalents	10		190,171		190,171
Financial investments	11		323,583		323,583
Derivative financial instruments	6.2 (d)		123,114	11,501	134,615
Accounts receivable from customers	12	380,456			380,456
Dividends receivable	15	9,519			9,519
Related parties	15	28,043			28,043
		418,018	636,868	11,501	1,066,387
Liabilities					
Loans and financing	20	2,064,277			2,064,277
Leases		13,442			13,442
Suppliers		405,862			405,862
Supplier Finance Programs	21	335,130			335,130
Derivative financial instruments	6.2 (d)		186,009	52,249	238,258
Financial instrument – firm commitment	15	93,278			93,278
Dividends payable	15	79			79
Related parties	15	29,617			29,617
		2,941,685	186,009	52,249	3,179,943

In thousands of Brazilian Reais, except when indicated otherwise

					Parent company (Restated)
					2018
	Note	Amortized cost	Fair value through profit or loss	Fair value through other comprehensive income	Total
Assets					
Cash and cash equivalents	10		115,747		115,747
Financial investments	11		379,816		379,816
Derivative financial instruments	6.2 (d)		36	168,276	168,312
Financial instrument – firm commitment	15		116,174		116,174
Accounts receivable from customers	12	495,072			495,072
Dividends receivable	15	1,401			1,401
Related parties	15	531			531
		497,004	611,773	168,276	1,277,053
Liabilities					
Loans and financing	20	1,935,056			1,935,056
Suppliers		400,978			400,978
Supplier Finance Programs	21	256,645			256,645
Derivative financial instruments	6.2 (d)			57,786	57,786
Financial instrument – firm commitment	15	82,284			82,284
Dividends payable	15	10,338			10,338
Related parties	15	236,808			236,808
		2,922,109		57,786	2,979,895

					Consolidated
					2019
	Note	Amortized cost	Fair value through profit or loss	Fair value through other comprehensive income	Total
Assets					
Cash and cash equivalents	10		190,321		190,321
Financial investments	11		418,439		418,439
Derivative financial instruments	6.2 (d)		123,114	11,501	134,615
Accounts receivable from customers	12	404,296			404,296
Dividends receivable	15	6,295			6,295
Related parties	15	28,043			28,043
		438,634	731,874	11,501	1,182,009
Liabilities					
Loans and financing	20	2,156,865			2,156,865
Leases		15,783			15,783
Suppliers		407,215			407,215
Supplier Finance Programs	21	335,130			335,130
Derivative financial instruments	6.2 (d)		186,009	52,249	238,258
Financial instrument – firm commitment	15	76,642			76,642
Dividends payable	15	14,072			14,072
Related parties	15	29,531			29,531
		3,035,238	186,009	52,249	3,273,496

					Consolidated (Restated)
					2018
	Note	Amortized cost	Fair value through profit or loss	Fair value through other comprehensive income	Total
Assets					
Cash and cash equivalents	10		116,811		116,811
Financial investments	11		455,552		455,552
Derivative financial instruments	6.2 (d)		36	168,276	168,312
Financial instrument – firm commitment	15		116,174		116,174
Accounts receivable from customers	12	489,708			489,708
Dividends receivable	15	416			416
Related parties	15	529			529
		490,653	688,573	168,276	1,347,502
Liabilities					
Loans and financing	20	2,058,867			2,058,867
Suppliers		390,816			390,816
Supplier Finance Programs	21	256,645			256,645
Derivative financial instruments	6.2 (d)			57,786	57,786
Financial instrument – firm commitment	15	82,284			82,284
Dividends payable	15	12,652			12,652
Related parties	15	236,656			236,656
		3,037,920		57,786	3,095,706

7.1.1 Compensation of financial instruments

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

8 Financial instrument – firm commitment

Accounting policy

The Company is authorized to sell energy in both the free and regulated markets.

A portion of these transactions takes the form of contracts that were entered into and continue to be executed for the purpose of receiving or delivering energy for the Company's own use, respectively, according to own production demands and, therefore, do not meet the definition of financial instrument.

Another part of these transactions refers to sales of surplus energy that is not used in the production process, traded in an active market and meet the definition of financial instruments, due to the fact that they are settled in energy and promptly converted into cash. Such contracts are recorded as derivatives in the Company's balance sheet at fair value, on the date the derivative is celebrated, and are reassessed at fair value on the balance sheet date. The recognition at fair value and the realization of these financial instruments are recorded under "Other operating expenses".

The fair value of these derivatives is estimated partly based on price quotes published in active markets, as long as such market data exist, and partly through the use of assessment techniques, which consider: (i) prices established in the purchase and sale transactions; (ii) supply risk margin; and (iii) projected market price in the availability period. Whenever the fair value at initial recognition for these contracts differs from the transaction price, a loss or gain of fair value is recorded in the profit or loss for the year.

In thousands of Brazilian Reais, except when indicated otherwise

9 Credit quality of the financial asset

The following table reflects the credit quality of issuers and counterparties in cash and cash equivalent, financial investment and derivative transactions:

	Parent company						Consolidated					
	2019			2018 (Restated)			2019			2018 (Restated)		
	Local rating	Global rating	Total	Local rating	Global rating	Total	Local rating	Global rating	Total	Local rating	Global rating	Total
Cash and cash equivalents												
AAA	189,997		189,997	115,544		115,544	190,140		190,140	116,601		116,601
AA+	11		11	30		30	11		11	31		31
AA	146		146	101		101	153		153	106		106
AA-	3		3				3		3			
A+	7		7	1		1	7		7	1		1
No rating	7		7	71		71	7		7	72		72
	190,171		190,171	115,747		115,747	190,321		190,321	116,811		116,811
Financial investments												
AAA	304,907		304,907	349,464		349,464	383,274		383,274	413,203		413,203
AA+							11,881		11,881	8,828		8,828
AA							1,610		1,610	3,169		3,169
AA-	6		6				3,004		3,004			
No rating (i)	18,670		18,670	30,352		30,352	18,670		18,670	30,352		30,352
	323,583		323,583	379,816		379,816	418,439		418,439	455,552		455,552
Derivative financial instruments												
AAA	127,294		127,294	5,560		5,560	127,294		127,294	5,560		5,560
AA					43,266	43,266					43,266	43,266
AA-	7,321		7,321	5,274		5,274	7,321		7,321	5,274		5,274
A+					114,212	114,212					114,212	114,212
	134,615		134,615	10,834	157,478	168,312	134,615		134,615	10,834	157,478	168,312
	648,369		648,369	506,397	157,478	663,875	743,375		743,375	583,197	157,478	740,675

Ratings derived from local and global ratings were established by rating agencies (Standard & Poor's, Moody's and Fitch Ratings). Standard & Poor’s and Fitch Rating’s standard nomenclature was considered for presentation.

(i) Substantially refers to receivables investment funds (FIDC) exclusive to the Votorantim Group and not rated by the rating agencies.

In thousands of Brazilian Reais, except when indicated otherwise

10 Cash and cash equivalents

Accounting policy

This includes cash, bank deposits and other liquid short-term investments, whose original maturities are less than three months, which are promptly convertible into a known amount of cash and are subject to an insignificant risk of change in value.

	Parent company		Consolidated	
	2019	2018 (Restated)	2019	2018 (Restated)
Local currency				
Cash and banks	2,158	1,543	2,308	2,607
Repo operations – Government securities	52,265	75,106	52,265	75,106
	54,423	76,649	54,573	77,713
Foreign currency				
Cash and banks	135,748	39,098	135,748	39,098
	190,171	115,747	190,321	116,811

The cash and cash equivalents in local and foreign currency comprise cash and cash equivalents held in current accounts with banks.

11 Financial investments

Most financial investments have immediate liquidity. Nevertheless, they are classified as financial investments based on their original maturities, considering the expected destination of the funds.

	Parent company		Consolidated	
	2019	2018 (Restated)	2019	2018 (Restated)
Local currency				
Financial Treasury Bills – LFTs	206,219	289,181	206,219	289,181
Investment fund quotas (i)	61,659	30,343	133,215	85,281
Repo operations – Government securities	37,024	29,940	37,024	29,940
Bank Deposit Certificates – CDBs	11		21,281	20,798
Receivables Investment Fund – FIDC	18,606	30,288	18,606	30,288
Other	64	64	2,094	64
	323,583	379,816	418,439	455,552
Current	323,519	379,752	416,345	453,158
Non-current assets	64	64	2,094	2,394
	323,583	379,816	418,439	455,552

(i) The Company holds exclusive investment fund quotas of the Votorantim Group, as follows:

	Parent company		Consolidated	
	2019	2018 (Restated)	2019	2018 (Restated)
Financial investments				
Repo operations – Government securities			19,748	36,190
Financial Treasury Bills – LFTs	61,659	30,343	113,467	49,091
	61,659	30,343	133,215	85,281

The investments comprise government bonds or those of financial institutions, indexed to the interbank deposit rate.

In thousands of Brazilian Reais, except when indicated otherwise

12 Accounts receivable from customers

Accounting policy

These are the amounts referring to the sale of goods or provision of services in the normal course of the Company's activities.

They are initially recorded at fair value and subsequently measured at amortized cost using the effective interest rate method less the estimated loss with doubtful accounts. Accounts receivable from customers in the foreign market are updated based on the exchange rates in effect on the balance sheet date.

(a) Composition

		Parent company		Consolidated	
	Note	2019	2018	2019	2018
Local clients		178,524	233,544	208,612	243,849
Foreign clients		89,320	169,957	89,320	169,957
Related parties	15	144,057	120,936	138,422	105,267
		411,901	524,437	436,354	519,073
Estimated losses on with doubtful accounts		(31,445)	(29,365)	(32,058)	(29,365)
		380,456	495,072	404,296	489,708

(b) Composition by currency

	Parent company		Consolidated	
	2019	2018	2019	2018
Brazilian Reais	291,136	325,115	314,976	319,751
US dollar	89,320	169,957	89,320	169,957
	380,456	495,072	404,296	489,708

(c) Change in estimated loss with doubtful accounts

The estimated loss for doubtful accounts is recorded in an amount considered sufficient to cover probable losses upon realization. The accounting policy for establishing the estimated loss requires the individual analysis of defaulting customer invoices with respect to the collection measures adopted by the responsible department and, according to the collection stage, an estimated amount of provision is estimated.

	Consolidated	
	2019	2018
Balance at the beginning of the year	(29,365)	(35,376)
Net provision (reversal) of additions	(14,945)	4,591
Accounts receivable from clients written off during the year	12,252	1,420
Balance at the end of the year	(32,058)	(29,365)

The constitution of the provision for doubtful accounts was recorded in the income statement for the year. The amounts charged to the provision account are generally written off when there is no expectation of recovering the funds.

In thousands of Brazilian Reais, except when indicated otherwise

(d) Maturity

	Parent company		Consolidated	
	2019	2018	2019	2018
Falling due	317,618	440,438	336,795	435,074
Up to 3 months overdue	13,127	8,339	17,831	8,339
Overdue from 3 to 6 months	2,991	2,008	2,966	2,008
Overdue more than 6 months (i)	78,165	73,652	78,762	73,652
	411,901	524,437	436,354	519,073

(i) On December 31, 2019, the amount of BRL 50,170 (2018 – BRL 46,942) referred to receivables from clients guaranteed by real guarantees (chattel mortgage) regarding to overdue balances.

13 Inventory

Accounting policy

Represents the lowest between cost and net realizable value. The cost is determined using the weighted average cost method. The cost of finished products and products in progress comprises raw materials, direct labor and other direct and indirect production costs (based on normal operational capacity).

The net realizable value of inventories is the estimated selling price in the normal course of business, less expenses to implement the sale. Imports in progress are stated at the accumulated cost of each import.

At least once a year, the Company conducts a physical inventory of the goods included in its inventory. Inventory adjustments are recorded under “Cost of products sold and services rendered.”

(a) Composition

	Parent company		Consolidated	
	2019	2018	2019	2018
Finished products	266,336	271,124	268,215	271,844
Semi-finished products	482,056	414,223	482,985	415,002
Raw materials	54,394	61,524	76,683	76,629
Auxiliary and consumable materials	125,132	89,955	125,766	90,545
Imports in progress	24,462	28,429	24,462	28,429
Other	4,560	4,745	4,596	4,778
Estimated losses (i)	(54,565)	(59,760)	(54,565)	(59,760)
	902,375	810,240	928,142	827,467

No inventory has been pledged as collateral for liabilities.

(i) The loss estimate substantially refers to obsolete materials with low turnover.

(b) Changes in inventory loss estimates

	Parent company and consolidated					
					2019	2018
	Finished products	Semi-finished products	Raw materials	Auxiliary materials	Total	Total
Balance at the beginning of the year	(6,403)	(18,172)	(1,970)	(33,215)	(59,760)	(60,922)
Reversal (provision), net of additions	(1,733)	5,449	(573)	2,052	5,195	1,162
Balance at the end of the year	(8,136)	(12,723)	(2,543)	(31,163)	(54,565)	(59,760)

In thousands of Brazilian Reais, except when indicated otherwise

14 Recoverable taxes

(a) Accounting practices

Recoverable taxes are stated net of estimated losses on tax credits.

(b) Composition

	Parent company		Consolidated	
	2019	2018	2019	2018
Tax on the Circulation of Goods and Services – ICMS	500,973	489,243	506,965	492,909
Income Tax and Social Contribution – IRPJ and CSLL	183,766	254,531	184,904	256,473
Contribution for the Financing of Social Security – COFINS (i)	509,954	176,194	510,531	176,594
Social Integration Program – PIS (i)	111,029	38,473	111,154	38,561
ICMS on property, plant and equipment	20,495	16,723	20,495	16,723
Social security credit (ii)	19,519		19,519	
Other	23,496	31,447	23,962	31,945
	1,369,232	1,006,611	1,377,530	1,013,205
Current	631,897	350,445	640,190	357,018
Non-current assets	737,335	656,166	737,340	656,187
	1,369,232	1,006,611	1,377,530	1,013,205

(i) Variation substantially refers to the exclusion of ICMS in the PIS/COFINS calculation basis, as detailed in note 1.1 (d).

(ii) This refers to the social security credit, as detailed in note 1.1 (f).

15 Related parties

Accounting practices

Transactions with related parties are conducted by the Company under strictly commutative conditions, according to the usual market prices and conditions and, therefore, do not generate any inappropriate benefit to its counterparties or losses to the Company. The Company enters into contracts with related parties during its normal course of business (affiliates, joint ventures and shareholders), related to the purchase and sale of products and services, loans, lease of goods, sale of raw materials and services.

In thousands of Brazilian Reais, except when indicated otherwise

(a) Parent company

	Accounts receivable from customers		Dividends receivable		Current and non-current assets		Suppliers		Current and non-current liabilities		Dividends payable	
	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018
Parent company												
Votorantim S.A.	3,726	3,678					2,603	438				10,336
Subsidiaries												
BAESA - Energética Barra Grande S.A.								6,253	87	87		
CBA Energia Participações S.A.			1,286	1,050								
CBA Machadinho Geração de Energia Ltda.	2,312											
ENERCAN - Campos Novos Energia S.A.							30,613	26,682				
Metalex Ltda.	18,609	16,273	1,939				1,705					
Affiliated companies												
Votener - Votorantim Comercializadora de Energia Ltda. (i)	113,261	96,821				116,174	83,591	96,251	120,400	315,681		
Votorantim Cimentos S.A. (ii)	248	273			27,514		693	583	3	3		
Nexa Recursos Minerais S.A.	2,070	1,275					337	373				
Mineração Rio do Norte S.A.			6,270									
Other	3,831	2,616	24	351	529	531	2,410	190	2,405	3,321	79	2
	144,057	120,936	9,519	1,401	28,043	116,705	121,952	130,770	122,895	319,092	79	10,338
Current	144,057	120,936	9,519	1,401		116,174	121,952	130,770	43,923	223,521	79	10,338
Non-current assets					28,043	531			78,972	95,571		
	144,057	120,936	9,519	1,401	28,043	116,705	121,952	130,770	122,895	319,092	79	10,338

(i) The balance of current and non-current liabilities refers to prepayments received in 2014 and 2015 on rights from the electricity trading agreements in the free market.

(ii) Refers to the sale of the Rio de Janeiro distribution center to affiliate Votorantim Cimentos S.A., as stated in Note 1.1 (c).

In thousands of Brazilian Reais, except when indicated otherwise

					Income statement	
	Purchases (restated)		Sales		Financial revenue (expenses)	
	2019	2018	2019	2018	2019	2018
Subsidiaries						
BAESA - Energética Barra Grande S.A. (i)	32,348	65,131				
CBA Energia Participações S.A.	42,342					
CBA Machadinho Geração de Energia Ltda.	38,173					
ENERCAN - Campos Novos Energia S.A.	163,701	152,190				
Metalex Ltda.	5,091		253,530	312,014		2,841
Affiliated companies						
Votener - Votorantim Comercializadora de Energia Ltda. (ii)	1,012,941	1,004,940	1,219,439	1,101,140	(90,625)	(90,625)
Votorantim Geração de Energia S.A.	19,754	19,550				
Nexa Recursos Minerais S.A		149	6,832	5,920		
Other	767	2,314	537	8,431	658	
	1,315,117	1,244,274	1,480,338	1,427,505	(89,967)	(87,784)

(i) The purchases and sales refer to the trading of third-party energy in the free market, where Votener acts as the final trader. Financial expenses refer to unearned interest from the energy supply sales credit assignment operation through December 2019, and interest is recognized pro rata to income over the term of the agreement.

In thousands of Brazilian Reais, except when indicated otherwise

(b) Consolidated

	Accounts receivable from customers		Dividends receivable		Current and non-current assets		Suppliers		Current and non-current liabilities		Dividends payable	
	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018
Parent company												
Votorantim S.A.	3,726	3,678										10,336
Affiliated companies												
Votener - Votorantim Comercializadora de Energia Ltda. (i)	120,793	96,821				116,174	90,583	96,251	120,400	315,681		
Votorantim Cimentos S.A. (ii)	248	273			27,514		693	583	3	3		
Nexa Recursos Minerais S.A.	9,221	1,275					337	373				
CBA Energia Participações S.A.												
Mineração Rio Do Norte S.A.			6,270									
Pollarix S.A.											2,944	
Votorantim Geração de Energia S.A.											1,513	
Other	4,434	3,220	25	416	529	529	5,010	546	2,406	3,256	9,615	2,316
	138,422	105,267	6,295	416	28,043	116,703	96,623	97,753	122,809	318,940	14,072	12,652
Current	138,422	105,267	6,295	416		116,174	96,623	97,753	43,837	223,369	14,072	12,652
Non-current assets					28,043	529			78,972	95,571		
	138,422	105,267	6,295	416	28,043	116,703	96,623	97,753	122,809	318,940	14,072	12,652

(i) The balance of current and non-current liabilities refers to prepayments received in 2014 and 2015 on rights from the electricity trading agreements in the free market.

(ii) Refers to the sale of the Rio de Janeiro distribution center to affiliate Votorantim Cimentos S.A., as stated in Note 1.1 (c).

In thousands of Brazilian Reais, except when indicated otherwise

	Purchases		Sales		Income statement Financial revenue (expenses)	
	2019	2018	2019	2018	2019	2018
Affiliated companies						
Votener - Votorantim Comercializadora de Energia Ltda.	1,012,941	1,004,940	1,286,552	1,101,140	(90,625)	(90,625)
Votorantim Geração de Energia S.A.	19,754	19,550				
Nexa Recursos Minerais S.A.		152,339	6,832	5,920		
Other	767	2,314	537	8,431	658	
	1,033,462	1,179,143	1,293,921	1,115,491	(89,967)	(90,625)

(i) The purchases and sales refer to the trading of third-party energy in the free market, where Votener acts as the final trader. Financial expenses refer to unearned interest from the energy supply sales credit assignment operation through December 2019, and interest is recognized *pro rata* to income over the term of the agreement.

In thousands of Brazilian Reais, except when indicated otherwise

(c) Company debts, guaranteed by related parties

Mode	Guarantor	2019	2018
BNDES	VSA	344,316	315,476
BRL Credit agency	VSA	29,644	35,997
Eurobonds – USD (Vote 24) (i)	VSA	581,090	1,552,579
		955,050	1,904,052

(i) In April 2019, the Company announced a tender offer for its bonds maturing in 2024, as described in note 20 (g) (ii).

(d) Debts issued by related parties, guaranteed by the Company

				2019		2018	
Instrument	Debtor	Guarantor	Percentage guaranteed by the company	Debt	Amount guaranteed	Debt	Amount guaranteed
Eurobonds – USD (Vote 19) (i)	VSA	VSA (100%), VCSA (50%) and CBA (50%)	50%			814,375	407,188
Eurobonds – USD (Vote 21)	VSA	VSA (100%), VCSA (50%) and CBA (50%)	50%	983,039	491,520	945,017	472,509
				983,039	491,520	1,759,393	879,696

(i) On January 23, 2019, parent company VSA prepaid the total amount of principal plus interest on its Bonds maturing in 2019, which was guaranteed by the Company at 50% of the debt.

16 Investments

Accounting practices

The Company's investments in entities recorded using the equity method comprise its holdings in affiliates and joint ventures.

Associates are entities in which the Company has significant direct or indirect influence, but not joint control or control, over financial and operating policies.

In order to be classified as a joint venture, there must be a contractual agreement that allows the Company to share control of the entity and gives the Company the right to the net assets of the joint venture and not the right to its specific assets and liabilities. Consequently, assets, liabilities, income and expenses related to their interests in joint operation are recorded individually in the financial statements.

Investments in affiliates and joint ventures are recorded using the equity method and are initially recognized at cost, which includes transaction expenses.

The Company's investment in affiliates and joint ventures includes the goodwill identified during the acquisition, net of any accumulated impairment loss.

After initial recognition, the financial statements includes the Company's holdings in the net profit or loss for the year and other comprehensive income of the investee until the date when the significant influence or joint control ceases to exist. Investments in subsidiaries are also recorded using this method in the parent company's individual financial statements.

In thousands of Brazilian Reais, except when indicated otherwise

(a) Composition

Parent company

	Information as of December 31, 2019				Equity result		Balance	
	Shareholders' equity	Net profit for the year	Percentage of total interest (%)	Percentage of voting interest (%)	2019	2018	2019	2018
Investments evaluated by equity								
Subsidiaries								
Metalex Ltda.	67,071	21,610	100.00	100.00	21,610	17,888	67,071	65,461
CBA Energia Participações S.A. (i)	278,182	43,800	33.33	100.00	13,805	4,440	91,676	90,801
CBA Machadinho Geração de Energia Ltda.	155,366	6,409	100.00	100.00	6,409	(3,520)	155,366	148,697
Affiliates								
Alunorte - Alumina do Norte S.A.	3,518,691	3,491	3.03	3.52	106	(28,298)	106,771	106,690
Mineração Rio do Norte S.A.	982,324	143,913	10.00	12.50	14,391	1,587	98,232	90,111
Other investments							44	44
Goodwill								
Metalex Ltda.							49,430	49,430
					56,321	(7,903)	568,590	551,234

(i) The investment in CBA Energia Participações S.A. of 33.33% represents 100% of the common shares, in addition of holding control of this investee.

Consolidated

	Information as of December 31, 2019				Equity result		Balance	
	Shareholders' equity	Net profit for the year	Percentage of total interest (%)	Percentage of voting interest (%)	2019	2018	2019	2018
Investments evaluated by equity								
Affiliates								
Alunorte - Alumina do Norte S.A.	3,518,691	3,491	3.03	3.52	106	(28,298)	106,771	106,690
Mineração Rio do Norte S.A.	982,324	143,913	10.00	12.50	14,391	1,587	98,232	90,111
Other investments						(326)	78	78
					14,497	(27,037)	205,081	196,879

In thousands of Brazilian Reais, except when indicated otherwise

(b) Information on investee companies

The following is a summary of the financial information of the main affiliates, subsidiaries and joint ventures for the years ended:

											2019
	Percentage total (%)	Percentage of voting interest (%)	Current asset	Non-current asset	Current liability	Non-current liability	Shareholders' equity	Net revenue	Operating income	Financial result	Net profit for the year
Subsidiaries											
Metalex Ltda.	100.00	100.00	79,958	37,422	50,018	291	67,071	311,595	33,338	(797)	21,610
CBA Energia Participações S.A.	33.33	100.00	46,536	259,497	27,851		278,182	50,426	(15,117)	1,071	43,800
CBA Machadinho Geração de Energia Ltda.	100.00	100.00	20,116	138,669	3,419		155,366	31,944	10,940	607	6,409
Affiliates											
Alunorte - Alumina do Norte S.A.	3.03	3.52	9,279,974		2,391,436	3,369,847	3,518,691	6,021,676	410,356	(386,081)	3,491
Mineração Rio do Norte S.A.	10.00	12.50	493,361	2,486,776	668,423	1,329,390	982,324	1,432,457	350,074	(166,767)	143,913

											2018
	Percentage total (%)	Percentage of voting interest (%)	Current asset	Non-current asset	Current liability	Non-current liability	Shareholders' equity	Net revenue	Operating income	Financial result	Net profit for the year
Subsidiaries											
Metalex Ltda.	100.00	100.00	65,834	34,736	34,719	390	65,461	356,016	25,595	(1,938)	17,888
CBA Energia Participações S.A.	33.33	100.00	51,463	240,788	19,081		273,170		(33,779)	(235)	15,636
CBA Machadinho Geração de Energia Ltda.	100.00	100.00	37	148,660			148,697		(7,142)	(5)	(3,520)
Affiliates											
Alunorte - Alumina do Norte S.A.	3.03	3.52	8,634,357		2,436,347	2,681,981	3,516,029	4,147,759	(651,163)	(653,005)	(932,587)
Mineração Rio do Norte S.A.	10.00	12.50	553,573	2,610,075	506,584	1,755,951	901,113	1,523,934	305,712	(282,124)	15,867

In thousands of Brazilian Reais, except when indicated otherwise

(c) Change in investments

	Parent company		Consolidated	
	2019	2018	2019	2018
Balance at the beginning of the year	551,234	638,111	196,879	218,695
Equity	56,321	(7,903)	14,497	(27,037)
Write-off by investment sale		(60,430)		
Increase in interest	260	6,088		5,316
Dividends considered	(39,225)	(24,632)	(6,295)	(351)
Other				256
Balance at the end of the year	568,590	551,234	205,081	196,879

17 Property, Plant and Equipment

Accounting policy

Property, plant and equipment is stated at historical purchase or construction cost less depreciation. Historical cost also includes financing costs related to the purchase or construction of qualified assets.

Subsequent costs are included in the asset's book value or recorded as a separate asset, as appropriated, only when there is a likelihood of future economic benefits associated with the item and when the cost of the item can be measured reliably. The book value of replaced items or parts is written off.

Repairs and maintenance are appropriated to the result during the period in which they are incurred. The cost of major renovations is added to the book value of the asset when the future economic benefits exceed the performance standard initially estimated for the asset in question. The renovations are depreciated over the remaining economic useful life of the related asset.

Depreciation of property, plant and equipment is calculated using the straight-line method, considering costs and residual values over the estimated useful life. Useful life and residual values are reviewed annually and adjusted, if appropriate.

The book value of an asset is immediately decreased to its recoverable amount when the book value is greater than the estimated recoverable amount, in accordance with the criteria that the Company adopts to determine the recoverable amount.

Gains and losses on disposals are determined by comparing the sale value with the book value and are recorded under "Other operating revenues (expenses), net" in the income statement.

Impairment of non-financial assets

The Company and its parent companies annually review the assets to identify evidence of non-recoverable losses (impairment), or whenever events or changes in economic, operational or technological circumstances indicate that the book value may not be recoverable. Impairment loss is recorded when the book value of the asset or the cash-generating unit (CGU) exceeds its recoverable value, which represents the highest between the asset's fair value, less its disposal costs (net sale value) and its value in use.

The value in use is determined by the projection of free operating cash flow discounted at present value, using a discount rate that reflects current market, based on the financial budgets approved by the Board of Directors for the next five years. All market projections are supported by reports from trade associations, economic consultants and research and statistical institutes from the respective countries where we operate. Fair value is obtained by selling an asset or a cash-generating unit in transactions on a commutative basis, between knowledgeable and interested parties, less estimated selling expenses.

For the purpose of assessing impairment, assets are gathered at the lowest levels for which there are separately identifiable cash flows (CGU). If there are new prospective indications of recovery of the book balance of the assets, except for goodwill, which have suffered impairment, they are reassessed and may have their provision for impairment reversed on the balance sheet date.

Identified losses are recorded in the loss or gain for the period by the amount in which the book value of the asset exceeds the recoverable value.

The Company and its subsidiaries, based on qualitative analyses, did not identify indications of loss of recoverable value during the impairment tests conducted in November 2019. However, in December 2019, after updating its environmental obligations for asset decommissioning, impairment was provisioned resulting from the temporary shutdown of some units, in the amount of BRL 170 million, BRL 4 million of which for the Aluminum units and BRL 166 million for Nickel units.

In thousands of Brazilian Reais, except when indicated otherwise

(a) Composition and change

										Parent company
									2019	2018 (Restated)
	Land and improvements	Buildings and construction	Machinery, equipment and facilities	Vehicles	Furniture and fixtures	Construction in progress	Obligation to demobilize assets	Other	Total	Total
Balance at the beginning of the year										
Cost	109,411	2,470,627	5,807,646	111,837	31,467	486,543	161,637	300,486	9,479,654	9,224,252
Accrued depreciation	(2,007)	(917,964)	(3,771,135)	(101,589)	(21,481)		(82,562)	(283,698)	(5,180,436)	(4,952,860)
Net balance	107,404	1,552,663	2,036,511	10,248	9,986	486,543	79,075	16,788	4,299,218	4,271,392
Additions		338	10,796	1,488	88	332,923		170	345,803	236,985
Write-offs	(23)	(1,893)	(44,183)	(286)	(1,012)			(24)	(47,421)	(10,164)
Depreciation		(51,827)	(333,931)	(2,438)	(2,204)		(6,726)	(1,077)	(398,203)	(256,885)
Reversal (provision) for asset depreciation (Impairment)		(331)	26,123				(170,709)		(144,917)	35,832
Cash flow reassessment (i)							170,709		170,709	(7,083)
Change in Fair Value								(2,567)	(2,567)	
Transfers	8,135	34,631	317,487	4,587	566	(374,823)		164	(9,253)	29,141
Balance at the end of the year	115,516	1,533,581	2,012,803	13,599	7,424	444,643	72,349	13,454	4,213,369	4,299,218
Cost	117,841	2,493,859	5,879,024	113,246	28,986	444,643	161,893	295,190	9,534,682	9,479,654
Accrued depreciation	(2,325)	(960,278)	(3,866,221)	(99,647)	(21,562)		(89,544)	(281,736)	(5,321,313)	(5,180,436)
Net balance at the end of the year	115,516	1,533,581	2,012,803	13,599	7,424	444,643	72,349	13,454	4,213,369	4,299,218
Average annual depreciation rates – %		2	5	18	10		2			

										Consolidated
									2019	2018 (Restated)
	Land and improvements	Buildings and construction	Machinery, equipment and facilities	Vehicles	Furniture and fixtures	Construction in progress	Obligation to demobilize assets	Other	Total	Total
Balance at the beginning of the year										
Cost	123,668	2,955,148	6,100,495	111,888	31,801	491,760	161,637	300,486	10,276,883	10,036,130
Accrued depreciation	(4,721)	(1,080,054)	(3,868,910)	(101,611)	(21,737)		(82,562)	(283,698)	(5,443,293)	(5,205,152)
Net balance	118,947	1,875,094	2,231,585	10,277	10,064	491,760	79,075	16,788	4,833,590	4,830,978
Additions		442	11,763	1,488	88	337,497		170	351,448	242,254
Write-offs	(23)	(1,893)	(44,206)	(286)	(1,013)			(24)	(47,445)	(10,164)
Depreciation	(290)	(69,991)	(346,706)	(2,445)	(2,217)		(6,726)	(1,077)	(429,452)	(287,368)
Reversal (provision) for asset depreciation (Impairment)		(331)	26,123				(170,709)		(144,917)	35,832
Cash flow reassessment (i)							170,709		170,709	(7,083)
Change in Fair Value								(2,567)	(2,567)	
Transfers	8,135	37,204	321,625	4,587	566	(381,534)		164	(9,253)	29,141
Balance at the end of the year	126,769	1,840,525	2,200,184	13,621	7,488	447,723	72,349	13,454	4,722,113	4,833,590
Cost	132,098	2,981,030	6,176,957	113,297	29,320	447,723	161,893	295,190	10,337,508	10,276,883
Accrued depreciation	(5,329)	(1,140,505)	(3,976,773)	(99,676)	(21,832)		(89,544)	(281,736)	(5,615,395)	(5,443,293)
Net balance at the end of the year	126,769	1,840,525	2,200,184	13,621	7,488	447,723	72,349	13,454	4,722,113	4,833,590
Average annual depreciation rates – %		2	5	18	10		2			

(i) This refers to the remeasurement of the ARO, as stated in Note 1.1 (e).

In thousands of Brazilian Reais, except when indicated otherwise

(b) Construction in progress

The balance is mainly composed of expansion and optimization projects for industrial units, as follows:

						Consolidated
			2019			2018
	Gross balance	Provision for impairment	Net balance	Gross balance	Provision for impairment	Net balance
Ferro Níquel Project	569,605	(569,605)		569,605	(569,605)	
Bauxita Rondon Project	118,478		118,478	113,911		113,911
Renovation of furnaces	111,161		111,161	130,807		130,807
Calciner	92,096	(92,096)		92,096	(92,096)	
Alumina refinery projects	56,864	(12,587)	44,277	42,426	(12,587)	29,839
Tijuco Alto project	52,374	(52,374)		52,374	(52,374)	
Rolling mills, extrusion and casting room projects	27,004		27,004	18,276		18,276
Revitalization and adjustments to the power plants	23,830		23,830	48,060		48,060
Mining projects	21,619		21,619	8,226		8,226
Plastic Transformation and Casting Projects	20,877		20,877	28,824		28,824
Safety, health and environmental projects	18,829		18,829	17,139		17,139
Furnace Room projects	17,539		17,539	22,216		22,216
Modernization of the automation system	60		60	29,148		29,148
Other	67,103	(23,054)	44,049	68,368	(23,054)	45,314
	1,197,439	(749,716)	447,723	1,241,476	(749,716)	491,760

The aforementioned balances are stated net of the provision for impairment, and the Company evaluates its assets whenever events or changes in circumstances indicate that the book value may not be recoverable. Halted projects are constantly assessed and a provision is made in the event of an indication of impairment. The remaining balances of the projects that have a provision for impairment are related to the Company's estimate of resuming the projects and/or using the assets in other production lines.

During the year ended December 31, 2019, charges on loans and financing capitalized in construction in progress totaled BRL 8,917 (December 31, 2018 – BRL 13,766). The capitalization rate used was 0.52% per month (December 31, 2018 – 0.52% per month).

18 Intangible assets

Accounting policy

18.1 Goodwill

Goodwill is represented by the positive difference between the amount paid and/or payable for the acquisition of a business and the net amount of the fair value of the assets and liabilities of the acquired entity. Goodwill on acquisitions of subsidiaries is recorded as "Intangible assets" in the consolidated financial statements.

The Company performs an annual review of the net book value of goodwill, to assess whether there was deterioration or loss of the recoverable amount (impairment). Gains and losses on the disposal of an entity include the book value of goodwill related to the entity sold.

Goodwill is allocated to CGUs for impairment testing purposes or to groups of CGUs that should benefit from the business combination from which the goodwill originated. The recoverable amounts from CGUs were determined according to the value in use, based on the discounted cash flow model. The recoverable amount is sensitive to the discount rate used in the discounted cash flow method, as well as expected future cash receipts and the growth rate used for extrapolation purposes.

18.2 Rights to natural resources

The costs of acquiring mining and maintenance rights that enable access to ore are capitalized and amortized using the straight-line method over their useful lives, or, when applicable, based on mine depletion.

After the start of the mine’s production phase, these expenses are amortized and handled as production costs.

The depletion of mineral resources is calculated based on the extraction, considering the estimated useful lives of the reserves.

18.3 Use of public assets – UBP

This corresponds to the values established in the concession agreements related to the rights to exploit the hydroelectric power generation potential (onerous concession), which contract is signed in the Use of Public Good (UBP) modality.

The accounting entry is made when the operating license is granted, regardless of the disbursement schedule established in the agreement. The initial recording of this liability (obligation) and intangible asset (concession right) corresponds to the values of future obligations brought to present value (present value of cash flow from future payments).

The amortization of intangible assets is calculated using the straight-line method over the remaining term of the concession. The financial liability is updated by the established contractual index and by the adjustment to present value as a result of the passage of time and reduced by the payments made.

In thousands of Brazilian Reais, except when indicated otherwise

(a) Composition and change

Parent company

						2019	2018 (Restated)
	Goodwill	Exploitation rights over natural resources	*Software*	Use of public assets – UBP	Other	Total	Total
Balance at the beginning of the year							
Cost	79,722	143,899	29,656	281,829	9,632	544,738	568,826
Accrued amortization		(37,711)	(20,837)	(88,337)	(1,914)	(148,799)	(133,697)
Net balance	79,722	106,188	8,819	193,492	7,718	395,939	435,129
Additions					4	4	7
Write-offs			(1)		(45)	(46)	
Amortization and depletion		(2,330)	(4,483)	(10,802)		(17,615)	(14,951)
Reversal of asset depreciation (Impairment)							4,895
Transfers			9,036		217	9,253	(29,141)
Balance at the end of the year	79,722	103,858	13,371	182,690	7,894	387,535	395,939
Cost	79,722	143,899	38,535	281,829	9,591	553,576	544,738
Accrued amortization		(40,041)	(25,164)	(99,139)	(1,697)	(166,041)	(148,799)
Net balance at the end of the year	79,722	103,858	13,371	182,690	7,894	387,535	395,939
Average annual amortization and depletion rates – %		3	20	3			

Consolidated

						2019	2018 (Restated)
	Goodwill	Exploitation rights over natural resources	*Software*	Use of public assets – UBP	Other	Total	Total
Balance at the beginning of the year							
Cost	166,265	143,899	29,889	303,774	38,811	682,638	706,724
Accrued amortization		(37,711)	(21,064)	(95,199)	(27,650)	(181,624)	(165,637)
Net balance	166,265	106,188	8,825	208,575	11,161	501,014	541,087
Additions			9		4	13	7
Write-offs			(1)		(45)	(46)	
Amortization and depletion		(2,330)	(4,486)	(11,677)	(3)	(18,496)	(15,834)
Reversal of asset depreciation (Impairment)							4,895
Transfers			9,036		217	9,253	(29,141)
Balance at the end of the year	166,265	103,858	13,383	196,898	11,334	491,738	501,014
Cost	166,265	143,899	38,777	303,774	38,769	691,484	682,638
Accrued amortization		(40,041)	(25,394)	(106,876)	(27,435)	(199,746)	(181,624)
Net balance at the end of the year	166,265	103,858	13,383	196,898	11,334	491,738	501,014
Average annual amortization and depletion rates – %		3	20	3			

In thousands of Brazilian Reais, except when indicated otherwise

(b) Goodwill test to verify impairment

Assets that have an indefinite useful life, such as goodwill, are not subject to amortization and are tested annually or whenever there is an indication of deterioration or loss of book value to identify a possible need for impairment.

The Company and its subsidiaries assess the recoverability of the book value of property, plant and equipment and intangible assets for each of its CGUs at least once a year. The process of estimating these amounts involves the use of assumptions, judgments and estimates of future cash flows that represent the Company's best estimate.

The Company's Board of Directors determined the budgeted gross margin based on past performance and its expectations for market development. The future cash flows and discount rates used are post-tax and reflect specific risks related to each CGU being tested. The pre-tax rate equivalent to the post-tax rate used is 8.52% per year.

	Parent company		Consolidated	
	2019	2018	2019	2018
Consórcio Empresarial Salto Pilão	35,587	35,587	35,587	35,587
Rio Verdinho Energia S.A.	28,990	28,990	28,990	28,990
Machadinho Energética S.A.	15,145	15,145	15,145	15,145
CBA Energia Participações S.A.			37,113	37,113
Metalex Ltda.			49,430	49,430
	79,722	79,722	166,265	166,265

No indications of impairment were identified in relation to the tested goodwill.

19 Leases

(a) Right to use

Parent company

					12/31/2019
	Buildings and construction	Vehicles	Machinery and equipment	Other	Total
Balance at the beginning of the year					
Initial adoption	8,612	5,006	11,458	881	25,957
Amortization	(2,162)	(2,255)	(7,690)	(587)	(12,694)
Write-offs	(147)		(103)		(250)
Balance at the end of the year	6,303	2,751	3,665	294	13,013
Average annual amortization rates – %	22	44	62	67	

Consolidated

					12/31/2019
	Buildings and construction	Vehicles	Machinery and equipment	Other	Total
Balance at the beginning of the year					
Initial adoption	8,612	5,008	13,817	881	28,318
Principal remeasurement			66		66
New Contracts	5	176	1,605		1,786
Amortization	(2,166)	(2,306)	(9,554)	(587)	(14,613)
Write-offs	(148)		(103)		(251)
Balance at the end of the year	6,303	2,878	5,831	294	15,306
Average annual amortization rates – %	22	44	62	67	

In thousands of Brazilian Reais, except when indicated otherwise

(b) Leases

	Parent company
	12/31/2019
Balance at the beginning of the year	
Initial adoption	25,957
Settlement	(13,553)
Adjustment to present value	1,279
Write-offs	(241)
Balance at the end of the year	13,442
Current	7,308
Non-current assets	6,134
	13,442

	Consolidated
	12/31/2019
Initial adoption	28,318
Settlement	(15,577)
Principal remeasurement	66
New contracts	1,786
Adjustment to present value	1,431
Write-offs	(241)
Balance at the end of the year	15,783
Current	9,277
Non-current assets	6,506
	15,783

(c) Profile

	Consolidated						
	2020	2021	2022	2023	2024	After 2025	Total
Local currency							
Brazilian Reais	9,277	3,197	1,940	1,273	56	40	15,783
	9,277	3,197	1,940	1,273	56	40	15,783

In thousands of Brazilian Reais, except when indicated otherwise

20 Loans and financing

Accounting policy

Loans and financing are initially recognized at fair value, net of transaction costs incurred, and subsequently are stated at amortized cost. Any difference between the amounts raised (net of transaction costs) and the total amount payable is recognized in the income statement during the period in which the loans and financing are open, using the effective interest rate method.

Loan costs that are directly attributable to the acquisition, construction or production of a qualifying asset (an asset that necessarily requires a substantial period of time to become ready for its intended use or sale) are capitalized as part of the cost of the asset, when it is probable that they will result in future economic benefits for the entity and that such costs can be reliably measured. Other loan costs are recorded as an expense in the period in which they are incurred.

(a) Composition and fair value

Parent company

		Current		Non-current assets		Total		Fair value	
Mode	**Average annual rate (i)**	**2019**	**2018**	**2019**	**2018**	**2019**	**2018**	**2019**	**2018**
Local currency									
BNDES	TJLP + 2.22% / SELIC + 2.56% / IPCA + 4.71%	67,233	65,204	274,581	249,043	341,814	314,247	339,690	305,510
FINAME	4.67% Pre BRL	989	1,016	2,510	3,492	3,499	4,508	3,445	4,155
Export credit notes	112.70% CDI	8,076		1,078,238		1,086,314		1,081,333	
Credit agency	8.50% Pre-BRL	6,534	6,584	23,110	29,414	29,644	35,998	32,065	36,727
FINEP	TJLP + 0.62%	11,438	11,440	12,325	23,627	23,763	35,067	24,257	34,957
Other				598	598	598	598	598	598
		94,270	84,244	1,391,362	306,174	1,485,632	390,418	1,481,388	381,947
Foreign currency									
Eurobonds – USD	4.75% Pre-USD	452	1,215	578,193	1,543,423	578,645	1,544,638	610,864	1,493,770
		452	1,215	578,193	1,543,423	578,645	1,544,638	610,864	1,493,770
		94,722	85,459	1,969,555	1,849,597	2,064,277	1,935,056	2,092,252	1,875,717
Interest on loans and financing		12,346	3,891						
Current portion of loans and financing (principal amount)		82,376	81,568						
		94,722	85,459						

In thousands of Brazilian Reais, except when indicated otherwise

									Consolidated
			Current		**Non-current assets**		**Total**		**Fair value**
Mode	**Average annual rate (i)**	**2019**	**2018**	**2019**	**2018**	**2019**	**2018**	**2019**	**2018**
Local currency									
BNDES	TJLP + 2.22% / SELIC + 2.56% / IPCA + 4.71%	67,233	65,204	274,581	249,043	341,814	314,247	339,690	305,510
FINAME	4.67% Pre BRL	989	1,016	2,510	3,492	3,499	4,508	3,445	4,155
Debentures	107.50% CDI	31,760	32,636	60,828	91,175	92,588	123,811	93,252	124,132
Export credit notes	112.70% CDI	8,076		1,078,238		1,086,314		1,081,333	
Credit agency	8.50% Pre-BRL	6,534	6,584	23,110	29,414	29,644	35,998	32,065	36,727
FINEP	TJLP + 0.62%	11,440	11,440	12,323	23,627	23,763	35,067	24,257	34,957
Other				598	598	598	598	598	598
		126,032	116,880	1,452,188	397,349	1,578,220	514,229	1,574,640	506,079
Foreign currency									
Eurobonds – USD	4.75% Pre-USD	452	1,215	578,193	1,543,423	578,645	1,544,638	610,864	1,493,770
		452	1,215	578,193	1,543,423	578,645	1,544,638	610,864	1,493,770
		126,484	118,095	2,030,381	1,940,772	2,156,865	2,058,867	2,185,504	1,999,849
Interest on loans and financing		13,781	6,200						
Current portion of loans and financing (principal amount)		112,703	111,895						
		126,484	118,095						

(i) Average annual charges are presented according to the representativeness of the contracts over the total amount of debt.

BNDES	Brazilian Economical and Social Development Bank
BRL	Local currency (Brazilian Reais)
CDI	Interbank Certificate of Deposit
IPCA	Brazilian Consumer Price Index
FINAME	Financing of new machinery and equipment manufactured in Brazil
SELIC	Brazilian Special System for Clearance and Custody
TJLP	Long-Term Interest Rate set by the National Monetary Council. The TJLP was the basic cost of BNDES financing until December 2017 As of January 2018, the Long-Term Rate (TLP) became the main financial cost of BNDES financing
USD	US Dollars

In thousands of Brazilian Reais, except when indicated otherwise

(b) Maturity

The maturity profile of loans and financing on December 31, 2019:

Parent company

	2020	2021	2022	2023	2024	2025	2026	2027	2028	Total
Local currency										
BNDES	67,232	69,256	40,054	28,052	28,052	28,052	23,649	10,441	47,026	341,814
FINAME	989	872	781	781	76					3,499
Export credit notes (i)	8,076	(1,045)	(1,045)	(1,045)	(1,045)	432,907	432,907	216,604		1,086,314
Credit agency	6,534	6,303	6,303	6,303	4,201					29,644
FINEP	11,439	11,475	849							23,763
Other		598								598
	94,270	87,459	46,942	34,091	31,284	460,959	456,556	227,045	47,026	1,485,632
	6%	6%	3%	2%	2%	31%	31%	15%	3%	100%
Foreign currency										
Eurobonds – USD (i)	452	(543)	(543)	(543)	579,822					578,645
	452	(543)	(543)	(543)	579,822					578,645
	0%	0%	0%	0%	100%					100%
	94,722	86,916	46,399	33,548	611,106	460,959	456,556	227,045	47,026	2,064,277
	5%	4%	2%	2%	30%	22%	22%	11%	2%	100%

Consolidated

	2020	2021	2022	2023	2024	2025	2026	2027	2028	Total
Local currency										
BNDES	67,232	69,256	40,054	28,052	28,052	28,052	23,649	10,441	47,026	341,814
FINAME	989	872	781	781	76					3,499
Export credit notes (i)	8,076	(1,045)	(1,045)	(1,045)	(1,045)	432,907	432,907	216,604		1,086,314
Debentures	31,762	30,409	30,417							92,588
Credit agency	6,534	6,303	6,303	6,303	4,201					29,644
FINEP	11,439	11,475	849							23,763
Other		598								598
	126,032	117,868	77,359	34,091	31,284	460,959	456,556	227,045	47,026	1,578,220
	8%	7%	5%	2%	2%	29%	29%	14%	3%	100%
Foreign currency										
Eurobonds – USD (i)	452	(543)	(543)	(543)	579,822					578,645
	452	(543)	(543)	(543)	579,822					578,645
	0%	0%	0%	0%	100%					100%
	126,484	117,325	76,816	33,548	611,106	460,959	456,556	227,045	47,026	2,156,865
	6%	5%	4%	2%	28%	21%	21%	11%	2%	100%

(i) The balances shown as negative are from fees that are amortized on a straight-line basis.

In thousands of Brazilian Reais, except when indicated otherwise

(c) Change

	Parent company		Consolidated	
	2019	2018	2019	2018
Balance at the beginning of the year	1,935,056	2,653,192	2,058,867	2,817,485
Fund raising (i)	1,175,168	34,902	1,175,168	34,902
Additional (reductions) of fundraising costs, net of the amortization	(3,406)	1,264	(3,312)	1,379
Exchange rate variation	38,115	271,841	38,116	272,073
Accrued interest	119,888	125,890	127,123	135,971
Interest paid	(109,311)	(138,175)	(117,421)	(148,960)
Eurobonds transfer (ii)		(836,341)		(836,341)
Settlements (iii)	(1,091,233)	(177,517)	(1,121,676)	(217,642)
Balance at the end of the year	2,064,277	1,935,056	2,156,865	2,058,867

(i) Mainly refers to funding of Export Credit Notes (NCE), as described in note 20 (g) (i).

(ii) Mainly refers to the transfer of the Eurobonds to the parent company VSA, through a capital reduction that occurred in 2018.

(iii) Mainly refers to 2024 bonds tender offer, as described, as described in note 20 (g) (ii).

(d) Composition by currency

Parent company

	Current		Non-current assets		Total	
	2019	2018	2019	2018	2019	2018
Brazilian Reais (i)	94,270	84,244	1,391,362	306,174	1,485,632	390,418
US Dollar	452	1,215	578,193	1,543,423	578,645	1,544,638
	94,722	85,459	1,969,555	1,849,597	2,064,277	1,935,056

Consolidated

	Current		Non-current assets		Total	
	2019	2018	2019	2018	2019	2018
Brazilian Reais (i)	126,032	116,880	1,452,188	397,349	1,578,220	514,229
US Dollar	452	1,215	578,193	1,543,423	578,645	1,544,638
	126,484	118,095	2,030,381	1,940,772	2,156,865	2,058,867

(i) BRL 1,107 million and BRL 125 million refer to loans that have swaps for rates pre-fixed in US Dollars as described in notes 20 (g) (i) and (iii).

In thousands of Brazilian Reais, except when indicated otherwise

(e) Composition by indexer

Parent company

	Current		Non-current assets		Total	
	2019	2018	2019	2018	2019	2018
Local currency						
TJLP	59,545	65,971	154,500	241,865	214,045	307,836
Fixed rate	7,523	1,016	26,219	4,090	33,742	5,106
CDI	8,076		1,078,238		1,086,314	
IPCA	5,080	3,942	119,554	34,767	124,634	38,709
SELIC	14,046	13,315	12,851	25,452	26,897	38,767
	94,270	84,244	1,391,362	306,174	1,485,632	390,418
Foreign currency						
Fixed rate	452	1,215	578,193	1,543,423	578,645	1,544,638
	452	1,215	578,193	1,543,423	578,645	1,544,638
	94,722	85,459	1,969,555	1,849,597	2,064,277	1,935,056

Consolidated

	Current		Non-current assets		Total	
	2019	2018	2019	2018	2019	2018
Local currency						
TJLP	59,545	65,971	154,500	241,865	214,045	307,836
Fixed rate	7,523	1,016	26,219	4,090	33,742	5,106
CDI	39,838	32,636	1,139,065	91,175	1,178,903	123,811
IPCA	5,080	3,942	119,554	34,767	124,634	38,709
SELIC	14,046	13,315	12,850	25,452	26,896	38,767
	126,032	116,880	1,452,188	397,349	1,578,220	514,229
Foreign currency						
Fixed rate	452	1,215	578,193	1,543,423	578,645	1,544,638
	452	1,215	578,193	1,543,423	578,645	1,544,638
	126,484	118,095	2,030,381	1,940,772	2,156,865	2,058,867

(f) Guarantees

As at December 31, 2019, BRL 955,050 (December 31, 2018 – BRL 1,904,052) of loans and financing were guaranteed by sureties (Note 15 (c)), BRL 170,903 (December 31, 2018 – BRL 207,007) by lines on Company's assets and BRL 23,884 (December 31, 2018 – BRL 35,067) by bank guarantee.

(g) Funding and amortization

(i) Export financing

In April and May of 2019, the Company entered into loan agreements (NCE – Export Credit Note) to finance its exports in the total amount of BRL 1,085 million, with final maturity in April and May of 2027, respectively.

The company also entered into swap agreements (derivative financial instrument), which aim to exchange the exposure to the CDI floating rate in Brazilian Reais to a fixed rate in U.S. dollars, resulting in a weighted average cost of 5.00% per year. These swaps were contracted together with the financing and with the same financial institution.

(ii) Bonds tender offer

In April 2019, the Company announced the tender offer of its bonds, maturing in 2024. Settlement in the amount of USD 256 million (BRL 1,007 million) occurred on May 10, 2019.

In thousands of Brazilian Reais, except when indicated otherwise

(iii) Loan with BNDES

In July 2019, the Company entered into an agreement with BNDES to finance part of its maintenance and modernization projects in the amount of BRL 326 million with a final maturity in 2034. In September 2019, the first disbursement related to this loan occurred in the amount of BRL 90 million. Subsequently, a swap term (derivative financial instrument) was signed, which aims to exchange the exposure to the IPCA floating rate in Brazilian Reais to a fixed rate in U.S. dollars, resulting in a weighted average cost of 4.15% per year.

(iv) Covenants

The Company periodically monitors its compliance with contractual clauses. On December 31, 2019 and 2018, all covenants were being complied with in accordance with pre-established clauses in the contracts.

21 Suppliers Finance Programs

The Company signed contracts with financial institutions for the purpose of allowing suppliers in the local and foreign markets to anticipate their receivables. In this operation, suppliers transfer the right to receive securities from the sales of goods to financial institutions.

	Parent company		Consolidated	
Drawee risk operations	**12/31/2019**	**12/31/2018**	**12/31/2019**	**12/31/2018**
Local market	51,161	91,646	51,161	91,646
Foreign market	283,969	164,999	283,969	164,999
	335,130	256,645	335,130	256,645

22 Current and deferred income tax and social contribution

Accounting policy

Income tax and social contribution expenses for the year comprise current and deferred tax and contributions. Income tax and social contribution are recognized in the income statement, except to the extent that they are related to items directly stated as equity. In this case, tax and social contribution are also recognized in equity or comprehensive income.

Current and deferred income tax and social contribution charges are calculated based on tax laws that have been enacted or substantially promulgated, on the balance sheet date of the countries in which the entities operate and generate taxable income. The Board of Directors periodically evaluates the positions taken in calculating income tax and social contributions with respect to situations in which the applicable tax regulations give rise to interpretations. It establishes provisions, when appropriate, based on estimated amounts of payment to tax authorities.

Current income tax and social contribution are shown net, by taxpayer entity, in liabilities when there are amounts to be paid, or in assets when the amounts paid in advance exceed the total due on the balance sheet date.

Deferred income tax and social contribution assets are recorded only to the extent that it is probable that future taxable income will be available and against which temporary differences can be used.

Deferred income tax assets and liabilities are recorded net in the balance sheet when there is a legal right and the intention to offset them when calculating current taxes, generally related to the same legal entity and tax authority.

In thousands of Brazilian Reais, except when indicated otherwise

The provision for income tax and social contribution is calculated individually by the entity based on tax rates and rules in force at the entity's location. The Company and its subsidiaries also recognize provisions due to situations in which additional tax amounts are likely to be due.

When the final result of this assessment is different from the values initially estimated and recorded, these differences affect current and deferred tax assets and liabilities in the period in which the definitive amount is determined.

The Company and its subsidiaries used systematic real profit and calculated and recorded its tax and social contribution based on the effective rates in force on the financial statement preparation date. Deferred income tax and social contribution tax credits result from tax losses, negative bases and temporary differences related to (a) the effect of the calculated exchange rate variation (systematic calculation of income tax and social contribution under the cash regime – exchange rate effects); (b) the adjustment to fair value of derivative financial instruments; (c) non-deductible provisions until the moment of their effective realization; and (d) temporary differences arising in the application of the CPCs.

(a) Income Tax (IRPJ) and Social Contribution (CSLL) expense reconciliation

Current values are calculated based on the rates in force on taxable income, plus or minus the respective additions and exclusions.

The income tax and social contribution amounts on the income statement for the fiscal year ended December 31 present the following reconciliation based on the nominal Brazilian rate:

	Parent company		Consolidated	
	2019	2018	2019	2018
Profit (loss) before income tax and social contribution	(80,365)	87,339	(3,098)	128,151
Nominal tax rates	34%	34%	34%	34%
IRPJ and CSLL calculated at nominal tax rates	27,324	(29,695)	1,053	(43,571)
Adjustments for the calculation of effective IRPJ and CSLL				
Equity	19,149	(2,687)	4,929	(9,193)
Effect of companies paying taxes under the deemed taxable income regime			(7,963)	
Tax loss and negative basis without constitution on the deferred tax	(26,815)	(11,488)	(26,815)	(21,825)
Other permanent additions (exclusions), net	(3,518)	(275)	(2,651)	503
IRPJ and CSLL calculated	16,140	(44,145)	(31,447)	(74,086)
Current		7,757	(42,110)	(26,215)
Deferred	16,140	(51,902)	10,663	(47,871)
IRPJ and CSLL in the result	16,140	(44,145)	(31,447)	(74,086)

(i) Deferred tax credits arising from the tax loss and negative social contribution basis are only recognized to the extent that their realization is probable, based on historical profitability and projected future results. In 2019, the Company reevaluated the recovery of the deferred taxes recorded in its tax calculation, and the technical study conducted showed that the tax loss credit and negative base cannot be fully accounted for. Thus, there was no constitution of the deferred tax credit in the amount of BRL 26,815.

In thousands of Brazilian Reais, except when indicated otherwise

(b) Composition of deferred tax balances

	Parent company		Consolidated	
	2019	2018	2019	2018
Tax credits on tax loss and negative basis	367,378	367,370	367,378	371,030
Tax credits on tax differences				
Provisions (impairment and miscellaneous losses)	721,401	678,569	721,401	678,569
Exchange rate variation – taxation by the cash regime	83,803	220,525	83,803	220,525
Tax, civil, labor and environmental provisions	92,255	114,474	92,255	120,768
Use of public assets – UBP	69,346	71,418	69,346	71,418
CPC 25 – Decommissioning of assets	59,547	56,059	59,547	56,059
Deferral of gains (losses) on derivative contracts	35,238	(37,579)	35,238	(37,579)
Financial instrument – firm commitment	31,715	(11,523)	31,715	(11,523)
Provision for participation in the result – PPR	22,170	21,230	22,170	21,230
Provision for inventory losses	18,552	20,318	18,552	20,318
Provision for doubtful accounts	17,069	13,473	17,069	13,473
Environmental liabilities	9,772	14,714	9,772	14,714
Tax debts on tax differences				
Adjustments to property, plant and equipment service life (depreciation)	(635,611)	(694,709)	(635,611)	(694,709)
CPC 20 – Capitalized interest	(25,815)	(24,350)	(25,815)	(24,350)
CPC 12 – Adjustment to present value	(14,651)	(15,721)	(14,651)	(15,721)
Goodwill amortization	(7,392)	(14,019)	(7,392)	(14,019)
Other	(8,135)	(8,494)	(4,047)	(8,493)
	836,642	771,755	840,730	781,710

(c) Effect of deferred income tax and social contribution on income for the year and comprehensive income

	Parent company		Consolidated	
	2019	2018	2019	2018
Balance at the beginning of the year	771,755	911,791	781,710	917,715
Effect on the result	16,140	(51,902)	10,663	(47,871)
Effect on other components of comprehensive income – Hedge accounting	48,747	(88,134)	48,747	(88,134)
Other			(390)	
Balance at the end of the year	836,642	771,755	840,730	781,710

(d) Realization of deferred IRPJ and CSLL on CSLL Negative Base and Tax Loss

	2019	Percentage
Up to 1 year	13,117	3.57%
From 1 to 3 years	24,670	6.72%
From 3 to 5 years	139,594	38.00%
From 5 to 10 years	189,997	51.72%
	367,378	100.00%

23 Provisions

Accounting policy

The Company is a party involved in tax, civil, labor and environmental proceedings that are at different stages. The provisions made to cover probable losses arising from ongoing proceedings are established and updated based on the Board of Directors' assessment, which considers the opinion of its legal advisors and requires a high degree of judgment on the matters involved.

In thousands of Brazilian Reais, except when indicated otherwise

(a) Judicial deposits

Judicial deposits are monetarily restated and when they have a corresponding provision, they are recorded net in "Provisions". Judicial deposits that do not have a corresponding provision are recorded under non-current assets.

(b) Provisions of a tax, civil, labor, and environmental nature and legal actions

These are recorded when: (i) there is a legal or non-formalized obligation as a result of past events; (ii) the outflow of funds is likely to settle the obligation; and (iii) the amount can be reliably estimated. No provision is recognized for future operating losses.

Provisions are measured at the current value of expenses that should be required to settle the obligation, which reflects current market assessments of the time value of money and the specific risks of the obligation. The increase in the obligation due to the passage of time is recorded as a financial expense.

(c) Obligation on decommissioning of assets

The Company recognizes an obligation at fair value for the decommissioning of assets in the period in which they occur, with a corresponding entry to the respective property, plant and equipment. The Company considers the accounting estimates related to the recovery of degraded areas and the costs for closing mines and dams as a critical accounting practice since it involves significant provision amounts and is based on estimates that involve several different assumptions, such as interest rates, inflation, useful life of the asset considering the current stage of depletion, costs involved and projected depletion dates for each mine and dam. These estimates are reviewed annually by the Company.

The measurement of asset decommissioning obligations involves judgment on various assumptions. From an environmental perspective, it refers to future obligations to restore or recover the environment, to ecological conditions similar to those existing prior to the start of the project or activity or to make compensatory measures, agreed with the competent bodies, due to the impossibility of returning to these pre-existing conditions. These obligations arise from the beginning of the environmental degradation of the occupied area, object of the operation or from formal commitments undertaken with the environmental agency, whose degradation needs to be compensated. The dismantling and withdrawal of an asset's operation occurs when it is permanently deactivated, through its stoppage, sale or disposal.

The constituted liability is periodically updated based on these discount rates plus inflation in the reference period. On December 31, 2019, the interest rate for 2020 was reassessed at 4.96% p.a. (2019 – 6.17% p.a.).

(d) Composition and change

							Parent company
						2019	2018
		Judicial proceedings					
	Obligation to demobilize assets	Tax	Labor	Civil	Environmental	Total	Total
Balance at the beginning of the year	243,955	173,929	1,909	52,909	982	473,684	459,537
Additions		8,450	61,463	5,024	2,575	77,512	68,273
Reversals		(3,984)	(38,922)	(39,848)	(39)	(82,793)	(43,689)
Judicial deposits, net of write-offs		536	26,733	7,652		34,921	(11,368)
Cash-effect settlements	(16,827)	(5,576)	(4,380)	(1,159)	(2,614)	(30,556)	(44,677)
Monetary restatement		7,951	6,438	3,358	90	17,837	41,385
Adjustment to present value	20,358					20,358	11,306
Cash flow reassessment (i)	170,709					170,709	(7,083)
Balance at the end of the year	418,195	181,306	53,241	27,936	994	681,672	473,684

In thousands of Brazilian Reais, except when indicated otherwise

							Consolidated
						2019	2018
		Judicial proceedings					
	Obligation to demobilize assets	Tax	Labor	Civil	Environmental	Total	Total
Balance at the beginning of the year	243,955	175,173	1,759	53,518	982	475,387	460,535
Additions		8,525	61,463	5,028	2,575	77,591	68,477
Reversals		(3,984)	(38,922)	(39,848)	(39)	(82,793)	(44,159)
Judicial deposits, net of write-offs		536	26,883	7,652		35,071	(10,397)
Cash-effect settlements	(16,827)	(5,576)	(4,380)	(1,159)	(2,614)	(30,556)	(44,677)
Monetary restatement		7,951	6,438	3,358	90	17,837	41,385
Adjustment to present value	20,358					20,358	11,306
Cash flow reassessment (i)	170,709					170,709	(7,083)
Balance at the end of the year	418,195	182,625	53,241	28,549	994	683,604	475,387

(i) This refers to the remeasurement of the ARO, as stated in Note 1,1 (e).

(e) Tax, civil, labor and environmental provisions and remaining judicial deposits

The Company and its subsidiaries are parties to tax, labor, civil and environmental proceedings underway, and are discussing these issues at both the administrative and judicial levels, which, when applicable, are supported by judicial deposits.

Provisions for losses from contingent liabilities classified as probable are accounted for, those classified as possible losses are not accounted for and are disclosed in the explanatory notes, and those classified as remote are not provisioned or disclosed, except when the Company considers their disclosure to be justified due to the relevance of the proceedings.

The amounts involved in the contingencies are estimated and updated periodically. The classification of losses as possible, probable and remote is based on the Board of Directors' assessment, based on the opinion of its legal advisors.

The provisions and corresponding judicial deposits are shown below:

								Parent company
				2019				2018
	Judicial deposits	Provisioned amount	Net total	Remaining judicial deposits (i)	Judicial deposits	Provisioned amount	Net total	Remaining judicial deposits (i)
Tax	(13,933)	195,239	181,306	15,830	(14,470)	188,399	173,929	16,244
Labor	(19,146)	72,387	53,241	2,238	(124,677)	126,586	1,909	579
Civil	(11)	27,947	27,936	96,394	(7,663)	60,572	52,909	111,228
Environmental		994	994	6		982	982	6
	(33,090)	296,567	263,477	114,468	(146,810)	376,539	229,729	128,057

								Consolidated
				2019				2018
	Judicial deposits	Provisioned amount	Net total	Remaining judicial deposits (i)	Judicial deposits	Provisioned amount	Net total	Remaining judicial deposits (i)
Tax	(13,933)	196,558	182,625	15,835	(14,470)	189,643	175,173	16,249
Labor	(19,146)	72,387	53,241	2,484	(124,827)	126,586	1,759	624
Civil	(11)	28,560	28,549	96,394	(7,663)	61,181	53,518	111,228
Environmental		994	994	546		982	982	6
	(33,090)	298,499	265,409	115,259	(146,960)	378,392	231,432	128,107

(i) The Company has amounts deposited in proceedings classified by the Board of Directors, pursuant to the indications of the Company's legal advisors, as having a remote or possible loss probability, therefore, without the respective provision.

In thousands of Brazilian Reais, except when indicated otherwise

(f) Comments on provisions with a probable probability of loss

(i) Tax provisions

Tax proceedings with a probable loss probability are represented by discussions related to federal, state and municipal taxes, which are at the judicial or administrative level, with the main cases provided for discussions related to IRPJ, IPTU, CFEM, among others.

(ii) Labor provisions

Labor proceedings classified as probable loss are those filed by former employees, third parties and unions, the objects of which mostly consist of claims for payment of severance pay, unhealthy and dangerous pay, overtime, and in itinere hours, as well as indemnity claims for alleged occupational diseases, work accidents, material and moral damages.

When disbursement by the company is likely, these proceedings are duly provisioned, according to the provisioning policy prepared by the company. Most of these lawsuits are pending in the Regional Labor Courts of Minas Gerais, Goiás, Campinas and São Paulo.

(iii) Civil provisions

The Company is a party to civil proceedings of an administrative and jurisdictional nature. The referred contingencies originate from proceedings with different legal natures, highlighting actions for indemnity for material damage and moral damage, collection actions, executions and administrative requests.

(iv) Environmental provisions

The Company established environmental policies and procedures for the purpose of complying with environmental and other laws. The Board of Directors conducts regular analyses to identify environmental risks and to ensure that the systems in place are adequate to manage those risks.

The Company's environmental, administrative and judicial litigation basically refers to the investigation of alleged violations that do not comply with specific legislation, whether through administrative procedures or legal proceedings.

(g) Proceedings considered to have a possible loss probability

The Company has actions involving risk of loss classified by the Board of Directors as possible, based on the assessment of its legal advisors, for which no provision has been made.

	Parent company		Consolidated	
	2019	2018	2019	2018
Tax	2,519,344	2,242,235	2,554,996	2,278,750
Labor	127,787	219,321	130,074	219,574
Civil	184,984	198,382	185,703	199,313
Environmental	1,497	2,704	1,497	2,704
	2,833,612	2,662,642	2,872,270	2,700,341

In thousands of Brazilian Reais, except when indicated otherwise

Comments on contingent tax liabilities with possible loss probability

The following table shows the analysis of the relevance of these proceedings:

	Consolidated	
	2019	2018
PIS and COFINS credit processes (i)	690,109	660,760
ICMS on Electricity charges (i)	221,785	203,882
IRPJ Negative Balance Disallowance (iii)	166,737	178,050
Tax Classification Error – Imports (iv)	181,140	172,162
Financial Compensation for the Exploration of Mineral Resources – CFEM (v)	108,763	106,767
Collection of ICMS due to differences in the destination of goods (vi)	107,786	104,373
Other	1,078,676	852,756
	2,554,996	2,278,750

(i) PIS and COFINS credit processes

The Company currently has Decision Orders and Notices of Infraction proceedings underway, related to the disallowance of PIS and COFINS credits related to the items applied in the production process, which, according to the Brazilian Federal Revenue Service, would not generate the right to credit for these contributions. The updated amount on December 31, 2019 corresponds to BRL 690,109. Currently, all proceedings are awaiting administrative decision.

In the understanding of the Board of Directors and the opinion of its independent legal advisors, given the precedents and jurisprudence, the likelihood of loss in these proceedings is considered possible.

(ii) ICMS on Electricity charges

The Company has judicial and administrative discussions regarding the incidence of ICMS on sector charges levied on the electricity tariff. On December 31, 2019, the amount in dispute for these discussions totaled BRL 221,785.

In the understanding of the Board of Directors and the opinion of its independent legal advisors, the sanction is unfounded, which is why the probability of loss in the proceedings is considered possible.

(iii) IRPJ Negative Balance Disallowance

The Company received decision orders issued by the Brazilian Federal Revenue Service in which the amounts calculated as Negative IRPJ and CSLL Balance are questioned. The amount under discussion in the proceedings totals BRL 166,737 in December 2019.

The cases are currently pending an administrative decision following the Company having filed a challenge.

In the understanding of the Board of Directors and the opinion of its independent legal advisors, it appears that there was a mistake on the part of the RFB when assessing the amounts submitted by the Company, which is why the likelihood of loss in the proceedings is considered possible.

(iv) Tax Classification Error – Imports

In March 2017, the Company was fined due to an alleged tax classification error in the import of inputs, resulting in the requirement of taxes (IPI, PIS, COFINS and II), whose value in December 2019 totals BRL 181,140.

Since the fine is understood to be undue, the Company filed a challenge that was judged favorably in the first administrative instance. The case is currently awaiting judgment by the CARF for the voluntary appeal filed by the Attorney General's Office of the Federal Treasury.

In the understanding of the Board of Directors and the opinion of its independent legal advisors, the probability of loss in the referred proceedings is considered possible.

(v) Financial Compensation for the Exploration of Mineral Resources – CFEM

The Company received fines issued by the National Department of Mineral Production for alleged failure to pay or underpayment of CFEM. The disputed amount of these fines totaled BRL 108,763 on December 31, 2019. The proceedings are currently in the administrative and judicial stage.

In the understanding of the Board of Directors and the opinion of its independent legal advisors, these sanctions are unfounded, which is why the probability of loss in the proceedings is considered possible.

(vi) Collection of ICMS due to differences in the destination of goods

Due to the disallowance of credits arising from the purchase of assets due to differences in the destination of the goods, the Company was fined for alleged failure to pay ICMS. The amount of these fines totaled BRL 107,786 on December 31, 2019.

In the understanding of the Board of Directors and the opinion of its independent legal advisors, the criteria adopted with respect to the destination of the goods are compliant with the pertinent legislation and the likelihood of loss in the proceedings is considered possible.

In thousands of Brazilian Reais, except when indicated otherwise

24 Use of public assets – UBP

Accounting policy

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

The Company has or participates in companies that hold concession agreements in the power industry. Most of these contracts foresee annual payments as of the beginning of the operation and are adjusted by the IGPM for the use of the public good (UBP).

The agreements have an average term of 35 years, and the amounts to be paid annually are shown below:

									Parent company
						2019			2018
Hydropower plants/Companies	Concession start date	Concession end date	Payment start date	Interest	Intangible asset	Liability	Interest	Intangible asset	Liability
Salto Pilão	apr-02	apr-37	jan-10	60%	173,368	538,435	60%	183,566	518,146
Salto do Rio Verdinho	dec-02	dec-37	oct-10	100%	7,003	21,720	100%	7,392	20,732
Itupararanga	feb-04	feb-24	jan-04	100%	344	1,562	100%	426	1,781
Piraju	dec-98	dec-33	feb-03	100%	888	6,010	100%	952	5,932
Ourinhos	jul-00	jul-35	sep-05	100%	1,087	4,909	100%	1,156	4,771
					182,690	572,636		193,492	551,362
Current						39,314			39,148
Non-current assets					182,690	533,322		193,492	512,214
					182,690	572,636		193,492	551,362

									Consolidated
						2019			2018
Hydropower plants/Companies	Concession start date	Concession end date	Payment start date	Interest	Intangible asset	Liability	Interest	Intangible asset	Liability
Salto Pilão	apr-02	apr-37	jan-10	60%	173,368	538,435	60%	183,566	518,146
Salto do Rio Verdinho	dec-02	dec-37	oct-10	100%	7,003	21,720	100%	7,392	20,732
Itupararanga	feb-04	feb-24	jan-04	100%	344	1,562	100%	426	1,781
Piraju	dec-98	dec-33	feb-03	100%	888	6,010	100%	952	5,932
Ourinhos	jul-00	jul-35	sep-05	100%	1,087	4,910	100%	1,156	4,771
Baesa - Energética Barra Grande	may-01	may-36	jun-07	15%	12,119	45,509	15%	12,857	45,407
Enercan - Campos Novos Energia	may-00	may-35	jun-06	24%	2,089	6,812	24%	2,226	6,819
					196,898	624,958		208,575	603,588
Current						44,878			44,156
Non-current assets					196,898	580,080		208,575	559,432
					196,898	624,958		208,575	603,588

In thousands of Brazilian Reais, except when indicated otherwise

25 Shareholders' equity

(a) Share capital

It is exclusively represented by common shares that are classified in shareholders' equity.

On December 31, 2019 and 2018, the fully subscribed and paid-in share capital amounted to BRL 4,950,095, consisting of BRL 1,420,294,211 in registered common shares.

(b) Legal reserve and profit retention

The legal reserve is constituted through the appropriation of 5% of the net income for the year or the remaining balance, limited to 20% of the share capital, which can only be used to increase capital or absorb accumulated losses.

(c) Equity valuation adjustment

	Operational hedge accounting
On January 1, 2018	(94,468)
Operational hedge accounting	259,995
Deferred taxes	(88,134)
On December 31, 2018	77,393
Operational hedge accounting	(143,998)
Deferred taxes	48,747
On December 31, 2019	(17,858)

26 Revenue

Accounting policy

The Company and its subsidiaries recognize revenue when: (i) the amount of revenue can be reliably measured; (ii) it is probable that future economic benefits will flow to the entity and (iii) specific criteria have been met for each of the activities of the Company and its subsidiaries.

Revenue is recorded net of taxes, returns, rebates and discounts, as well as eliminations of sales between consolidated companies.

The five-step model establishes that the entity must record revenue when the transfer of goods or services promised to customers in the amount that reflects the consideration that the entity expects to be entitled to in exchange for such goods or services.

Identification of performance obligations and their term of satisfaction:

The Company has two distinct performance obligations included in certain aluminum sales agreements: i) the promise to supply goods to its customers, and ii) the promise to provide shipping services to its customers.

Promise to supply goods – this performance obligation is satisfied when control of such goods is transferred to the end customer.

In thousands of Brazilian Reais, except when indicated otherwise

Promise to supply goods and shipping services – this performance obligation is satisfied when the purchase of goods and shipping services is hired by the customer and the product is delivered to the agreed final destination.

The Company's energy sales agreements are conducted in the free and regulated Brazilian commercialization market, and are fully registered with the CCEE, which is the agent responsible for the accounting and settlement of the entire national integrated system (SIN).

The accounting measurement of the volume of energy to be billed results from processing the physical measurement, adjusted to the apportionment of losses reported by the CCEE.

In order to determine whether performance obligations are met at a specific time, the Company considers whether it has a current right to payment of the asset; whether the customer has the legal title to the asset; whether the Company transfers physical ownership of the asset; and whether the customer has the significant risks and rewards of ownership of the asset.

The Company considers the terms of the agreement and its usual commercial practices to determine the transaction price. The transaction price is the amount of the corresponding entry that the Company expects to receive in exchange for the transfer of goods or services promised to its customers. The transaction price is allocated to each performance obligation on a relative independent selling price basis. The recording of revenue related to these sales was not significantly affected by IFRS 15.

(a) Composition

	Parent company		Consolidated	
	2019	2018	2019	2018
Gross revenue				
Sale of products and services on the local market	4,108,910	4,453,987	4,222,043	4,549,071
Sale of products on the foreign market	644,545	736,035	644,546	736,035
Electricity sales	1,219,439	1,101,140	1,277,138	1,112,256
	5,972,894	6,291,162	6,143,727	6,397,362
Sales taxes and other deductions	(793,501)	(903,233)	(880,043)	(979,886)
Net revenue of products sold and services rendered	5,179,393	5,387,929	5,263,684	5,417,476

In thousands of Brazilian Reais, except when indicated otherwise

(b) Information on geographic areas

The breakdown of net revenue by destination is based on the location of the customers. The Company's net revenues classified by destination and currency are shown as follows:

(i) Net revenue by destination country

	Parent company		Consolidated	
	2019	2018	2019	2018
Brazil	4,534,848	4,651,894	4,619,138	4,681,441
United States	385,756	190,114	385,756	190,114
Russia	88,721		88,721	
China	959	145,561	959	145,561
Iceland	66,601	91,602	66,601	91,602
Switzerland		88,408		88,408
Romania		38,250		38,250
Turks and Caicos Islands		33,179		33,179
Uruguay	30,608	31,399	30,608	31,399
India		30,277		30,277
Mexico	24,947	27,086	24,947	27,086
Argentina	16,945	15,207	16,945	15,207
Other	30,008	44,952	30,009	44,952
	5,179,393	5,387,929	5,263,684	5,417,476

(ii) Net revenue by currency

	Parent company		Consolidated	
	2019	2018	2019	2018
Brazilian Reais	4,534,848	4,651,894	4,619,138	4,681,441
US Dollar	644,545	736,035	644,546	736,035
	5,179,393	5,387,929	5,263,684	5,417,476

27 Income breakdown by nature

				Consolidated 2019
	Cost of products sold and services rendered (i)	Sales expenses	General and administrative expenses	Total
Raw materials, inputs and consumables	3,066,752	688	2,458	3,069,898
Employee benefit expenses	536,693	20,126	102,713	659,532
Depreciation, amortization and depletion	455,275	319	6,967	462,561
Transportation expenses	156,320		1,950	158,270
Maintenance and conservation	154,373	19	727	155,119
Services, miscellaneous	116,969			116,969
Third-party services	55,078	2,404	70,117	127,599
Rentals and Leases	29,498	437	2,843	32,778
Other expenses	35,159	11,929	26,222	73,310
	4,606,117	35,922	213,997	4,856,036

				Consolidated 2018 (Restated)
	Cost of products sold and services rendered (i)	Sales expenses	General and administrative expenses	Total
Raw materials, inputs and consumables	3,139,163	337	4,966	3,144,466
Employee benefit expenses	512,309	22,137	85,238	619,684
Depreciation, amortization and depletion	299,029	237	3,936	303,202
Transportation expenses	169,981		2,300	172,281
Maintenance and conservation	148,708	31	942	149,681
Services, miscellaneous	86,316			86,316
Third-party services	49,814	3,635	58,600	112,049
Rentals and Leases	28,003	385	5,431	33,819
Other expenses	34,720	9,190	35,742	79,652
	4,468,043	35,952	197,155	4,701,150

In thousands of Brazilian Reais, except when indicated otherwise

(i) In the parent company and consolidated balance on December 31, 2019, the Company recorded the amount of BRL 33,819 (December 31, 2018 – BRL 30,640) regarding the idle cost of production of the Niquelândia and São Miguel Paulista plants located in the municipalities of Niquelândia in the state of Goiás and São Paulo in the state of São Paulo, respectively.

28 Employee benefit expenses

(a) Retirement obligations

The Company participates in pension plans managed by a closed private pension entity, which provide its employees with post-employment benefits in the defined contribution modality. A defined contribution plan is the pension plan under which the Company pays fixed contributions to a separate entity. The Company has no legal or constructive obligation to pay additional contributions if the fund does not have sufficient assets to pay employees.

(b) Employee profit sharing

Accounting policy

Provisions are recorded to recognize the expense related to the employees' profit sharing. These provisions are calculated based on qualitative and quantitative targets defined by the Board of Directors and recorded in the income statement as “Employee benefit”.

	Parent company		Consolidated	
	2019	2018	2019	2018
Direct remuneration	348,556	330,006	356,481	337,397
Social charges	204,493	191,234	208,744	195,025
Benefits	91,767	85,417	94,307	87,262
	644,816	606,657	659,532	619,684

29 Other operating expenses

	Parent company		Consolidated	
	2019	2018	2019	2018
ACR – Financial instrument realization – firm commitment (i)	(105,304)	(116,115)	(105,304)	(116,115)
ACL – Financial instrument realization – firm commitment (i)	(17,051)	(9,341)	(17,051)	(9,341)
ACL – Financial instrument recognition – firm commitment (ii)	179	(22,719)	179	(22,719)
ACR – Financial instrument volume reduction (increase) – firm commitment (iii)	(4,993)	1,660	(4,993)	1,660
Recognition of recoverable taxes (note 1.1(d)) and (note 1.1(f))	271,856		275,798	
Net gain (loss) on the sale of assets (iv)	(57,528)	(5,161)	(57,528)	(5,131)
Reversal (provision) for asset depreciation (Impairment)(Note 17 and 18)	(144,917)	40,727	(144,917)	40,727
Gain on investment sales (v)		111,070		111,070
Expenditure on projects that cannot be activated	(41,308)	(62,871)	(41,308)	(62,871)
Reversals (constitutions) of provisions	(83,482)	30,791	(83,482)	30,791
Other operating revenue (expenses), net	2,681	(5,037)	860	(3,380)
	(179,867)	(36,996)	(177,746)	(35,309)

(i) Realization of the financial instrument is recognized against energy sales revenue, in accordance with the effective delivery of the energy.

(ii) The Company made energy purchases through firm commitment. These transactions resulted in a gain on excess energy (surplus), which was recognized at fair value.

In thousands of Brazilian Reais, except when indicated otherwise

(iii) The variation in volume was caused by the departure of distributors from the regulated trade environment, who migrated to the free trade market.

(iv) They refer to the net loss of assets related to the sale of the Rio de Janeiro distribution center (Note 1.1 (c)) and write-offs related to furnace room sales.

(v) This refers to the sale of preferred shares of the investee CBA Energia Participações S.A., which occurred in April 2018.

30 Net financial result

Accounting policy

These comprise the amounts of interest on loans and financial investments, monetary variation and different discounts that are recognized in the profit or loss for the year under the competency regime. Financial income from financial assets measured at amortized cost is recorded according to the time elapsed from the operations, using the effective interest rate.

	Parent company		Consolidated	
	2019	2018	2019	2018
Financial revenue				
Interest on financial assets (i)	224,965	39,151	225,095	39,299
Reversal of monetary restatement of provisions	38,167	52,813	38,167	52,813
Income from financial investments	29,231	41,298	34,234	45,278
Monetary restatement on assets	13,823	13,222	13,823	13,222
Interest on transactions with related parties (Note 15)	658	2,841	658	
Other financial revenue	62	129	1,168	1,365
	306,906	149,454	313,145	151,977
Financial expenses				
Interest on loans and financing	(119,947)	(126,010)	(127,182)	(136,108)
Capitalization of interest on loans – CPC 20	8,918	13,766	8,918	13,766
Interest on prepayment of receivables with related parties (Note 15)	(90,625)	(90,625)	(90,625)	(90,625)
Funding expenses	(59,343)	(7,575)	(59,343)	(7,575)
Interest and monetary restatement UBP	(46,958)	(49,266)	(52,397)	(58,210)
Monetary restatement on provisions	(47,448)	(54,231)	(48,562)	(55,324)
Adjustment to present value – CPC 12	(26,667)	(26,027)	(26,667)	(26,027)
Income tax on remittances of interest overseas	(14,967)	(16,384)	(14,967)	(16,384)
PIS and COFINS on financial income	(12,791)	(4,618)	(12,886)	(4,737)
Charges on discount operations	(9,372)	(9,198)	(9,372)	(9,198)
Adjustment of contracts to present value – IFRS 16 (Note 19)	(1,279)		(1,431)	
Other financial expenses	(9,127)	(6,417)	(12,179)	(4,363)
	(429,606)	(376,585)	(446,693)	(394,785)
Result of derivative financial Instruments (ii)				
Revenue	8,824	254	8,824	254
Expenses	(77,162)		(77,162)	
	(68,338)	254	(68,338)	254
Exchange variations, net	(45,775)	(283,034)	(45,611)	(283,275)
	(236,813)	(509,911)	(247,497)	(525,829)

(i) Substantially refers to recognition of PIS and COFINS credit updates, as described in Note 1.1 (d) and social security credit, in accordance with note 1.1 (f).

(ii) Mainly refers to the mark to market (MTM) of the Swap contracted togetherwith the Export Credit Note (NCE) loan until June 30, 2020, as described in note 20 (g) (i). As of July 1, 2019, the referred instrument was designated as hedge accounting, therefore recorded under “Other components of comprehensive income” in Shareholders' equity.

31 Defined social security contribution plan

The Company and its subsidiaries sponsor private pension plans that are managed by Fundação Senador José Ermírio de Moraes (FUNSEJEM), a private, non-profit pension fund that is available to all employees of the Votorantim Group. According to the fund's regulations, employee contributions to FUNSEJEM are defined according to their remuneration. For employees who earn less than the limits established by the regulation, the defined contribution is up to 1.5% of their monthly remuneration. For employees who earn more than the limits, the defined contribution is up to 6% of their monthly remuneration. Voluntary contributions can also be made to FUNSEJEM. After contributions to the plan have been made, no additional payment is required by the Company.

32 Insurance

The Company and its subsidiaries maintain general liability policy for executives and directors, in addition to property (all risks) policy and profit loss coverage. Such policies have coverage, conditions and limits, considered by the Board of Directors adequate for the inherent risks of the operation.

33 Subsequent events

Purchase of Arconic Indústria e Comércio de Metais Ltda.

In August 2019, the Company announced the signing of a share purchase and sale agreement to fully purchase the shares of Arconic Industria e Comércio de Metais Ltda, a unit located in Pernambuco, northeastern Brazil, which will complement CBA's rolled products line. Effective control of operations was transferred to CBA in February 2020. The price paid for the acquisition totaled BRL 225 million and a gain due to advantageous purchase of BRL 139 million in the application of the acquisition method set forth in CPC15 for the accounting entry of the operation.

Export financing

On February 2020, the Company signed a loan agreement (NCE – Export Credit Note) for the purpose of financing its exports in the amount of BRL 250 million, maturing on February 14, 2029. It is important to emphasize that the loan is characterized as "Green Financing" based on the guidelines of the Green Loan Principles. The operation has a swap contract (derivative financial instrument), which aims to exchange the exposure to the CDI floating rate in Brazilian Reais to a fixed rate in U.S. dollars, resulting in a final cost of 4.25% per year.