# VALE 3Q24 Review: Why buy now?



LatAm Metals & Mining

#### Analysts

Igor Guedes +55 (11) 3206-8286 igor.guedes@genial.com.vc

Luca Vello +55 (11) 3206-1457 luca.vello@genial.com.vc

Isabelle Casaca +55 (11) 3206-8244 Isabelle.casaca@genial.com.vc

Company

VALE US Equity Buy

Price: US\$ 10.63 (24-Oct-2024) Target Price 12M: US\$ 14.00 (NYSE)

VALE3 BZ Equity Target Price 12M: R\$ 78.50 (B3)

q/q and -10.0% y/y, mainly impacted by (i) the lower realized price of iron ore fines, consolidated at US90.6/t (-7.7% g/g; -13.8% y/y), caused by the deceleration of the 62% Fe curve by -11.3% g/g. This undermined the expressiveness of the high operating performance, governed by (ii) sales of i.o. fines at 69Mt ( $\pm$ 1.2% g/g; -0.5% y/y) and (iii) expansion in pellet shipments, reaching 10Mt (+14.4% g/g; +17.8% y/y). Unlike the previous quarter, cost performance showed a more significant reduction, with C1/t ex. third-party reaching US\$20.6/t (-2.4% vs. Genial Est.), compressing -17.1% g/g and -6.0% y/y, an excellent performance explained by the higher production volume and dilution of fixed costs, in addition to the favorable effect of the BRL/USD exchange rate depreciation. With the cooling of cost lines, Adjusted EBITDA stood at US\$3.6bn (-3.0% vs. Genial Est.), a decrease of -9.5% g/g and -18.4% y/y, with a margin of 37.8% (-0.49p.p. vs. Genial Est.). Net income was reported above our estimates and consensus, amounting to **US\$2.4bn** (+27.2% vs. Genial Est.), partly due to the (i) write-off of non-current assets related to the sale of 50% of the VODC stake, even though the (ii) effect of additional provision linked to Colligates & JV's derived by the definitive agreement for the Samarco dam collapse (US\$956mn). Both were non-recurring events. In the "Our Take" section we comment on the reasons why we believe the shares are excessively discounted and explain our view of why, rationally, investors should position themselves in Vale. Trading at an EV/EBITDA 25E of 3.1x (vs. 5.0x historical average), with an FCF Yield 25E of 14.5% that would support a Dividend Yield 25E of ~10%, in addition to the buyback program, Vale's shares are penalized vs. their own past performance. We believe that the **elimination of overhangs**, coupled with the prospect of a **partial** recovery in iron ore prices, could unlock value. We therefore reiterate our BUY rating, based on a 12M Target-Price for VALE3-B3 of R\$78.50 and US\$14.00 for ADRs-NYSE, with an upside of +28.33%.

Consolidated **Net revenue** was **US\$9.6bn** (-1.8% vs. Genial Est.), a drop of -3.7%

Vale released its **3Q24 results on October 25**, after the market closed. With the consolidation of operating figures in the previous week, through the production and sales report, **we don't see any major surprises in the figures released yesterday**, with the exception of **non-recurring dynamics** that **positively affected net income**. We believe that the quarter was **weak in terms of financial performance**, even considering the fact that the company presented **record iron ore production** since 2019, reaching 90.9Mt (+12.9% q/q; +5.5% y/y).

#### Table 1. Income Statement Summary Vale (3Q24 vs. Genial Est.)

(US\$ millions)	Reported	Genial Est.		Reported	]			
Income Statement	3Q24A	3Q24E	% Diff.	3Q24A	2Q24A	% q/q	3Q23A	% y/y
Net Revenue	9.553	9.727	-1,8%	9.553	9.920	-3,7%	10.618	-10,0%
Adjusted EBITDA	3.615	3.728	-3,0%	3.615	3.993	-9,5%	4.431	-18,4%
Net Income	2.391	1.879	27,2%	2.391	2.769	-13,7%	2.857	-16,3%

Source: Genial Investimentos, Vale

## **Rear-view mirror: Production and Sales**

**Production of fines above expectations and change in commercial strategy.** We estimated a slight drop of -2% y/y in iron ore fines production, even considering the favorable seasonality of 3Q24. However, Vale exceeded our projection, registering 90.9Mt (+7.6% vs. Genial Est. at the time), with growth of +12.9% q/q and +5.5% y/y. Production was robust, defying our more conservative forecasts, even against a strong base in 3Q23.

However, the company increased the gap between production and sales of fine products, which reached 23.8% (+4.6 p.p. y/y). We believe this strategy reflects the decision to retain part of production amid falling iron ore prices, which fell to an average of US\$99/t in 3Q24. Shipments reached 69.3Mt (+3.4% vs. Genial Est. at the time), growing marginally by +1.2% q/q with a contraction of -0.5% y/y, suggesting weak sales in the face of production.

**Lower than expected realized price for fines.** The realized price of iron ore fines was US\$90.6/t (-2.1% vs. Genial Est. at the time), down -7.7% t/t and -13.8% y/y, showing a slight deterioration below the 62% Fe reference curve, which was pressured by the Chinese economic slowdown. The benchmark average fell to US\$99/t (-11.3% t/t). Even with a more favorable mix, the premium fell to -US\$1.9/t (vs. -US\$0.8/t Genial Est). at the time). We believe that the distrust of paying premiums for low-silica products affects fund managers' allocation to Vale shares compared to other majors.

**Significant growth in pellet production and sales.** Pellet production reached 10.4Mt (+3.8% vs. Genial Est. at the time), up +15.7% q/q and +12.9% y/y, driven by the favorable seasonality of 3Q24 and the productive performance of 1H24. Part of the strong production of iron ore fines was directed to pelletizing, which reinforced the result. Shipments totaled 10.2Mt (+3.6% vs. Genial Est. at the time), up +14.4% q/q and +0.6% y/y, exceeding expectations due to the accumulation of iron ore fines in the previous quarter and the logistical delay in getting the cargo to the pelletizing plant. Pellet prices fell by -5.7% q/q and -8.1% y/y to US\$148.2/t (+0.5% vs. Genial Est. at the time). The downturn was softened by a higher premium, which reached +US\$35/t (+US\$6/t vs. 2Q24). The all-in premium closed at +US\$1.7/t (vs. - US\$0.1/t in 2Q24), reversing the negativity of the previous quarter.

**Nickel: Production up, prices under pressure.** Nickel production reached 47.1Kt (-0.8% vs. Genial Est. at the time), with strong growth of +68.8% q/q and +11.9% y/y, driven by good performance at Sudbury (ON), Voisey's Bay (NL) and Pará mines (PA). Sales totaled 40.7Kt (-+18.7% q/q; +3.8% y/y), absorbing the increase in production. On the other hand, the realized price fell to US\$17,012/t (-8.7% q/q; -19.9% y/y), due to the resumption of the downward trend.

**Copper: Production grows, sales suggest stockpiling.** Copper production was 85.9Kt (+4.2% vs. Genial Est. at the time), up +9.3% t/t and +5.3% y/y, driven by performance at Sossego (PA) and Canada, offsetting the drop at Salobo (PA) due to the fire at Salobo 3. Sales totaled 75.2Kt (-1.2% y/y; +1.9% y/y), suggesting stockpiling to capture future opportunities, given the realized price of US\$9,016/t (-2.0% q/q; +16.6% y/y).

# Review 3Q24: In detail!

Net revenue slowing down, with a drop in realized prices and shipments below

**potential in fines.** Vale's consolidated net revenue in 3Q24 was US\$9.6bn (-1.8% vs. Genial Est.) showing declines of -3.7% q/q and -10.0% y/y. In iron ore fines, revenues amounted to US\$6.3bn (0% vs. Genial Est.), down -6.6% q/q and -14.3% y/y. The result reflects the sharp drop in the realized price and only a marginal volume increase in sequential sales, driven by the seasonality typical of the 3Qs. Pellet revenues amounted to US\$1.5bn (-0.1% vs. Genial Est.), up +7.8% q/q and +8.2% y/y. Unlike fines, the increase in pellet shipments partially offset the drop in the realized price (-5.7% t/t), justified by the reduction in the 65% Fe reference curve.

In base metals, net nickel revenues reached US\$904mn (-13.2% vs. Genial Est.), down -8.6% q/q and -11.6% y/y. The realized price was pressured by the resumption of the downward trend on the LME (-12% q/q; -20% y/y), even with a slight increase in realized premiums. Copper revenues surprised positively, totaling US\$759mn (+11.9% vs. Genial Est.), despite a slight decline of -2.6% q/q, but with growth of +15.0% y/y. The result benefited from the commodity's good momentum, with higher volumes coming from Sossego and Canada.

	3Q24A	3Q24E		2Q24A		3Q23A	
(US\$ millions)	Reported	Genial Est.	% R/E	Reported	% q/q	Reported	% у/у
Net Revenue	9.553	9.727	-1,8%	9.920	-3,7%	10.618	-10,0%
Iron Ore Fines	6.281	6.283	0,0%	6.728	-6,6%	7.327	-14,3%
Pellets	1.502	1.503	-0,1%	1.393	7,8%	1.388	8,2%
Nickel operations	904	1.042	-13,2%	879	2,8%	1.023	-11,6%
Copper operations	759	678	11,9%	779	-2,6%	660	15,0%
Others	107	186	-42,5%	175	-38,9%	185	-42,2%

## Table 2. Net Revenue Vale (3Q24 vs. Genial Est.)

Source: Genial Investimentos, Vale

**C1/t cost lower than expected.** C1/1 ex. purchases from third parties was US\$20.6/t (-2.4% vs. Genial Est.), compressing -17.1% q/q and -6.0% y/y, helping the company to present an efficiency that exceeded our expectations, which had already predicted a slightly more intense reduction than consensus. This drop was mainly driven by (i) higher production and consequent dilution of fixed costs, especially in the Northern System, (ii) lower maintenance costs, as a result of the concentration of activities in 1H24, (iii) depreciation of the BRL/USD exchange rate due to costs retained in R\$ and (iv) continuity of Vale's operational efficiency program.

However, part of the gains were offset by the impact of inventory turnover. At the end of September, for example, C1 production cost reached US\$18.2/t, suggesting the prospect of continued improvement in 4Q24, in line with seasonality and greater dilution of fixed costs as shipments progressed.

**COGS/t in Nickel and Copper.** In nickel, COGS/t ex. purchases of feed from third parties rose (+22% q/q), driven mainly by the deconsolidation of PTVI. In Copper, under higher costs at Salobo due to repairs to the conveyor belt after the fire in June, it grew (+8% q/q). If we consider by-product revenues, both Salobo and Sossego contributed to the reduction (-12% q/q).

**EBITDA drops significantly, consolidating a weak quarter.** Vale's Proforma EBITDA reached US\$3.7bn (-5.5% vs. Genial Est.), registering declines of -6.3% q/q and -21% y/y. Among the segments, iron ore fines was the positive highlight, with an EBITDA of US\$2.8bn (+6.1% vs. Genial Est.), beating our estimate due to a lower C1/t and a freight cost that was also lower than we expected. Even with a good performance on the cost side, this didn't prevent EBITDA in the main division from falling by -8.8% q/q and -23.6% y/y, mainly due to lower realized prices.

The pellets segment, on the other hand, recorded an EBITDA of US\$790mn (+15.7% vs. Genial Est.), up +8.4% q/q and +10.9% y/y, benefiting mainly from the strong increase in shipments, which was partially offset by the lower average realized price. The nickel segment, on the other hand, posted a negative result of -US\$66mn (-118.3% vs. Genial Est.), as realized prices contracted, in addition to the deconsolidation of PTVI. For Copper, we saw an EBITDA of US\$360mn (+1.7% vs. Genial Est.), with advances of +2.6% q/q and +33.8% y/y.

	3024A	3024E		2024A		3023A	
(US\$ millions)	Reported	Genial Est.	% R/E	Reported	% q/q	Reported	% у/у
Proforma EBITDA	3.741	3.957	-5,5%	3.992	-6,3%	4.736	-21,0%
Iron Ore Fines	2.844	2.682	6,1%	3.117	-8,8%	3.725	-23,6%
Pellets	790	683	15,7%	729	8,4%	712	10,9%
Nickel operations	(66)	360	-118,3%	108	-161,1%	100	-166,0%
Copper operations	360	354	1,7%	351	2,6%	269	33,8%
Others	(131)	(121)	8,5%	(312)	-58,1%	(70)	86,2%

## Table 3. EBITDA Vale (3Q24 vs. Genial Est.)

Source: Genial Investimentos, Vale

**Non-recurring adjustments increase net income vs. estimates.** Net income was reported at US\$2.4bn (+27.2% vs. Genial Est.), which resulted in a net margin of 25.0% (+5.7 p.p. vs. Genial Est.). Despite the drop of -13.7% q/q and -16.3% y/y, the result was impacted by non-recurring adjustments, including: (i) impairment and write-offs of non-current assets (+US\$1.2bn) - the sale of 50% of VODC's share capital to Apollo, of which +US\$600mn received from the sale, +US\$600mn related to the fair value of 50% of the retained stake and +US\$22mn in other effects related to the deconsolidation.

Equity

genial

On the other hand, the associates and JVs line, where the company reports Samarco's results, showed a reduction of -US\$656mn. The negative result is linked to the incremental provision of -US\$956mn (-R\$5.3bn), referring to the agreement being made in the TRF-6 that makes tangible the compensation for the collapse of the Torto dam, located in Mariana (MG). Vale had officially announced last Friday, after we had already published our preview, that it would report this increased amount as a provision in 3Q24, so investors were already aware of this impact.

	3Q24A	3Q24E		2Q24A		3Q23A	
(US\$ millions)	Reported	Genial Est.	% R/E	Reported	% q/q	Reported	% y/y
Net Revenue	9.553	9.727	-1,8%	9.920	-3,7%	10.618	-10,0%
COGS	(6.281)	(6.069)	3,5%	(6.129)	2,5%	(6.237)	0,7%
Adjusted EBITDA	3.615	3.728	-3,0%	3.993	-9,5%	4.431	-18,4%
EBITDA Margin (%)	37,8%	38,3%	-0,49p.p	40,3%	-1,92p.p	41,7%	-3,4p.p
Adjusted EBIT	2.867	2.971	-3,5%	3.200	-10,4%	3.418	-16,1%
EBIT Margin (%)	30,0%	30,5%	-0,54p.p	32,3%	-1,71p.p	32,2%	-1,65p.p
D&A	(748)	(757)	-1,2%	(793)	-5,7%	(780)	-4,1%
Financial Result	(374)	(746)	-49,9%	(1.252)	-70,1%	(385)	-2,9%
Net Income	2.391	1.879	27,2%	2.769	-13,7%	2.857	-16,3%
Net Margin (%)	25,0%	19,3%	5,71p.p	27,9%	-8,59p.p	26,9%	-7,58p.p

### Table 4. Income Statement Vale (3Q24 vs. Genial Est.)

Source: Genial Investimentos, Vale

## **Our Take on Vale**

**Rise in iron ore prices appears to be "emotional"**. The recent increase in the price of iron ore – up to US\$112/t (+22% in 15 days) - driven above all by the sum of fiscal and monetary stimulus measures in China, only showed a bias towards high speculation with no fundamentalist justifications, since the market seemed to overestimate these effects. The rapid correction to US\$104/t (-7% in 5 days) reinforces this presumed view due to the emotional spectrum. Therefore, we still believe that there is an imbalance between supply and demand in the short term.

**Costs remain under control, with no risk to guidance.** A reduction in costs was observed, with C1/t falling (US\$20.6/t vs. US\$21.1/t Genial Est.) reinforcing Vale's *guidance* of US\$21.5-23/t for 2024 added to the update of the annual all-in copper cost estimate (-13.2% vs. Genial Est.). The drop reflects the **(i)** greater dilution of fixed costs, supported by the **(ii)** increase in production characteristic of 2H24 given the period of drought in the Southeast and North systems. However, the worsening of freight/t (+9% t/t; -3% vs. Genial Est) detracted from the reduction in breakeven China US\$70.5/t (+3.5% t/t). All in all, we remain confident in the company's ability to deliver more efficiently in 2H24, reaching the middle part of the recently upwardly revised annual production guidance *of* 323-330Mt.

**Current Chinese stimuli are a blind spot.** The oversupply of real estate in China is a structural problem, not a cyclical one. This is evidenced, for example, by the discrepancy between the number of finished properties and those under construction, linked to the preferential situation of buyers in not running the risk of developers not delivering projects that are still underway. For example, in 1H24, 27% of new sales were completed homes (+10% vs. 1H21).

Recent government stimuli, such as (i) the reduction in mortgage rates; (ii) the down payment; (iii) the compulsory rate (RRR) do not solve the housing glut as they do not lead to changes in preference scales.

**Mariana Agreement: Softer terms favor expectations** Although the final signing is expected to take place today, we believe that the conditions of the Mariana Agreement renegotiation will be more lenient than we initially expected, especially with regard to the disbursement schedule, now set at 20 years, as defended by Vale and BHP, instead of the 12 years initially proposed by the MPF and AGU. This dilution of the payment, totaling R\$170bn, includes (i) R\$100bn in indemnities, classified as "new money" and (ii) R\$32bn in socio-environmental obligations still "to do", in addition to the R\$38bn already disbursed. As for the incremental provision, R\$5.3bn was reported in 3Q24, as we have already mentioned.

In short, if on the one hand this extension of the payment deadline reduces relevant uncertainties for the market, which could attract investors and boost Vale's shares, given the relief from the *overhang* associated with the agreement, on the other hand, the pressure bias on the **NPV of the payment flow** as it fulfills these obligations is maintained, which we calculate at **-US\$3.7bn** (-10% vs. Genial Est. base scenario) even though there has been a dilutive effect on payments (-0.5% Market Cap. vs. Genial Est.) due to the increase in the term (20 years vs. 12 years in our base scenario).

Why buy now? Compared to its peers (BHP, Rio Tinto and Fortescue), Vale remains the most discounted mining company in the global market, trading at an EV/EBITDA 25E multiple of 3.1x (vs. 5.0x in the historical average). The 25E FCF Yield of 14.5%, which supports a 25E Dividend Yield of ~10%, together with the share buyback program, provide attractiveness in the quantitative approach. The *overhangs* that were also holding the shares back, such as CEO succession and the Mariana (MG) agreement, are being eliminated. On the other hand, the biggest difficulty we see is investors' fear of structural demand for iron ore. Incredibly, we see this fear more as a qualitative approach with less numerology, and we'll tell you why.

In our proprietary model, we **purposely** use **pessimistic assumptions** to test the **degree of irrational bias** and **how excessive the stock discount is**, in the midst of a macro scenario that **we know is not favorable**. Therefore, we project (**i**) an iron ore curve 62% Fe below consensus, with a terminal value of ~US\$75/t in 2028 and flat until 2030 in perpetuity (vs. US\$85-90/t consensus); (**ii**) quality premiums always targeted at the lower bands of guidance; (**iii**) C1/t costs exceeding the upper limit of *guidance* (and Vale has already proven that it can reach them).

In addition, we believe it is **difficult to imagine iron ore falling into a downcycle** strong enough **to reach the ~US\$40/t barrier**, as happened in 2015. Basically a decade forward in time, the mining companies' C1/t is structurally higher and the high-cost producer would exit the supply system long before the price decelerated to such a level today.

We estimate that **marginal cost today is in the range of US\$80-90/t**. Therefore, when iron ore is close to US\$90/t, futures contracts begin to operate at a premium to spot, with traders pricing that high-cost producers, who represent **~20% of supply**, would exit the supply system if the price stays below this level for long.

Looking at this scenario, we don't see how our already pessimistic assumptions could be underestimated. On the contrary, they reinforce the idea that we "went heavy" with Vale in our model and even so it generates upside vs. the current level of stock valuation. We are convinced that the market is over-penalizing the company. We continue with our BUY recommendation, based on rational aspects, with a 12M Target-Price of R\$78.50 for VALE3 and US\$14.00 for ADRs-NYSE, implying an upside of +28.33%.

# Appendix: Vale

## Figure 1. Vale - Income Statement in US\$ Millions (Genial Est. 2024-2029)

Income Statement	2024E	2025E	2026E	2027E	2028E	2029E
Net Revenue	38.701	39.152	39.956	39.136	40.138	41.163
(-) COGS	(23.761)	(23.119)	(24.141)	(23.723)	(24.096)	(24.553)
Gross Profit	14.939	16.033	15.815	15.413	16.042	16.609
(-) Expenses	(1.947)	(2.686)	(2.532)	(2.021)	(1.679)	(1.735)
Adjusted EBITDA	16.066	16.777	16.674	16.966	18.130	18.823
(-) D&A	(3.083)	(3.226)	(3.419)	(3.614)	(3.816)	(4.007)
EBIT	12.984	13.551	13.255	13.352	14.314	14.817
(+/-) Financial Result	(2.777)	(2.167)	(1.876)	(2.077)	(2.290)	(2.418)
(-) Taxes	(817)	(1.877)	(1.925)	(1.920)	(2.067)	(2.148)
Net income	9.389	9.507	9.454	9.355	9.957	10.251
Profitability						
Net margin (%)	24,26%	24,28%	23,66%	23,90%	24,81%	24,90%

## Figure 2. Vale- Cash Flow in US\$ Millions (Genial Est. 2024-2029)

Cash Flow (FCFF)	2024E	2025E	2026E	2027E	2028E	2029E
Net Revenue	38.701	39.152	39.956	39.136	40.138	41.163
(-) COGS	(23.761)	(23.119)	(24.141)	(23.723)	(24.096)	(24.553)
Adjusted EBITDA	16.066	16.777	16.674	16.966	18.130	18.823
Adjusted EBIT	12.984	13.551	13.255	13.352	14.314	14.817
(-) Taxes	(797)	(1.635)	(1.657)	(1.684)	(1.882)	(1.975)
(+) D&A	3.083	3.226	3.419	3.614	3.816	4.007
(+/-) Brumadinho and Samarco	(97)	(1.940)	(1.629)	(1.176)	(1.025)	(747)
(+/-) Δ WK	266	986	957	(238)	349	(26)
(-) Capex	(6.470)	(7.018)	(7.018)	(7.559)	(7.559)	(7.559)
FCFF	8.969	7.170	7.328	6.309	8.013	8.517

### **Disclosure Section**

#### **1. GENERAL DISCLAIMER**

This report has been produced by the research department ("Genial Institutional Research") of Genial Institutional Corretora de Câmbio, Títulos e Valores Mobiliários S.A. ("GENIAL INSTITUTIONAL CCTVM"). Genial Institutional is a brand name of Genial Investimentos CCTVM.

Genial Rating		
	Definition	Coverage
Buy	Expected return above +10% in relation to the Company's sector average	49%
Neutral	Expected return between +10% and -10% relative to the Company's industry average	41%
Sell	Expected return below -10% in relation to the Company's sector average	5%
under Review	Under review	5%

This report may not be reproduced or redistributed to any other person, in whole or in part, for any purpose, without the prior written consent of GENIAL INSTITUTIONAL CCTVM. GENIAL INSTITUTIONAL CCTVM accepts no liability whatsoever for the actions of third parties in this respect.

This research report is for distribution only under such circumstances as may be permitted by applicable law. This research report has no regard to the specific investment objectives, financial situation or particular needs of any specific recipient, even if sent only to a single recipient. This research report is not guaranteed to be a complete statement or summary of any securities, markets, reports or developments referred to in this research report. Neither GENIAL INSTITUTIONAL CCTVM nor any of its directors, officers, employees or agents shall have any liability, however arising, for any error, inaccuracy or incompleteness of fact or opinion in this research report or lack of care in this research report's preparation or publication, or any losses or damages which may arise from the use of this research report report

GENIAL INSTITUTIONAL CCTVM may rely on information barriers, such as "Chinese Walls" to control the flow of information within the areas, units, divisions, groups, or affiliates of GENIAL INSTITUTIONAL CCTVM.

Investing in any non-U.S. securities or related financial instruments (including ADRs) discussed in this research report may present certain risks. The securities of non-U.S. issuers may not be registered with, or be subject to the regulations of, the U.S. Securities and Exchange Commission. Information on such non-U.S. securities or related financial instruments may be limited. Foreign companies may not be subject to audit and reporting standards and regulatory requirements comparable to those in effect within the United States.

The value of any investment or income from any securities or related financial instruments discussed in this research report denominated in a currency other than U.S. dollars is subject to exchange rate fluctuations that may have a positive or adverse effect on the value of or income from such securities or related financial instruments.

Past performance is not necessarily a guide to future performance and no representation or warranty, express or implied, is made by GENIAL INSTITUTIONAL CCTVM with respect to future performance. Income from investments may fluctuate. The price or value of the investments to which this research report relates, either directly or indirectly, may fall or rise against the interest of investors. Any recommendation or opinion contained in this research report may become outdated as a consequence of changes in the environment in which the issuer of the securities under analysis operates, in addition to changes in the estimates and forecasts, assumptions and valuation methodology used herein.

The locally listed shares of Brazilian companies may only be purchased by investors outside of Brazil who are "eligible investors" within the meaning of applicable laws and regulations.

genial Research



## 2. ANALYST(S) DISCLOSURES AND CERTIFICATION

The principal analyst, IGOR GUEDES, is responsible for the content of this report and for meeting the requirements of Securities and Exchange Commission of Brazil (CVM) Instruction 598/2018.

The analysts hereby certify that the views expressed in this research report accurately reflect their personal views about the subject securities or issuers and it was prepared in an independent manner, including with respect to the person and to GENIAL INSTITUTIONAL.

The analyst hereby certifies that he (she) has no connection with any individual who works for the issuer(s) discussed in this report.

The analyst hereby certifies that he (she), or his (her) spouse or companion, either directly or indirectly, in his or her own name or on behalf of a third party, does not hold any of the securities covered in this report.

The analyst hereby certifies that he (she), or his (her) spouse or companion, is not directly or indirectly involved in the purchase, disposal or brokering of the securities covered in this report.

The analyst hereby certifies that he (she), or the his (her) spouse or companion, has no direct or indirect financial interest in the issuer covered in this report (other than trading shares in investment funds, in which the analyst cannot control, directly or indirectly, the administration or management of the fund, or which do not concentrate investments in sectors or companies that are covered by reports produced by the analyst).

The analyst's compensation is, directly or indirectly, determined by income from GENIAL INSTITUTIONAL's business and financial operations.

In addition, the analysts certify that no part of their compensation was, is, or will be directly or indirectly related to the specific recommendations or views expressed in this research report.

The compensation of the analyst who prepared this report is determined by research management and senior management (not including investment banking). Analyst compensation is not based on investment banking revenues, however, compensation may relate to the revenues of GENIAL INSTITUTIONAL CCTVM, its affiliates and/or subsidiaries as a whole, of which investment banking, sales and trading are a part. Compensation paid to analysts is the sole responsibility of GENIAL INSTITUTIONAL CCTVM.

The analyst hereby certifies that he (she), or his (her) spouse or companion, does not serve as an officer, director, or advisory board member of the subject company.

The principal analyst is responsible for the content of this report and for meeting the requirements of Securities and Exchange Commission of Brazil (CVM) Instruction 598/2018.

Unless otherwise stated, the individuals listed on the cover page of this report are research analysts.



## 3. ADDITIONAL DISCLOSURE

- (i) This document was prepared by GENIAL INSTITUTIONAL Research and is hereby supplied for the sole purpose of providing information about companies and their securities.
- (ii) The information contained herein is provided for informational purposes only and does not constitute an offer to buy or sell, and should not be construed as a solicitation to acquire, any securities in any jurisdiction. The opinions expressed herein regarding the purchase, sale or holding of securities, or with respect to the weighting of such securities in a real or hypothetical portfolio, are based on careful analysis by the analysts who prepared this report and should not be construed by current or future investors as recommendations for any particular investment decision or action. The investor's final decision should be made considering all of the risks and fees involved. This report is based on information obtained from primary or secondary public sources, or directly from companies, and is combined with estimates and calculations prepared by GENIAL INSTITUTIONAL CCTVM. This report does not purport to be a complete statement of all material facts related to any company, industry, security or market strategy mentioned. The information has been obtained from sources believed to be reliable, but GENIAL INSTITUTIONAL CCTVM does not make any express or implied representation or warranty as to the completeness, reliability or accuracy of such information. The information, opinions, estimates and projections contained in this document are based on current data and are subject to change. Prices and availability of financial instruments are indicative only and subject to change without notice. GENIAL INSTITUTIONAL CCTVM is under no obligation to update or revise this document or to advise of any changes in such data.
- (iii) The securities discussed in this report, as well as the opinions and recommendations contained herein, may not be appropriate for every type of investor. This report does not take into account the investments objectives, financial situation or particular needs of any particular investor. Investors who wish to buy, sell or invest in securities that are covered in this report should seek independent financial advice that takes individual characteristics and needs into consideration, before making any investment decision with respect to the securities in question. Each investor should make independent investment decisions after carefully analyzing the risks, fees and commissions involved. If a financial instrument is denominated in a currency other than an investor's currency, changes in exchange rates may adversely affect the price or value of, or the income derived from the financial instrument, and the reader of this report assumes all foreign exchange risks. Income from financial instruments may vary, and therefore their price or value may rise or fall, either directly or indirectly. The information, opinions and recommendations contained in this report do not constitute and should not be interpreted as a promise or guarantee of a particular return on any investment. Past performance does not necessarily indicate future results, and no representation or warranty, express or implied, is made herein regarding future performance. Therefore, GENIAL INSTITUTIONAL CCTVM, its affiliated companies, and the analysts involved in this report take no responsibility for any direct, indirect or consequential loss resulting from the use of the information contained in this report, and anyone using this report undertakes to irrevocably indemnify GENIAL INSTITUTIONAL CCTVM and its affiliates from any claims and demands.
- (iv) Prices in this report are believed to be reliable as of the date on which this report was issued and are derived from one or more of the following: (i) sources as expressly specified alongside the relevant data; (ii) the quoted price on the main regulated market for the security in question; (iii) other public sources believed to be reliable; or (iv) GENIAL INSTITUTIONAL CCTVM's proprietary data or data available to GENIAL INSTITUTIONAL CCTVM.

- (v) No representation or warranty, either express or implied, is provided in relation to the accuracy, completeness or reliability of the information contained herein, except with respect to information concerning GENIAL INSTITUTIONAL CCTVM, its subsidiaries and affiliates. In all cases, investors should conduct their own investigation and analysis of such information before taking or omitting to take any action in relation to securities or markets that are analyzed in this report.
- (vi)GENIAL INSTITUTIONAL CCTVM makes no representations herein that investors will obtain profits. GENIAL INSTITUTIONAL CCTVM will not share with investors any investment profits nor accept any liability for any investment losses. Investments involve risks and investors should exercise prudence in making their investment decisions. GENIAL INSTITUTIONAL CCTVM accepts no fiduciary duties on behalf of recipients of this report and in communicating this report is not acting in a fiduciary capacity. This report is not to be relied upon in substitution for the exercise of recipient's independent judgment. Opinions, estimates, and projections expressed herein constitute the current judgment of the analyst responsible for the substance of this report as of the date on which the report was issued and are therefore subject to change without notice and may differ or be contrary to opinions expressed by other business areas or groups of GENIAL INSTITUTIONAL CCTVM as a result of using different assumptions and criteria. The information, opinions and recommendations contained in this report do not constitute and should not be interpreted as a promise or guarantee of a particular return on any investment.
- (vii)Because the personal views of analysts may differ from one another, GENIAL INSTITUTIONAL CCTVM, its subsidiaries and affiliates may have issued or may issue reports that are inconsistent with, and/or reach different conclusions from, the information presented herein. Any such opinions, estimates, and projections must not be construed as a representation that the matters referred to therein will occur. Prices and availability of financial instruments are indicative only and subject to change without notice. Income from financial instruments may vary, and therefore their price or value may rise or fall, either directly or indirectly.
- (viii) This document may not be: (a) photocopied or duplicated in any manner, in whole or in part, and/or (b) distributed without GENIAL INSTITUTIONAL CCTVM's prior written consent. GENIAL INSTITUTIONAL CCTVM accepts no liability whatsoever for the actions of third parties in this respect.
- (ix)Neither GENIAL INSTITUTIONAL CCTVM nor any of its affiliates, nor any of their respective directors, employees or agents, accepts any liability for any loss or damage arising out of the use of all or any part of this report.
- (x) GENIAL INSTITUTIONAL CCTVM (or its affiliates, officers, directors or employees) may, to the extent permitted by law, have acted upon or used the information herein contained before the publication of this report and may have a position in securities issued by the companies mentioned herein and may make a market or act as a principal in any transactions in any such securities. Genial Institutional may from time to time perform investment banking or other services to, or solicit investment banking or other business from, the companies mentioned herein.



## 4. IMPORTANT DISCLOSURES FOR U.S. PERSONS

This research report was prepared by Genial Institutional CCTVM, a company authorized to engage in securities activities in Brazil. Genial Institutional CCTVM is not a registered broker-dealer in the United States and, therefore, is not subject to U.S. rules regarding the preparation of research reports and the independence of research analysts. This research report is provided for distribution to "major U.S. institutional investors" in reliance on the exemption from registration provided by Rule 15a-6 of the U.S. Securities Exchange Act of 1934, as amended (the "Exchange Act") and is not being provided pursuant to a soft-dollar arrangement.

Any U.S. recipient of this research report wishing to effect any transaction to buy or sell securities or related financial instruments based on the information provided in this research report should do so only through Auerbach Grayson & Company LLC ("AGCO"), a registered broker dealer in the United States with an office at 20 West 55th Street New York, NY 10019, (212) 453-3523. Under no circumstances should any recipient of this research report effect any transaction to buy or sell securities or related financial instruments through Genial Institutional CCTVM.

If the report is to be distributed to anyone other than Major U.S. Institutional Investors in the United States. AGCO accepts responsibility for the contents of this report as provided for in relevant SEC releases and SEC staff no-action letters.

The analyst whose name appears in this research report is not registered or qualified as a research analyst with the Financial Industry Regulatory Authority ("FINRA") and may not be an associated person at Auerbach Grayson & Company LLC ("AGCO") and, therefore, may not be subject to applicable restrictions under FINRA Rules on communications with a subject company, public appearances and trading securities held by a research analyst account.

The disclosures contained in research reports produced by GENIAL INSTITUTIONAL CCTVM and distributed by Auerbach Grayson & Company LLC ("AGCO") in the U.S. shall be governed by and construed in accordance with U.S. law. This report may not be reproduced or redistributed to any other person, in whole or in part, for any purpose, without the prior written consent of GENIAL INSTITUTIONAL CCTVM. Additional information relative to the financial instruments discussed in this report is available upon request.

## UK Disclaimer:

(i) This document is STRICTLY CONFIDENTIAL to the recipient, may not be distributed to the press or other media and may not be reproduced in any form. this document is directed only at persons who are "INVESTMENT PROFESSIONALS" falling within article 19(5) of the FSMA 2000 (FINANCIAL PROMOTION) ORDER 2005, or HIGH NET WORTH BODIES falling within ARTICLE 49(2) of that order (together THE "RELEVANT PERSONS"). This document must not be acted on or relied on by persons who are not RELEVANT PERSONS.

(ii) The distribution of this document in other jurisdictions may be restricted by law and persons into whose possession this document comes should inform themselves about, and observe, any such restrictions. Any failure to comply with these restrictions may constitute a violation of the laws of any such other jurisdiction.

Copyright 2024 GENIAL INSTITUTIONAL CCTVM