

# VALE

## VBM Day 26: A decade-long journey

LatAm Metals & Mining

### Main takeaways:

(i) VBM has completed its transformation and is entering a growth phase; the market is not yet modelling VBM's full copper output, with the guidance vs. consensus gap widening materially from 2028+ — the central re-rating argument of the day; (ii) VBM's EBITDA contribution rose from 10% in 2024 to ~22% 25A, targeting 30–35% by 2035E on consensus assumptions; (iii) Copper is guided at 350–380Kt 26E, expanding to ~700Kt 35E (~4–6% CAGR), ahead of diversified peers (+2–4%), underpinned by ~8Mt Cu in reserves and 31Mt Cu in M+I in Carajás (PA); (iv) Three projects anchor the near-term pipeline: Bacaba (PA) (IRR >50%, 28E), Salobo CPF (IRR >50%, 29E) and Alemão (PA) (IRR >25%, 30E), with the full South Hub, North Hub and Canadian assets underpinning 700Kt 35E; (v) The expansion is fully self-funded — CAPEX at US\$1.6bn 26E rising to ~US\$2.0bn 27E from CFO, with no additional capital received from Vale or Manara since carve-out; (vi) Nickel all-in costs fell to US\$12,200/t 25A (-28% in 2Y), with cash breakeven targeted at ~US\$17,300/t 27E, potentially ahead of plan at current prices; (vii) Commercial exposure is deliberately Western-facing: Europe absorbs 55% of nickel and 28% of copper, with China at only 8% and 10% respectively; (viii) We therefore reiterate our **Neutral rating**, with a **12M Target Price of US\$17.00 ADR (NYSE) and R\$90.00 VALE3 (B3)**, implying an upside of **+6.8%** from current levels. Hence, we state that VBM Day was a positive event for the re-rating thesis, but Vale's equity story remains, for now, an iron ore story.

Vale held its inaugural **VBM Day in Toronto** today (31/Mar), a dedicated investor event bringing together the full Vale Base Metals (VBM) leadership team for the first time. The event was attended by **Mr. Marcelo Bacci** (Vale CFO), **Mr. Shaun Usmar** (VBM CEO), **Ms. Tina Gauthier** (VBM CCO), **Mr. Alfredo Santana** (VBM COO), **Mr. Chris McCleave** (VBM CTO), **Ms. Laura Brooks** (VBM Director Sustainability) and **Mr. Murilo Muller** (VBM CFO). In this report, we comment on the insights gathered from the event.

At a strategic level, the discussions were centered on two main narratives: (i) VBM is entering a growth phase, with a credible copper expansion roadmap targeting **700Kt 35E** and a **long-term EBITDA** contribution of **30–35% 35E** of Vale group (built on consensus commodity assumptions, not a bull case), both underpinned by brownfield-first projects concentrated in the Carajás (PA) district; and (ii) the explicit acknowledgement that market consensus is systematically **underestimating** VBM's **copper production** trajectory from **2028+**, the central re-rating argument of the day.

### Analysts

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

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

**Vitor Sousa**  
+55 (11) 3206-8244  
vitor.sousa@genial.com.vc

### Company

**VALE US Equity**  
**Neutral**

**Price:** US\$ 15.91 (31-Mar-2026)  
**Target Price 12M:** US\$ 17.00 (NYSE)

**VALE3 BZ Equity**  
**Target Price 12M:** R\$ 90.00 (B3)

## VBM Day in Detail!

**VBM as a key pillar of Vale's strategy.** Mr. Bacci opened proceedings by positioning VBM as a structural pillar of the Vale group rather than a peripheral or transitional asset, speaking also on behalf of co-shareholder Manara. The company now explicitly describes itself as a "dual engine" business: **(i)** Iron ore making a resilient, large-scale portfolio and **(ii)** VBM as fast-growing platform. Therefore, iron ore production guidance of 335–345Mt in 26E, rising to ~360Mt by 30E, reflects steady but modest growth. The contrast with VBM is stark: **copper guidance of 350–380kt in 26E** is expected to expand to **420–500kt by 30E** and **~700kt by 35E**, implying a **~4% CAGR to 30E** and **~6% to 35E**, both materially ahead of the ~2.6% and ~4% averages for diversified peers.

The **Nickel production** is guided at **175–200kt in 26E**, rising to **210–250kt by 30E**, with the strategic emphasis squarely on cost reduction and operational optimization rather than aggressive volume growth. The **CGAR** is set at **4–6%** (2026–30E), achievable entirely **within assets already** held and, in a region, where the company has operated for over 40Y.

To show the progress, VBM contributed 10% of group Adj. EBITDA in 2024, rising to 22% in 2025 and it will be **~26% in 26E** on consensus prices, with a long-term potential of **30–35%** from **2035 onwards**. That trajectory brings VBM's share of group earnings in line with the **25–45% base metals EBITDA** representation seen **across diversified peers** (BHP and Rio Tinto). The 30–35% long-term figure is built on consensus commodity assumptions, not a bull case, which makes it arguably conservative and leaves meaningful upside if copper and gold prices remain elevated.

**Creating a leading critical minerals company.** Mr. Usmar's section carried the weight of the day. The centerpiece of his presentation, and arguably of the entire day, was the copper production trajectory chart: **management guidance vs. consensus from 2025–35E**, explicitly labelled "underappreciated." The gap widens materially from 2028+. We believe the message was crystal clear: **the market is not modelling VBM's full copper output**, and the earnings revisions that follow as that gap closes are substantial. The **+4–6% 2030–35E copper CAGR runs well ahead of diversified peers** (+2–4%), underpinned by ~8Mt Cu in reserves and 31Mt Cu in M+I resources in Carajás (PA) alone.

Each asset improved in 2025 and has a defined critical path for 26E. Thompson (MB) is being partially divested. The Glencore JV in Sudbury (ON) is being converted. Hu'u (Indonesia) is under strategic review as a copper-gold opportunity. The **Adj. EBITDA 26E** consensus of **US\$3.7–5.5bn** (we are projecting US\$5bn Est.), implies a further step-up, as the market is still catching up.

**Copper: Demand is set to rise 20% in 10Y.** Ms. Gauthier framed her section around a central thesis: critical minerals are transitioning from commodities to strategic assets, driven by a convergence of energy system transformation, geopolitics and industrial policy. On **copper, total demand** is projected to grow **+20% 25–35E**, driven by renewable energy, electric vehicles and data centers. US demand from data centers alone is projected to rise to 14% 30E vs. 5% current of total US electricity consumption, according to S&P Global. Electric vehicles (EVs) require nearly 3x the copper content of a conventional vehicle.

On the other hand, the annual disruption rate for copper production exceeded 5% in 2025, meaning **>1/20t of expected supply is lost, delayed or underdelivering** relative to plan in any given year. New discoveries are smaller and lower grade than historical finds, and project lead times and capital intensity continue to rise. On VBM's own estimates, the refined copper market enters a **structural deficit** from **2030E**, with **~10Mt of additional annual copper supply needed by 2040E** that is not currently underpinned by either operating assets or expected projects.

**Nickel: Volume growth vs. value optimization.** The **nickel primary demand** is projected to increase **+42% 25-35E**, including a +29% upsurge in the high-value non-stainless segment where VBM is a preferred supplier. Electric vehicles (**EVs**) sales grew over +20% 25A and are expected to grow to +10% 26E, with sales' **penetration** archiving **>23%**. Nickel-based battery chemistry retains its role in large premium vehicles requiring high energy density. Beyond batteries, the company argues that nickel's role in superalloys, defense and aerospace adds a high-value, non-substitutable demand layer that is also growing. **VBM's high-quality nickel** products accounted for **~50% of US metal consumption** in high-value non-stainless applications in 2025.

On the **supply** side, **Indonesia** currently accounts for 65% of global nickel output, and 2026 is seeing a deliberate **shift from volume growth toward value optimization**: policy actions including **(i)** quotas, **(ii)** downstream processing requirements and **(iii)** a potential increase in taxation signal a strategic pivot. Additionally, Indonesia's sulphur imports have grown +400% in volume over the past 4Y, as sulphuric acid being essential for laterite HPAL processing, with Indonesian sulphur spot prices now running at +340% vs. 2023 levels. Rising acid costs are a direct constraint on the scalability of Indonesian HPAL supply and are structurally widening the cost gap between Indonesian and Western producers.

Geographically, the **customer base is deliberately diversified away from China**, which accounts for only 8% of nickel and 10% of copper sales volumes, with Europe absorbing 55% of nickel and 28% of copper, and the Americas taking 35% of both.

**Driving performance.** At **Salobo** (PA), copper throughput is expanding to **42Mt 29E** (+20% in 4Y or earlier with Coarse Particle Flotation- CPF); the near-term priorities are preventative maintenance adherence, autonomous fleet deployment for productivity and safety, and conveyor belt repowering to over 5,300t/h to raise throughput capacity. At **Sossego** (PA), the goal is to move **15Mt 28E** (+15% in 2Y) of copper, with the 110-day SAG shutdown addressed through a mobile crushing system that maintains stable production y/y — output in 26E is expected to be flat y/y despite 30% less plant availability.

At **Onça Puma** (PA), two furnaces now run at full capacity for the first time, targeting **40Ktpy 26E** (+54% y/y) of nickel — the priorities are fleet utilization, consumables optimization and off-gas technology implementation for decarbonization, with the asset on a path to become the largest ferronickel producer in Brazil. At **Sudbury** (ON), the shift to more efficient mine designs, aiming **6Ktpy 26E**, planned downtime reduction from **40 to 26 days**, a **7–10%** operating cost reduction target and a **30%** underground development capital efficiency improvement target by 28E are the headline commitments, all directed at bringing Sudbury into the lower half of the global cost curve.

At **Voisey's Bay (NL)** and **Long Harbour (NL)**, the goal is full **2.8Mtpy 26E** (12% y/y) mill capacity at Voisey's Bay this year, consistent concentrate supply to Long Harbour, and Long Harbour producing **>45ktpy of finished nickel**, optimizing the two assets as an integrated system. Santana's closing framing was precise: 2022–2025 was the period of restoring performance and returning to basics; 2026 is the year of making that performance repeatable; and when performance becomes repeatable, growth becomes credible.

**Toward 2035E guidance and upside potential.** Mr. McCleave highlighted three projects like a window into the pipeline. **Bacaba (PA)** (50Ktpy Cu, 14Kozpy Au, 8Y mine life, US\$290mn CAPEX, US\$4,600/t unit cost net of by-products, IRR >50%, startup 28E) is already in execution at 23% physical completion, **capital cut by more than 1/2** from the original feasibility concept through design simplification, early contractor partnership and mine sequencing optimization. **Salobo (PA) CPF** (30Ktpy Cu, US\$225–275mn CAPEX, IRR >50%, startup 29E) **targets FID in 2Q26E**, a brownfield capacity expansion and a repeatable technology deployable across multiple concentrators.

**Alemão (PA)** (80Ktpy Cu, 140Kozpy Au, 20Y mine life, US\$1.6–1.8bn CAPEX, -US\$1,450/t unit cost net of gold, IRR >25%, startup 30E) **is the most significant single growth lever.** We believe that, at current gold prices, the effective copper unit cost is materially more negative than the stated figure. We emphasize that these three are just a sample. The full pipeline, spanning the **(i)** South Hub, **(ii)** North Hub and **(iii)** Canadian assets, underpins the path to **700Kt 35E**. Mr. McCleave closed on a note of deliberate discipline: 700Kt is guidance. The ambition beyond it is technically grounded, based on assets and endowment already controlled. Upside will be pulled forward when and where it makes sense.

## Our Take on Vale

**CAPEX will increase, but will be funded by operations.** On the **transformation**, **EBITDA** more than doubled to **US\$3.3bn 25A** (+1.5x y/y), with **US\$800mn** internally driven (US\$500mn from organizational simplification + US\$300mn from higher volumes), achieved against a **US\$1.2bn headwind from lower prices** and adverse FX rate. The total VBM's **CAPEX** should be **US\$1.6bn 26E** (flat y/y; -12% vs. 2024), largely reflecting the project portfolio optimization described by Mr. McCleave. Although, **CAPEX should rise to US\$2.0bn 27E** (+25% vs. 26E) as the copper growth pipeline accelerates, **funded entirely from FCF** (without the need to raise capital at this time). VBM has operated as a fully self-funded business since the carve-out, contracting its own facilities and receiving no additional capital from Vale's other operations.

On **costs**, **copper all-in** collapsed to **US\$600/t 25A** (-82% in 2Y), with guidance of **US\$1,000–1,500/t 26E** using a gold assumption of **US\$3,500/tr.oz**, well below spot (-25%). Investors should bear in mind that gold is a byproduct and is taken into account as a cost-reducing factor for copper. At current gold prices, 26E copper all-in cost guidance would already be negative. In addition, **nickel all-in** costs fell to **US\$12,200/t 25A** (-28% in 2Y), with cash **breakeven targeted** at **~US\$17,300/t 27E**. Mr. Muller flagged that at current nickel prices, breakeven could arrive ahead of plan.

The FCF guidance ranges **US\$0.4–1.9bn 26E** across the commodity price sensitivity range, with gold the largest per-unit driver at **+US\$75mn** per **US\$1,000/tr.oz** move vs. **+US\$30mn** per **US\$100/t** for copper. The balance sheet also remained solid, with **leverage** at **0.4x Net Debt/EBITDA** – with net debt at US\$1.2bn –, and **interest coverage** of **26.0x**.

**A decade-long journey.** In our view, VBM Day was a well-structured, data-rich event that credibly advanced the re-rating argument for the base metals business. We leave the event with a more constructive view on VBM as a standalone asset. However, our overall stance on Vale consolidated remains unchanged. **I.O. Solutions** still represents **~80%** of **consolidated Adj. EBITDA**, and nothing presented today alters that arithmetic in the near term.

VBM contributed **~22%** of group Adj. EBITDA in 2025, potential rising to **~26% 26E** on consensus prices. We do recognize it will be a meaningful progress, but the copper growth that would shift this balance in a structural way is a **2028–35E story**, not a **2026 one**. With the IPO off the table (as we already mentioned before), **execution is the only path** to value crystallization, and it **takes time**. The **30–35% long-term Adj. EBITDA** contribution target from 2035E is built von consensus commodity assumptions, which makes it credible but also makes it a **decade-long journey rather than a near-term catalyst**.

On **valuation**, the sharp re-rating of recent months has largely closed the prior discount. **FCF Yield 26E** sits at **~8%** (-6p.p. vs. 3M ago), **EV/EBITDA 26E** at **5.5x** (still above the historical average of 5x) and **Dividend Yield 26E** at **~5%** (-7p.p. vs. 3M ago). Copper prices are already at historical highs, which means the current VBM earnings contribution is not a depressed base, it is close to a peak input assumption. Meanwhile, **our iron ore price assumption** remains at **US\$95/t 26E**, below both spot (~US\$108/t) and consensus (~US\$100–105/t), as seaborne supply continues to accelerate into 26–27E and Chinese demand remains uneven, with crude steel production down **42Mt** (-4.4% y/y) in 2025 – with **Jan/26** data (-4% y/y) also corroborating this path – and GDP targets for 26E revised to **4.5–5% y/y** vs. 5% last year.

We therefore reiterate our **Neutral rating**, with a **12M Target Price** of **US\$17.00 ADR (NYSE)** and **R\$90.00 VALE3 (B3)**, implying an upside of **+6.8%** from current levels. Hence, we state that VBM Day was a positive event for the re-rating thesis, but Vale's equity story remains, for now, an iron ore story.

## Appendix: Vale

**Figure 1. Vale – Income Statement in US\$ Millions (Genial Est. 2026-2029)**

<b>Income Statement</b>	<b>2026E</b>	<b>2027E</b>	<b>2028E</b>	<b>2029E</b>
<b>Net Revenue</b>	<b>39.346</b>	<b>41.667</b>	<b>43.579</b>	<b>44.410</b>
(-) COGS	(26.012)	(27.763)	(29.501)	(30.067)
<b>Gross Profit</b>	<b>13.334</b>	<b>13.904</b>	<b>14.078</b>	<b>14.342</b>
(-) Expenses	(3.813)	(4.033)	(4.229)	(4.325)
<b>Proforma EBITDA</b>	<b>15.600</b>	<b>16.301</b>	<b>16.568</b>	<b>16.862</b>
(-) D&A	(3.126)	(3.311)	(3.463)	(3.529)
<b>EBIT</b>	<b>9.521</b>	<b>9.871</b>	<b>9.849</b>	<b>10.017</b>
(+/-) Financial Result	(793)	(874)	(888)	(890)
(-) Taxes	(490)	(479)	(478)	(488)
<b>Net income</b>	<b>8.903</b>	<b>9.225</b>	<b>9.226</b>	<b>9.412</b>
<b>Profitability</b>				
Net margin (%)	22,6%	22,1%	21,2%	21,2%

**Figure 2. Vale– Cash Flow in US\$ Millions (Genial Est. 2026-2029)**

<b>Cash Flow (FCFF)</b>	<b>2026E</b>	<b>2027E</b>	<b>2028E</b>	<b>2029E</b>
<b>Net Revenue</b>	<b>39.346</b>	<b>41.667</b>	<b>43.579</b>	<b>44.410</b>
(-) COGS	(26.012)	(27.763)	(29.501)	(30.067)
<b>Proforma EBITDA</b>	<b>15.600</b>	<b>16.301</b>	<b>16.568</b>	<b>16.862</b>
<b>EBIT</b>	<b>9.521</b>	<b>9.871</b>	<b>9.849</b>	<b>10.017</b>
(-) Taxes	(490)	(479)	(478)	(488)
(+) D&A	3.126	3.311	3.463	3.529
(+/-) Δ WK	(77)	714	495	246
(-) Capex	(5.475)	(5.463)	(5.367)	(5.112)
<b>FCFF</b>	<b>6.606</b>	<b>7.955</b>	<b>7.963</b>	<b>8.193</b>

## Disclosure Section

### 1. GENERAL DISCLAIMER

This report has been produced by the research department (“Genial Institucional Research”) of Genial Institucional Corretora de Câmbio, Títulos e Valores Mobiliários S.A. (“GENIAL INSTITUTIONAL CCTVM”). Genial Institucional 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

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.

## 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 Institucional 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 Institucional CCTVM, a company authorized to engage in securities activities in Brazil. Genial Institucional 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 Institucional 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