VALE

4Q24 Operational Preview: Recalculating Route...

LatAm Metals & Mining

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Company

VALE US Equity
Buy

Price: US$ 8.98 (24-Jan-2025)
Target Price 12M: US$ 11.10 (NYSE)

VALE3 BZ Equity
Target Price 12M: R$ 65.60 (B3)

Main takeaways:

(i) The realized price of **iron ore fines** is expected to reach **US$92.0/t Genial Est.** (+1.5% q/q; -22.2% y/y), with a significant annual retraction, but at a lower intensity than the 62% Fe curve; **(ii)** Pricing mechanisms, combined with a **better mix** and the forward provisioning system, should mitigate the negative impact of the downtrend in the 62% Fe curve; **(iii)** The pellet division is expected to show flat production at **10.1Mt Genial Est.** (-2.8% q/q; +2.2% y/y), but face pressure on prices due to lower premiums and contractual lags; **(iv) Nickel** prices continue to fall, with a forecast of **US$16,764/t Genial Est.** (-1.5% q/q; -9.0% y/y), with production at 49Kt Genial Est. (+3.8% q/q; +8.9% y/y) and sales at 52.3Kt Genial Est. (+28.4% q/q; +9.0% y/y); **(v)** The **copper** business unit should see an increase in production, estimated at 99Kt Genial Est. (+15.4% t/t; flat y/y), while the realized price should fall, projected at **US$8.816/t** (-2.2% q/q; +16.0% y/y); **(vi)** Consolidated **Net revenue** estimated at **US$10.3bn Genial Est.** (+7.9% q/q; -21.0% y/y), impacted by the annual downturn in iron ore prices; **(ix)** Costs should continue to be reduced, with **C1/t ex. third parties** projected at **US$19.6/t** (-4.9% q/q; -5.5% y/y); **(x) Adjusted EBITDA** projected at **US$3.8bn Genial Est.** (+5.3% q/q; -39.9% y/y); **(xi)** The company is trading at an **EV/EBITDA 25E** of **3x** (vs. 5.0x historical average), while the **25E FCF Yield** is projected at **~16%**, supporting a **25E Dividend Yield** of **~9%**; **(xii)** We reiterate our **BUY rating**, but with a **12M Target-Price cut**, reaching **R$65.60** (vs. R$78.50 previously) for **VALE3-B3** and **US$11.10** (vs. US$13.00 previously) for the **ADRs-NYSE**, representing an **upside** of **+23.70%**.

Vale is set to release its **4Q24 Production and Sales Report** on **January 28**, after market closes. We expect the company to continue advancing its production strategy, focusing on serving specific niches while adjusting its operational flexibility to stagger the realization of inventories accumulated throughout the year. For **shipments**, we project **69.7Mt Genial Est.** (+0.5% q/q; -10.6% y/y), reflecting sequential stability but impacted by weather challenges and excess supply at Chinese ports, which limited sales potential.

Table 1. Operational Summary (4Q24 Genial Est.)

(Thousand Tonnes - kt)	Genial Est.				
Summary	**4Q24E**	**3Q24A**	**% q/q**	**4Q23A**	**% y/y**
Iron Ore Production	85.770	90.971	**-5,7%**	89.397	**-4,1%**
Iron Ore Fines Shipments	69.668	69.344	**0,5%**	77.885	**-10,6%**
Pellets Production	10.067	10.361	**-2,8%**	9.851	**2,2%**
Pellets Shipments	10.208	10.143	**0,6%**	10.285	**-0,7%**

Source: Genial Investimentos, Vale

On the cost side, Vale remains focused on reducing its **C1/t ex. third parties**, which we estimate at **US$19.6/t Genial Est.** (-4.9% q/q; -5.5% y/y). This discipline, combined with a strategic approach prioritizing higher-value-added mix (less high-silica products), should allow the company to mitigate the negative impacts we have observed on iron ore fines premiums. We therefore expect Vale to **enter 2025 with a redefined commercial strategy** focused on stabilizing quality premiums, reducing costs, and achieving greater operational resilience.

Operational Preview 4Q24: Production and sales in detail

Iron ore fines production: slight y/y and q/q contraction due to operational strategies. We project iron ore fines production to reach 85.8Mt Genial Est. (-5.7% q/q; -4.1% y/y), reflecting a slight sequential and annual contraction. It is typical for production to decelerate sequentially in 4Q, as 3Q is seasonally stronger due to lower rainfall levels. The anticipated annual decline can be attributed to two key factors: **(i)** The company had a particularly strong performance in 4Q23, creating a higher base for comparison; **(ii)** Strategic adjustments that we expect in Vale's operations moving forward, as discussed in our Investor Day report from December, attached here (Investor Day: Discourse change!).

Will Vale de-stock the accumulated inventory from last quarter? No... It's important to note that part of the strong production in 3Q24 was not shipped at the time, resulting in a significantly accumulated inventory. There was an expectation that this inventory would be converted into sales in 4Q24. However, as we mentioned in our 3Q24 earnings review, increasing the sales pace at the end of the year could have exacerbated the supply-demand imbalance, which was already strained. This was particularly evident given our market analysis at the time, as iron ore accumulation at Chinese ports stood out as the most significant indicator of oversupply in the past 5Y.

As highlighted during the Investor Day, the company plans to manage inventory gradually, aligning its approach with market conditions at each moment. This new strategy reflects greater operational flexibility, allowing the retention of iron ore when the pricing environment is unfavorable. Despite this strategy, we believe the impact on 4Q24 performance will reflect seasonal adjustments vs. previous periods, even amid strong production volumes accumulated so far this year.

Table 2. Production Summary Vale (4Q24 Genial Est.)

Production Summary (Kt)	4Q24E Genial Est.	3Q24A Reported	% q/q	4Q23A Reported	% y/y
Iron Ore[1]	85.770	90.971	-5,7%	89.397	-4,1%
Pellets	10.067	10.361	-2,8%	9.851	2,2%
Nickel	49	47	3,8%	45	8,9%
Copper	99	86	15,4%	99	0,0%

[1] Including third-party purchases, run-of-mine and feed of other pelletization plants.

Source: Genial Investimentos, Vale

Iron ore fines shipments are decelerating amid stabilization of the company's new commercial strategy. For 4Q24, we expect iron ore fines shipments to reach 69.7Mt Genial Est. (+0.5% q/q; -10.6% y/y), indicating stability compared to the previous quarter but a more pronounced reduction on an annual basis. This annual deceleration is likely a reflection of stockpiles accumulating at Chinese ports which we monitor and have reached 131.8Mt (+2.1% q/q), even amid a stronger dynamic in Chinese iron ore imports (+4.9% y/y), reinforcing the impacts of relatively weaker market demand.

Vale's strategy will shift towards commercial flexibility, prioritizing supply control. This approach appears to diverge from, for instance, 2Q24, when the company opted to ship a higher-silica mix (lower % Fe) and increased sales of third-party iron ore. We believe the expected reduction in sales of high-silica, which previously accounted for 8-9Mt per quarter, should contribute to an improvement in the product mix and a potential recovery of quality premiums for iron ore fines, which were previously in negative territory. This strategy also reflects a move to stagger the sales of lower-value-added products, optimizing margins according to market conditions.

Table 3. Shipments Summary Vale (4Q24 Genial Est.)

Shipments Summary (Kt)	4Q24E Genial Est.	3Q24A Reported	% q/q	4Q23A Reported	% y/y
Iron ore fines	69.668	69.344	0,5%	77.885	-10,6%
Pellets	10.208	10.143	0,6%	10.285	-0,7%
ROM	2.158	2.351	-8,2%	2.158	0,0%
Nickel	52,3	40,7	28,4%	48,0	8,9%
Copper	98,0	75,2	30,3%	98,0	0,0%

[1] Including third-party purchases

Source: Genial Investimentos, Vale

Realized price for i.o. fines expected to improve slightly q/q but still shows significant y/y compression. We estimate the realized price for iron ore fines to reach US$92.0/t Genial Est. (+1.5% q/q; -22.2% y/y), reflecting a slight sequential recovery vs. previous quarter but a substantial annual decline. This annual drop can be attributed to a market still under pressure in a deflationary environment, driven by **(i)** excess port inventories, even though **(ii)** the Chinese economy accelerated GDP growth to 5.3% in 2024 (+0.5p.p vs. Genial Est.). Lower-quality products, such as high-silica mix, are expected to continue trading with significant discounts, contributing to pressure on realized prices.

However, as mentioned previously, the company has been adjusting its commercial strategy, gradually reducing the sales of high-silica products, which may ease applied discounts and even improve quality premiums in the medium term. For 4Q24, we expect quality-related premiums to start showing signs of recovery, reaching +US$1.8/t Genial Est. compared to a discount of -US$0.9/t in 3Q24.

Pellet division expected to show flat production. Pellet production is projected at 10.1Mt Genial Est. (-2.8% q/q; +2.2% y/y), reflecting the company's consistent effort to maintain volumes close to the ~38Mtpa target. This stability is justified by: **(i)** Favorable seasonality typical of 3Q, characterized by lower rainfall, which optimizes conditions for mining and subsequent pelletizing; and **(ii)** Strong y/y performance in iron ore fines production by Vale in 3Q24 (90.9Mt). As explained in previous reports, we typically observe an increase in pellet production in quarters following periods of more elastic iron ore fines production. This pattern arises due to logistical delays in transporting the load to pelletizing plants, coupled with the time required to process fines into pellets.

Pellet prices to face pressure due to lags. Regarding prices, the contractual premium for pellets is expected to see a slight reduction, declining by approximately **-**US$2/t vs. 3Q24. We believe this is partly due to the impact of a pricing mechanism more subject to lags, which accounts for ~35% of the price composition—a characteristic that amplifies fluctuations during periods of decline. In 4Q24, we anticipate these factors will put pressure on realized prices, which are projected to reach US$145.1/t Genial Est. (-2.1% q/q; -11.2% y/y), primarily due to: **(i)** A lower projected quality premium of US$29/t Genial Est. (-17.2% vs. 3Q24); and **(ii)** A contraction in the average observed benchmark price for 65% Fe to US$116.1/t (-0.5% q/q) in 4Q24.

Nickel prices resume downward trend. We project a slight decline in realized nickel prices for 4Q24, estimated at US$16,764/t Genial Est. (-1.5% q/q; -9.0% y/y), aligned with continued pressure on the LME benchmark curve, which dropped to ~US$16,255/t (-1.5% q/q). Nickel production for 4Q24 is projected at 49Kt Genial Est. (+3.8% q/q; +8.9% y/y), reflecting ongoing operational normalization following challenges earlier this year. In 2Q24, maintenance shutdowns at plants in Canada, combined with unfavorable seasonal conditions in Brazil, negatively impacted production volumes. However, with more favorable seasonality and stabilized operations, 3Q24 showed signs of recovery in feed production, which is expected to consolidate into higher volumes in 4Q24. Nickel sales are also projected to increase significantly, reaching 52.3Kt Genial Est. (+28.4% q/q; +9.0% y/y). This growth will be driven by greater product availability resulting from operational recovery and feedstock inventory.

Copper division expected to see price decline and moderate increase in shipments. Copper production for 4Q24 is projected at 99Kt Genial Est. (+15.4% q/q; flat y/y), driven by **(i)** expectations of organic growth and **(ii)** operational efficiency gains at mines, as highlighted by Vale during the Investor Tour in September. This growth likely reflects the progress of operational improvements at the Salobo (PA) units, which are expected to start impacting results more consistently from this quarter onward. Sales are projected at 98Kt Genial Est. (+30.3% q/q; flat y/y), reflecting **(i)** greater product availability and **(ii)** favorable market conditions that should facilitate inventory optimization. Additionally, the all-in cost guidance for 2024 has been adjusted to ~US$2,900/t, marking significant progress compared to the previous range (US$3,300–3,800/t). Despite these positive developments, we expect the realized copper price to decline to US$8,816/t Genial Est. (-2.2% q/q; +16.0% y/y), reflecting a slight reduction in the LME benchmark curve (-0.3% q/q).

Table 4. Income Statement Vale (4Q24 Genial Est.)

(US$ millions)	4Q24E Genial Est.	3Q24A Reported	% q/q	4Q23A Reported	% y/y
Net Revenue	**10.311**	**9.553**	**7,9%**	**13.054**	**-21,0%**
COGS	(6.651)	(6.281)	5,9%	(6.891)	-3,5%
Adjusted EBITDA	**3.806**	**3.615**	**5,3%**	**6.332**	**-39,9%**
EBITDA Margin (%)	36,9%	37,8%	-0,93p.p	48,5%	-11,6p.p
Adjusted EBIT	**2.953**	**2.867**	**3,0%**	**5.477**	**-46,1%**
EBIT Margin (%)	28,6%	30,0%	-1,37p.p	42,0%	-13,31p.p
D&A	(852)	(748)	14,0%	(855)	-0,3%
Financial Result	(504)	(374)	34,8%	(874)	-42,3%
Net Income	**2.005**	**2.391**	**-16,1%**	**2.416**	**-17,0%**
Net Margin (%)	19,4%	25,0%	-5,58p.p	18,5%	0,94p.p

Source: Genial Investimentos, Vale

Our Take on Vale

Improved cost dynamics should not offset revenue decline in 4Q24. Consolidated **Net revenue** is projected at **US$10.3bn Genial Est.** (+7.9% q/q; -21.0% y/y), sequentially reiterated by the **(i)** slight recovery in realized iron ore fines prices (+1.5% q/q), with higher quality premium and **(ii)** shipments (+0.5% q/q), while the strong y/y decline should be mainly explained by the high comparison base of 2023, both in prices and volume. **C1/t ex. third-party** purchases is projected at **US$19.6/t Genial Est.** (-4.9% q/q; -5.5% y/y), which should be driven by operational efficiency gains, via potential dilution of fixed costs and acceleration of the USD/BRL exchange rate, which help dilute BRL costs converted to USD. **Adjusted EBITDA** is estimated at **US$3.8bn Genial Est**. (+5.3% q/q; -39.9% y/y), evidencing the sequential operational recovery, but also the persistent impacts of price pressure and lower volumes of iron ore fines sold year-on-year. Finally, **Net income** is estimated at **US$2.0bn** (-16.1% q/q; -17.0% y/y). We remind investors that these figures are provisional, since **we will update the estimates** as soon as Vale reports its Production and Sales report on January 28, after the market closes.

Railway renegotiation with a lower-than-expected detractor NPV. Vale finalized the renegotiation of the concession contracts for the **Carajás (EFC)** and **Vitória-Minas (EFVM)** railroads, adjusting provisions and contractual obligations in a contribution of **R$11.3bn** (-33% vs. Genial Est.), with a significant discount compared to what was initially requested by the Brazilian Ministry of Transport (vs. R$25.7bn). Although the new agreement includes an **immediate payment of R$4bn**, we would point out that it brought **more favorable conditions than we had projected**, resulting in a less negative NPV for the complement of the grants (~US$1bn of NPV or -28% vs. Genial Est.).

The renegotiation was designed to guarantee **operational continuity until 2057**, by modernizing assets and optimizing investments, while reducing regulatory uncertainties. In addition, the investment of R$6bn (already within R$11.3bn, as this amount is not entirely new money), promoted the Southeast rail ring, which should reinforce Vale's strategic positioning in integrated logistics, without jeopardizing its ability to generate cash flow in the short term. We believe that from a fundamentalist point of view, this outcome eliminated an important regulatory overhang.

Nickel complex in Thompson may be sold. The company announced a strategic review of operations in the Thompson Nickel Belt (located in Manitoba, Canada), including the **potential sale of the assets**. The optimization should be completed in 2H25. Formed by a nickel deposit proven since 1956, the assets include 2 operating underground mines, an adjacent mill. Thompson produced 10.5Mt of nickel in the 12M period ended 3Q24. We believe that there is currently an oversupply of nickel, even against a backdrop of growing demand driven by the energy transition and electrification of fleets. Therefore, we have made a preliminary assessment that **it would be ideal to hibernate the assets in Thompson rather than sell them in a period of low prices**. In addition to helping to purge an excess supply, which we believe is temporary, this would prevent **(i)** a reduction in the company's production capacity in Nickel (-6.25% y/y), which would later be used in the event of a cycle reversal. In addition, we believe that Vale would run a **(ii)** risk of having to negotiate the sale of assets at a discount on fair value, since we are witnessing a low cycle for Nickel.

Recalculating Route... We believe that the impact of the realized price in 4Q24, especially for iron ore fines, projected at **US$92.0/t Genial Est.** (+1.5% q/q; -22.2% y/y), reflects the challenges imposed by the current oversupply dynamics in China's ports. The expected slight sequential recovery in the realized price seems to us to be much more due to **Vale's decision to change its commercial policy** than to an improvement in the balance between supply vs. demand via market conditions, which has clearly not happened. We reinforce that a key factor in **recalculating the route** and navigating new conditions seems to have been materialized mainly by the departure of Mr. Marcello Spinelli.

We believe that even after the great contributions he made to the company by taking over as VP commercial in the ferrous division in 2019, today's market reality demanded changes in strategy, which **Mr. Rogério Nogueira**, who took over Mr. Spinelli's position at the end of last year, **will probably be better suited to providing the necessary turnarounds**. As we pointed out in our December publication on the change, one point that we repeatedly criticized in the company's discourse was the focus on selling more volume, especially when steel mills in China are demanding more high-silica iron ore (low Fe content) and at the same time reverberating the ability to compose quality premiums.

Given the current conditions of balance between supply and demand, and the margins levels at steel mills in China, **(i)** selling in large quantities and **(ii)** having a high premium in the mix seem to us to be **mutually exclusive points**.

Therefore, the change in commercial leadership led by Mr. Nogueira should focus more on **recomposing the quality premium in the mix**, and in turn, **giving up selling volumes at more elastic levels**. As a result, the realized price will probably be less negatively impacted than it had been considering the same spot price conditions faced last year, which went through quite a volatile year, falling close to the US$90/t barrier for the 62% Fe reference at some trading sections.

The scenario still presents challenges, but Vale maintains attractive fundamentals. Despite a challenging macroeconomic environment, Vale continues to trade at a significant discount to global peers. The company occupies the position of the **most discounted major vs. iron ore price in the world**, with a current discount of ~40% (vs. historical 20-25% vs. Australian peers). The company is trading at a **25E EV/EBITDA** of **3x** (vs. 5.0x historical average), while the **25E FCF Yield** is projected at **~16%**, underpinning a **25E Dividend Yield** of **~9%**, even considering more aggressive cash flow outflows for the Mariana (MG) settlement payment in 2025, as well as our projected average iron ore price of 62% Fe at US$99/t Genial Est. over the year (vs. ~US$101/t spot).

It's important to mention that **we don't see as much downside for the iron ore price in 2025** as some other sell side firms have mentioned recently. Our mapping of fundamentals indicates that the price could fall to **~US$90/t** but recover to **~US$110/t** over the course of 2025, with a certain implied volatility due to **(i)** the seasonality typical of different parts of the year and **(ii)** the level of stock piling at the ports, which sometimes shrinks and sometimes stretches (excluding the speculative effects on the price of any measures applied by the Chinese government).

We believe that **basically all valuation metrics** point to Vale as a company **unfairly penalized** by a narrative of the **Chinese economy without much strength**, and fears that a **trade war between the US and China** will reverberate in dynamics of a greater degree of compression in the growth pace of Chinese industry. We're not conflicted with the reality as to believe that these factors don't create a decline in demand for iron ore. Of course they do, but on the other hand, we think it's an overstatement of how investors are neglecting the stock at very attractive multiples, even in the face of the risks. In view of the change in volatility we mentioned regarding the price of iron ore, and the updated assumptions in our model, we reiterate our **BUY rating**, but with a cut in the **12M Target-Price**, reaching **R$65.60** (vs. R$78.50 previously) for **VALE3-B3** and **US$11.10** (vs. US$13.00 previously) for **ADRs-NYSE**, representing an **upside** of **+23.70%**.

Appendix: Vale

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

Income Statement	2024E	2025E	2026E	2027E	2028E	2029E
Net Revenue	**38.306**	**37.953**	**39.242**	**39.780**	**40.801**	**41.883**
(-) COGS	(24.391)	(24.982)	(26.016)	(26.581)	(27.127)	(27.893)
Gross Profit	**13.915**	**12.971**	**13.226**	**13.200**	**13.674**	**13.991**
(-) Expenses	(1.469)	(2.500)	(2.566)	(2.475)	(2.150)	(1.736)
Adjusted EBITDA	**16.061**	**15.320**	**15.562**	**15.670**	**16.284**	**16.722**
(-) D&A	(3.107)	(3.301)	(3.473)	(3.651)	(3.826)	(3.992)
EBIT	**12.954**	**12.020**	**12.089**	**12.018**	**12.458**	**12.730**
(+/-) Financial Result	(189)	128	314	471	676	982
(-) Taxes	(1.212)	(1.051)	(1.159)	(1.227)	(1.364)	(1.497)
Net income	**11.553**	**11.097**	**11.243**	**11.262**	**11.770**	**12.216**
Profitability						
Net margin (%)	30,16%	29,24%	28,65%	28,31%	28,85%	29,17%

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

Cash Flow (FCFF)	2024E	2025E	2026E	2027E	2028E	2029E
Net Revenue	**38.306**	**37.953**	**39.242**	**39.780**	**40.801**	**41.883**
(-) COGS	(24.391)	(24.982)	(26.016)	(26.581)	(27.127)	(27.893)
Adjusted EBITDA	**16.061**	**15.320**	**15.562**	**15.670**	**16.284**	**16.722**
Adjusted EBIT	**12.954**	**12.020**	**12.089**	**12.018**	**12.458**	**12.730**
(-) Taxes	(1.212)	(1.051)	(1.159)	(1.227)	(1.364)	(1.497)
(+) D&A	3.107	3.301	3.473	3.651	3.826	3.992
(+/-) Brumadinho and Samarco	(415)	(1.511)	(1.300)	(718)	(893)	(279)
(+/-) Δ WK	2.956	499	283	150	625	(36)
(-) Capex	(6.088)	(6.710)	(6.854)	(7.130)	(7.130)	(7.130)
FCFF	**11.301**	**6.547**	**6.531**	**6.744**	**7.522**	**7.780**

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	Definition	Coverage
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under Review	Under review	**5%**

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