genial Equity Research

VALE

4Q23 Preview: Beyond normal

LatAm Metals & Mining

Main takeaways:

(i) Iron ore surpassing guidance for fines, reaching a production volume in 2023 of 321Mt (89.4Mt in 4Q23), above the estimate (+7.3% vs. Genial Est.); **(ii)** Pellets surfing the ramp-up of Torto dam in Brucutu mine (MG) with production of 9.8Mt (+7.4% q/q; +19.2% y/y) and sales of 10.3Mt (+19.4% q/q; +17.0% y/y), confirming the logistical delay mentioned regarding the arrival of fine iron ore at the Tubarão (ES) terminal and the subsequent pelletizing process; **(iii)** Gap between production and sales of fines creates a more robust inventory number, with the **distance of the production vs. sales variable being 4x greater than our estimates**. (12% vs. 3% Genial Est.); **(iv)** We believe that Vale should remain with the inventory until the premium conditions for fines quality return to better standards. In 4Q23 the premium was reported negative, at -US$1.1/t; **(v)** Sequentially increasing volumes in base metals, with production of 44.9Kt (+6.7% q/q; -5.1% y/y) for Nickel and 99.1Kt (+21.4% q/q; +49.5% y/y) for copper; **(vi)** Revenues will come with an important improvement, of +11.4% q/q; +7.8% y/y for 4Q23 to reach the mark of US$13.3bn Genial Est; **(vii)** Even with the gap in production and sales, dilution should keep C1 within guidance, due to the significant increase of 11.7% q/q in shipments of iron ore fines. This should result in a reduction in C1/t and remain within the annual guidance of 22.5/t; **(vii)** EBITDA with high expectations for 4Q23, reaching US$7.2bn Genial Est. (+61.2% q/q; +44.1% y/y); **(viii)** We project net income up +49% q/q and +14.5% y/y, set up to clocking in at US$4.3bn Genial Est; **(ix)** We have a constructive view on Vale, following our **BUY rating** with a **12M Target Price** of **R$82.50** for **VALE3-B3** and **US$16.75** for **ADRs-NYSE**, indicating an **upside** of **19.27%**.

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Company

VALE US Equity
Buy

Price: US$ 13.99 (29-Jan-2024)
Target Price 12M: US$ 16.75 (NYSE)

VALE3 BZ Equity
Target Price 12M: R$ 82.50 (B3)

Vale released its 4Q23 Production and Sales report on 29th of January, after the market closed. The figures for the **ferrous division came in with prices and production higher than our estimates, but with lower sales in fines**. This means that the dynamic we commented on about rebuilding inventories was assertive, but the inventory formed was even higher than we projected, considering that **the gap between production vs. sales was ~12%** (4x more than we expected).

Table1. Gap came up more intense than Est.

(Thousand Tonnes - kt)	Reported	Genial Est.	
Summary	**4Q23A**	**4Q23E**	**% Diff.**
Iron Ore Production	89.397	83.312	**7,3%**
Iron Ore Fines Shipments	77.885	80.747	**-3,5%**
Pellets Production	9.851	10.260	**-4,0%**
Pellets Shipments	10.285	10.845	**-5,2%**

Source: Genial Investimentos, Vale

Table2. Reported vs. 3Q23 and 4Q22

Reported				
4Q23A	**3Q23A**	**% q/q**	**4Q22A**	**% y/y**
89.397	86.239	**3,7%**	80.852	**10,6%**
77.885	69.714	**11,7%**	81.202	**-4,1%**
9.851	9.175	**7,4%**	8.261	**19,2%**
10.285	8.613	**19,4%**	8.789	**17,0%**

Source: Genial Investimentos, Vale

Valuation and rating. We commented in our operational preview that we expected a price for the average quality benchmark of iron ore (62% Fe) at very attractive levels. Our view was that, even if premiums for higher quality were weak, Vale's realized price would be the highlight of the quarter. Along these lines, Vale's price figures were still above what we expected, both for fines (+2.8% vs. Genial Est.) and pellets (+1.4% vs. Genial Est.).

On the volume side, the restocking of fines that we expected also took place, but to a much greater degree. This means that production was strong, exceeding the annual guindance and reaching 89.3Mt (+7.3% vs. Genial Est.). However, sales were slightly below our estimates, coming in at 77.8Mt (-3.5% vs. Genial Est.). As for pellets, both the volume of production and shipments were slightly below our estimates, at 9.8Mt (-4.0% vs. Genial Est.) and 10.2Mt (-5.2 vs. Genial Est.), respectively.

The effect we expect in relation to these divergences in revenue is basically neutralized, since the higher price compensated for the lower sales volume, both in relation to our previous estimates. We believe that the rise in prices will form a positive vector for margins, while a slightly lower sales volume could impact C1/t dilution capacity. It seems to us to be a zero-sum game, and we maintain a confident outlook regarding Vale's performance for 4Q23, which should mark double-digit growth, both sequentially and y/y, in all P&L lines (Revenue, EBITDA and Net Income). The financial results will only be reported on February 22nd.

Looking ahead, we stress our more constructive bias towards Vale's long-term performance, given that briquette production just started in 4Q23. We believe this is an important step in the strategy for the company to continue to be at the forefront of the decarbonization process, with a more resilient level of demand even with our expectation of a decline over the years in Chinese crude steel production, which should be pressured by the reduction of CO2 emissions.

In addition, **Vale is discounted, and here's why:** The company could generate significant cash flow, with a **24E FCF yield of 11%**, even if the 62% Fe iron ore price falls to US$110-120/t (today at ~US$130/t). Without extraordinary dividends, the **24E Dividend Yield is over 10%**, rising to ~14% if it is redistributed. This depends on other variables, such as the share buyback program. These projections also consider the payment of compensation for the Mariana (MG) accident. The **gap between Vale's share price and the price of iron ore remains significant**. So, the company continues to trade with an attractive margin below the spot price of 62% Fe.

Vale is currently trading at **3.95x EV/EBITDA 24E**, which seems discounted when considering its ability to generate cash flow and pay dividends. Despite the uncertainties linked to China, the Mariana (MG) agreement and pressure from the government amid attempts to intervene politically in the company's management, we maintain our confidence in the operating performance against a **valuation that suffers disproportionately from overhangs**. We continue to see good times ahead, **BUY rated**, with a **12M Target Price** of **R$82.50** for **VALE3-B3** and **US$16.75** for **ADRs-NYSE**, consolidating an upside of **+19.27%**.

Updating projections... We have changed our projection for the quarter in view of the release of the production sales report yesterday, as we had commented would be done in our previous publication. Projected EBITDA for 4Q23 is now US$7.1bn Genial Est. (-0,1% vs. Old Est.), growing +61.2% q/q and +44.1% y/y. The new projection for net income is ~US$4.9bn Genial Est. (-0,2% vs. old Est.), representing a rise of +49.1% q/q and a fall of -14.5% y/y.

Basically, the new estimates for 4Q23 vs. the old ones bring almost none changes at all, which are due to two reasons: **(i)** prices came up better than expected and **(ii)** compensated with shipment lower than our previous estimates, forming a more prominent gap and stocking process than we imagined before.

Table3. New 3Q23 Est. vs. old one

(US$ millions)	Genial Est.	Old Est.	
Income Statement	**4Q23E**	**4Q23E**	**% Diff.**
Net Revenue	13.300	13.410	**-0,8%**
Proforma EBITDA	7.238	7.248	**-0,1%**
Net Income	4.289	4.296	**-0,2%**

Source: Genial Investimentos

Table4. New 3Q23 Est. vs. 3Q23 and 4Q22

Genial Est.				
4Q23E	**3Q23A**	**% q/q**	**4Q22A**	**% y/y**
13.300	10.610	**25,4%**	11.963	**11,2%**
7.238	4.490	**61,2%**	5.024	**44,1%**
4.289	2.876	**49,1%**	3.747	**14,5%**

Source: Genial Investimentos, Vale

Straight to the point!

High stockpiling: strong production, milder sales. We noted a quarter in which Vale showed figures that differed from historical behavior. Production is typically lower in Q4 vs. Q3, considering the seasonal effect. Looking at the company's figures, fines production is up +3.7% y/y now on 4Q23. However, in the last 6 years, no transition from 3Q to 4Q has been marked by a sequential upward movement in production. Another interesting statistic to note is that, in this same period, on only 2 occasions (2018 and 2017) have we seen a production-sales gap of more than 10% in 4Qs. As we explained in our preview, 4Qs are usually marked by a very tight gap between the two volume variables. In fact, in the last 3 years, the gap has been less than 1% in terms of inventory accumulation, and inventory burn has even occurred when sales exceed production (as was the case in 2021). Now in 4Q23 the gap between production vs. sales was ~12% (4x more than we expected), which indicates a high build-up of stock in 4Q23 and a tighter than usual sales volume.

It's understandable to say that this wasn't an easy quarter for analysts to get the data right. It's also true that the market today doesn't seem to follow a very rational logic. As we discussed in our previous report (Vale Operational Preview 4Q23), although the price of iron ore remains at a very strong level, still above US$130/t, premiums for quality are languishing, at the lowest average level of the last 10 years. Quite a contradiction. Vale even sold a volume of fine iron ore with a negative premium of -US$1.1/t, even worse than we expected, despite having modeled pessimistic assumptions in this regard.

Weak premiums, but good prices realized. We think the reason for this is that, despite our forecasts of a slight improvement in China's economy in 2024 compared to 2023, the price of iron ore last year was excessively high. Although China's scarce port supply may have stimulated the upward trend in iron ore from 2H23 onwards, there is still a drive for demand data linked to the real economy that overpromise and underdeliver. The price of commodities seems to us to increase with future demand, not present demand. This highlights the current dichotomy. Consequently, quality premiums are decreasing, as the steel mills are unwilling to pay more without a higher level of demand and amid tighter margins (metallurgical coal costs have risen significantly over the past year).

On the other hand, even with a negative premium in fines of -US$1.1/t and in pellets of ~US$20/t (-US$10/t vs. 3Q23), the 62% Fe average quality curve indicates a guarantee of a favorable result for Vale, having reached an average of ~US$128/t and having continued to rise between the end of 4Q23 and the beginning of 1Q24, marking the forward provisioned price at a considerable gain already in this quarter. Therefore, the negative fines premium (indicating a discount on top of the 62% Fe) did not prevent attractive pricing in 4Q23, with realization being marked at US$118.3 (+2.8% vs. Genial Est.), higher than we expected and indicating an increase of +12.6% q/q and +23.7% y/y.

When calculating the weighted average contribution of the pellet business, the premium was US$2.6/t (vs. US$3/t in 3Q23), still decelerating by -13.3% t/t. The price spread for the 65% Fe benchmark vs. the 62% Fe benchmark continues to narrow, reflecting the market shift towards low-grade iron ore. The spread of the price curve is currently at ~US$14/t (-14.4% t/t), which has posed difficulties for Vale in the high-grade market. Although the 65% Fe iron ore price curve expanded in 4Q23, the upward trend was slower than the increase in the 62% Fe benchmark. The 62% Fe benchmark increased by +12.6% q/q, while the 65% Fe benchmark increased by +8.7% q/q. The shortening of the price gap is affecting Vale, which has higher quality assets, as the market is undervaluing the premium for the higher grades of iron ore. Even considering these poor dynamics, the realized pellet price have clocked in at US$163.4/t (+1.4% vs. Genial Est.), consolidating an acceleration of +1.4% q/q, despite the -1.3% y/y drop.

Base metals show weakness in nickel and improvement in copper. With production volumes of 44.9Kt (+6.7% q/q; -5.1% y/y) for nickel and 99.1Kt (+21.4% q/q; +49.5% y/y) for copper, both volumes were in line with our estimates. As for shipments, which were also within expectations, the figure was 47.9Kt (+22.2% q/q; -17.4% y/y), with a year-on-year drop in Nickel. Copper saw double-digit increases on both bases (sequential and annual), reaching 97.5Kt (+32.1% q/q; +35.4% y/y).

In terms of prices, nickel is also going through a worse time than copper. With a very weak outlook, the realized price was US$18,420/t (-5.5% vs. Genial Est), below what we expected. Although it was above the LME price curve, it suffered a loss of -13.3% q/q and -7.9% y/y. The greater supply of nickel linked to the ramp-up of mines in Indonesia is taking away any visibility of an improvement in the unit going forward. As for copper, the realized price stood at US$7,941/t (+3.1% vs. Genial Est), with a slight increase of +2.7% q/q due to the fact that the forward provisioned price helped with realization, unlike Nickel, where the outlook for the commodity futures contract curve is still decelerating.

In detail!

Now we'll go into more detail about what we think of the operating figures the company released yesterday, as well as what investors can expect from the financial release on **February 22nd**.

Iron ore surpassing guidance for fines. Despite releasing a production guidance for 2023E of 310-320Mt, Vale exceeded the upper band and reached a 2023 production volume of 321Mt for fine iron ore (89.4Mt in 4Q23). This performance is due to **(i)** an improvement in the ramp-up pace at S11D and **(ii)** satisfactory performance at Itabira and Vargem Grande. In addition, Vale also noted in its production and sales report that there was **(iii)** a higher volume of purchases from third parties.

We believe that the main reason for this atypical increase in production was the vertical of higher purchases from third parties, since the premium for high grade iron ore was lower than usual and demand for the low-grade product was more absorbent. Therefore, the reasoning used was to buy lower quality iron ore from other smaller mining companies in order to take advantage of better negotiating conditions in price arbitrage at a time when the 62% Fe curve was rising sharply, but fines premiums were negative.

One surprise regarding iron ore production was the volume in the northern system, mainly in Serra Norte and Serra Leste. We had expected a sharper drop in the operation, due to mine depletion, but there was a marginal decline of only -0.5% q/q. Following the expected ramp-up for the S11D system, we saw progress of +4.1% q/q. Looking at the numbers, the S11D operations delivered production of 20.1Mt (+4.1% vs. Genial Est.) and Serra Norte/Leste recorded 28.7Mt (+5.5% vs. Genial Est.), both therefore coming in above our expectations. The strong performance in the northern system, together with higher purchases from third parties, which reached 7.8Mt (+9.0% q/q; +56.9% y/y), were largely responsible for a volume of 89.4Mt (+3.7% q/q; +10.6% y/y).

We said in our previous report that December, according to data from the Brazilian Foreign Trade Bureau (SECEX), released in the first week of January, indicated a high volume of exports. This could, in turn, lead to a better primary production condition than we were estimating. Even so, we preferred at the time to adopt a more conservative tone and project 4Q23 with a slight sequential reduction due to the typical seasonal effect. The more conservative approach proved to be a failure, with Vale consolidating a figure of +7.3% vs. Genial Est, helped by a December with the company's highest monthly iron ore production since 2018.

Pellets surfing the ramp-up of Torto in Brucutu. Continuing the ramp-up seen last quarter, 4Q23 shows a sequential evolution in pellet production. As we estimated in the last report and also in the 3Q23 disclosure report, with the conclusion of the commissioning of the Torto dam in Brucutu (MG) and the arrival of iron ore at the pelletizing plant yard, the continuation of the ramp-up resulted in an increase in pellet production in the last quarter. With a production of 9.8Mt (-4.0% vs. Genial Est.), we witnessed a growth of +7.4% q/q and +19.2% y/y for pellets, slightly less intense than we were expecting.

The effect has now also been seen in pellet sales in 4Q23, which followed the same reasoning as production. In line with our estimate in the previous report, the company reported an increase in the volume of shipments to 10.3Mt (+19.4% q/q; +17.0% y/y), confirming the logistical delay mentioned regarding the arrival of fine iron ore at the Tubarão terminal and the subsequent pelletizing process, with robust double-digit growth on both an annual and sequential basis.

Weak contractual premiums for pellets. The spread of the price curve for the 65% Fe benchmark vs. the 62% Fe benchmark has been narrowing more and more, as the market trend has been towards low grade iron ore and less towards good quality ore, which is in weak demand. This is exactly the dynamic we discussed at the beginning of this report and in the next one.

The premium for pellets, referring to the 65% Fe curve, stood at US$20.8/t (-US$10/t vs. 3Q23), demonstrating this weakened dynamic mentioned above, and the realized price for pellets in 4Q23 clocked in at at US$163.4/t (vs. US$161.1/t Genial Est), illustrating the difficulty in achieving a fair price for the highest quality product, which we mentioned previously.

Sequentially increasing volume in base metals. With the expansion of the Salobo mines, especially the expanding capacity of Salobo III, copper production showed significant growth on a quarterly basis. Nickel, on the other hand, also saw volume progress q/q, but to a lesser extent. Copper reached a production of 99.1Kt (+2.8% vs. Genial Est.; +21.4% q/q) and nickel 44.9Kt (in line with Genial Est.; +6.7% q/q), exceeding Vale's guidance of 315-325Kt for the year for copper and meeting the guidance for Nickel of 160-175Kt, as we projected in our previous report.

As a reminder, last quarter copper production guidance was revised to 315-325kt (vs. 335-375k previously). This was due to challenges in ramping up operations at the Canadian mines, caused by the implementation of new mining methods at Coleman and maintenance at Sudbury and Thompson. In addition, maintenance activities at Salobo I and II also contributed to difficulties in delivering a more favorable copper performance last quarter.

The drop in guidance has a significant impact on the assessment of production results. Although total copper production in 2023 reached 326.6kt, slightly above the upper band of the revised guidance, it is crucial to bear in mind this mid-year reduction in guidance, so as not to accidentally interpret the data as too positive.

Table 5. Production Summary Vale (4Q23 vs. Genial Est.)

Vale Production Summary (Kt)	4Q23 Reported	4Q23E Genial Est.	% R/E
Iron Ore[1]	89.397	83.312	7,3%
Pellets	9.851	10.260	-4,0%
Nickel	44,9	44,7	0,4%
Copper	99,1	96,4	2,8%

Production Summary (Kt)	4Q23 Reported	3Q23 Reported	% q/q	4Q22 Reported	% y/y
Iron Ore[1]	89.397	86.239	3,7%	80.852	10,6%
Pellets	9.851	9.175	7,4%	8.261	19,2%
Nickel	45	42,1	6,7%	47,3	-5,1%
Copper	99	81,6	21,4%	66,3	49,5%

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

Source: Genial Investimentos, Vale

Gap between production and sales of fines above estimates. The reported production volume for fine iron ore was higher than the sales volume in 4Q23, reaching a gap of ~12% (vs. ~3% Genial Est.) a disparity not seen since 4Q28 (considering only 4Qs). This confirms information that was raised in conversations with Vale, that the company would increase the volume of inventory in the last quarter of the year.

We believe that, in addition to the company's explanation of the need to rebuild inventories since 2022/21 period, which we explained in the previous report attached (link), we would also point out that the difference may be due to the inconsistent premium negotiated by the market for iron ore content above the 62% reference. The premium presented in the production and sales report was negative (-US$1.1/t), indicating that, rationally, Vale may have added to stockpile a larger volume of its best mix products, considered high grade, generating this asymmetry.

It is also important to mention that not all of this 12% gap is related to the constitution of operating inventories. Of course, the size is abnormal considering the typical seasonality of the 4Qs, so in fact a significant portion of the ~12% will become inventory. However, as we dealt with more emphatically in the last report, the natural imbalance between production vs. sales derives from other explanations: **(i)** in order to produce 1t of pellets, 1.1t of fines must be produced. In other words, there is a loss of 0.1t for every 1t of pellet in the sintering process; **(ii)** greater humidity in extraction vs. the loss of mass in reducing humidity throughout the logistics process or subsequent storage before shipment; and **(iii)** stock in transit.

Base metals cooldown with weaker nickel curve. Within the base metals segment, nickel and copper had opposite price dynamics. Nickel recorded an unfavorable performance due to natural market conditions, even though it was above the LME curve. As a result, its price fell sequentially by -13.3% t/t, reaching US$18,420/t (-5.5% vs. Genial Est). As for copper, the average realized price was below the LME curve, but the contribution of the provisional price resulted in an increase of +2.7% t/t, reaching US$7,941/t (+3.1% vs. Genial Est).

Table 6. Shipments Summary Vale (4Q23 vs. Genial Est.)

Vale Shipments Summary (Kt)	4Q23 Reported	4Q23E Genial Est.	%R/E
Iron ore fines	77.885	80.747	-3,5%
Pellets	10.285	10.845	-5,2%
ROM	2.158	1.963	9,9%
Nickel	47,9	45	7,4%
Copper	97,5	97	1,0%

Shipments Summary (Kt)	4Q23 Reported	3Q23 Reported	% q/q	4Q22 Reported	% y/y
Iron ore fines	77.885	69.714	11,7%	81.202	-4,1%
Pellets	10.285	8.613	19,4%	8.789	17,0%
ROM	2.158	2.232	-3,3%	1.963	9,9%
Nickel	47,9	39,2	22,2%	58,0	-17,4%
Copper	97,5	73,8	32,1%	72,0	35,4%

Source: Genial Investimentos, Vale

Revenue to come with significant improvement q/q and y/y. We anticipate net revenue for 4Q23 to reach US$13.3bn Genial Est. (+11.4% q/q; +7.8% y/y). In this context, the iron ore fines segment will increase up to US$9.2bn Genial Est. (+25.8% q/q; +15.4% y/y), while pellets are set to reach US$1.7bn Genial Est. (+21.0% q/q; +15.4% y/y). As for base metals, we project a sequential increase in revenue, with nickel reaching US$1.4bn Genial Est. (+40.9% q/q; -29.7% y/y) and copper clocking in at US$774mn Genial Est. (+17.3% q/q; +55.5% y/y). Looking at the year-to-date, projected net revenue for 2023 is down -5.3% y/y, totaling US$42bn. Despite a notable improvement in 4Q23, both sequentially and y/y, the performance for 2023 should be lower than the previous year, when revenues amounted to US$44bn.

Table 7. Net Revenue Vale (4Q23 Genial Est.)

(US$ millions)	4Q23 Genial Est.	3Q23 Reported	% q/q	4Q22 Reported	% y/y
Net Revenue	**13.300**	**10.610**	**25,4%**	**11.963**	**11,2%**
Iron Ore Fines	9.214	7.327	25,8%	7.767	18,6%
Pellets	1.681	1.388	21,0%	1.456	15,4%
Nickel operations	1.441	1.023	40,9%	2.051	-29,7%
Copper operations	559	660	-15,3%	498	12,3%
Others	190	212	-10,2%	207	-8,1%

Source: Genial Investimentos, Vale

Even with production and sales gap, dilution should keep C1 within guidance. Due to the significant increase of 11.7% q/q in shipments of iron ore fines, even if this increase could be even more aggressive due to the larger than recent historical gap in production vs. sales, we still foresee a greater dilution in fixed costs than we have been observing throughout the year. This should result in a reduction in C1/t (including third-party purchases) for 4Q23, which is within the annual guidance of 22.5/t (excluding third-party purchases).

Our estimate is US$21.7/t Genial Est. (-15.1% q/q; +0.3% y/y), for the process considering third-party purchases. Being a highly inflated market, the mining sector is facing a period in which production costs are very high, influenced by factors such as ESG measures and the very nature of the product process, related to mine depletion and greater movement of masses with no economic value to reach the ore body, as we have been mentioning in our reports for some time.

Due to the conflict in the Middle West, which is affecting the Red Sea, bunker fuel (marine oil) is more expensive and deliveries to some customers are being hampered by the interruption of routes in the area and detour via alternative routes, including the cape of Good Hope, which increases the distance and makes freight more expensive. However, according to Vale, the company has a very small number of clients where delivery needs to pass through the Red Sea region, which means that this does not have a direct impact on costs and that revenue will not change much if Vale end up deciding to skip deliveries over there. However, it is true that the situation may have an indirect impact on cost of freight yet to be measure.

Therefore, our projection points to a nominal consolidated cost of US$6.4bn Genial Est. (+1.8% q/q; -11.1% y/y), with a significant increase in freight costs, reaching the US$1.5bn Genial Est. mark, representing an increase of +13.5% q/q. This increase in freight is attributable to the growth in SSY from 20.4/t in 3Q23 to 23.2/t in 4Q23 Genial Est. (+13.8% q/q). Given that Vale makes a large part of its deliveries using its own vessels, the increase in freight doesn't impact the company as much compared to other companies (like CMIN, for example), where the increase could be much worse.

Table 8. COGS Vale (4Q23 Genial Est.)

(US$ millions)	4Q23 Genial Est.	3Q23 Reported	% q/q	4Q22 Reported	% y/y
COGS	**(6.358)**	**(6.243)**	**1,8%**	**(7.155)**	**-11,1%**
Iron Ore Fines	(3.450)	(3.408)	1,2%	(3.744)	-7,8%
Pellets	(790)	(669)	18,1%	(735)	7,5%
Nickel operations	(845)	(925)	-8,6%	(1.378)	-38,7%
Copper operations	(329)	(341)	-3,4%	(279)	18,1%
Others	(59)	(120)	-50,7%	(119)	-50,3%
Depreciação e Amort.	(884)	(780)	13,4%	(900)	-1,7%

Source: Genial Investimentos, Vale

Table 8. COGS Vale (4Q23 Genial Est.)

(US$ millions)	4Q23 Genial Est.	3Q23 Reported	% q/q	4Q22 Reported	% y/y
COGS	**(6.358)**	**(6.243)**	**1,8%**	**(7.155)**	**-11,1%**
Iron Ore Fines	(3.450)	(3.408)	1,2%	(3.744)	-7,8%
Pellets	(790)	(669)	18,1%	(735)	7,5%
Nickel operations	(845)	(925)	-8,6%	(1.378)	-38,7%
Copper operations	(329)	(341)	-3,4%	(279)	18,1%
Others	(59)	(120)	-50,7%	(119)	-50,3%
Depreciação e Amort.	(884)	(780)	13,4%	(900)	-1,7%

Source: Genial Investimentos, Vale

EBITDA with high expectations. We project a Proforma EBITDA for 4Q23 to be posted at US$7.2bn Genial Est. (+61.2% q/q; +44.1% y/y), resulting from the remarkable revenue from fine iron ore and pellets, which will reach, according to our calculations, US$9.2bn (+25.8% q/q) and US$1.7bn (+21.0% q/q), respectively. With revenue rising more strongly than the rise in costs, even considering the more expensive freight, C1/t should show satisfactory impacts from the greater dilution capacity, and will be within guidance, putting an end to the more damaging consequences from a margin point of view in relation to the Ponta da Madeira logistical hurdle, which affected the company in 1Q23.

Table 9. EBITDA Vale (4Q23 Genial Est.)

(US$ millions)	4Q23 Genial Est.	3Q23 Reported	% q/q	4Q22 Reported	% y/y
Proforma EBITDA	7.238	4.490	**61,2%**	5.024	**44,1%**
Iron Ore Fines	5.578	3.087	80,7%	3.978	40,2%
Pellets	914	818	11,7%	743	23,0%
Nickel operations	553	235	135,1%	610	-9,4%
Copper operations	418	236	77,2%	165	153,4%
Others	(224)	114	-297,5%	(472)	-52,5%

Source: Genial Investimentos, Vale

We project net income up +49% q/q. Despite estimates for financial result getting a lift up to -US$916m (vs. -US$421m in 3Q23), we see a significant improvement in EBITDA compared to the previous quarter. We estimate a growing net income, reaching US$4.3bn Genial Est. This represents an increase of +49.1% q/q and +14.5% y/y. Vale's total net income forecast for 2023 is US$10.7bn Genial Est., a decrease of -37.7% y/y.

Table 10. Income Statement Vale (4Q23 Genial Est.)

(US$ millions)	4Q23E Genial Est.	3Q23 Reported	% q/q	4Q22 Reported	% y/y
Net Revenue	**13.300**	**10.610**	**25,4%**	**11.963**	**11,2%**
COGS	(6.358)	(6.243)	1,8%	(7.155)	-11,1%
Proforma EBITDA	**7.238**	**4.490**	**61,2%**	**5.024**	**44,1%**
EBITDA Margin (%)	54,4%	42,3%	12,11p.p	42,0%	12,42p.p
Adjusted EBIT	**5.604**	**3.405**	**64,6%**	**3.749**	**49,5%**
EBIT Margin (%)	42,1%	32,1%	10,04p.p	31,3%	10,79p.p
D&A	(884)	(780)	13,4%	(900)	-1,7%
Financial Result	(916)	(421)	117,6%	(658)	39,2%
Net Income	**4.289**	**2.876**	**49,1%**	**3.747**	**14,5%**
Net Margin (%)	32,2%	27,1%	5,14p.p	31,3%	0,92p.p

Source: Genial Investimentos, Vale

Our Take on Vale

As for the 4Q23 projection, we believe that Vale fits the bill as an opportunity, with the production and sales report indicating a high probability of good figures to be reported on February 22. However, for a considerable period in recent months we have seen the stock suffer from political and external rumors that end up inaccurately moving the market (often in a panic reaction and not based on fundamentals). Among the positives, it is worth highlighting: **(i)** our expectation of mild improvement in China in 2024 vs. 2023 **(ii)** dividend distribution, with a potential **Dividend Yield of 11-13%**, depending on the extraordinary distribution, **(iii) EV/EBITDA 24E** of **~3.95x** vs. 4.85x historical average, and **(iv)** considerable margin in relation to the price of iron ore, mainly by the implicit level observed today in our model vs. spot curve.

We believe that China will demand more steel domestically speaking during 2024, despite reducing total production to less than 1Bt (exports may reduce a little), in the face of more promising segments, such as automotive, infrastructure and, above all, social housing. As for social housing, the People's Bank of China (PBoC) has released a ¥1 trillion (~US$240bn) package for development, so demand should pick up soon, reducing housing inventories by ~10%, according to our preliminary calculations. More about that in our last sector report (link).

We expect strong earnings in 4Q23, and even higher dividends. The company reported strong figures for production and sales, even though the volume of shipments was lower in fines compared to our expectations, the higher-than-expected price compensated. As a result, we expect 4Q23 to bring high cash flow generation, which we believe should be released in the form of remuneration to shareholders (probably dividends but could be also equity interest or buyback). We are now projecting, after recalculating the P&L, a distribution for **4Q23E of US$0.50 per share** for **ADRs-NYSE** (vs. US$0.47 in 3Q23), further increasing the dividend paid last quarter. This corresponds to **~R$2.90 per share** for **VALE3-B3**, or R$2.5bn.

Elastic safety margin in iron ore prices. In addition to the great potential to pay dividends, to prove the availability safety margin to burn on the price of iron ore, which is highly related to uncertainties in China, we note that as way of converge on the current market valuation, we would need to consider a negotiated price for the commodity of ~US$75/t (flat all the way down), which today trades above +US$130/t for 62% Fe. Also, we do believe that price levels should remain above +US$100/t for the whole of 2024, given the supply constraint, with none of the majors players (Vale, BHP and Rio Tinto) adding production ramp-up this year.

Political interventions within the company's management. Regarding the notification signed on January 26 by Renan Filho, the Minister of Transport in Brazil, we understand that Brazilian authorities linked to government cabinet are seeking some way of pressuring Vale to elect Guido Mantega to the position of CEO as the election day it getting closer, or as a form of retaliation after the Minister of Mines and Energy, Alexandre Silveira, polled Vale's board members about the potential acceptance of Guido Mantega to occupy the position... having somehow received a negative response about the viability of the appointment. News flow is spreading a lot of rumors about it (somethings might be true, actually), even saying that Guido Mantega has withdrawn himself from the election.

Although we think that the weight placed on the company's stock performance in recent days is much greater due to the pricing of the 62% Fe iron ore curve, which has fallen close to Vale's YTD decline (both ~11% since January 1), there is still no denying that the political scenario is causing the shares to go through moments of greater volatility in recent days. However, in any case, we don't consider as material the possibility of Vale giving in to the government in relation to the EFC (Carajás Railroad) and EFVM (Vitória Minas Railroad) concessions, both federal concessions that were renewed early during Jair Bolsonaro's term in office.

The amount requested for the readjustment, which would be based on the jurisprudence of the case with Rumo, is R$25.7bn. The amount would refer to grant fees not paid during the renewal. Unlike the case concerning Mariana (MG) and the lawsuit that potentially involves the condemnation of R$47.6bn for payment by Samarco (JV of Vale and BHP), this time Vale said it had received the notification and would analyze the document signed by the Minister of Transport.

Vale has stated that it is fulfilling the obligations of its railway renewals at the beginning of 2020 and is making progress on the Capex curve for several projects. This contrasts with the recent renegotiation of the Malha Paulista project by Rumo, which has fallen behind on the Capex curve. Although Vale's capital expenditures may increase due to the revisions of the FICO/urban mobility projects, the company may also renegotiate the scope of the projects. However, due to Vale's progress on the Capex curve, we believe it is more likely to stick to the current contract and only renegotiate if the conditions offered are better than the current ones (oddly enough, Rumo came out with a win-win condition from the renegotiation).

Beyond normal. Vale's production figures for 4Q23 showed an unusual increase of +3.7% q/q, deviating from the company's historical trend of lower production in the 4Qs due to the seasonal effect. There was also a larger than normal difference between production and sales (~12%), indicating a high accumulation of inventories. Iron ore prices remain strong in general, but quality premiums are low due to the lack of real-time demand on the top end. Therefore, at this time, we do not believe that Vale has stockpiled a larger amount of fine iron ore to sell more in the rainy season (Q1 and part of Q2). Our analysis suggests that it will later ship this inventory addition that was made in 4Q23 only when the pricing dynamics for quality premium (above 62% Fe) in fines are at more normalized levels.

For us, even with the anemic premium situation for high grade, Vale remains discounted, considering its **(i)** high cash flow potential given that the average quality of 62% Fe is 30% above the historical average at ~US$130/t. In addition, we see the **(ii)** expectation of healthy dividends and the **(iii)** ability to remain financially robust, even if iron ore prices fall apart (if it reaches ~US$110/t, it still generates an FCF yield of ~10% to 11%). Therefore, Vale's stock is considered attractive, trading below the 62% Fe spot price, despite a 20% increase in iron ore prices vs. our implicit calculation in the Vale model (after the commodity hike at the end of 2023). We have a constructive view on the company, following with a **BUY rating** with a **12M Target Price** of **R$82.50** for **VALE3-B3** and **US$16.75** for **ADRs-NYSE**, indicating an **upside** of **19.27%**.

Appendix: Vale

Figure 1. Vale – Income Statement in US$ Millions (Genial Est. 2023-2028)

Income Statement	2023E	2024E	2025E	2026E	2027E	2028E
Net Revenue	**42.019**	**43.005**	**43.540**	**43.639**	**43.135**	**44.642**
(-) COGS	(22.451)	(25.218)	(26.388)	(27.587)	(28.752)	(29.890)
Gross Profit	**19.567**	**17.788**	**17.152**	**16.052**	**14.383**	**14.752**
(-) Expenses	(3.327)	(4.586)	(3.465)	(3.527)	(3.025)	(3.002)
Adjusted EBITDA	**18.281**	**16.269**	**16.981**	**15.889**	**14.858**	**15.388**
(-) D&A	(3.099)	(3.227)	(3.392)	(3.549)	(3.698)	(3.840)
EBIT	**15.181**	**13.043**	**13.589**	**12.340**	**11.160**	**11.548**
(+/-) Financial Result	(2.169)	(2.697)	(2.608)	(2.580)	(2.728)	(2.577)
(-) Taxes	(2.372)	(981)	(1.032)	(927)	(804)	(854)
Net income	**10.640**	**9.365**	**9.950**	**8.833**	**7.628**	**8.117**
Profitability						
Net margin (%)	25,32%	21,78%	22,85%	20,24%	17,68%	18,18%

Figure 2. Vale– Cash Flow in US$ Million (Genial Est. 2023-2028)

Cash Flow (FCFF)	2023E	2024E	2025E	2026E	2027E	2028E
Net Revenue	**42.019**	**43.005**	**43.540**	**43.639**	**43.135**	**44.642**
(-) COGS	(22.451)	(25.218)	(26.388)	(27.587)	(28.752)	(29.890)
Adjusted EBITDA	**18.281**	**16.269**	**16.981**	**15.889**	**14.858**	**15.388**
Adjusted EBIT	**15.181**	**13.043**	**13.589**	**12.340**	**11.160**	**11.548**
(-) Taxes	(2.372)	(981)	(1.032)	(927)	(804)	(854)
(+) D&A	3.099	3.227	3.392	3.549	3.698	3.840
(+/-) Δ WK	(412)	(1.254)	690	(553)	-177	(112)
(-) Capex	(5.928)	(6.500)	(6.500)	(6.500)	(6.500)	(6.500)
FCFF	**9.568**	**7.534**	**10.140**	**7.909**	**7.377**	**7.922**

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