genial Equity Research

VALE

1Q23 Review: Good company at a fair price or fair company at a good price?

Metals & Mining

Main takeaways:

(i) Revenue declined sharply (-29.4% q/q; -25.1% y/y); **(ii)** Fines iron ore as the main negative standout; **(iii)** Lower premiums penalize pellets; **(iv)** Copper aids revenue from basic metals, but division also came in weak; **(v)** The higher-than-expected cost C1 (+1.8% Genial Est.) is offset by a lower freight cost; **(vi)** Even removing one-off costs, beating the guidance for the cost C1 seems challenging; **(vii)** Freight cost dropping (-4.3% Genial Est.), following the trend of the spot reference curve; **(viii)** Less maintenance volume alleviates q/q costs; **(ix)** EBITDA margin up (+1.83pp t/t), even with weaker nominal (-8.2% Genial Est); **(x)** Fine iron ores with a weak EBITDA; **(xi)** Pellets EBITDA slightly above expectations (+6.2% Genial Est.) due to cost management; **(xii)** Base metals unit still performing below the potential; **(xiii)** No major provisions for Mariana yet, which makes us more pessimistic going forward; **(xiv)** Net income below estimate (-8.4% Genial Est.), even without the expected provision.

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Company

VALE US Equity
Buy

Price: US$ 13,89 (26-Apr-2023)
Target Price 12M: US$ 17,30 (NYSE)

VALE3 BZ Equity
Target Price 12M: R$ 87,50 (B3)

Vale released yesterday, on 04/26/2023, after the market closed, its result for 1Q23. **The numbers came in line with the expectation of a very weak quarter**, **caused by** the seasonality, common to 1Qs, **of a higher pluviometry volume**. However, despite the rain being typical of this period of the year, in this quarter not only affected production, but also **generated a negative impact on sales, with damage to the infrastructure of the port of Ponta da Madeira (PA),** which ended up interrupting for days the shipments of iron ore coming from the North System, **consolidating a quarter with a revenue performance far below the potential of the Company.** Despite this, **the lower volume of shipments caused a significant decrease in costs,** which we consider the positive point of 1T23, since the Company, even with difficulties, was able to increase its EBITDA margin.

With the macro environment playing in favor of the Company in 1Q23, we saw the reference iron ore curve for the 62% Fe accelerating +26% q/q to US$125/t, but nowadays the curve is already showing signs of slowdown, so project that 2Q23 should be marked by a sharp fall. Despite the average seen so far being US$119/t, the last few days have presented strong recoil in the reference CH 62 Fe Swap Spot Index (CN62S-BBG), reaching US$106/t at yesterday's market close, which should pull the average down, in a continuation of the more pessimistic scenario by the market, **which finally seems to be more rational about the iron ore curve**.

Retrospective: Production and Sales Operational Report

With the higher volumes of rainfall due to the seasonality, the operational report for the 1Q23 of Vale, titled the Company's Report on Production and Sales, reported last week, showed that, in addition to the production difficulty, the mining company had a great obstacle related to its logistics distribution. Partial damage to key infrastructures for the evacuation of the ore, especially at the port of Ponta da Madeira (PA), responsible for the course of the ore from the North System, created a gap between production and sales, which came 13.7% below our expectations for the fines, as we analyzed in our last report.

According to management, the gap will be closed over the 2H23, with shipments arriving at their destinations (mainly China) at a time when the reference curve for the commodity should be lower than the current one, by our estimates. Thus, our assessment is that, even if there is appetite in the market to absorb this volume of iron ore (which does not seem to be the real problem), the question is at what price it will be bought. We believe that sales will be affected at a price significantly lower than they would have been if the shipments had occurred during the 1Q23. **According to our calculations, this fact will represent an iron ore (fines) revenue loss for Vale over 2023 of ~7.5%.**

During the 1Q23, the realized price for fines increased, saving greater losses in top line; still, without selling a more significant volume of higher quality iron ore from the North System, it achieved lower premiums in the quarter. In addition, pellets continued to lose premium relative to the reference curves, dragging down the realized price by -1.9% q/q, even with the iron ore curve 65% Fe rising by +26% q/q, on its way to normalization, as we warned in our latest reports.

1Q23 analysis

Revenue declined sharply. Reporting a net revenue of $8.4bn (-29.4% q/q; -25.1% y/y), we observe a sharp contraction, caused by several negative factors: **(i)** weak seasonality for production due to rains, **(ii)** damaged infrastructure that prevented product from being shipped, and **(iii)** decreased premiums for fine minerals and pellets.

Fines iron ore as the main negative standout. The business unit with the highest representation, fine minerals, were the main drivers of revenue decline; even with a price increase of +13.6% q/q, the sales decline of -43.5% q/q was more significant, resulting in revenue from sales of fine minerals dropping to US$4.9b (-35.7% q/q; -31.1% y/y).

Lower premiums penalize pellets. The normalization of premiums for pellets, which came in weaker than expected for the quarter, building up a barrier to revenue formation in the unit, which arrived at US$1.3bn (-9.2% q/q). Therefore, lower premiums influenced the realized price negatively, even with an increase of +14% q/q in the reference curve for the iron ore 65% Fe; in addition to an increase in production, seen both in comparison q/q and y/y, which helped revenue not decline even more acutely.

Copper aids revenue from basic metals, but division also came in weak. Our estimates for the basic metals' unit were slightly differently, mainly due to an overlap of assets that makes individual designation difficult, and small variations compared to gold, silver, PGMs, and cobalt, which are relatively insignificant in relation to the total.

Therefore, a lower-than-expected revenue from nickel reflects a higher-than-expected revenue from copper, with the consolidated unit in line with the estimated US$2.0bn vs. US$2.1bn Genial Est.

Furthermore, the group of other revenue arrived at US$97mn in 1Q23, with a slightly more significant difference compared to our projections, which resulted in the top line coming in below expectations (-4.6% Genial Est.). Our interpretation is that this fact should not be considered a negative point for the quarter, as it does not have much significance for revenue consolidation and the company's business model.

Table1. Net Revenue Vale (1Q23 vs. Genial Est.)

(US$ millions)	1Q23 Consolidado	1Q23E Genial Est.	% R/E	4Q22 Consolidado	% a/a	1Q22 Consolidated	% y/y
Net Revenue	**8.434**	**8.843**	**-4,6%**	**11.941**	**-29,4%**	**11.260**	**-25,1%**
Iron ore fines	4.982	4.981	0,0%	7.745	-35,7%	7.232	-31,1%
Pellets	1.322	1.322	0,0%	1.456	-9,2%	1.364	-3,1%
Nickel operations	1.509	1.657	-8,9%	2.051	-26,4%	1.458	3,5%
Copper operations	524	487	7,7%	498	5,2%	474	10,5%
Others	97	397	-75,6%	191	-49,2%	732	-86,7%

Source: Genial Investimentos, Vale

Source: Vale, Genial Investimentos

The higher-than-expected cost C1 is offset by a lower freight cost. In the unit of fine iron ore minerals, the total cost came in line with our estimate, at -US$2.1bn (+1.8% Genial Est.), but with a slightly different disposition than projected, since the cost C1 was US$26.7/t (+11.9% Genial Est.), caused by negative impacts from **(i)** the delay in the shipment of the mineral, **(ii)** strong inflation, and **(iii)** additional costs from the ramp-up of new plants.

Even removing one-off costs, beating the guidance for the cost C1 seems challenging. Although we expect C1 to cool down in 2Q23, due to an improvement in production, even with the removal of some non-recurring costs that were present in this quarter, we still observe geological inflation and increasing variable costs driving C1 up by +US$1.6/t and the new way of operating by +US$0.3/t, and therefore these costs seem more persistent from now on and should make delivering C1 within the guidance for 2023 between US$19.5-20/t difficult, as we anticipated in our pre-release report.

Freight cost dropping, following the trend of the spot reference curve. Reporting a freight cost of US$17.8/t (-4.3% Genial Est.), the Company followed the movement seen in the SSY reference curve, Tubarão-Qingdao, slightly stronger than expected, since it cooled down -US$0.8/t in the quarter, against our projection of -US$0.3/t, which indicates that protected/hedged position against increase in freight prices by its own fleet gets partially benefits from lower prices, as we motioned in our last report.

Less maintenance volume alleviates q/q costs. With higher availability of pellets and the end of some maintenance, pellets had a cost of -US$648mn in 1Q23, slightly below our expectations. With a drop of -11.8% q/q, we understand that less maintenance reduced the need for capital, while we still see an increase of +23.2% y/y, caused by a ramp-up in production, which grew +20.1% in the period.

Table2. COGS Vale (1Q23 vs. Genial Est.)

(US$ millions)	1Q23 Consolidado	1Q23E Genial Est.	% R/E	4Q22 Consolidado	% a/a	1Q22 Consolidated	% y/y
CPV (COGS)	**(4.949)**	**(5.134)**	**-3,6%**	**(7.155)**	**-30,8%**	**(4.871)**	**1,6%**
Iron ore fines	(2.197)	(2.159)	1,8%	(3.744)	-41,3%	(2.119)	3,7%
Pellets	(648)	(683)	-5,1%	(735)	-11,8%	(526)	23,2%
Nickel operations	(1.112)	(1.120)	-0,7%	(1.378)	-19,3%	(909)	22,3%
Copper operations	(270)	(287)	-6,1%	(279)	-3,2%	(227)	18,9%
Others	(109)	(130)	-16,3%	(144)	-24,3%	(445)	-75,5%
D&A	(613)	(755)	-18,8%	(875)	-29,9%	(645)	-5,0%

Source: Genial Investimentos, Vale

Source: Vale, Genial Investimentos

EBITDA margin up, even with weaker nominal. Vale brought in a number slightly below our estimates (-8.2% Genial Est) in its Proforma EBITDA line, consolidating US$3.6bn (-26.3% q/q; -43.8% y/y), with a strong retraction both q/q and y/y caused by lower values from the fine iron ore units and nickel operations. Even so, in the face of a considerable revenue setback, the Company reached an EBITDA margin of 43.7% in 1Q23 vs. 45.4% Genial Est.

Fine iron ores with a weak EBITDA. Within steel mill solutions, fines minerals division was reported with an EBITDA of US$2.6bn in 1Q23 vs. US$2.8bn Genial Est., slightly below our estimate, on account of higher costs in SG&A, R&D and shutdown lines, and minimally up COGS contributing to a drop in EBITDA.

Pellets EBITDA slightly above expectations due to cost management. Clocked in an EBITDA of US$667mn, the pellets unit delivered a +6.2% Genial Est. result, pulled by lower-than-expected costs. Despite being above our estimates, there is a -10.2% q/q and -20.3% y/y decline, caused by a large decrease in premiums paid on pellets.

Base metals unit still performing below the potential. With the consolidated Nickel + Copper unit posting a delivery of US$573mn (-29.5% q/q; -26.3% y/y), we see that the nickel and copper operations are still performing below their potentials; but the unit should show more significant performance improvements if the Company delivers the production capacity expansion projects, in which it has high growth guidances for the medium/long term, probably counting on the help of a more experienced player, which should come on board in its carve-out, which is accounted to be released to the market still in 1H23.

Given that in the last quarter both commodities had a good performance, driven by **(i)** a large inventory burn and **(ii)** an increase in their realized price, we observe a drop in nickel's EBITDA q/q by -42.1%, since the inventory burn was not maintained; while for copper, even with falling sales, a new increase in its realized price was able to more than compensate to cause a +8.4% q/q increase.

Table3. EBITDA Vale (1Q23 vs. Genial Est.)

(US$ millions)	1Q23 Consolidado	1Q23E Genial Est.	% R/E	4Q22 Consolidado	% a/a	1Q22 Consolidated	% y/y
EBITDA Proforma	**3.687**	**4.015**	**-8,2%**	**5.002**	**-26,3%**	**6.565**	**-43,8%**
Iron ore fines	2.638	2.832	-6,9%	4.070	-35,2%	5.134	-48,6%
Pellets	667	628	6,2%	743	-10,2%	837	-20,3%
Nickel operations	353	497	-29,0%	610	-42,1%	525	-32,8%
Copper operations	220	190	16,0%	203	8,4%	253	-13,0%
Others	(191)	(132)	44,4%	(624)	-69,4%	(184)	3,8%

Source: Genial Investimentos, Vale

Source: Vale, Genial Investimentos

No major provisions for Mariana yet, which makes us more pessimistic going forward. We expected that the quarter would be marked by a higher provision of values for Samarco/Renova, related to the reparation processes of the Mariana accident (MG), with which Vale should present to the market, in the near future, the closing of an agreement to fix compensation's amount.

With the provisioning guidance disclosed by Vale itself, specific for Samarco/Renova, going from US$0.4bn in 2022 to US$1.9bn in 2023, we understand that the Company should be affected in the bottom line by higher provisions, but that they have not yet been processed with intensity in the P&L in this 1Q23.

It is also important to consider that, even after talking to the Company, we did not have a clear visibility on the magnitude of the amount of provisions for Mariana (MG) and Brumadinho (MG) that would be going through the P&L in 1Q23, so we made estimates considering a more normalized distribution throughout the year so as not to burden any quarterly result to the detriment of another.

As it seems to us that no representative amount was processed through the P&L in this quarter, we understand that it is precisely Vale that will overload the other quarters of the year to pass the increase in provisions in its result. We conclude, at this point, that even in the hypothesis of a less pessimistic scenario than the one we are projecting (US$2.3b vs.US$1.9b of guidance), naturally the overweight on quarters ahead should break the recovery of the numbers after the Company's Proforma EBITDA line throughout the year.

Net income below estimate, even without the expected provision. Reversing the effects that the projected provisions would do to net income, we came in at an estimate of US$2.4bn for 1Q23 vs. the delivery of US$1.8bn, still about -25% below our estimates. Net margin came in at 21.8% vs. 22.7% in 4Q22, falling -0.89p.p. q/q, consolidating the weak result that we and consensus were already expecting.

Table3. Income Statment Vale (1Q23 vs. Genial Est.)

	1Q23	1Q23E		4Q22		1Q22	
(US$ millions)	**Consolidado**	**Genial Est.**	**% R/E**	**Consolidado**	**% a/a**	**Consolidated**	**% y/y**
Net Revenue	**8.434**	**8.843**	**-4,6%**	**11.941**	**-29,4%**	**11.260**	**-25,1%**
COGS	(5.403)	(5.134)	5,2%	(7.155)	-24,5%	(4.871)	10,9%
Adjusted Proforma EBITDA	**3.687**	**4.015**	**-8,2%**	**5.002**	**-26,3%**	**6.565**	**-43,8%**
EBITDA Margin (%)	43,7%	45,4%	-1,69p.p	41,9%	1,83p.p	58,3%	-14,59p.p
Adjusted EBIT	**2.920**	**2.273**	**28,5%**	**3.727**	**-21,7%**	**5.719**	**-48,9%**
EBIT Margin (%)	34,6%	25,7%	8,92p.p	31,2%	3,41p.p	50,8%	-16,17p.p
D&A	(656)	(803)	-18,3%	(900)	-27,1%	(686)	-4,4%
Financial Result	(530)	72	-837,2%	(782)	-32,2%	1.041	-150,9%
Net income	**1.837**	**2.005**	**-8,4%**	**3.725**	**-50,7%**	**4.670**	**-60,7%**
Net margin (%)	21,8%	22,7%	-0,89p.p	31,2%	-9,41p.p	41,5%	-19,69p.p

Source: Genial Investimentos, Vale

Source: Vale, Genial Investimentos

Our Take on Vale

As we commented, Vale's 1Q23 was a poor result considering the Company's true potential. Coupled with seasonally weak production for the 1Qs and logistics problems for ore shipping, we see breakeven cost for fine iron ore clocking in at US$61.7/t vs. US$52.3/t in 4Q22, which leads us to uncertainty as to how much necessarily of this cost/t increase seen in the quarter will remain in the new C1 structure going forward.

At this early stage, it seems to us that a significant portion of the +18% q/q increase in Breakeven is linked to a number of non-recurring items, among them: **(i)** negative premiums, **(ii)** higher C1/t costs observed in this quarter due to the low dilution in consequence of the interruption of shipments at the port of Ponta da Madeira (PA) , and **(iii)** higher distribution costs, which should already be normalized in 2Q23, through a better flow of vessels, and resumption of production after the rainy season, thus increasing fixed cost dilution.

Therefore, we understand that the main points responsible for causing a weak 1Q23 should be partially recovered in 2Q23, with the exception of iron ore prices. We emphasize **our calculation that Vale should lose 7.5% of fines revenues because it did not take advantage of the iron ore price hike in 1Q23 to ship this volume from the Northern System.** Even if the market absorbs this volume in 2H23, it will be sold at a lower price than it would have been in this quarter, thus causing a high single digit loss in fine iron ore revenues.

We reinforce Vale's high cash generation capacity. Although it was a quarter with an intense EBITDA detraction, the Company reached a Cash Flow (FCFF) of US$2.2bn, equivalent to 3.5% of its current market cap in a single quarter, and although it was helped by a release in pressure of working capital, we see the result as it's not as bad from a dividend payment point of view. As we made clear in our last report, despite the expectation of a weak quarter, Vale will continue to be, in our view, a company with a high Dividend Yield (9.11% 23E), due to its great cash generation capacity (12.25% FCF Yield 23E), as well as its responsible capital allocation.

Has Vale's stock prices sudden fall made sense? Based on the information that Vale will continue to be a large cash generator, and with our less constructive view of the suppressed steel demand in China, a view that consensus is only just starting to see, we have been observing Vale's stock (VALE3-B3) correcting very sharply in the last 15 days, falling in free fall from -15%.

We believe that this sharp retraction in Vale's stock price was, in fact, excessive. The problem we find is once again the lack of market rationality. As we have been commenting on since our report on Chinese reopening, published at the end of January, we believed that market agents were pricing in the iron ore curve based on speculative movements and driven by an exaggerated future expectation of the suppressed steel demand that would be unlocked post Covid-zero policy, creating the well-known phenomenon in the market known as the Rally.

This irrational exuberance among market agents created an euphoria around the investment theses of the Metals & Mining sector, especially the mining companies, that iron ore sales would be much higher in 2023 than they were in 2022. The price of the reference iron ore curve jumped to levels above US$110/t, reaching a peak of US$130/t in late March, levels we considered to be irrational and that we stated in our opinion that level would not be sustainable throughout the year. And that is exactly what happened, the price of ore started to fall, with the same voracity it rose, resulting in a loss of ~17% in less than 30 days. We commented extensively in our sectorial report from 1Q23, published a little over 2 weeks ago, on why the market is starting to be more rational and putting an end to the iron ore rally. We strongly recommend reading this report to better understand the context in which Vale is operating and what we expect to happen with the iron ore curve in near future.

Given this scenario, we believe that in the same way that the market got its hand wrong and was very intense in buying mining stocks right after the expected reopening (Vale up +17% in 2 weeks in November), we believe that the market got its hand wrong again now, just reversing the direction. Before the flow was buyer, now the flow was seller.

Through talking to institutional investors, we have seen a considerable flow of short positions set up within the last few weeks, as well as a significant volume of orders to dump part of the position that large funds had in Vale. **We see this movement as short term, many investors with whom we have contact with like the Company, mainly because it has a robust position in cash generation**, so that we believe that after the bad mood of the market, **the buyer flow should return.**

To illustrate, just before the news flow linked information about the Chinese reopening, in late October, Vale (VALE3-B3) was trading near R$75 with a spot iron ore curve at ~US$100/t. At that time, we saw a still attractive upside for Vale, close to +25%, and we were rating the company as a Buy. Considering that we are projecting a decelerating iron ore curve from the level of US$125/t observed in 1Q23 to US$95/t in 4Q23, we believe that Vale trading again today at this R$70 level returns to the stock an upside as attractive as it was before the iron ore rally.

Another example that helps to understand the high volatility attached to Vale's shares recently is that, during an equivalent period of time, we saw BHP (BHP-NYSE) correcting -6.5% and Rio Tinto (RIO-ASX) -8.3%, which seems to us an indicative that the problems with Vale's shipments in 1Q23 also affected the stock prices with more intensity, if compared to how the Australian peers were affected by the same weaker economic indicators from China, which denounced a disappointing steel demand for consensus (and not for us).

Therefore, considering that the market has started to price a weak result for 1Q23 and a frustrated expectation for steel demand in China, Vale's shares suffered a strong selling pressure, devaluing below the point we believe to be fair, even considering all the difficulties that are linked to the Company and China.

Good company at a fair price or fair company at a good price? Having said all that, we still made assumption revisions in our model in order to better reflect the weaker dynamics we observed in 1Q23, among them: **(i)** the correction of the current spot price, lowering slightly our curve for the 62% Fe iron ore benchmark in 3Q23 to US$100/t vs. US$105/t in our previous model; **(ii)** a slight increase in cost C1 for the coming quarters due to our low confidence that the Company will meet its cost guidance; **(iii)** concentration of provisions from Mariana (MG) for the coming quarters as we saw almost none financial volume going through the P&L in this quarter, and **(iv)** an increase in the cost of capital to reflect higher volatility of stock prices in the discount rate.

In other words, we believe that the result was weak, and had some bad dynamics that were unique to this 1Q23, and should not be repeated, as well as other dynamics that concern us with respect to the achievement of the guidances, both in production and costs, and these may complicate the company's achievements in the coming quarters. We observe Vale, after this voracious fall in stock prices the last few days, not as a company in a good moment, but as a fair company, and now, at a good price.

The updates in our model, **led us to slightly cut the Target Price 23E to US$17.30**, vs. US$17.50 in our previous recommendation on ADRs (NYSE), **reaching a Target Price 23E of R$87.50** vs. R$89.00 in our previous recommendation **for VALE3 (B3)**.

While trading at an **EV/EBITDA of 4.14x**, due to the sharp devaluation of the shares observed in the days preceding the result, but considering a Company with a large cash generation, **we now see a more comfortable safety margin to change our recommendation from NEUTRAL to BUY**, as our Target Price implies an **upside of +24.52%**.

Appendix: Vale

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

Income Statement	2023E	2024E	2025E	2026E	2027E	2028E
Net Revenue	**43.582**	**43.832**	**45.623**	**47.197**	**47.627**	**48.841**
(-) COGS	(25.704)	(27.927)	(29.845)	(32.108)	(33.801)	(35.492)
Gross profit	**17.878**	**15.906**	**15.778**	**15.089**	**13.826**	**13.350**
(-) Expenses	(6.044)	(4.681)	(3.558)	(3.679)	(3.242)	(3.216)
Adjusted EBIT	**11.834**	**11.224**	**12.219**	**11.411**	**10.584**	**10.134**
(-) D&A	(3.378)	(3.531)	(3.683)	(3.834)	(3.981)	(4.125)
Adjusted EBITDA	**15.212**	**14.755**	**15.902**	**15.245**	**14.565**	**14.259**
(+/-) Financial Result	(401)	(361)	(232)	(145)	(174)	(147)
(-) Taxes	(857)	(611)	(742)	(630)	(504)	(442)
Net income	**10.313**	**9.979**	**10.961**	**10.340**	**9.606**	**9.240**
Profitability						
Net margin (%)	23,66%	22,77%	24,02%	21,91%	20,17%	18,92%

Figure 3. Vale– Cash Flow in US$ Million (Genial Est. 2023-2028)

Cash Flow	2023E	2024E	2025E	2026E	2027E	2028E
Net Revenue	**43.582**	**43.832**	**45.623**	**47.197**	**47.627**	**48.841**
(-) COGS	(25.704)	(27.927)	(29.845)	(32.108)	(33.801)	(35.492)
Adjusted EBITDA	**15.212**	**14.755**	**15.902**	**15.245**	**14.565**	**14.259**
EBIT	**11.834**	**11.224**	**12.219**	**11.411**	**10.584**	**10.134**
(-) Taxes	(857)	(611)	(742)	(630)	(504)	(442)
(+/-) Provisios and dams	(407)	(689)		(156)		
(+) D&A	3.378	3.531	3.683	3.834	3.981	4.125
(+/-) Δ WK	30	(477)	708	(318)	(30)	(97)
(-) Capex	(6.000)	(6.140)	(6.322)	(6.380)	(6.500)	(6.500)
FCFF	**7.979**	**6.838**	**9.830**	**7.760**	**7.865**	**7.332**

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Genial Rating

	Definition	Coverage
Buy	Expected total return 10% above the company's sector average	**54%**
Neutral	Expected total return between +10% and -10% the company's sector average	**33%**
Sell	Expected total return 10% below the company's sector average	**3%**
Under Review	Company's coverage under review	**10%**

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