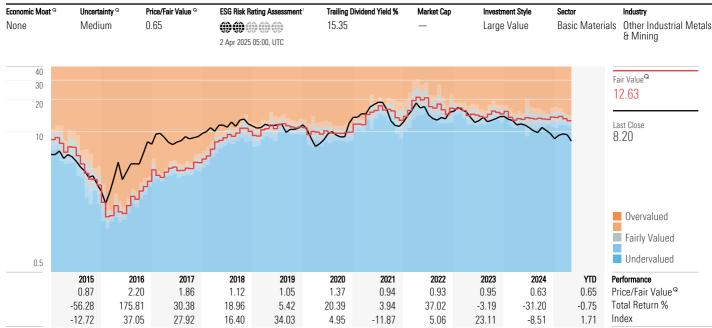
Vale SA XVALO ★★★ Q MOMENTUM 9 Apr 2025 04:40, UTC



As of 08 Apr 2025 | Index: Morningstar Brazil GR BRL. Fair Value data as of 8 Apr 2025 04:40, UTC

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Business Description

Vale is a large global miner and the world's largest producer of iron ore and pellets. In recent years the company has sold noncore assets such as its fertilizer, coal, and steel operations to concentrate on iron ore, nickel, and copper. Earnings are dominated by the bulk materials division, primarily iron ore and iron ore pellets. The base metals division is much smaller, consisting of nickel mines and smelters along with copper mines producing copper in concentrate. In 2024, Vale sold a minority 10% stake in energy transition metals, its base metals business, likely the first step in separating base metals and iron ore.

Valuation as of 8 Apr 2025

While Vale SA may seem inexpensive after its substantial price decline over the past year, we've limited its rating to 3 stars to account for the possibility that it may represent a value trap. The stock currently trades at a 35% discount to our quantitative fair value estimate of 12.63 EUR per share; however, some caution is warranted due to this estimate's medium uncertainty rating.

The company's valuation metrics increase our fair value estimate. A company's valuation metrics provide insights into the market's expectations for its future growth and profitability. Reflecting the firm's valuation is its enterprise value to EBITDA ratio of 3.6, which sits in the bottom 10% globally. Relative to the company's EBITDA, the enterprise value of the business is low, which contributes to our view that shares are undervalued.

The company's profitability is an additional encouraging factor. Highly profitable companies are often more resilient in recessions and are likely to generate stronger future cash flows for shareholders.

The firm's earnings yield of 19.2%, for example, ranks in the top 10% compared with peers globally. This suggests that it is generating substantial earnings relative to its share price, which further promotes our favorable price/fair value ratio.

Economic Moat ^Q as of 8 Apr 2025

This company lacks a competitive advantage, receiving a quantitative economic moat rating of none. Additionally, the firm's moderate financial health score suggests it is acceptably positioned against adverse economic circumstances.

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		Uncertainty ^Q Medium	Price/Fair Value ^Q 0.65	ESG Risk Rating Asso (i) (i) (i) (i) 2 Apr 2025 05:00, UT	15	Trailing Dividend Yield % 15.35		Market Cap Investment St Large Valu		Sector Basic Mater	Industry ials Other Industrial Metals & Mining
Econom	nic Moat [@] H	listory as of 5 <i>i</i>	Apr 2025	Dividend	is as of 8 Apr 2	2025			/aluation ^Q as	of 8 Apr 2025	
	No Moat 0.00-0.70	Narrow Mo 0.71-0.99	oat Wide Moat 0.99-1.00	20	 Stock Price 	Payout	Ratio	72.00%			Undervalued (35%
1.0				15			M	54.00	12 Un	ir Value ^Q 2.63 ocertainty ^Q :	Discount) Economic Moat ^a None 1-Star Price ^a > 14.32
0.5	M	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	M/L	5		yu .	N	18.00		st Close 20	5-Star Price ^Q < 11.15
	2020 202 ⁻	1 2022 2 or End 31 Dec 202		125	16 17 18 1	9 20 21 22	23 24 25				
riiiaiicia	2015	2016	2017	2018 2019	2020	2021	2022	2023	2024	12/2024	Fiscal
	25.61	27.49	33.97	36.58 37.57	40.02	54.50	43.84	41.78	38.06		Revenue (Bil)
	2.61	8.19	11.41	13.04 14.13	18.55	30.84	17.79	15.86	11.10		Operating Income (Bil)
	10.20	29.79	33.59	35.65 37.62	46.35	56.59	40.57	37.95	29.17	29.17	Operating Margin (%)
	-12.13	3.98	5.51	6.86 -1.68	4.88	22.45	18.79	7.98	6.17	6.17	Net Income (Bil)
	-2.35	0.77	1.05	1.32 -0.33	0.95	4.47	4.05	1.83	1.44	1.44	Diluted Earnings/Share
	4.49	6.58	12.45	12.90 12.11	14.32	25.68	11.49	13.17	9.37	9.37	Operating Cash Flow (Bil)
	8.37	4.95	3.83	3.78 3.70	4.43	5.03	5.45	5.92	6.45		Capital Spending (Bil)
	-5.13	2.52	7.99	10.68 8.48	13.12	20.63	7.31	8.15	2.61		Free Cash Flow (Bil)
	5.15	5.15	5.20	5.13 5.13	5.13	4.89	4.48	4.34			Avg Shares Outstand(Bil)
Valuation	n as of 8 Apr	2025									
	2015	2016	2017	2018 2019	2020	2021	2022	2023	2024	Current	Calendar
	0.87	2.20	1.86	1.12 1.05	1.37	0.94	0.93	0.95	0.63	0.65	Price/Fair Value@
	0.57	1.71	1.67	1.94 1.81	2.20	1.32	1.78	1.61	0.98	1.00	Price/Sales
	_	_	8.02	16.00 18.43	30.41	4.20	3.84	7.03	4.32	6.16	Price/Earnings
	3.94	10.48	4.58	5.01 8.51	4.36	2.57	5.85	5.39	3.20	4.19	Price/Cash Flow
	0.84	1.11	1.30	1.66 1.54	2.37	2.10	2.08	1.66	1.07	1.09	Price/Book
Operatin	g Performan	ce (Fiscal Year E	nd 31 Dec 2025)								
	2015	2016	2017	2018 2019	2020	2021	2022	2023	2024	12/2024	Fiscal (%)
	-11.83	4.25	5.56	7.32 -1.87	5.31	24.74	21.31	8.82	7.07	7.07	Return on Assets
	-57.03	30.11	18.54	15.69 -4.00	12.88	63.93	53.42	21.20	16.92	16.92	Return on Equity
	-23.57	11.42	12.29	12.19 0.53	11.61	44.01	36.88	16.65	13.52	13.52	Rtn on Invested Capital
Dividend	ls as of 8 Apr										
	2015	2016	2017	2018 2019	2020	2021	2022	2023	2024		Calendar (%)
	0.30	0.05	0.42	0.15 0.26	0.45	2.79	1.45	1.22	1.02		Dividend Per Share
	9.71	0.62	3.81	1.99 1.92	2.68	18.84	4.78	8.06	15.72		Trailing Dividend Yield
	_	_	_	— 0.75	0.00	0.00	7.25	5.51	1.15	1.16	Buyback Yield



Appendix

Economic Moat ^Q History as of 5 Apr 2025 (No Moat: 0.00-0.70, Narrow Moat: 0.70-0.99, Wide Moat: 0.99-1.00)												
Year	January	February	March	April	May	June	July	August	September	October	November	December
2025	0.02	0.03	0.01	0.01	_	_	_	_	_	_	_	_
2024	0.06	0.01	0.02	0.03	0.04	0.29	0.06	0.06	0.09	0.04	0.01	0.02
2023	0.07	0.14	0.16	0.22	0.08	0.15	0.12	0.04	0.11	0.12	0.09	0.16
2022	0.06	0.04	0.06	0.07	0.06	0.08	0.05	0.04	0.03	0.01	0.08	0.11
2021	0.11	0.06	0.04	0.06	0.85	0.26	0.12	0.10	0.04	0.07	0.04	0.08
2020	0.03	0.04	0.06	0.09	0.11	0.14	0.15	0.07	0.08	0.17	0.06	0.07



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The quantitative report on equities consists of data, statistics and quantitative equity ratings on equity securities. Morningstar, Inc.'s quantitative equity ratings are forward looking and are generated by a statistical model that is based on Morningstar Inc.'s analyst-driven equity ratings and quantitative statistics. Given the nature of the quantitative report and the quantitative ratings, there is no one analyst in which a given report is attributed to; however, Jeffrey Ptak, Chief Ratings Officer for Morningstar Research Services LLC is responsible for overseeing the methodology that supports the quantitative equity ratings used in this report. As an employee of Morningstar Research Services LLC, a subsidiary of Morningstar, Inc, Mr Ptak is guided by the Morningstar Research Services' Code of Ethics and the Morningstar, Inc. Code of Ethics and Personal Securities trading Policy in carrying out his responsibilities.

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Narrow – assigned when the probability of a stock receiving a "Wide Moat" rating by an analyst is greater than 70% but less than 99%.

Wide – assigned when the probability of a stock receiving a "Wide Moat" rating by an analyst is greater than 99%.

None – assigned when the probability of an analyst receiving a "Wide Moat" rating by an analyst is less than 70%.

- iii. **Quantitative Star Rating:** Intended to be the summary rating based on the combination of our Quantitative Fair Value Estimate, current market price, Quantitative Uncertainty Rating, and momentum. The rating is expressed as One-Star, Two-Star, Three-Star, Four-Star, and Five-Star.
 - ★ the stock is overvalued with a reasonable margin of safety.

 Log (Quant FVE/Price) < -1*Quantitative Uncertainty

 Micro-Caps: Log (Quant FVE/Price) < -1.5*Quantitative Uncertainty
 - ★★ the stock is somewhat overvalued.

Log (Quant FVE/Price) between (-1*Quantitative Uncertainty, -0.5*Quantitative ertainty)

Micro-Caps: Log (Quant FVE/Price) between (-1.5*Quantitative Uncertainty, -0.75*Quantitative Uncertainty)

★★★ – the stock is approximately fairly valued.

 $\label{log-log-log-log-log-log} \textit{Log (Quant FVE/Price) between (-0.5*Quantitative Uncertainty, 0.5*Quantitative Uncertainty)}$

Micro-Caps: Log (Quant FVE/Price) between (-0.75*Quantitative Uncertainty, 0.75*Quantitative Uncertainty)

*** - the stock is somewhat undervalued.

Log (Quant FVE/Price) between $(0.5*Quantitative\ Uncertainty,\ 1*Quantitative\ Uncertainty)$

Micro-Caps: Log (Quant FVE/Price) between (0.75*Quantitative Uncertainty, 1.5*Quantitative Uncertainty)

★★★★ — the stock is undervalued with a reasonable margin of safety.

Log (Quant FVE/Price) > 1*Quantitative Uncertainty

Micro-Caps: Log (Quant FVE/Price) > 1.5*Quantitative Uncertainty

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Low – the interquartile range for possible fair values is less than 10% **Medium** – the interquartile range for possible fair values is less than 15% but greater than 10%

 $\mbox{\bf High}-\mbox{\bf the interquartile}$ range for possible fair values is less than 35% but greater than 15%

 $\begin{tabular}{ll} \textbf{Very High}-\text{the interquartile range for possible fair values is less than } 80\% \\ \textbf{but greater than } 35\% \\ \end{tabular}$

 $\ensuremath{\textit{Extreme}}$ — the interquartile range for possible fair values is greater than 80%

v. **Quantitative Financial Health:** Intended to reflect the probability that a firm will face financial distress in the near future. The calculation uses a predictive model designed to anticipate when a company may default on its financial obligations. The rating is expressed as Weak, Moderate, and Strong.

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 and 0.7

Strong – assigned when Quantitative Financial Health > 0.7

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Undervalued — Last Price is below Morningstar's quantitative fair value estimate

Fairly Valued – Last Price is in line with Morningstar's quantitative fair value estimate.

Overvalued – Last Price is above Morningstar's quantitative fair value estimate.

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Unmanaged Risk is measured on an open-ended scale starting at zero (no risk) with lower scores representing less unmanaged risk and, for 95% of cases, the unmanaged ESG Risk score is below 50.

Based on their quantitative scores, companies are grouped into one of five Risk Categories (negligible, low, medium, high, severe). These risk categories are absolute, meaning that a 'high risk' assessment reflects a comparable degree of unmanaged ESG risk across all subindustries covered.

The ESG Risk Rating Assessment is a visual representation of Sustainalytics ESG Risk Categories on a 1 to 5 scale. Companies with Negligible Risk = 5 Globes, Low Risk = 4, Medium Risk = 3 Globes, High Risk = 2 Globes, Severe Risk = 1 Globe. For more information, please visit sustainalytics.com/esgratings/

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