
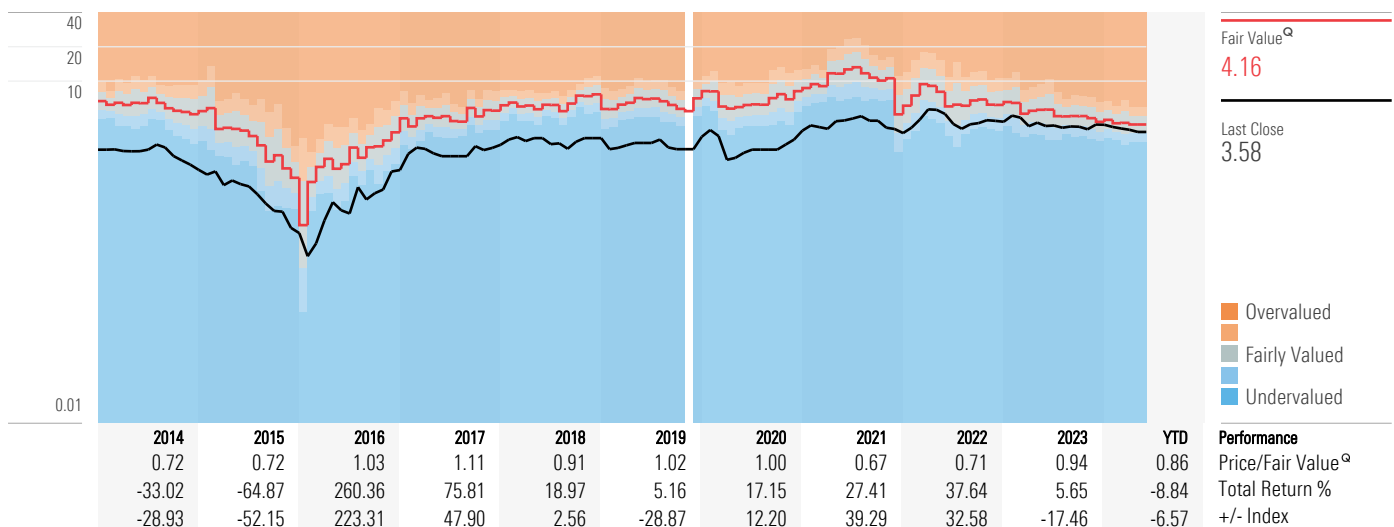


Bradespar SA XBRPO ★★★ Q 30 Apr 2024, 22:47 UTC

Economic Moat ^Q	Uncertainty ^Q	Price/Fair Value ^Q	ESG Risk Rating Assessment ¹	Trailing Dividend Yield %	Market Cap	Investment Style	Sector	Industry
None	Very High	0.9	 3 Apr 2024 05:00, UTC	10.24	1.5253 Bil	Mid Value	Financial Services	Asset Management



As of 30 Apr 2024 | Index: Morningstar Brazil GR BRL. Fair Value data as of 30 Apr 2024, 22:47 UTC.

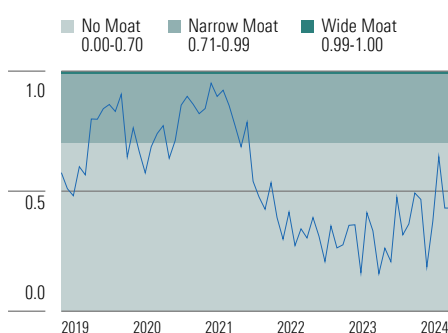
¹The ESG Risk Rating Assessment is a representation of Sustainalytics' ESG Risk Rating. Lee Davidson, Chief Analytics Officer for Morningstar, Inc, oversees the methodology that supports Quantitative Fair Value Estimates and Quantitative Star Ratings. Mr. Davidson is guided by the Morningstar, Inc. Code of Ethics in carrying out his responsibilities. For information regarding Conflicts of Interests, visit <http://global.morningstar.com/equitydisclosures>.

Key Metrics as of 29 Apr 2024

Metrics		Percentile in Sector
Earnings Yield (%)	21.5	94.0
Sales Yield (%)	22.2	35.0
Book Value Yield (%)	94.6	52.0
Return on Assets (%)*	23.8	98.0
Revenue(Mil)*	383.7	56.0
Market Value (Bil)	1.6	62.0
Enterprise Value (Mil)	9.3	17.0
EV/MV Ratio	0.0	19.0
Volatility TTM (%)	19.8	38.0
Drawdown TTM (%)	24.0	62.0
Volume (Mil)	3.8	84.0

*31 Dec 2023

Economic Moat^Q History as of 30 Apr 2024



Business Description

Bradespar is a Brazil-based holding company whose corporate purpose and single business segment is to hold equity interest as a partner or shareholder in other companies. Its holding companies include Millennium Security Holdings, which does business in the British Virgin Islands; and Vale S.A., which produces iron ore, raw materials for the steel and nickel industries, and metals. The company's operating income originates from equity accounting, dividends, and interest on equity received from Vale and interest from redeemable shares received.

Valuation^Q as of 30 Apr 2024

Morningstar maintains a 3-star quantitative star rating for Bradespar, derived from the firm's valuation and uncertainty scores.

The company's shares last closed at 3.70, below our quantitative fair value estimate of 4.43. These shares have traded between a 28.68% and 5.72% discount to their fair value estimate over the past year. In Morningstar's equity coverage universe for this methodology, the company's valuation rating lands at the 67th percentile; in the financial services sector, the firm's score lies at the 56th percentile (meaning the shares are more undervalued than 56% of stocks in the sector).

Furthermore, Bradespar maintains a quantitative valuation uncertainty rating of Very High.

The company has held this star rating since the previous rating of 4, which was last assigned on 11/15/2023. The uncertainty rating for Bradespar has remained Very High since the previous rating of High, which was last assigned on 03/14/2024.

The key factors behind these ratings are the company's earnings yield and drawdown. The earnings yield is 21.50%, and its maximum trailing 12-month maximum drawdown is 33.88%. The earnings yield

falls at the 94th percentile in the financial services sector while the drawdown is at the 62nd percentile. Over the past year, the company's earnings yield has been between 9.22% and 41.60%; its drawdown has ranged between 15.03% and 33.88%.

Economic Moat^Q as of 30 Apr 2024

Quantitatively, we do not believe Bradespar has an economic moat. Its moat score of 0.41 corresponds to the 37th percentile in the financial services sector. Furthermore, this rating has not changed over the past year, while the company's moat score fell from its maximum of 0.64 in this period (score of 1 indicates greatest economic moat).

The company also maintains a quantitative financial health rating of Strong. Its score sits at the 95th percentile overall and the 86th percentile in the sector.


Examining the company's financials and market statistics, we find these ratings are principally driven by its book value yield and annualized trailing 12-month volatility. The book value yield is 94.58%, sitting at the 52nd percentile in the financial services sector. The company's annualized trailing 12-month volatility is 19.76%, corresponding to the 20th percentile in the equity coverage universe and the 38th percentile in the sector.

Fundamentals as of 30 Apr 2024

Bradespar maintains earnings per share of 4.53. The shares offer a dividend yield of 8.17%. These values are calculated over a trailing 12-month period.

As of last market close, Bradespar has a price-to-earnings ratio of 4.51, falling below the 8th percentile in its sector (where a lower percentile means a lower ratio) and ranging between 2.37

Bradespar SA XBRPO ★★★ Q 30 Apr 2024, 22:47 UTC

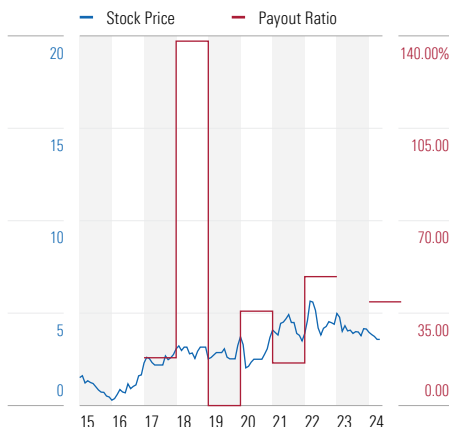
Economic Moat ^Q	Uncertainty ^Q	Price/Fair Value ^Q	ESG Risk Rating Assessment ¹	Trailing Dividend Yield %	Market Cap	Investment Style	Sector	Industry
None	Very High	0.9	 3 Apr 2024 05:00, UTC	10.24	1.5253 Bil	Mid Value	Financial Services	Asset Management

Earnings as of 29 Apr 2024

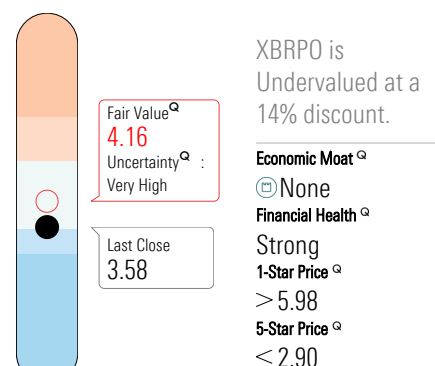
Earnings	%	Percentile in Sector
Dividend Yield*	8.2	89.0
Payout Ratio*	39.3	50.0
Price to Earnings	4.5	8.0
Price to Cash Flow	8.6	51.0
ROIC**	—	—

*28 Mar 2024
**31 Dec 2023

Dividends as of 30 Apr 2024



Valuation^Q as of 30 Apr 2024



and 4.67 over the past year. The company's price-to-free cash flow ratio is 8.64, falling at the 51st percentile in its sector and ranging between 7.29 and 13.53 over the past year.

Contact

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+55 1121786300

<https://www.bradespar.com.br>

Financials as of 30 Apr 2024 (Fiscal Year End 31 Dec 2020)

2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	YTD	Fiscal
-13	-2,549	674	2,633	2,724	-346	1,513	8,143	3,780	1,962	1,962	Revenue (Mil)
—	—	—	—	—	—	—	—	—	—	1,182	Operating Income (Mil)
—	—	—	—	—	—	—	—	—	—	93.91	Operating Margin (%)
101	-2,590	629	2,328	1,190	-403	1,467	8,079	3,728	1,897	1,897	Net Income (Mil)
0.26	-6.19	1.50	5.54	2.84	-0.96	3.51	19.30	8.90	4.53	4.53	Diluted Earnings/Share
598	387	61	-56	-782	121	979	4,252	1,259	989	989	Operating Cash Flow (Mil)
—	—	—	—	—	-117	—	—	-202	-4	-4	Capital Spending (K)
598	387	61	-56	-782	121	979	4,252	1,259	989	989	Free Cash Flow (Mil)
395	420	420	420	419	419	418	419	419	419	419	Avg Shares Outstand(Mil)

Valuation as of 30 Apr 2024

2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	Current	Calendar
0.72	0.72	1.03	1.11	0.91	1.02	1.00	0.67	0.71	0.94	0.86	Price/Fair Value ^Q
—	—	—	7.50	5.07	5.96	21.46	1.64	1.71	4.25	4.19	Price/Sales
—	—	—	8.26	21.08	6.16	25.64	1.67	1.75	4.38	4.33	Price/Earnings
9.81	2.59	22.76	30.81	—	103.49	19.16	2.13	8.81	12.69	8.31	Price/Cash Flow
0.45	0.15	0.55	0.94	1.18	1.11	1.51	0.61	1.24	1.09	0.99	Price/Book

Operating Performance as of 30 Apr 2024 (Fiscal Year End 31 Dec 2020)

2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	Q3	Fiscal (%)
0.95	-25.53	6.3	21.56	10.84	-3.89	13.71	85.71	47.74	23.78	6.54	Return on Assets
1.13	-30.74	7.95	27.86	12.69	-4.13	14.1	86.14	49.77	24.77	6.61	Return on Equity
—	—	—	—	—	—	—	—	—	—	—	Rtn on Invested Capital

Dividends as of 30 Apr 2024

2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	Current	Calendar (%)
1.38	0.83	0.09	1.15	1.03	0.64	1.61	9.70	2.97	2.75	0.37	Dividend Per Share
13.49	25.02	0.81	5.4	6.89	1.53	3.52	27.28	12.27	—	10.24	Trailing Dividend Yield
—	—	0.0	—	—	—	—	—	—	—	—	Buyback Yield

Appendix

Economic Moat [®] History as of 30 Apr 2024 (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
2024	0.47	0.18	0.37	0.64	0.43	—	—	—	—	—	—	—
2023	0.36	0.36	0.16	0.41	0.33	0.16	0.26	0.21	0.47	0.32	0.36	0.49
2022	0.39	0.30	0.41	0.27	0.34	0.31	0.39	0.31	0.21	0.35	0.26	0.28
2021	0.84	0.95	0.89	0.92	0.86	0.77	0.69	0.79	0.54	0.48	0.42	0.54
2020	0.76	0.66	0.58	0.69	0.74	0.77	0.64	0.71	0.86	0.89	0.86	0.82
2019	0.58	0.51	0.48	0.60	0.57	0.80	0.80	0.84	0.86	0.83	0.90	0.64

Quantitative Equity Report Overview

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, Mr. Lee Davidson, Head of Quantitative Research for Morningstar, Inc., is responsible for overseeing the methodology that supports the quantitative equity ratings used in this report. As an employee of Morningstar, Inc., Mr. Davidson is guided by Morningstar, Inc.'s Code of Ethics and Personal Securities Trading Policy in carrying out his responsibilities.

Quantitative Equity Ratings

Morningstar's quantitative equity ratings consist of: (i) Quantitative Fair Value Estimate, (ii) Quantitative Star Rating, (iii) Quantitative Uncertainty, (iv) Quantitative Economic Moat, and (v) Quantitative Financial Health (collectively the "Quantitative Ratings").

The Quantitative Ratings are calculated daily and derived from the analyst-driven ratings of a company's peers as determined by statistical algorithms. Morningstar, Inc. ("Morningstar", "we", "our") calculates Quantitative Ratings for companies whether or not it already provides analyst ratings and qualitative coverage. In some cases, the Quantitative Ratings may differ from the analyst ratings because a company's analyst-driven ratings can significantly differ from other companies in its peer group.

i. **Quantitative Fair Value Estimate:** Intended to represent Morningstar's estimate of the per share dollar amount that a company's equity is worth today. Morningstar calculates the Quantitative Fair Value Estimate using a statistical model derived from the Fair Value Estimate Morningstar's equity analysts assign to companies. Please go to <http://global.morningstar.com/equitydisclosures> for information about Fair Value Estimate Morningstar's equity analysts assign to companies.

ii. **Quantitative Economic Moat:** Intended to describe the strength of a firm's competitive position. It is calculated using an algorithm designed to predict the Economic Moat rating a Morningstar analyst would assign to the stock. The rating is expressed as Narrow, Wide, or None.

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 Uncertainty)*

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

★★★ – the stock is approximately fairly valued.

*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*

After the initial calculation for the star rating, there is a final filtering step based on the momentum of the company. We rank the companies based on their 12-1 month momentum, then restrict those below the 30th percentile to a maximum of 3 stars.

iv. **Quantitative Uncertainty:** Intended to represent Morningstar's level of uncertainty about the accuracy of the Quantitative Fair Value Estimate. Generally, the lower the Quantitative Uncertainty, the narrower the potential range of outcomes for that particular company. The rating is expressed as Low, Medium, High, Very High, and Extreme.

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%

High – the interquartile range for possible fair values is less than 35% but greater than 15%

Very High – the interquartile range for possible fair values is less than 80% but greater than 35%

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.

Weak – assigned when Quantitative Financial Health < 0.2

Moderate – assigned when Quantitative Financial Health is between 0.2 and 0.7

Strong – assigned when Quantitative Financial Health > 0.7

Other Definitions

i. **Last Close** – Price of the stock as of the close of the market of the last trading day before date of the report.

ii. **Quantitative Valuation** – Using the below terms, intended to denote the relationship between the security's **Last Price** and Morningstar's quantitative fair value estimate for that security.

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.

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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Sustainalytics analyzes over 1,300 data points to assess a company's exposure to and management of ESG risks. In other words, ESG Risk Ratings measures a company's unmanaged ESG Risks represented as a quantitative score. 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/esg-ratings/

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