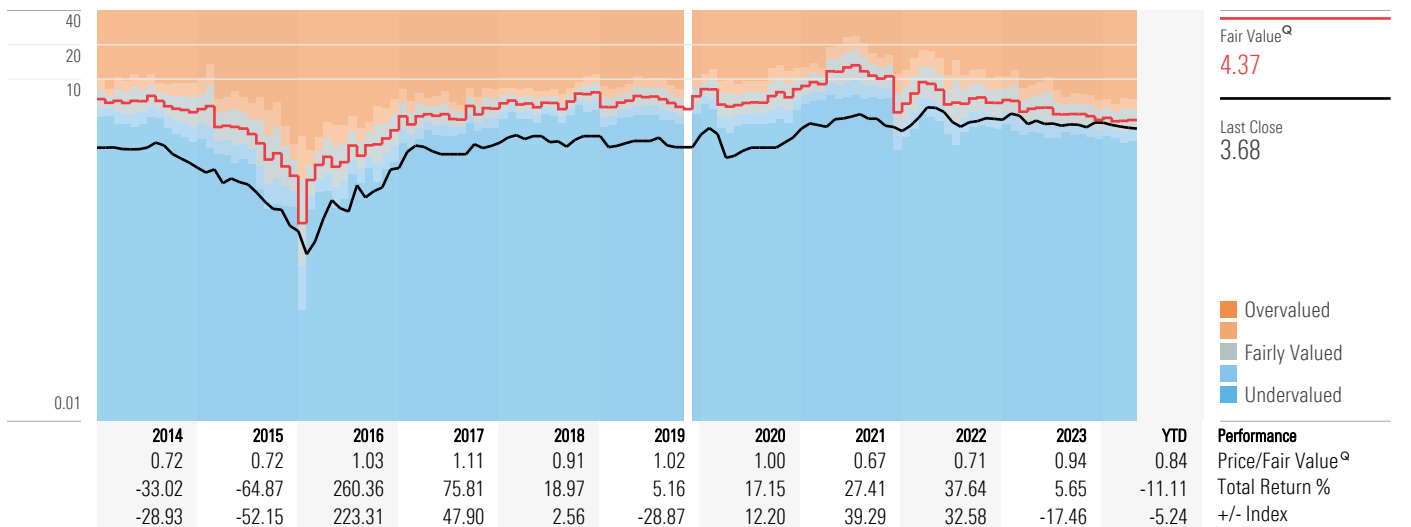


Bradespar SA XBRPO ★★★ Q 22 Apr 2024, 22:36 UTC

| | | | | | | | | |
|-----------------------------------|---------------------------------|--------------------------------------|--|----------------------------------|-------------------|-------------------------|--------------------|------------------|
| 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 | 0.8 | 3 Apr 2024 05:00, UTC | 8.30 | 1.4695 Bil | Mid Value | Financial Services | Asset Management |



As of 22 Apr 2024 | Index: Morningstar Brazil GR BRL. Fair Value data as of 22 Apr 2024, 22:36 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 19 Apr 2024

| Metrics | | Percentile in Sector |
|------------------------|-------|----------------------|
| Earnings Yield (%) | 22.0 | 94.0 |
| Sales Yield (%) | 22.7 | 35.0 |
| Book Value Yield (%) | 96.7 | 53.0 |
| Return on Assets (%)* | 23.8 | 98.0 |
| Revenue(Mil)* | 376.2 | 56.0 |
| Market Value (Bil) | 1.5 | 62.0 |
| Enterprise Value (Mil) | 9.1 | 17.0 |
| EVMV Ratio | 0.0 | 19.0 |
| Volatility TTM (%) | 20.0 | 39.0 |
| Drawdown TTM (%) | 24.0 | 62.0 |
| Volume (Mil) | 3.7 | 84.0 |

*31 Dec 2023

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 20 Apr 2024

Bradespar achieves a 3-star quantitative star rating based on Morningstar's equity model. This reflects the company's valuation and uncertainty scores under this assessment system.

The Quantitative Fair Value estimate is 4.43, above the previous closing price of 3.68. The stock has been trading between a 28.68% and 5.72% discount to its quantitative fair value over the past year. The stock's current valuation rating sits at the 68th percentile in the coverage universe and 60th percentile in the financial services sector (higher percentile indicates more undervalued).

The quantitative uncertainty rating for Bradespar is Very High.

Our quantitative star rating last differed from the current rating on 11/15/2023; the uncertainty rating last differed on 03/14/2024. The previous ratings were 4 and High, respectively.

The main drivers of the company's valuation and uncertainty are its earnings yield and drawdown. The earnings yield of 21.97% falls at the 95th percentile in the equity universe and the 94th percentile in its sector. The trailing 12-month maximum drawdown of 24.01% corresponds to the 39th per-

centile overall and the 62nd percentile in the industry.

Economic Moat ^Q as of 22 Apr 2024

Quantitatively, we do not believe Bradespar has an economic moat. Its moat score of 0.43 corresponds to the 41st 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 96.65%, sitting at the 53rd percentile in the financial services sector. The company's annualized trailing 12-month volatility is 19.98%, corresponding to the 21st percentile in the equity coverage universe and the 39th percentile in the sector.

Fundamentals as of 20 Apr 2024

Bradespar reports earnings per share of 4.53. The company maintains a dividend yield of 8.17%, paying out 39.28% of earnings. These values are calculated over a trailing 12-month period.

As of last market close, Bradespar has a price-to-earnings ratio of 4.53, falling at the 9th percentile in its sector (where a lower percentile means a lower ratio) and ranging between 2.37 and 4.67 over the past year. The company's price-to-free cash flow ratio is 8.68, falling at the 52nd percentile in its sector and ranging between 7.29 and 13.53 over the past year.

Bradespar SA XBRPO ★★★ Q 22 Apr 2024, 22:36 UTC

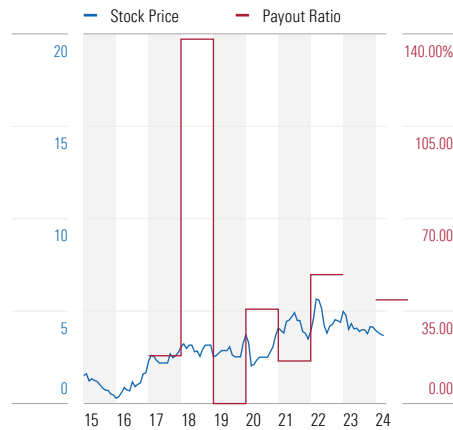
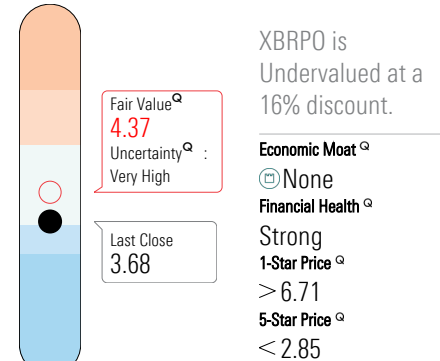
| | | | | | | | | |
|-----------------------------------|---------------------------------|--------------------------------------|--|----------------------------------|-------------------|-------------------------|--------------------|------------------|
| Economic Moat ^Q | Uncertainty ^Q | Price/Fair Value ^Q | ESG Risk Rating Assessment ¹ | Trailing Dividend Yield % | Market Cap | Investment Style | Sector | Industry |
| None | Very High | 0.8 |  3 Apr 2024 05:00, UTC | 8.30 | 1.4695 Bil | Mid Value | Financial Services | Asset Management |

Earnings as of 19 Apr 2024

| Earnings | % | Percentile in Sector |
|--------------------|------|----------------------|
| Dividend Yield* | 8.2 | 89.0 |
| Payout Ratio* | 39.3 | 50.0 |
| Price to Earnings | 4.5 | 9.0 |
| Price to Cash Flow | 8.7 | 52.0 |
| ROIC** | — | — |

*28 Mar 2024

**31 Dec 2023

Dividends as of 22 Apr 2024**Valuation** ^Q as of 22 Apr 2024

XBRPO is Undervalued at a 16% discount.

Economic Moat ^Q

None

Financial Health ^Q

Strong

1-Star Price ^Q

> 6.71

5-Star Price ^Q

< 2.85

Contact

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1310917
+55 1121786300

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

Financials as of 22 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 22 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 | 0.84 | Price/Fair Value ^Q |
| | — | — | — | 7.50 | 5.07 | 5.96 | 21.46 | 1.64 | 1.71 | 4.25 | 4.39 | Price/Sales |
| | — | — | — | 8.26 | 21.08 | 6.16 | 25.64 | 1.67 | 1.75 | 4.38 | 4.54 | Price/Earnings |
| | 9.81 | 2.59 | 22.76 | 30.81 | — | 103.49 | 19.16 | 2.13 | 8.81 | 12.69 | 8.71 | Price/Cash Flow |
| | 0.45 | 0.15 | 0.55 | 0.94 | 1.18 | 1.11 | 1.51 | 0.61 | 1.24 | 1.09 | 1.03 | Price/Book |

Operating Performance as of 22 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 22 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 | — | 8.3 | Trailing Dividend Yield |
| | — | — | 0.0 | — | — | — | — | — | — | — | — | Buyback Yield |

Appendix

Economic Moat [®]History as of 22 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 | 0.18 | 0.37 | 0.64 | 0.38 | — | — | — | — | — | — | — | — |
| 2023 | 0.36 | 0.16 | 0.41 | 0.33 | 0.16 | 0.26 | 0.21 | 0.47 | 0.32 | 0.36 | 0.49 | 0.47 |
| 2022 | 0.30 | 0.41 | 0.27 | 0.34 | 0.31 | 0.39 | 0.31 | 0.21 | 0.35 | 0.26 | 0.28 | 0.36 |
| 2021 | 0.95 | 0.89 | 0.92 | 0.86 | 0.77 | 0.69 | 0.79 | 0.54 | 0.48 | 0.42 | 0.54 | 0.39 |
| 2020 | 0.66 | 0.58 | 0.69 | 0.74 | 0.77 | 0.64 | 0.71 | 0.86 | 0.89 | 0.86 | 0.82 | 0.84 |
| 2019 | 0.51 | 0.48 | 0.60 | 0.57 | 0.80 | 0.80 | 0.84 | 0.86 | 0.83 | 0.90 | 0.64 | 0.76 |

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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