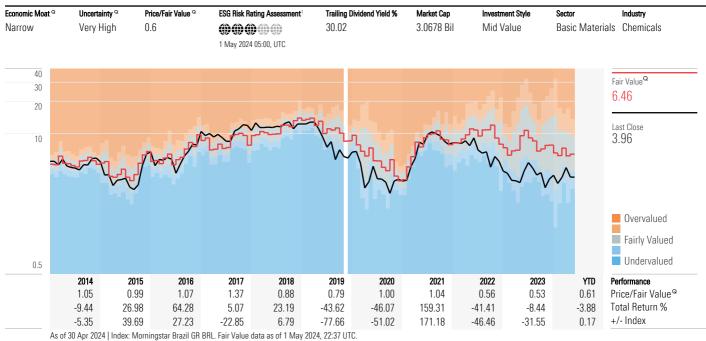
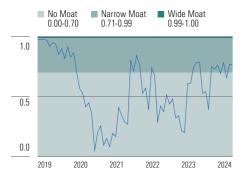
# Braskem SA Class A XBRK ★★★★ ♀ 1 May 2024, 22:37 UTC



'The 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 26 Ap	or 2024								
Metrics	Percentile in Sector								
Earnings Yield (%)	-25.7	22.0							
Sales Yield (%)	395.5	94.0							
Book Value Yield (%)	22.4	19.0							
Return on Assets (%)*	-5.1	45.0							
Revenue(Bil)*	13.8	96.0							
Market Value (Bil)	3.4	87.0							
Enterprise Value (Bil)	11.4	94.0							
EVMV Ratio	3.3	97.0							
Volatility TTM (%)	39.3	41.0							
Drawdown TTM (%)	44.5	55.0							
Volume (Mil)	4.3	89.0							
*31 Dec 2023			0%	25	50	75	100		

## Economic Moat <sup>@</sup>History as of 1 May 2024



### **Business Description**

Braskem SA manufactures and sells chemicals, petrochemicals, fuels, and utilities. The company's geographical segments include Brazil; the United States and Europe and Mexico. It derives a majority of its revenue from Brazil. It produces olefins, such as ethylene, polymer and chemical-grade propylene, butadiene, and butene-1; fuels, such as automotive gasoline, liquefied petroleum gas, or LPG, ethyl tertiary-butyl ether, or ETBE, and methyl tertiary-butyl ether, or MTBE; intermediates, such as cumene and others.

## Valuation <sup>Q</sup>as of 1 May 2024

Morningstar affirms a 3-star quantitative rating for Braskem. We calculate this outcome using the company's underlying model-driven valuation and uncertainty scores.

The stock's last closing price was 3.96, a discount of 36.44% to its Quantitative Fair Value estimate of 6.23. This discount has ranged between 57.99% and 30.65% over the past year. The stock's price to fair value ratio is at the 31st percentile in our global equity coverage universe for this methodology and at the 52nd percentile relative to its peers in the basic materials sector.

Braskem furthermore holds a Extreme quantitative uncertainty rating.

The company's quantitative star rating dates to after 04/29/2024, before which it was 4-star. Similarly, the firm's uncertainty rating changed from Very High to Extreme after 04/29/2024.

We examine the financials and market statistics for Braskem to determine these ratings. Its enterprise value-to-market value ratio is 3.33 and its earnings yield is -25.67%. These fall at the 94th and 15th percentiles in the equity universe and at the 95th and 22nd in the basic materials sector, respectively.

### Economic Moat <sup>Q</sup>as of 1 May 2024

Quantitatively, we do not believe Braskem has an economic moat. Its moat score of 0.66 corresponds to the 78th percentile in the basic materials sector. Furthermore, this rating last differed from its previous rating of Narrow on 04/08/2024, when the company's moat score fell from its maximum of 0.85 (score of 1 indicates greatest economic moat). The company also maintains a quantitative financial health rating of Moderate. Its score sits at the 11th percentile overall and the 10th percentile in the sector.

Examining the company's financials and market statistics, we find these ratings are principally driven by its sales yield and annualized trailing 12-month volatility. The sales yield is 395.66%, sitting at the 94th percentile in the basic materials sector. The company's annualized trailing 12-month volatility is 39.04%, corresponding to the 61st percentile in the equity coverage universe and the 41st percentile in the sector.

#### Fundamentals as of 1 May 2024

Braskem reports losses per share of -5.75. Its return on invested capital is -3.2%. These values are calculated over a trailing 12-month period.

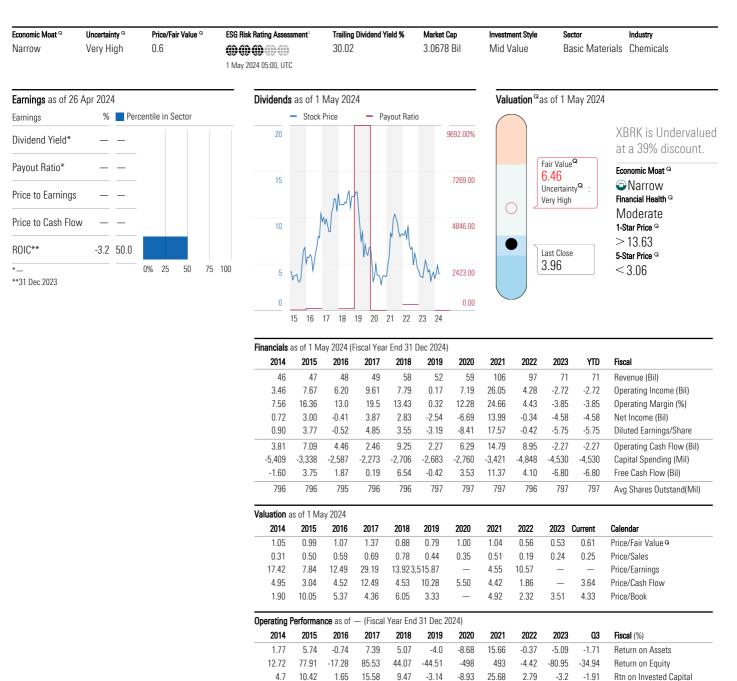
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https://www.braskem.com.br



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ividends as of —											
2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	Current	Calendar (%)
0.61	0.61	2.51	1.26	3.77	0.84	_	7.54	1.70	_	_	Dividend Per Share
3.64	2.77	6.4	—	3.6	2.73	—	—	26.15	_	30.02	Trailing Dividend Yield
_	_	_	_	_	_	_	_	_	_	_	Buyback Yield



# Appendix

Economic Moat <sup>©</sup> History as of 1 May 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	0.76	0.69	0.78	0.66	0.76	_	_	_	_	_	_	_
2023	0.21	0.20	0.61	0.61	0.75	0.79	0.79	0.53	0.54	0.40	0.75	0.73
2022	0.57	0.40	0.74	0.68	0.29	0.42	0.37	0.51	0.44	0.48	0.32	0.34
2021	0.08	0.19	0.17	0.41	0.34	0.29	0.27	0.80	0.71	0.84	0.76	0.52
2020	0.86	0.70	0.57	0.53	0.41	0.45	0.36	0.05	0.20	0.26	0.10	0.15
2019	0.97	0.97	0.98	0.97	0.92	0.95	0.94	0.85	0.90	0.82	0.91	0.83



# 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 analystdriven 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</p>
- ★★ 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)

 $\star \star \star$  – 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)

 $\star \star \star \star$  – 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%

 $\ensuremath{\textit{Extreme}}\xspace -$  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

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.

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

Farily 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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