

Braskem S.A.

The affirmation of Braskem S.A.'s ratings and removal of Negative Ratings Watch given our expectation that company will not incur additional cash disbursements after the recommendations from the Senate's inquiry on the geological event of Alagoas. The Negative Outlook indicates our expectation that petrochemical spreads will remain below midcycle conditions, causing leverage to be above our triggers longer than anticipated.

The combination of tightened margins with additional non-recurring cash disbursements not accounted for on our base case scenario, could result in a negative rating action.

Key Rating Drivers

Prolonged Petrochemical Sector Downturn: The industry faces unprecedented adversities due to a slow global economy, uncertain geopolitical events and excess production. With China's heavy investments, the market is oversupplied, leading to low or even negative profit margins. This threatens the viability of numerous facilities, especially in Asia and Europe, where costs are high. Spreads could remain tightened until 2027, deterring new investments and, as supply growth outpaces demand, the industry will be pressured to consolidate and rationalize.

Medium-Term Leverage Above Triggers: In this scenario, Fitch forecasts net leverage, excluding Braskem Idesa, of about 4.5x in 2024 and 2025. As spreads improve slightly, despite remaining below midcycle conditions, we expect leverage to fall to about 3.5x. Braskem needs to preserve cash and reduce debt, which can be done by postponing strategic investments, reducing costs and optimizing working capital, or by divesting non-core business.

Free Cash Flow Constrained by Non-Recurring Cash Outlays: Braskem's operating cash flows remained positive despite compressed spreads, but payments provisioned for the geological event in Alagoas and the leniency agreement will still affect free cash flow (FCF) in 2024 and 2025. In our base case scenario, consolidated EBITDA, should range between BRL7.0 billion and 8.0 Billion (USD 1.4-1.6 Billion), while interest will rise because of the company's strategy of increasing cash balances by issuing debt to sustain strong liquidity.

We assumed annual maintenance capex of about BRL 2.0 billion (USD 400 million) with an additional BRL 1.0 billion (USD 200 Million) this year to finalize the construction of the Ethane Terminal in Mexico, all of which combined with the non-recurring disbursements, resulted in negative FCF of BRL 4.0 billion and BRL 1.1 billion, respectively. We did not consider any additional provision for Alagoas going forward.

Solid Business Profile: Braskem continues to have a leading market position with robust operations throughout the globe, conferring important competitive advantages, such as cost leadership, feedstock diversification and autonomy to any specific economic subsectors. It lies on the second quartile of the petrochemical cost curve and is a reference in sustainable developments, being the first company to produce green Ppolyethylene (PE).

Fitch acknowledges that the petrochemical sector is highly volatile and that Braskem possesses the resilience and strategic capability to manage its challenges effectively. In our projections, a 2.5% change in PE and Ppolypropylene (PP) average prices, keeping everything else constant, could result in a 1.0x change in net leverage.

Ratings

Braskem America Finance Company

| | |
|--|-----|
| Senior Unsecured Debt - Long-Term Rating | BB+ |
|--|-----|

Braskem Netherlands Finance B.V.

| | |
|--|-----|
| Senior Unsecured Debt - Long-Term Rating | BB+ |
| Subordinated Long-Term Rating | BB- |

Braskem S.A.

| | |
|------------------------------|----------|
| Long-Term IDR | BB+ |
| Long-Term Local-Currency IDR | BB+ |
| National Long-Term Rating | AAA(bra) |

Outlooks

| | |
|--------------------------------|----------|
| Long-Term Foreign-Currency IDR | Negative |
| Long-Term Local-Currency IDR | Negative |
| National Long-Term Rating | Stable |

[Click here for the full list of ratings](#)

2035 Climate Vulnerability Signal: 30

Applicable Criteria

[Corporate Hybrids Treatment and Notching Criteria \(November 2020\)](#)

[Corporate Rating Criteria \(November 2023\)](#)

[Sector Navigators – Addendum to the Corporate Rating Criteria \(November 2023\)](#)

[National Scale Rating Criteria \(December 2020\)](#)

Related Research

[Global Corporates Macro and Sector Forecasts](#)

[Spotlight: Braskem S.A. \(May 2024\)](#)

Analysts

Marcelo Pappiani
 +55 11 4504 2603
marcelo.pappiani@fitchratings.com

Adriana Eraso
 +1 646 582 4572
adriana.eraso@fitchratings.com

Financial Summary

| (BRL Mil.) | 2021 | 2022 | 2023 | 2024F | 2025F | 2026F |
|------------------------------|---------|--------|--------|--------|--------|--------|
| Gross revenue | 105,625 | 96,519 | 70,569 | 75,301 | 83,424 | 90,034 |
| EBITDA margin (%) | 28.5 | 9.5 | 2.9 | 9.6 | 10.0 | 12.3 |
| EBITDA interest coverage (x) | 11.2 | 3.4 | 0.6 | 1.6 | 2.0 | 3.5 |
| EBITDA leverage (x) | 1.5 | 5.2 | 26.7 | 7.3 | 6.2 | 4.5 |
| EBITDA net leverage (x) | 1.1 | 3.6 | 17.3 | 5.4 | 4.8 | 3.3 |

Source: Fitch Ratings, Fitch Solutions, Braskem

Rating Derivation Relative to Peers

Braskem's leading position in the Americas in its core products, PE and PP, is a major credit strength, mitigating the commodity nature of its products, which are characterized by volatile raw material prices and price-driven competition. It has medium scale compared with peers, such as Dow Chemical Company (BBB+/Stable) and Westlake Corporation (BBB/Stable), but it is well positioned relative to regional peers, such as Orbia Advance Corporation, S.A.B de C.V. (BBB/Stable) and Alpek, S.A.B. de C.V. (BBB-/Stable), in terms of scale and geographic diversification.

About 35% of Braskem's EBITDA was generated outside Brazil in the past six years and the company has strong local market share, allowing it to better withstand higher raw material prices and commercial strategies.

Braskem's leverage, excluding Braskem Idesa, under Fitch's base case is expected to be about 4.5x in 2024 and 2025, but reduce close to 3.5x in the following years. This is higher than petrochemical peers, such as Orbia's at 3.0x, Alpek's at 2.0x and Westlake's at 0.7x. All of these players maintain strong cash positions, long-term debt-amortization profiles, and strong access to local and international debt markets.

Westlake's higher degree of cyclical exposure relative to its larger, more integrated peers highlight the company's need to operate with lower levels of leverage at a given rating category. Nevertheless, it is the third-largest global chlor-alkali and PVC producer, having added scale to its PVC resin and vinyl-based building products through recent acquisitions. The company's cost-advantaged feedstock and a generally strong pricing environment led to historically stronger EBITDA margins than Braskem.

Navigator Peer Comparison

| | IDR/Outlook | Operating Environment | Management and Corporate Governance | Revenue/Value Sources | Market Position | Diversification | Cost Position | Profitability | Financial Structure | Financial Flexibility |
|---|--------------|-----------------------|-------------------------------------|-----------------------|-----------------|-----------------|---------------|---------------|---------------------|-----------------------|
| Alpek, S.A.B. de C.V. | BBB-/Stable | bbb | bbb- | bbb | bbb | bbb- | bbb- | bbb- | bbb- | bbb |
| Braskem S.A. | BB+/Negative | bb+ | bb | bb | bbb | bbb | bb+ | bb | b | bbb- |
| Cydsa, S.A.B. de C.V. | BB+/Stable | bb | bbb- | bb+ | bb | bb | bbb- | bbb- | bb+ | bb+ |
| Orbia Advance Corporation, S.A.B. de C.V. | BBB/Stable | bbb | bbb | bbb- | bbb | bbb+ | bbb | bbb | bbb | bbb |
| Westlake Corporation | BBB/Stable | aa- | bbb+ | bbb | bbb | bbb- | bbb | a | bbb | bbb |

Source: Fitch Ratings. Relative Importance of Factor: Higher (Red), Moderate (Blue), Lower (Light Blue)

| Name | IDR/Outlook | Operating Environment | Management and Corporate Governance | Revenue/Value Sources | Market Position | Diversification | Cost Position | Profitability | Financial Structure | Financial Flexibility |
|---|--------------|-----------------------|-------------------------------------|-----------------------|-----------------|-----------------|---------------|---------------|---------------------|-----------------------|
| Alpek, S.A.B. de C.V. | BBB-/Stable | +1 | 0 | +1 | +1 | 0 | 0 | 0 | 0 | +1 |
| Braskem S.A. | BB+/Negative | 0 | -1 | -1 | +2 | +2 | 0 | -1 | -4 | +1 |
| Cydsa, S.A.B. de C.V. | BB+/Stable | -1 | +1 | 0 | -1 | -1 | +1 | +1 | 0 | 0 |
| Orbia Advance Corporation, S.A.B. de C.V. | BBB/Stable | 0 | 0 | -1 | 0 | +1 | 0 | 0 | -1 | 0 |
| Westlake Corporation | BBB/Stable | +5 | +1 | 0 | 0 | -1 | 0 | +3 | 0 | 0 |

Source: Fitch Ratings. Factor Score Relative to IDR: Worse positioned than IDR (Red), Within one notch of IDR (Blue), Better positioned than IDR (Light Blue)

Rating Sensitivities

Factors that Could, Individually or Collectively, Lead to Positive Rating Action/Upgrade

- Net debt/EBITDA below 2.5x on average through the cycle, excluding Braskem Idesa;
- Sustained consolidated net debt of less than USD5 billion on average through the cycle.

Factors that Could, Individually or Collectively, Lead to Negative Rating Action/Downgrade

- Additional material contingent claims for the geological event in Alagoas;

- Net debt/EBITDA above 3.5x, on average through the cycle, excluding Braskem Idesa;
- Sustained negative FCF at the bottom of the cycle that results in incurring additional debt;
- Sustained EBITDA interest coverage below 1.0x;
- Material financial support to Braskem Idesa.

Liquidity and Debt Structure

Adequate Liquidity: Braskem adopts a conservative financial strategy to limit the risks associated with its exposure to the cyclical and capital-intensive nature of the petrochemical business. The company has a strong cash position, with USD3.3 billion of readily available cash and marketable securities as of March 31, 2024, excluding Braskem Idesa (USD357 million). Gross debt, excluding Braskem Idesa, stands at USD8.5 billion, USD277 million of which is due in 2024 and USD132 million in 2025.

The company's financial flexibility is enhanced by a USD1 billion unused revolving credit facility due in 2026. We expect Braskem to remain committed to preserving its liquidity by maintaining a conservative dividend policy particularly while leverage is above 2.5x. The company has the ability to reduce capex and fixed costs, optimize working capital and monetize tax credits if market conditions remain worse than anticipated in 2024.

ESG Considerations

Braskem has an ESG Relevance Score of '4' for Waste & Hazardous Materials Management, revised from '5', due to the operations' disruption and large cash outflows triggered by the geological event in Alagoas. This has a negative impact on the credit profile, and is relevant to the ratings in conjunction with other factors.

Braskem S.A. has an ESG Relevance Score of '3' for Exposure to Environmental Impacts, revised from '5', because the rating is more affected by the cash outflows linked to the geological events covered in the preceding paragraph, rather than by direct physical impacts resulting from climate change.

Braskem S.A. has an ESG Relevance Score of '4' for Human Rights, Community Relations, Access & Affordability, revised from '2', due to the reparation costs incurred following the geological event in Alagoas, to relocate over 14,000 families from neighboring areas. This has a negative impact on the credit profile, and is relevant to the ratings in conjunction with other factors.

Braskem S.A. has an ESG Relevance Score of '3' for Exposure to Social Impacts, revised from '5', because the rating is affected more significantly by the financial consequences of indemnification of harmed local communities covered in the preceding paragraph, rather than by the social resistance or pressure.

Braskem S.A. has an ESG Relevance Score of '3' for Governance Structure, revised from '4', because the company has improved its practices and has been compliant with regulators since the car-wash probe.

The highest level of ESG credit relevance is a score of '3', unless otherwise disclosed in this section. A score of '3' means ESG issues are credit-neutral or have only a minimal credit impact on the entity, either due to their nature or the way in which they are being managed by the entity. Fitch's ESG Relevance Scores are not inputs in the rating process; they are an observation on the relevance and materiality of ESG factors in the rating decision. For more information on Fitch's ESG Relevance Scores, visit <https://www.fitchratings.com/topics/esg/products#esg-relevance-scores>.

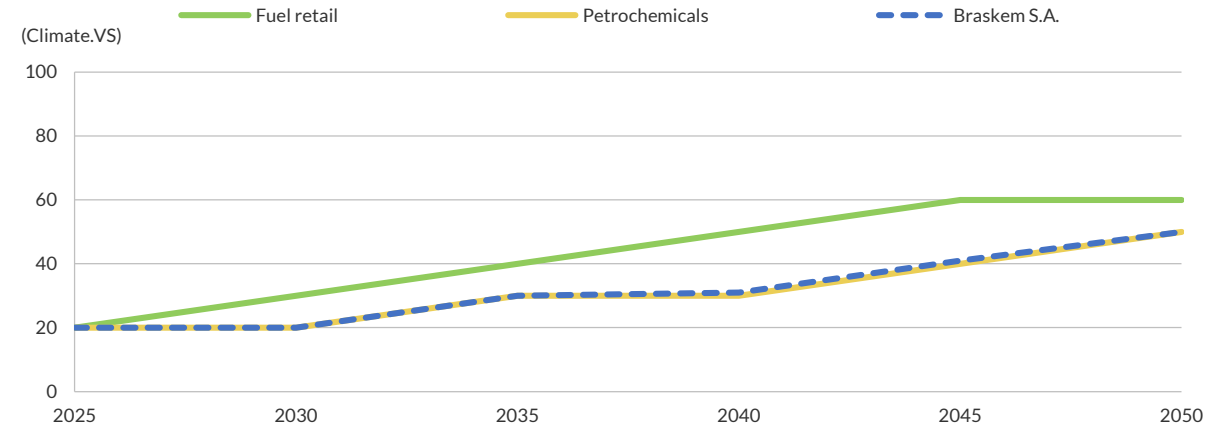
Climate Vulnerability Considerations

Fitch uses Climate Vulnerability Signals (Climate.VS) as a screening tool to identify sectors and Fitch-rated issuers that are potentially most exposed to credit-relevant climate transition risks and, therefore, require additional consideration of these risks in rating reviews. Climate.VS range from 0 (lowest risk) to 100 (highest risk). For more information on Climate.VS, see Fitch's [Corporate Rating Criteria](#).

The FY24 revenue-weighted Climate.VS for Braskem S.A. for 2035 is 30 out of 100, suggesting low exposure to climate-related risks in that year. For further information on how Fitch perceives climate-related risks in the chemicals sector, see our [Oil & Gas and Chemicals – Climate Vulnerability Signals Update](#) report.

Climate.VS Evolution

As of Jan 09, 2023



Source: Fitch Ratings

Liquidity and Debt Maturities

Liquidity Analysis

| (BRL Mil.) | 2024F | 2025F | 2026F |
|---|---------------|---------------|---------------|
| Available liquidity | | | |
| Beginning cash balance | 19,143 | 12,523 | 10,885 |
| Rating case FCF after acquisitions and divestitures | -3,931 | -1,128 | 3,263 |
| Total available liquidity (A) | 15,212 | 11,395 | 14,148 |
| Liquidity uses | | | |
| Debt maturities | -2,689 | -510 | -1,743 |
| <Other uses of liquidity> | | | |
| Total liquidity uses (B) | -2,689 | -510 | -1,743 |
| Liquidity calculation | | | |
| Ending cash balance (A+B) | 12,523 | 10,885 | 12,405 |
| Revolver availability | 5,100 | 5,200 | 5,200 |
| Ending liquidity | 17,623 | 16,085 | 17,605 |
| Liquidity score (x) | 7.6 | 32.5 | 11.1 |

Source: Fitch Ratings, Fitch Solutions, Braskem

Scheduled debt maturities

| (BRL Mil.) | December 31, 2023 |
|--------------|-------------------|
| 2024 | 2,689 |
| 2025 | 510 |
| 2026 | 1,743 |
| 2027 | 2,208 |
| 2028 | 7,235 |
| Thereafter | 41,443 |
| Total | 55,828 |

Source: Fitch Ratings, Fitch Solutions, Braskem

Key Assumptions

- Brazil PE realized revenue of USD3.78 billion, USD4.13 billion and USD4.5 billion during 2024-2026;
- Brazil PP realized revenue of USD2.04 billion USD 2.22 billion and USD2.39 billion during 2024-2026;
- Brazil vinyls realized revenue of USD650 million, USD700 million and USD820 million during 2024-2026;
- Brazil ethylene/propylene realized revenue of USD770 million, USD1.15 billion and USD1.2 billion during 2024-2026;
- U.S. and Europe PP realized revenue of USD3.76 billion, USD3.77 billion and USD3.96 billion during 2024-2026;
- Mexico PE realized revenue of USD1 billion, USD1.13 billion and USD1.360 billion during 2024-2026;
- PE-ethane reference spreads of USD860/ton in 2024, USD840/ton in 2025 and USD880/ton in 2026;
- PE-naphtha reference spreads of USD400/ton in 2024, USD400/ton in 2025 and USD480/ton in 2026;
- PP-propylene reference spreads of USD440/ton in 2024, USD440/ton in 2025 and USD430/ton in 2026;
- PVC reference spreads of USD410/ton in 2024, USD410/ton in 2025 and USD460/ton in 2026;
- Annual maintenance Capex of approximately BRL 2.0 billion (USD 400 million) with additional BRL 1.0 billion (USD 200 million) to finalize the Ethane terminal in Mexico in 2024;
- No dividends to shareholders during the analysis horizon.

Financial Data

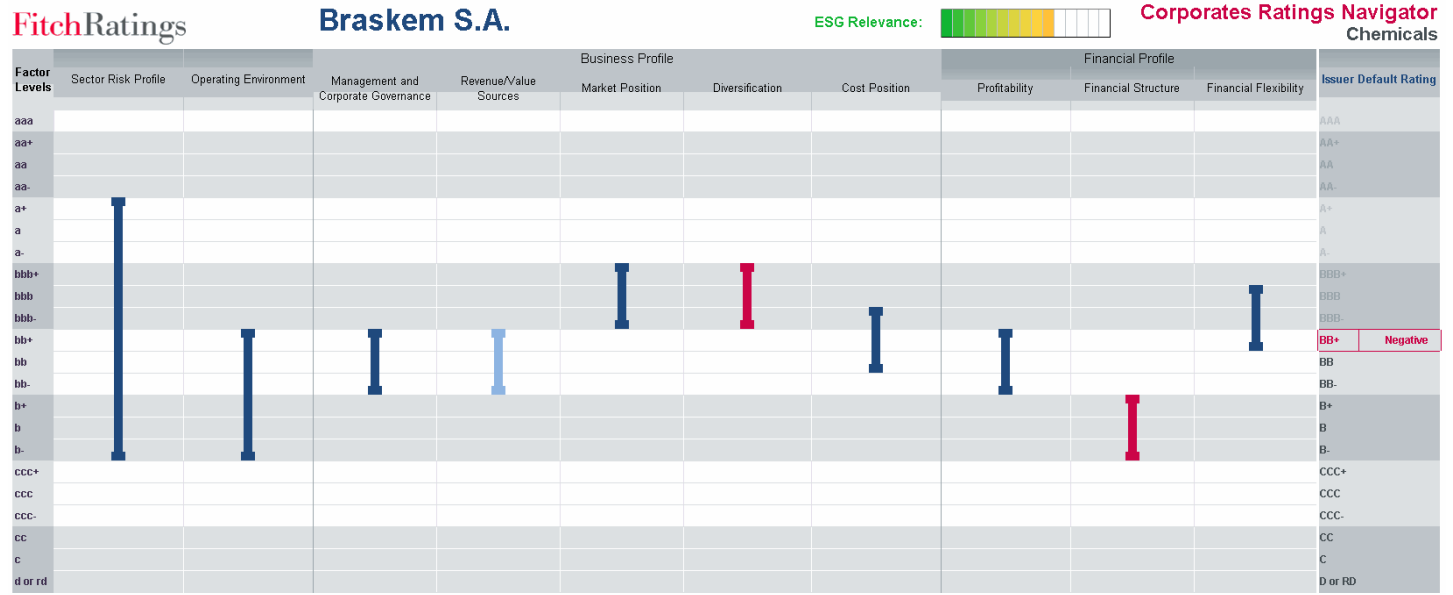
| (BRL Mil.) | 2021 | 2022 | 2023 | 2024F | 2025F | 2026F |
|---|---------|--------|--------|--------|--------|--------|
| Summary income statement | | | | | | |
| Gross revenue | 105,625 | 96,519 | 70,569 | 75,301 | 83,424 | 90,034 |
| Revenue growth (%) | 80.4 | -8.6 | -26.9 | 6.7 | 10.8 | 7.9 |
| EBITDA before income from associates | 30,064 | 9,204 | 2,021 | 7,195 | 8,351 | 11,088 |
| EBITDA margin (%) | 28.5 | 9.5 | 2.9 | 9.6 | 10.0 | 12.3 |
| EBITDA after associates and minorities | 30,054 | 9,175 | 2,032 | 7,195 | 8,351 | 11,088 |
| EBIT | 26,762 | 5,466 | -1,843 | 3,293 | 4,096 | 6,650 |
| EBIT margin (%) | 25.3 | 5.7 | -2.6 | 4.4 | 4.9 | 7.4 |
| Gross interest expense | -2,923 | -3,125 | -3,780 | -4,385 | -4,260 | -3,141 |
| Pre-tax income including associate income/loss | 17,961 | 47 | -6,192 | 631 | 957 | 4,484 |
| Summary balance sheet | | | | | | |
| Readily available cash and equivalents | 12,173 | 14,762 | 19,143 | 13,183 | 11,476 | 12,996 |
| Debt | 46,239 | 47,985 | 54,290 | 52,261 | 51,682 | 49,939 |
| Net debt | 34,066 | 33,223 | 35,147 | 39,077 | 40,206 | 36,942 |
| Summary cash flow statement | | | | | | |
| EBITDA | 30,064 | 9,204 | 2,021 | 7,195 | 8,351 | 11,088 |
| Cash interest paid | -2,685 | -2,684 | -3,271 | -4,385 | -4,260 | -3,141 |
| Cash tax | -2,707 | -1,621 | -866 | — | — | -1,320 |
| Dividends received less dividends paid to minorities (inflow/outflow) | -9 | -28 | 11 | — | — | — |
| Other items before FFO | 238 | -3,314 | -2,114 | — | — | — |
| FFO | 25,340 | 2,606 | -2,750 | 4,533 | 5,212 | 7,603 |
| FFO margin (%) | 24.0 | 2.7 | -3.9 | 6.0 | 6.2 | 8.4 |
| Change in working capital | -9,007 | 6,314 | 3,833 | -1,328 | -1,528 | -1,597 |
| Cash flow from operations (CFO) (Fitch-defined) | 16,333 | 8,920 | 1,083 | 3,204 | 3,683 | 6,005 |
| Total non-operating/non-recurring cash flow | -2,928 | -2,743 | -2,686 | -3,835 | -2,662 | -592 |
| Capex | -3,421 | -4,848 | -4,530 | — | — | — |
| Capital intensity (capex/revenue) (%) | 3.2 | 5.0 | 6.4 | — | — | — |
| Common dividends | -5,993 | -1,350 | -7 | — | — | — |
| FCF | 3,990 | -22 | -6,140 | — | — | — |
| FCF margin (%) | 3.8 | -0.0 | -8.7 | — | — | — |
| Net acquisitions and divestitures | 40 | 2 | — | — | — | — |
| Other investing and financing cash flow items | 908 | 1,288 | -1,632 | — | — | — |
| Net debt proceeds | -10,121 | 2,517 | 9,493 | -2,029 | -579 | -1,743 |
| Net equity proceeds | — | — | — | — | — | — |
| Total change in cash | -5,182 | 3,786 | 1,721 | -5,960 | -1,707 | 1,520 |
| Calculations for forecast publication | | | | | | |
| Capex, dividends, acquisitions and other items before FCF | -12,302 | -8,939 | -7,223 | -7,135 | -4,812 | -2,742 |
| FCF after acquisitions and divestitures | 4,031 | -19 | -6,140 | -3,931 | -1,128 | 3,263 |
| FCF margin after net acquisitions (%) | 3.8 | -0.0 | -8.7 | -5.2 | -1.4 | 3.6 |
| Gross Leverage ratios (x) | | | | | | |
| EBITDA leverage | 1.5 | 5.2 | 26.7 | 7.3 | 6.2 | 4.5 |
| CFO-capex/debt | 27.9 | 8.5 | -6.3 | -0.2 | 3.0 | 7.7 |
| Net Leverage ratios (x) | | | | | | |
| EBITDA net leverage | 1.1 | 3.6 | 17.3 | 5.4 | 4.8 | 3.3 |
| CFO-capex/net debt | 37.9 | 12.3 | -9.8 | -0.2 | 3.8 | 10.4 |
| Coverage ratios (x) | | | | | | |
| EBITDA interest coverage | 11.2 | 3.4 | 0.6 | 1.6 | 2.0 | 3.5 |

Source: Fitch Ratings, Fitch Solutions, Braskem

How to Interpret the Forecast Presented

The forecast presented above is based on Fitch Ratings' internally produced, conservative rating case forecast. It does not represent the forecast of the rated issuer. The forecast set out above is only one component used by Fitch Ratings to assign a rating or determine a rating outlook, and the information in the forecast reflects material but not exhaustive elements of Fitch Ratings' rating assumptions for the issuer's financial performance. As such, it cannot be used to establish a rating, and it should not be relied on for that purpose. Fitch Ratings' forecasts are constructed using a proprietary internal forecasting tool, which employs Fitch Ratings' own assumptions on operating and financial performance that may not reflect the assumptions that you would make. Fitch Ratings' own definitions of financial terms such as EBITDA, debt or free cash flow may differ from your own such definitions. Fitch Ratings may be granted access, from time to time, to confidential information on certain elements of the issuer's forward planning. Certain elements of such information may be omitted from this forecast, even where they are included in Fitch Ratings' own internal deliberations, where Fitch Ratings, at its sole discretion, considers the data may be potentially sensitive in a commercial, legal or regulatory context. The forecast (as with the entirety of this report) is produced strictly subject to the disclaimers set out at the end of this report. Fitch Ratings may update the forecast in future reports but assumes no responsibility to do so. Original financial statement data for historical periods is processed by Fitch Solutions on behalf of Fitch Ratings. Key financial adjustments and all financial forecasts credited to Fitch Ratings are generated by rating agency staff.

Ratings Navigator



| Bar Chart Legend: | |
|---|--|
| Vertical Bars = Range of Rating Factor | Bar Arrows = Rating Factor Outlook |
| Bar Colors = Relative Importance | <ul style="list-style-type: none"> ↑ Positive ↓ Negative ↕ Evolving □ Stable |
| <ul style="list-style-type: none"> ■ Higher Importance ■ Average Importance ■ Lower Importance | |

| Operating Environment | | | Management and Corporate Governance | | | | | |
|--|---|-----|--|----------------------------------|---------------------|---------------------|-----------|---|
| bbb- | Economic Environment | bbb | bbb- | Management Strategy | bbb | | | |
| bb+ | Financial Access | a | bb+ | Governance Structure | bb | | | |
| | Systemic Governance | b | bb | Group Structure | bb | | | |
| b- | | | bb- | Financial Transparency | bbb | | | |
| ccc+ | | | b+ | | | | | |
| <p>Average combination of countries where economic value is created and where assets are located.</p> <p>Strong combination of issuer specific funding characteristics and of the strength of the relevant local financial market.</p> <p>Systemic governance (eg rule of law, corruption, government effectiveness) of the issuer's country of incorporation consistent with 'b'.</p> | | | <p>Strategy may include opportunistic elements but soundly implemented.</p> <p>Board effectiveness questionable with few independent directors. "Key person" risk from dominant CEO or shareholder.</p> <p>Complex group structure or non transparent ownership structure. Related-party transactions exist but with reasonable economic rationale.</p> <p>Good quality reporting without significant failing. Consistent with the average of listed companies in major exchanges.</p> | | | | | |
| Revenue/Value Sources | | | Market Position | | | | | |
| bbb- | Portfolio Characteristics (Specialty Chemicals) | bb | a- | Market Position | bbb | | | |
| bb+ | Portfolio Characteristics (Commodity Chemicals) | bb | bbb+ | EBITDA (\$) | a | | | |
| bb | Sustainability Risks | | bbb | Pricing Power/ Barriers to Entry | | | | |
| bb- | | | bbb- | | | | | |
| b+ | | | bb+ | | | | | |
| <p>Portfolio with a high content of specialty chemicals with moderate differentiation. Potential temporary structural weaknesses.</p> <p>Commodity chemicals with average growth prospects and characterized by overcapacity, volatile raw material prices, price-driven competition.</p> | | | <p>Top-five market position in core activities.</p> <p>\$1.4 billion</p> | | | | | |
| Diversification | | | Cost Position | | | | | |
| a- | Portfolio Diversification | bbb | bbb | Raw Material & Energy Costs | bb | | | |
| bbb+ | End-Market Diversification | bb | bbb- | Degree of Integration | bbb | | | |
| bbb | Number of Sites | bbb | bb+ | Production Flexibility | bbb | | | |
| bbb- | Regional Footprint | bbb | bb | Regulatory Exposure | bb | | | |
| bb+ | | | bb- | | | | | |
| <p>Medium-sized diversified producer or large non-diversified producer in highly concentrated subsector</p> <p>Modest end-market diversification, some customer concentration, mid to high product cyclicality, leader in stable niche applications.</p> <p>Three or more large scale integrated production complexes.</p> <p>Significant presence in two or more regions.</p> | | | <p>Mid-to-high sensitivity to raw material price volatility or average to high raw material and energy costs.</p> <p>Average degree of vertical or horizontal integration with strong-to-moderate cost efficiencies or light asset bases with low operating gearing.</p> <p>Moderate raw material diversification, limited feedstock flexibility or average production process flexibility.</p> <p>Significant exposure to environmental regulations and/or penalties. Remediation costs and/or likely penalties are within current cashflows, but may weigh more over time.</p> | | | | | |
| Profitability | | | Financial Structure | | | | | |
| bbb- | EBITDA Margin | bb | 8% | bbb- | EBITDA Leverage | b | 4.5x | |
| bb+ | FCF Margin | bb | Neutral to negative FCF across the cycle. | b+ | EBITDA Net Leverage | b | 4.0x | |
| bb | | | | b | (CFO-Capex)/Debt | b | 2.5% | |
| bb- | | | | b- | | | | |
| b+ | | | | ccc+ | | | | |
| <p>Clear commitment to maintain a conservative policy with only modest deviations allowed.</p> <p>No need for external funding beyond committed facilities in the next 12 months even under a severe stress scenario. Well-spread maturities. Diversified funding.</p> <p>3.0x</p> <p>Some FX exposure on profitability and/or debt/cash flow match. Effective hedging in place.</p> | | | <p>Braskem S.A. has 2 ESG rating drivers and 11 ESG potential rating drivers</p> <ul style="list-style-type: none"> Waste handling; permitting Relationship with local communities Emissions from production process Energy use in operations, and used as feedstock Water usage in processing Exposure of facilities and inventory to environmental hazards | | | | | |
| Financial Flexibility | | | Credit-Relevant ESG Derivation | | | | | |
| bbb+ | Financial Discipline | a | | | | Overall ESG | | |
| bbb | Liquidity | a | | | | key driver | 0 issues | 5 |
| bbb- | EBITDA Interest Coverage | b | | | | driver | 2 issues | 4 |
| bb+ | FX Exposure | bbb | | | | potential driver | 11 issues | 3 |
| bb | | | | | | not a rating driver | 0 issues | 2 |
| | | | | | | | 1 issues | 1 |

How to Read This Page: The left column shows the three-notch band assessment for the overall Factor, illustrated by a bar. The right column breaks down the Factor into Sub-Factors, with a description appropriate for each Sub-Factor and its corresponding category.

Showing top 6 issues

For further details on Credit-Relevant ESG scoring, see page 3.

Credit-Relevant ESG Derivation

Braskem S.A. has 2 ESG rating drivers and 11 ESG potential rating drivers

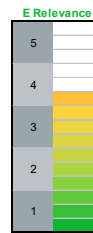
- ➔ Braskem S.A. has exposure to waste & impact management risk which, in combination with other factors, impacts the rating.
- ➔ Braskem S.A. has exposure to land rights/conflicts risk which, in combination with other factors, impacts the rating.
- ➔ Braskem S.A. has exposure to emissions regulatory risk but this has very low impact on the rating.
- ➔ Braskem S.A. has exposure to energy productivity risk but this has very low impact on the rating.
- ➔ Braskem S.A. has exposure to water management risk but this has very low impact on the rating.
- ➔ Braskem S.A. has exposure to extreme weather events but this has very low impact on the rating.

Showing top 6 issues

| | | | ESG Relevance to Credit Rating | |
|---------------------|----|--------|--------------------------------|--|
| key driver | 0 | issues | 5 | |
| driver | 2 | issues | 4 | |
| potential driver | 11 | issues | 3 | |
| not a rating driver | 0 | issues | 2 | |
| | 1 | issues | 1 | |

Environmental (E) Relevance Scores

| General Issues | E Score | Sector-Specific Issues | Reference |
|--|---------|---|------------------------------|
| GHG Emissions & Air Quality | 3 | Emissions from production process | Cost Position; Profitability |
| Energy Management | 3 | Energy use in operations, and used as feedstock | Cost Position; Profitability |
| Water & Wastewater Management | 3 | Water usage in processing | Cost Position; Profitability |
| Waste & Hazardous Materials Management, Ecological Impacts | 4 | Waste handling, permitting | Cost Position; Profitability |
| Exposure to Environmental Impacts | 3 | Exposure of facilities and inventory to environmental hazards | Cost Position; Profitability |



How to Read This Page

ESG relevance scores range from 1 to 5 based on a 15-level color gradation. Red (5) is most relevant to the credit rating and green (1) is least relevant.

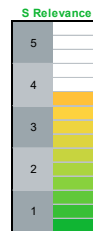
The Environmental (E), Social (S) and Governance (G) tables break out the ESG general issues and the sector-specific issues that are most relevant to each industry group. Relevance scores are assigned to each sector-specific issue, signaling the credit-relevance of the sector-specific issues to the issuer's overall credit rating. The Criteria Reference column highlights the factor(s) within which the corresponding ESG issues are captured in Fitch's credit analysis. The vertical color bars are visualizations of the frequency of occurrence of the highest constituent relevance scores. They do not represent an aggregate of the relevance scores or aggregate ESG credit relevance.

The Credit-Relevant ESG Derivation table's far right column is a visualization of the frequency of occurrence of the highest ESG relevance scores across the combined E, S and G categories. The three columns to the left of ESG Relevance to Credit Rating summarize rating relevance and impact to credit from ESG issues. The box on the far left identifies any ESG Relevance Sub-factor issues that are drivers or potential drivers of the issuer's credit rating (corresponding with scores of 3, 4 or 5) and provides a brief explanation for the relevance score. All scores of '4' and '5' are assumed to reflect a negative impact unless indicated with a '+' sign for positive impact.

Classification of ESG issues has been developed from Fitch's sector ratings criteria. The General Issues and Sector-Specific Issues draw on the classification standards published by the United Nations Principles for Responsible Investing (PRI), the Sustainability Accounting Standards Board (SASB), and the World Bank.

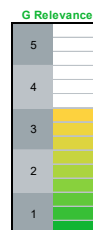
Social (S) Relevance Scores

| General Issues | S Score | Sector-Specific Issues | Reference |
|--|---------|---|---|
| Human Rights, Community Relations, Access & Affordability | 4 | Relationship with local communities | Management and Corporate Governance; Cost Position; Profitability |
| Customer Welfare - Fair Messaging, Privacy & Data Security | 1 | Products' users safety and side effects | Cost Position; Profitability |
| Labor Relations & Practices | 3 | Impact of labor negotiations and employee (dis)satisfaction | Management and Corporate Governance |
| Employee Wellbeing | 3 | Workplace safety and accident prevention | Management and Corporate Governance |
| Exposure to Social Impacts | 3 | Social resistance to major projects (for example: GMOs); shift in consumer preferences towards chemical-free products | Management and Corporate Governance |



Governance (G) Relevance Scores

| General Issues | G Score | Sector-Specific Issues | Reference |
|------------------------|---------|---|-------------------------------------|
| Management Strategy | 3 | Strategy development and implementation | Management and Corporate Governance |
| Governance Structure | 3 | Board independence and effectiveness; ownership concentration | Management and Corporate Governance |
| Group Structure | 3 | Complexity, transparency and related-party transactions | Management and Corporate Governance |
| Financial Transparency | 3 | Quality and timing of financial disclosure | Management and Corporate Governance |



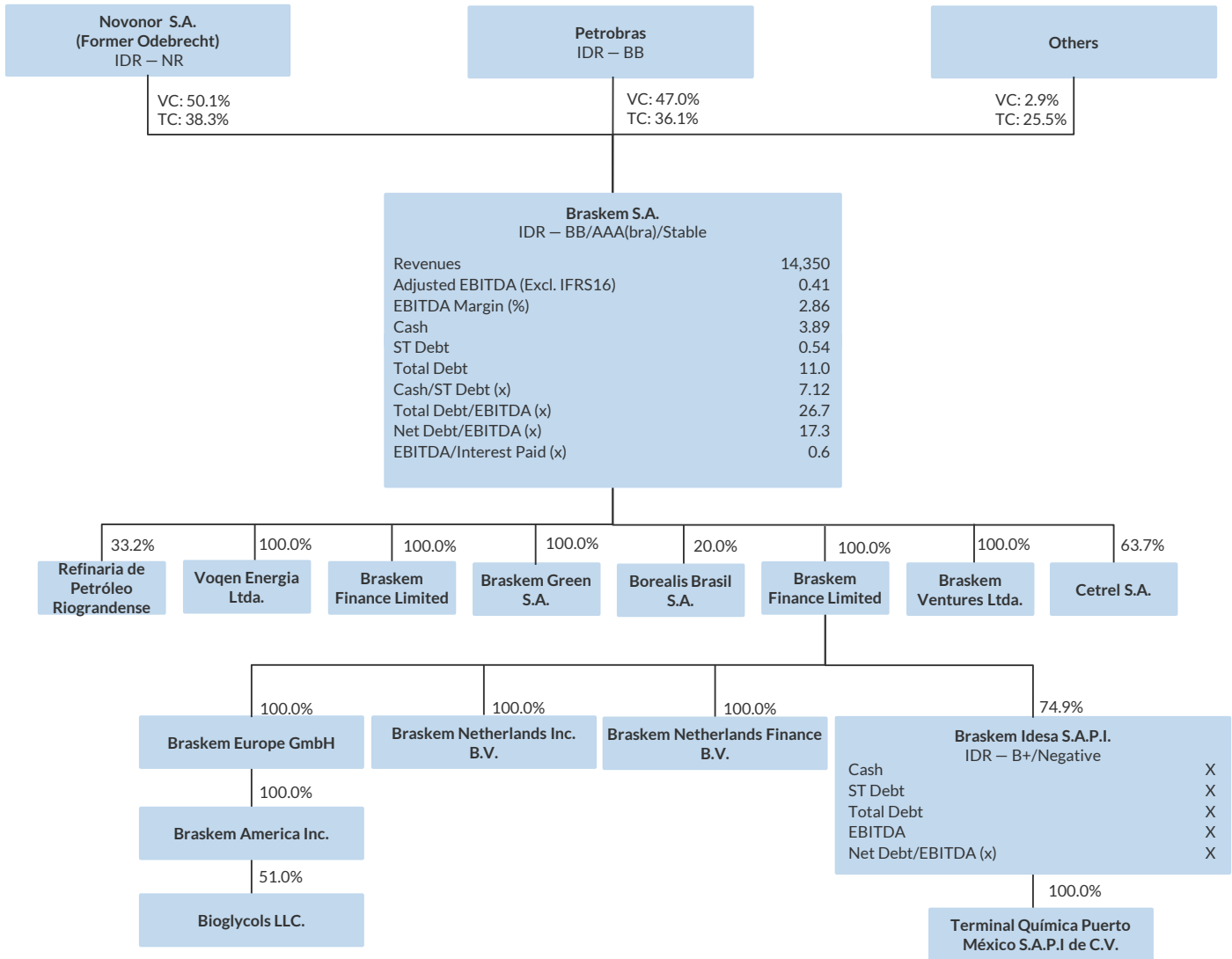
CREDIT-RELEVANT ESG SCALE

| How relevant are E, S and G issues to the overall credit rating? | |
|--|---|
| 5 | Highly relevant, a key rating driver that has a significant impact on the rating on an individual basis. Equivalent to "higher" relative importance within Navigator. |
| 4 | Relevant to rating, not a key rating driver but has an impact on the rating in combination with other factors. Equivalent to "moderate" relative importance within Navigator. |
| 3 | Minimally relevant to rating, either very low impact or actively managed in a way that results in no impact on the entity rating. Equivalent to "lower" relative importance within Navigator. |
| 2 | Irrelevant to the entity rating but relevant to the sector. |
| 1 | Irrelevant to the entity rating and irrelevant to the sector. |

Simplified Group Structure Diagram

Organizational Structure – Braskem S.A.

(USD bil., as of December 31, 2023)



VC – Voting capital. TC – Total capital. IDR – Issuer Default Rating. NR – Not rated. ST – Short-term.
Source: Fitch Ratings, Fitch Solutions, Braskem S.A.

Peer Financial Summary

| Company | Issuer Default Rating | Financial statement date | EBITDA (USD Mil.) | EBITDA margin (%) | EBITDA net leverage (x) | FCF margin (%) | Debt (USD Mil.) |
|---|-----------------------|--------------------------|-------------------|-------------------|-------------------------|----------------|-----------------|
| Braskem S.A. | BB+ | | | | | | |
| | BB+ | 2023 | 411 | 2.9 | 17.3 | -8.7 | 11,038 |
| | BBB- | 2022 | 1,789 | 9.5 | 3.6 | -0.0 | 9,328 |
| Braskem Idesa SAPI | BBB- | 2021 | 5,283 | 28.5 | 1.1 | 3.8 | 8,126 |
| | B+ | | | | | | |
| | BB- | 2022 | 241 | 20.0 | 7.4 | 6.7 | 2,196 |
| Westlake Corporation | B+ | 2021 | 603 | 52.0 | 3.1 | 25.6 | 2,183 |
| | B+ | 2020 | 288 | 34.6 | 7.4 | 16.8 | 2,297 |
| | BBB | | | | | | |
| Westlake Corporation | BBB | 2023 | 2,372 | 18.9 | 0.7 | 8.2 | 4,997 |
| | BBB | 2022 | 4,175 | 26.4 | 0.7 | 11.9 | 4,976 |
| | BBB | 2021 | 3,692 | 31.3 | 0.9 | 13.1 | 5,283 |
| Alpek, S.A.B. de C.V. | BBB- | | | | | | |
| | BBB- | 2023 | 544 | 6.7 | 2.8 | 4.9 | 1,930 |
| | BBB- | 2022 | 1,441 | 13.2 | 1.3 | -0.5 | 1,990 |
| Orbia Advance Corporation, S.A.B. de C.V. | BBB- | 2021 | 999 | 13.2 | 1.1 | -0.1 | 1,549 |
| | BBB | | | | | | |
| | BBB | 2023 | 1,459 | 17.8 | 2.6 | 1.0 | 5,267 |
| Cydsa, S.A.B. de C.V. | BBB | 2022 | 1,705 | 17.7 | 2.3 | -0.3 | 5,163 |
| | BBB | 2021 | 2,016 | 23.0 | 1.7 | 3.0 | 3,987 |
| | BB+ | | | | | | |
| Cydsa, S.A.B. de C.V. | BB+ | 2023 | 238 | 28.7 | 2.5 | -1.2 | 690 |
| | BB+ | 2022 | 177 | 25.2 | 3.1 | -9.3 | 692 |
| | BB+ | 2021 | 137 | 24.9 | 3.6 | -12.0 | 692 |

Source: Fitch Ratings, Fitch Solutions

Fitch Adjusted Financials

| (BRL Mil. as of December 31, 2023) | Notes and formulas | Standardised values | Cash adjustment | Lease treatment | Other adjustments | Adjusted values |
|--|--------------------|---------------------|-----------------|-----------------|-------------------|-----------------|
| Income statement summary | | | | | | |
| Revenue | | 70,569 | – | – | – | 70,569 |
| EBITDA | (a) | 2,414 | – | -1,623 | 1,230 | 2,021 |
| Depreciation and amortization | | -5,206 | – | 1,342 | – | -3,864 |
| EBIT | | -2,792 | – | -281 | 1,230 | -1,843 |
| Balance sheet summary | | | | | | |
| Debt | (b) | 54,438 | – | – | -148 | 54,290 |
| Of which other off-balance sheet debt | | – | – | – | – | – |
| Lease-equivalent debt | | – | – | – | – | – |
| Lease-adjusted debt | | 54,438 | – | – | -148 | 54,290 |
| Readily available cash and equivalents | (c) | 14,187 | 4,956 | – | – | 19,143 |
| Not readily available cash and equivalents | | – | – | – | – | – |
| Cash flow summary | | | | | | |
| EBITDA | (a) | 2,414 | – | -1,623 | 1,230 | 2,021 |
| Dividends received from associates less dividends paid to minorities | (d) | 11 | – | – | – | 11 |
| Interest paid | (e) | -3,550 | – | 279 | – | -3,271 |
| Interest received | (f) | 1,469 | – | – | – | 1,469 |
| Preferred dividends paid | (g) | – | – | – | – | – |
| Cash tax paid | | -866 | – | – | – | -866 |
| Other items before FFO | | -5,572 | – | -277 | 3,735 | -2,114 |
| FFO | (h) | -6,094 | – | -1,621 | 4,965 | -2,750 |
| Change in working capital | | 3,833 | – | – | – | 3,833 |
| CFO | (i) | -2,261 | – | -1,621 | 4,965 | 1,083 |
| Non-operating/non-recurring cash flow | | – | – | – | -2,686 | -2,686 |
| Capex | (j) | -4,530 | – | – | – | -4,530 |
| Common dividends paid | | -7 | – | – | – | -7 |
| FCF | | -6,798 | – | -1,621 | 2,279 | -6,140 |
| Gross leverage (x) | | | | | | |
| EBITDA leverage | b/(a+d) | 22.4 | – | – | – | 26.7 |
| (CFO-capex)/debt (%) | (i+j)/b | -12.5 | – | – | – | -6.3 |
| Net leverage (x) | | | | | | |
| EBITDA net leverage | (b-c)/(a+d) | 16.6 | – | – | – | 17.3 |
| (CFO-capex)/net debt (%) | (i+j)/(b-c) | -16.9 | – | – | – | -9.8 |
| Coverage (x) | | | | | | |
| EBITDA interest coverage | (a+d)/(-e) | 0.7 | – | – | – | 0.6 |

Note: The standardised items presented above are based on Fitch's taxonomy for the given sector and region. Reported items may not match the Fitch taxonomy, but they are captured into corresponding lines accordingly.

Debt includes other off-balance sheet debt.

Debt in the standardised values column excludes lease liabilities of BRL3,933 million.

Source: Fitch Ratings, Fitch Solutions, Braskem

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