

# RatingsDirect®

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## Summary:

### Braskem S.A.

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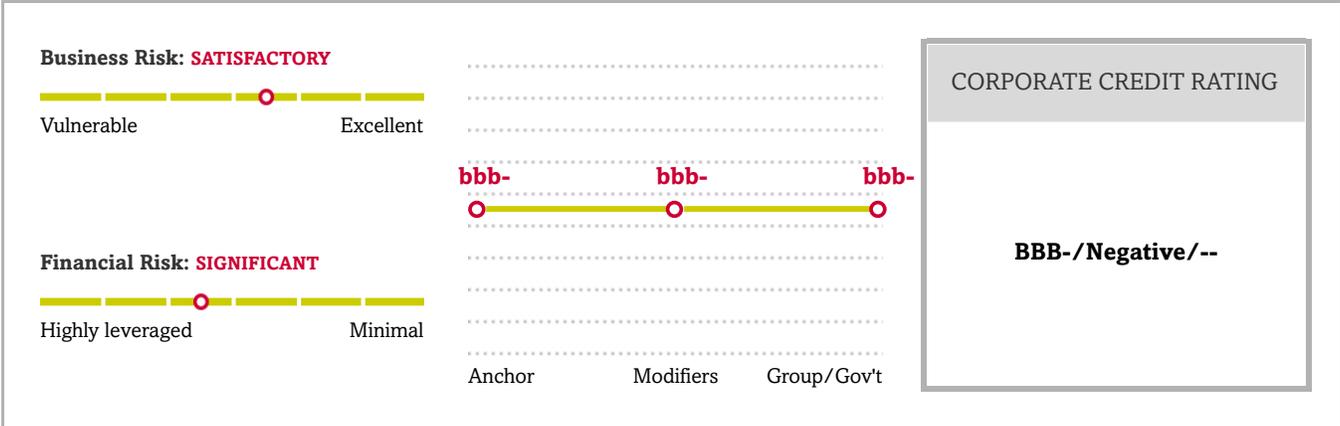
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# Summary: Braskem S.A.



## Rationale

Business Risk: Satisfactory	Financial Risk: Significant
<ul style="list-style-type: none"> <li>• Dominant position in Brazil's petrochemical market;</li> <li>• Raw-material and geographic diversification; and</li> <li>• Diverse customer base and strong distribution capabilities.</li> </ul>	<ul style="list-style-type: none"> <li>• Inherent industry volatility, with exposure to working-capital and capital expenditures (capex) cycles; and</li> <li>• Sound operating performance and leverage boundaries.</li> </ul>

## Outlook

S&P Global Ratings' negative outlook on Braskem S.A. mirrors that on the sovereign, considering the maximum rating differentiation of two notches. It also reflects the company's challenges to sustain its liquidity (and ability to pass our hypothetical stress scenario of a sovereign default) amid the delays in releasing audit financial statements to comply with applicable covenants.

Downside scenario	Upside scenario
<p>If we lower the ratings on Brazil, we would also lower the ratings on Braskem. A more aggressive financial policy or relevant change in the shareholders' agreement over the next 12-18 months could pressure the ratings as well, especially if a weaker counterparty were to control the company without significant minority shareholders with active economic interest. In addition, we will continue to monitor Braskem's operating performance and leverage boundaries. A downgrade could occur if the company's credit metrics weaken, with net debt to EBITDA of more than 3.0x-3.5x and funds from operations (FFO) to net debt below 25% on a sustained basis, deconsolidating the Mexican project finance (ethylene XXI, EXXI). Any higher perceived risk related to the release of annual audited numbers and covenant breach in the next three months would also trigger a downgrade.</p>	<p>An outlook stabilization would depend on the same action on the sovereign rating on Brazil. Along with that, we would need to see Braskem maintain sound operating efficiency and free cash flow generation during the next two years even amid an expansion phase in the global petrochemical industry that could pressure spreads. Under this scenario, we expect the company to continue posting net debt to EBITDA below 2.5x, with FFO to net debt higher than 35% (excluding the EXXI project debt). The stable outlook also considers the maintenance of strong liquidity.</p>

## Our Base-Case Scenario

Assumptions	Key Metrics
<ul style="list-style-type: none"> <li>• A 0.5% growth in Brazil's GDP in 2017, followed by 2.0% in 2018, which would affect domestic resins demand. We are assuming growth for local volumes close to 2x higher than GDP expectation driven by Braskem's mix of products and end-markets, including high exposure to nondurable industries and agriculture.</li> <li>• An average exchange rate of 3.20 Brazilian reals (R\$) to \$1 in 2017 and R\$3.30/\$1 in 2018, and an end-of-period exchange rate of R\$3.25/\$1 in 2017 and R\$3.35/\$1 in 2018.</li> <li>• Brent crude prices of \$50 per barrel (bbl) in 2017 and 2018.</li> <li>• Although weaker than in 2016, we still expect healthy petrochemical spreads, given the delays of some projects and limited availability of basic petrochemicals, such as ethylene. Nevertheless, once those delayed projects come online, petrochemicals spreads could be pressured.</li> <li>• Braskem's international operations and exports will continue to benefit from higher demand in developed economies at rates that are the same or slightly higher than GDP growth pace in these countries and industrial production growth rates.</li> <li>• Revenue decline of about 2% in Brazilian reals during 2017 (given the more appreciated local currency), followed by about 6% growth in 2018 due to higher volumes and a slightly weaker domestic currency.</li> <li>• Capex close to R\$1.8 billion in 2017, which includes investments for a flex raw material usage in Bahia cracker. For 2018, we assume capex to be relatively stable, with a potential upside revision to include a new polypropylene project in the U.S. with investments that could reach \$500 million-\$600 million during the next two years.</li> <li>• We are assuming a 50% dividend payout ratio, although we do not expect any dividend payment this year because of the accounting losses reported at fiscal-year end 2016. We are assuming Braskem's dividend policy at 50%, despite the 25% minimum legal payout, based on the company's low net leverage and soft capex long-term curve.</li> <li>• We are including a cash outflow of R\$1.6 billion</li> </ul>	<ul style="list-style-type: none"> <li>• Adjusted EBITDA margins of about 18% (close to 20% if we were to include EXXI);</li> <li>• Adjusted net debt to EBITDA of 2.0x-2.5x (2.5x-3.0x if we were to include EXXI); and</li> <li>• FFO to adjusted net debt of 25%-35%.</li> </ul>

during 2017 related to the leniency agreement. We are adjusting the remaining litigation of R\$1.5 billion under Braskem's debt position.

- Our base-case financial analysis excludes the EXXI project in our debt calculations. The EXXI project is structured with limited recourse to Braskem and with a strong security package. Nevertheless, we believe this project is highly strategic to the company, which could provide under certain circumstances support beyond what's legally required to maintain. As such, in our view, potential support is likely to be significantly lower than the project's total debt.

## Business Risk: Satisfactory

The satisfactory business risk profile continues to reflect Braskem's leading position in the thermoplastic resins industry in the Americas, its status as the sole producer of polyethylene and polypropylene in Brazil, and as a leading supplier of polyvinyl chloride (PVC). The company integrates the first and second generations of Brazil's petrochemical industry, consisting of the naphtha or ethane cracking function (basic petrochemicals) and thermoplastics production (polyolefin and PVC). The company has facilities in Brazil, the U.S., Germany, and Mexico, which enable it to adjust production (dedicating some plants to specific grades) according to demand and logistics.

We expect Braskem to maintain its dominant market position in Brazil, enabling it to pass through the bulk of cost inflation and currency swings to customers, which mitigates the effects of the country's weak economy. This also provides a favorable relationship with suppliers for long-term raw material supply agreements and customers with a diversified end-market base that mitigates exposure to demand fluctuations.

In our view, the company's ability to select, execute, and fund its investments effectively allows it to bolster its competitive advantage. Although the majority of Braskem's plants are naphtha-based, it's diversifying its feedstock matrix through the startup of the gas-based petrochemical complex in Mexico.

## Financial Risk: Significant

We understand new global capacity additions (mainly in the U.S. and China) could pressure spreads over the following two years. The more appreciated Brazilian real should also weigh on margins, since revenues are pegged to the dollar (Braskem's product reference prices are based on international markets) while 20%-25% of costs are in local currency. Nevertheless, we believe Braskem will continue to post solid operating efficiency and keep benefiting from an improved geographic diversification that should enable it to sustain leverage levels that are comfortable within the boundaries for the 'significant' financial risk profile even amid the industry's cyclical nature.

## Liquidity: Adequate

We assess Braskem's liquidity as adequate. Even though we expect sources to exceed uses by more than 1.5x over the next 12 months, we understand the company's ability to withstand high-impact, low-probability events has reduced materially given delays in putting out its audited financial statements and the potential effect on the company's capital structure and risk management.

Braskem is not subject to financial covenants on its outstanding obligations. However, it must release audited financial statements within a certain period after the end of the fiscal year (for the bulk of Braskem's debt, including the bonds, this period is equivalent to 120 days). If the company fails to provide this information, we believe the creditors have the right to ask for a notice of default. They could send such notice if they account for more than 25% of each notes' series, and debt acceleration could occur after a 60-day cure period. The company is working to release those financial statements as soon as possible, and we're not incorporating acceleration events in our base-case scenario, even though the actual timing remains uncertain.

Principal Liquidity Sources	Principal Liquidity Uses
<ul style="list-style-type: none"> <li>• Reported cash reserves of R\$7.3 billion as of December 2016;</li> <li>• FFO of R\$5 billion-R\$6 billion annually; and</li> <li>• R\$500 million and \$750 million in undrawn committed credit lines due in 2019, with no material adverse clauses or financial covenants that offshore subsidiaries could also access.</li> </ul>	<ul style="list-style-type: none"> <li>• Short-term maturities of about R\$2.6 billion as of December 2016;</li> <li>• R\$1.6 billion in fines related to the leniency agreement;</li> <li>• Capex close to R\$1.8 billion in 2017, potentially increasing to about R\$2.7 billion in 2018 in case the polypropylene project in the U.S. is approved by the board; and</li> <li>• No dividend payments in 2017 because of accounting losses in 2016 and a payout rate at 50% of net income in 2018.</li> </ul>

## Group Influence

We apply our group rating methodology to analyze Braskem as part of its larger group. Braskem's majority owner is the infrastructure conglomerate Odebrecht S.A. (not rated), with a 38.3% stake in total capital and 50.1% of voting shares. We treat both companies as separate entities. This stems from our belief that Braskem's financial performance and funding prospects are independent from those of Odebrecht. Also, both companies have separate balance books and invoices, and no cross guarantees to each other's debt or liabilities. More importantly, we view Petroleo Brasileiro S.A.'s (Petrobras; BB-/Stable/--) minority stake in Braskem (36.1% on total capital and 47% of voting shares) as a key factor in preventing the company from transferring cash flows to its parent to bolster the latter's credit quality. The existing shareholder agreement between Petrobras and Braskem requires consensual decisions related to leverage, capital structure, dividend payouts, or bankruptcy filing. As a result, we analyze Braskem as an insulated subsidiary, which enables us to rate it higher than its parent.

## Rating Above The Sovereign

The ratings on Braskem reflect its current and expected liquidity position, cash held outside Brazil, expected solid cash flow generation, and increasing geographic diversification. All of these factors, in our view, cushion the company against the weak domestic economy. They also could prevent Braskem from defaulting at the same time as the sovereign, considering a hypothetical stress scenario that we expect to accompany a sovereign default.

We believe Braskem's products have high sensitivity to country risk and its economic activity, even though their commodity nature could partly offset the impact of a domestic slowdown through increased exports. We stressed the company under a Brazilian sovereign default scenario assuming:

- A GDP decline of 10% for Brazil. International operations in the U.S. and Germany were not stressed.
- Petrochemicals spreads decline by 30%.
- A doubling of inflation rates and interest rates, raising general expenses, and floating-rate debt. We also assumed that Braskem can't fully pass on cost inflation to clients.
- A currency depreciation of 50%, which doubles debt service costs related to foreign currency debt (in local currency terms).
- A 70% haircut in cash holdings held in Brazil.
- A drop in capex to maintenance levels and reduced dividend payout, given sizable losses.

Even under this scenario, the company would have sufficient cash flow generation to cover its needs and would maintain liquidity sources over uses of more than 1x for a one year of simulated stress scenario. As a result, we believe Braskem can have a rating up to two notches above that of the sovereign.

## Ratings Score Snapshot

### Corporate Credit Rating

BBB-/Negative/--

### Business risk: Satisfactory

- **Country risk:** Moderately high
- **Industry risk:** Moderately high
- **Competitive position:** Satisfactory

### Financial risk: Significant

- **Cash flow/Leverage:** Significant

Anchor: bbb-

### Modifiers

- **Diversification/Portfolio effect:** Neutral (no impact)
- **Capital structure:** Neutral (no impact)

- **Financial policy:** Neutral (no impact)
- **Liquidity:** Adequate (no impact)
- **Management and governance:** Fair (no impact)
- **Comparable rating analysis:** Neutral (no impact)

## Related Criteria

- General Criteria: Methodology For Linking Long-Term And Short-Term Ratings - April 7, 2017
- General Criteria: Guarantee Criteria – Oct. 21, 2016
- General Criteria: S&P Global Ratings' National And Regional Scale Mapping Tables - June 1, 2016
- General Criteria: Methodology And Assumptions: Liquidity Descriptors For Global Corporate Issuers – Dec. 16, 2014
- General Criteria: National And Regional Scale Credit Ratings – Sept. 22, 2014
- Criteria - Corporates - Industrials: Key Credit Factors For The Commodity Chemicals Industry – Dec. 31, 2013
- General Criteria: Ratings Above The Sovereign—Corporate And Government Ratings: Methodology And Assumptions – Nov. 19, 2013
- Criteria - Corporates - General: Corporate Methodology: Ratios And Adjustments – Nov. 19, 2013
- General Criteria: Country Risk Assessment Methodology And Assumptions – Nov. 19, 2013
- General Criteria: Methodology: Industry Risk – Nov. 19, 2013
- General Criteria: Group Rating Methodology – Nov. 19, 2013
- Criteria - Corporates - General: Corporate Methodology – Nov. 19, 2013
- General Criteria: Methodology: Management And Governance Credit Factors For Corporate Entities And Insurers – Nov. 13, 2012
- General Criteria: Use Of CreditWatch And Outlooks – Sept. 14, 2009
- Criteria - Corporates - General: 2008 Corporate Criteria: Rating Each Issue, April 15, 2008

## Business And Financial Risk Matrix

Business Risk Profile	Financial Risk Profile					
	Minimal	Modest	Intermediate	Significant	Aggressive	Highly leveraged
Excellent	aaa/aa+	aa	a+/a	a-	bbb	bbb-/bb+
Strong	aa/aa-	a+/a	a-/bbb+	bbb	bb+	bb
<b>Satisfactory</b>	a/a-	bbb+	bbb/bbb-	<b>bbb-/bb+</b>	bb	b+
Fair	bbb/bbb-	bbb-	bb+	bb	bb-	b
Weak	bb+	bb+	bb	bb-	b+	b/b-
Vulnerable	bb-	bb-	bb-/b+	b+	b	b-

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