

Braskem S.A.

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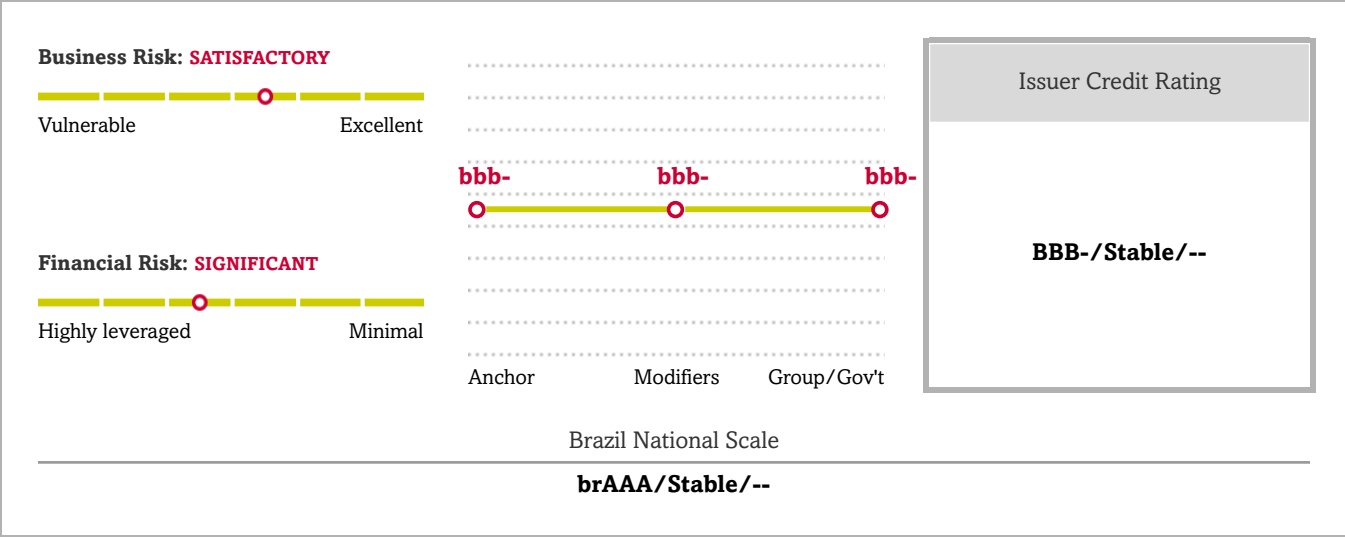
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Related Criteria

Braskem S.A.



Credit Highlights

Key strengths	Key risks
Leading position in the thermoplastic sector in the Americas, and one of the world's largest thermoplastics resin producers;	Petrochemicals industry cyclicality could result in volatile earnings and cash flow;
Raw material and customer geographical diversification; and	Greater supply of polyethylene (PE) could pressure profitable contract conditions; and
Solid credit metrics.	Geological damage in Alagoas could weaken the company's cash flows and liquidity.

Strong market share and solid credit metrics Braskem S.A. maintains its dominant position in Brazil's petrochemicals market. The company's market share in the country slipped to 66% in 2018 from 69% in 2017, mainly due to the new production capacity in the U.S. and consequently higher imports in Brazilian market. The company can pass through currency swings costs to customers, which mitigates the effect of Brazil's weak economy. This also provides relationship with suppliers for long-term raw material supply agreements and customers with a diversified end-market base. These factors mitigate exposure to demand fluctuations and contribute to healthy free operating cash flows (FOFC) and low leverage, with net debt to EBITDA likely to remain close to 2.0x.

The likely completion of a new polypropylene plant in the U.S. would bolster cash flows. The company already spent \$382 million for the construction and it expects to spend additional \$220 million in 2019. The completion is likely to be in the first half of 2020. The 450,000-ton polypropylene production capacity per year will increase the company's North American, German, and Mexican operations competitive advantage, with accessibility to raw materials and suppliers.

The Mexican project and petrochemical industry cyclicality add volatility. We do not consolidate the Mexican project finance (Ethylene XXI), given its strong security package and limited recourse to Braskem. Nevertheless, we view it as highly strategic to the company. Pemex's decreasing production, the project's main ethane supplier, remains a considerable risk, and consequently, on the operations with highly profitable margins. Currently, the contract between Braskem Idesa and Pemex eases immediate concern because it provides financial compensations to Braskem Idesa in case of lower ethane volume delivery from Pemex. The low petrochemical spreads in 2019 should pressure the company's EBITDA margins, and consequently, cash flows for the year. Leverage metrics could reach peak levels, with

net debt to EBITDA as high as 3.0x in 2019 and falling to less than 2.5x afterwards, given a gradual recovery in prices for 2020 and 2021.

Potential changes in ownership On June 4, Braskem's controlling shareholder, Odebrecht S.A., and LyondellBasell Industries N.V. (BBB+/Stable/A-2) terminated negotiations for the latter company to buy Odebrecht's entire interest in Braskem.

2018 20-F filing Braskem was unable to file its annual 20-F filing, an annual filing required of all non-U.S. private issuers traded on U.S. exchanges, as of Dec. 31, 2018. This is because Braskem is still in the process of conducting additional procedures and analyses on its internal processes and controls. As a result, New York Stock Exchange (NYSE) started the process to delist the company's shares. We believe Braskem will continue working on delivering its 20-F and be able to relist its shares at NYSE. Given that it already submitted its annual financial statements to Brazilian financial regulator, CVM, we view impact on its financing capabilities arising from this event as marginal.

Environmental contingencies in Alagoas The Brazilian geological services company, CPRM, is claiming that Braskem's activities at the rock salt extraction have caused geological damage in the state of Alagoas. The state of Alagoas prosecutors asked to freeze R\$100 million in Braskem's financial assets. Also, the company suspended its mining activities in Alagoas, which according to our initial estimates could impact R\$150 million - R\$250 million in company's EBITDA. Our base-case assumptions currently exclude any additional cash outflows from these factors, given the lack of clarity. We will continue monitoring developments and possible impact on Braskem's credit quality.

Outlook: Stable

The stable outlook reflects our expectation that the company will maintain a relatively stable operating performance and leverage. The gradually rebounding Brazilian economy and adequate petrochemicals spreads--although more pressured than in previous years--should support earnings and cash flow in the coming 18-24 months. After a period of very profitable spreads in the last couple of years, we expect weaker results toward the end of this decade as PE capacity additions in North America come online. The stable outlook also reflects our current view of the maximum notching differentiation between the rating on the company and the sovereign rating, and transfer and convertibility (T&C) assessment.

Downside scenario

We could lower the ratings in the next two years if the company's financial performance deteriorates. We would lower the ratings in such situations if FFO to debt averages below 25% and net debt to EBITDA approaches 3.0x-3.5x. Higher leverage could result from Braskem's exposure to contingent risks related to the Ethylene XXI project--although we view that as remote due to the project's current operating performance--and to potential geological damages in Alagoas, and more-than-expected contraction in petrochemicals spreads.

Upside scenario

At this point, an upgrade is unlikely given the rating cap at one notch above Brazil's 'BB+' T&C assessment. In addition, we would need to see lower cash flow and leverage volatility, because Braskem currently has a weaker profile than those of its higher rated global peers. For this scenario, we expect commitment to a sustainable capital structure, even factoring in the potential for volatility in its underlying commodity markets, with average mid-cycle FFO to debt at 35%-45% and debt to EBITDA at 1.5x-2.5x. A positive rating action would also depend on the maintenance of strong liquidity and a prudent financial policy in regards to capital expansion, shareholders' remuneration, or other debt-financed initiatives.

Our Base-Case Scenario

Assumptions	Key Metrics
<ul style="list-style-type: none"> A higher growth of volumes in Brazil than GDP growth rate, due to Braskem's mix of products and end-markets, including high exposure to nondurable industries and agriculture. An average exchange rate of R\$3.80 to \$1 in 2019 and R\$3.87 to \$1 in 2020, and an end-of-period exchange rate of R\$3.85 to \$1 in 2019 and R\$3.90 to \$1 in 2020, benefiting the company's overall margins. Brent crude prices of \$60 per barrel (bbl) in 2019 and 2020. New global capacity additions in the next few years and weaker spreads given the lower Brent Prices expectations. Also, we believe that the demand for Braskem's most significant products as polypropylene (PP), PE, and polyvinyl chloride (PVC) in its principal foreign markets—the U.S. and Europe—will be robust. U.S. GDP to grow at a slower pace starting this year, at 2.2% in 2019, and 1.7% in 2020 and 2021. As a result of all these factors, we expect an EBITDA margin of 12%-15% in 2019, 15%-17% in 2020, and 17%-20% starting in 2021. Capital expenditures (capex) of R\$3.0 billion - R\$ 3.2 billion starting in 2019, mainly related to the construction of the new PP plant in the U.S, totaling about \$675 million. 	<ul style="list-style-type: none"> Adjusted EBITDA margins of 13%-15% (15%-18% if we were to include the Ethylene XXI project); Adjusted net debt to EBITDA of 2.5x-3.0x in 2019 (2.7x-3.2x); and FFO to adjusted net debt of 15%-20% in 2019, recovering to above 25% starting in 2020.

Company Description

Braskem is the leading thermoplastic resins producer in the Americas and among the world's top 10 in the world, with leading positions in PE (low density [LDPE], high density [HDPE], and linear low density [LLDPE]), PP, and PVC. The company integrates the first and second generations of the Brazilian petrochemicals industry, consisting of the naphtha or ethane cracking function (basic petrochemicals) and thermoplastics production (polyolefin and PVC). Odebrecht S.A., which has 38.3% of the shares, controls Braskem, followed by Petroleo Brasileiro S.A. - Petrobras (36.1%). The company has its shares traded on Bovespa and Latibex.

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 PE and PP in Brazil, and as a leading supplier of 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 the company to adjust production (dedicating some plants to specific grades) according to demand and logistics.

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 has a gas-based petrochemical complex in Mexico that the joint venture, Braskem Idesa, controls, and a gas-based petrochemical complex in Rio de Janeiro. Also, the company has been constructing a new PP plant in Lap Parte, Texas, adjacent to its existing complex. The new facility will reinforce Braskem's position in U.S. market.

Peer comparison

Table 1

Braskem S.A. -- Peer Comparison

Industry Sector: Chemical Cos

	Braskem S.A.	The Dow Chemical Co.	LyondellBasell Industries N.V.	Eastman Chemical Co.	Westlake Chemical Corp.	Mexichem S.A.B. de C.V.
	BBB-/Stable/--	BBB/Stable/A-2	BBB+/Stable/A-2	BBB/Stable/A-2	BBB/Stable/--	BBB-/Stable/--
Business Risk Profile	Satisfactory	Strong	Satisfactory	Strong	Satisfactory	Satisfactory
Financial Risk Profile	Significant	Significant	Modest	Significant	Intermediate	Intermediate
--Fiscal year ended Dec. 31, 2018--						
(Mil. \$)						
Revenues	14,168.6	60,278.0	39,004.0	10,151.0	8,635.0	7,198.1
EBITDA	2,283.7	10,837.0	7,116.0	2,239.0	2,125.0	1,435.2
FFO	1,470.5	8,004.6	5,430.5	1,779.2	1,566.5	1,005.4
Interest Expense	391.1	1,329.4	505.5	256.8	168.5	226.0
Cash Interest Paid	571.0	1,413.4	476.5	257.8	182.5	@NA
Cash flow from operations	1,874.1	4,736.6	5,665.5	1,589.2	1,473.5	1,105.5
Capital expenditures	605.0	2,610.0	2,060.0	524.0	695.0	282.7
Free operating cash flow	1,269.1	2,126.6	3,605.5	1,065.2	778.5	822.9
Discretionary cash flow	881.7	(1,848.4)	197.5	343.2	507.5	625.9
Cash and short-term investments	1,793.2	2,687.0	1,224.0	226.0	753.0	699.9
Debt	5,262.8	34,821.2	11,421.5	7,128.0	2,701.5	3,880.5

Table 1

Braskem S.A. -- Peer Comparison (cont.)						
Industry Sector: Chemical Cos						
	Braskem S.A.	The Dow Chemical Co.	LyondellBasell Industries N.V.	Eastman Chemical Co.	Westlake Chemical Corp.	Mexichem S.A.B. de C.V.
Equity	1,774.2	27,969.0	10,396.0	5,878.0	6,076.0	3,169.8
Adjusted ratios						
EBITDA margin (%)	16.1	18.0	18.2	22.1	24.6	19.9
Return on capital (%)	27.9	11.6	29.0	11.8	16.6	14.8
EBITDA interest coverage (x)	5.8	8.2	14.1	8.7	12.6	6.3
FFO cash interest coverage (x)	3.6	6.7	12.4	7.9	9.6	5.6
Debt/EBITDA (x)	2.3	3.2	1.6	3.2	1.3	2.7
FFO/debt (%)	27.9	23.0	47.5	25.0	58.0	25.9
Cash flow from operations/debt (%)	35.6	13.6	49.6	22.3	54.5	28.5
Free operating cash flow/debt (%)	24.1	6.1	31.6	14.9	28.8	21.2
Discretionary cash flow/debt (%)	16.8	(5.3)	1.7	4.8	18.8	16.1

Dow Chemical Corp and LyondellBasell are integrated chemical producers with large revenue base: the first is four times the size of Braskem, and the second one almost three times. In terms of business risk profile, Dow's capital-intensive nature and broad manufacturing footprint, with focus on areas with low feedstock costs, grants the company competitive advantages compared to Lyondell and Braskem. LyondellBasell's greater scale and access to lower feedstock costs result in greater operating efficiency than that of Braskem.

Braskem and Eastman Chemical Co. share similarities in terms of geographic footprint, because both have some concentration. In addition, they have product and end-market diversity, along with lower customer concentration. Westlake Chemical Corp. has a smaller scale than Braskem. In addition, Westlake focuses on the production of low-density polyethylene, while Braskem has a more diversified grade balance. Mexichem S.A.B. de C.V. is Braskem's regional peer. The company has a narrower range of products and smaller scale than Braskem. However, both Westlake and Mexichem generated higher EBITDA margins last year than Braskem, thanks to Westlake's access to low-cost shale gas and because Mexichem is the sole refrigerant gases producer outside China.

Financial Risk: Significant

New global capacity additions in PE, mainly in the U.S., and the imports' rising share in the Brazilian market have been pressuring spreads and are likely to continue doing so in 2019 and 2020. However, a more depreciated Brazilian real can ease these factors for Braskem, because its revenue is pegged to the dollar--Braskem's product reference prices are based on international markets--while around 20% of costs are in reals. We believe Braskem will continue to post solid

operating efficiency and continue benefiting from a wider geographic diversification. This will enable the company to maintain leverage in line with the significant financial risk profile even amid the industry's cyclical nature.

Financial summary

Table 2

Braskem S.A.--Yearly Data					
Industry Sector: Chemical Cos					
--Fiscal year ended Dec. 31--					
	2018	2017	2016	2015	2014
Rating history	BBB-/Stable/--	BBB-/Negative/--	BBB-/Negative/--	BBB-/Negative/--	BBB-/Stable/--
(Mil. R\$)					
Revenues	54,851.2	46,207.1	46,343.2	46,880.0	46,031.4
EBITDA	8,841.1	10,186.5	11,055.9	9,344.5	5,412.3
FFO	5,692.7	6,937.5	8,076.1	7,895.9	4,272.2
Interest Expense	1,514.0	1,587.4	1,752.5	1,349.7	1,001.9
Cash Interest Paid	2,210.5	2,328.4	1,826.9	1,216.3	1,140.1
Cash flow from operations	7,255.3	1,180.6	4,074.0	6,440.9	3,220.5
Capital expenditures	2,342.2	1,983.3	1,694.0	2,292.6	2,430.4
Free operating cash flow	4,913.1	(802.6)	2,380.0	4,148.3	790.1
Discretionary cash flow	3,413.2	(1,801.5)	382.0	3,665.3	307.9
Cash and short-term investments	6,941.9	5,783.1	7,690.7	7,323.5	3,749.2
Gross available cash	6,941.9	5,783.1	7,690.7	7,323.5	3,749.2
Debt	20,374.0	19,817.7	19,625.3	21,353.3	17,313.2
Equity	6,868.5	6,586.9	2,738.6	2,937.2	6,472.5
Adjusted ratios					
EBITDA margin (%)	16.1	22.0	23.9	19.9	11.8
Return on capital (%)	27.9	36.3	41.4	31.7	15.5
EBITDA interest coverage (x)	5.8	6.4	6.3	6.9	5.4
FFO cash interest coverage (x)	3.6	4.0	5.4	7.5	4.7
Debt/EBITDA (x)	2.3	1.9	1.8	2.3	3.2
FFO/debt (%)	27.9	35.0	41.2	37.0	24.7
Cash flow from operations/debt (%)	35.6	6.0	20.8	30.2	18.6
Free operating cash flow/debt (%)	24.1	(4.1)	12.1	19.4	4.6
Discretionary cash flow/debt (%)	16.8	(9.1)	1.9	17.2	1.8

FFO--Funds from operations.

Liquidity: Strong

We assess Braskem's liquidity as strong. We expect sources to exceed uses by more than 1.5x in the next 12 months and to be higher than 1x in the next 24 months. The company reported sound cash reserves of R\$7 billion as of March 2019, compared with short-term debt of roughly R\$800 million. Moreover, Braskem has access to diversified funding sources, which supports its smooth debt maturity profile. Another source of liquidity are the company's undrawn

committed credit facilities of \$1 billion with average maturities of four years. A syndicate of 15 banks granted the facilities, which are subject to information covenants (120 days after the end of the fiscal year to present audited financial statements with a 60-day cure period).

Principal Liquidity Sources	Principal Liquidity Uses
<ul style="list-style-type: none"> • Short-term cash and cash equivalents of R\$7 billion; • Undrawn committed lines of \$1 billion; and • FFO of about R\$8.8 billion for the next 12 months. 	<ul style="list-style-type: none"> • Short-term debt maturities of approximately R\$800 million; • Capex of R\$3.2 billion; • Working capital needs close to R\$3.2 billion; and • Dividend payments of about R\$ 2.7 billion

Debt maturities

The company maintains a comfortable debt maturity profile, with no current debt that we rate maturing within a year.

Environmental, Social, And Governance

Governance factors have recently taken a central role in credit analysis of Braskem. The leniency agreement that followed the Lava Jato corruption investigation resulted in a R\$3.1 billion fine to the company in late 2016, equivalent to 12% of total debt. Even though we included this litigation in our debt figures, the company's solid operating performance and healthy levels of petrochemicals spreads offset the higher debt, and allowed Braskem to maintain conservative credit metrics, such as net debt to EBITDA around 2.0x. However, to reflect the weaker-than-expected governance standards and internal controls, we revised our management and governance assessment to fair from satisfactory, with no rating impact.

Environmental and social risks for the company are relatively moderate from a rating perspective. We view Braskem as comparable to global peers in its aim for a more sustainable water usage and accommodating the changing customer preferences - with an increased demand for lower solid waste disposal. Even though this shouldn't impact the company's results in the net few years, Braskem has demonstrated a focus on innovation in order to maintain its competitive position, including the creation of a green plastic made from sugarcane as raw material (about 6% of total polyethylene production).

The state of Alagoas is suing the company, while requesting to freeze funds and assets totaling approximately R\$6.7 billion to guarantee the payment for potential damages. The civil court granted a preliminary injunction of R\$100 million in company's financial assets and the suspension of the planned dividend payment of R\$2.7 billion until the court is able to analyze the case. Finally, the company obtained permission from the Superior Court of Justice to pay dividends, as long as Braskem grants financial guarantees. Although we do not expect a significant cash outflow final amount coming from Braskem due to this event, we will continue monitoring any development that could have a credit impact on the company.

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 don't have cross guarantees on each other's debt or liabilities. More importantly, we view

Petroleo Brasileiro S.A.

- Petrobras' (BB-/Stable/--) minority stake in Braskem (36.1% of 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;
- 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);
- We assumed a 70% haircut on company's short-term liquid investments and 10% haircut for bank deposits held in Brazil;
- We assumed a decrease of 10% for domestic PE (in line with the GDP growth, and a decline of two and three times for domestic PP and PVC, respectively, given that those last ones are less resilient to economic downturns, linked to the automotive and infrastructure segments, respectively).
- In terms of working capital, we are assuming close to R\$2.0 billion reflecting potentially higher delinquency rates from customers and higher inventories levels.

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 1.5x for a one year of simulated stress scenario. The current limit at

3 notches mostly reflects the fact that although its business currently have a significant exposure to local markets we would expect that the company would easily direct its domestic production to markets overseas.

Issue Ratings - Subordination Risk Analysis

Capital structure

We currently rate several senior unsecured bonds/notes either issued or guaranteed by Braskem.

Issued by Braskem:

- \$150 million 9.75% perpetual bonds; and
- \$200 million 9% perpetual bonds.

We treat these two outstanding perpetual bonds as corporate debt because they don't have equity content (no dividends deferability and no conversion date, for example). The following notes are issued by Braskem's finance vehicles, and the parent guarantees, which are all valid and unconditional. The notes rank pari passu with Braskem's other senior unsecured debt.

Issued by Braskem Finance Ltd.:

- \$1 billion 5.75% notes due April 15, 2021;
- \$500 million 5.375% notes due May 2, 2022;
- \$750 million 7.00% bonds due May 7, 2020;
- \$750 million 6.45% notes due February 3, 2024; and
- \$700 million 7.375% notes due Oct. 4, 2060.

Issued by Braskem America Finance Company:

- \$250 million 7.125% senior unsecured notes due July 22, 2041.

Issued by Braskem Netherlands Finance:

- \$1.25 billion 4.50% notes due Jan. 10, 2028; and
- \$500 million 3.50% notes due Jan. 10, 2023.

Analytical conclusions

We rate Braskem's senior unsecured debt at the same level as our issuer credit rating because the company has limited secured debt. Even if the senior unsecured debt ranked behind the debt issued by subsidiaries in the capital structure, we believe the risk of subordination is mitigated by a priority debt ratio that's far less than 50% and the material earnings generated on the parent level. We rate the financing vehicles' unsecured debt the same as our issuer credit rating on Braskem based on its guarantee of this debt.

Reconciliation

Table 3

Reconciliation Of Braskem S.A. Reported Amounts With S&P Global Ratings' Adjusted Amounts (Mil. R\$)

--Fiscal year ended Dec. 31, 2018--

Braskem S.A. reported amounts									
	Debt	Shareholders' equity	Revenue	EBITDA	Operating income	Interest expense	S&P Global Ratings' adjusted EBITDA	Cash flow from operations	Capital expenditure
	25,192.7	6,787.6	57,999.9	11,295.4	8,304.8	2,084.8	8,841.1	9,250.4	2,706.3
S&P Global Ratings' adjustments									
Cash taxes paid	--	--	--	--	--	--	(937.8)	--	--
Cash taxes paid - Other	--	--	--	--	--	--	--	--	--
Cash interest paid	--	--	--	--	--	--	(1,916.8)	--	--
Postretirement benefit obligations/deferred compensation	136.2	--	--	4.8	4.8	4.9	--	--	--
Accessible cash & liquid investments	(6,941.9)	--	--	--	--	--	--	--	--
Capitalized interest	--	--	--	--	--	293.7	(293.7)	(293.7)	(293.7)
Deconsolidation/consolidation	(12,688.4)	957.3	(3,148.6)	(2,263.3)	(1,223.6)	(780.0)	--	(1,701.3)	(70.4)
Asset retirement obligations	203.0	--	--	--	--	(89.4)	--	--	--
Nonoperating income (expense)	--	--	--	--	588.2	--	--	--	--
Noncontrolling interest/minority interest	--	(876.4)	--	--	--	--	--	--	--
Debt - Litigation	1,443.0	--	--	--	--	--	--	--	--
Debt - Derivatives	157.6	--	--	--	--	--	--	--	--
Debt - Foreign currency hedges	183.4	--	--	--	--	--	--	--	--
Debt - Debt serviced by third parties	2,183.8	--	--	--	--	--	--	--	--
Debt - Other	10,504.6	--	--	--	--	--	--	--	--
EBITDA - Gain/(loss) on disposals of PP&E	--	--	--	40.1	40.1	--	--	--	--
EBITDA - Other	--	--	--	(235.9)	(235.9)	--	--	--	--
Total adjustments	(4,818.7)	80.9	(3,148.6)	(2,454.3)	(826.5)	(570.8)	(3,148.3)	(1,995.0)	(364.1)
S&P Global Ratings' adjusted amounts									
	Debt	Equity	Revenues	EBITDA	EBIT	Interest expense	Funds from operations	Cash flow from operations	Capital expenditures
	20,374.0	6,868.5	54,851.2	8,841.1	7,478.4	1,514.0	5,692.7	7,255.3	2,342.2

Ratings Score Snapshot

Issuer Credit Rating

BBB-/Stable/--

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
- **Capital structure:** Neutral
- **Financial policy:** Neutral
- **Liquidity:** Strong
- **Management and governance:** Fair
- **Comparable rating analysis:** Neutral

Related Criteria

- Criteria - Corporates - General: Reflecting Subordination Risk In Corporate Issue Ratings, Sept. 21, 2017
- General Criteria: S&P Global Ratings' National And Regional Scale Mapping Tables, Aug. 14, 2017
- Criteria - Corporates - General: 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: Methodology: Industry Risk, Nov. 19, 2013
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- General Criteria: Group Rating Methodology, Nov. 19, 2013
- General Criteria: Ratings Above The Sovereign--Corporate And Government Ratings: Methodology And Assumptions, Nov. 19, 2013

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- General Criteria: Use Of CreditWatch And Outlooks, Sept. 14, 2009

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
Satisfactory	a/a-	bbb+	bbb/bbb-	bbb-/bb+	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-

Ratings Detail (As Of June 19, 2019)*	
Braskem S.A.	
Issuer Credit Rating	BBB-/Stable/--
<i>Brazil National Scale</i>	brAAA/Stable/--
Issuer Credit Ratings History	
14-Mar-2018	BBB-/Stable/--
16-Aug-2017	BBB-/Negative/--
23-May-2017	BBB-/Watch Neg/--
04-Dec-2015	BBB-/Negative/--
10-Sep-2015	BBB-/Watch Neg/--
28-Jul-2015	BBB-/Negative/--
16-Aug-2017 <i>Brazil National Scale</i>	brAAA/Stable/--
23-May-2017	brAAA/Watch Neg/--
04-Dec-2015	brAAA/Negative/--
10-Sep-2015	brAAA/Watch Neg/--
28-Jul-2015	brAAA/Negative/--
Related Entities	
ODEBRECHT DRILLING NORBE VIII/IX LTD	
Senior Secured	B-/Stable

*Unless otherwise noted, all ratings in this report are global scale ratings. S&P Global Ratings' credit ratings on the global scale are comparable across countries. S&P Global Ratings' credit ratings on a national scale are relative to obligors or obligations within that specific country. Issue and debt ratings could include debt guaranteed by another entity, and rated debt that an entity guarantees.

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