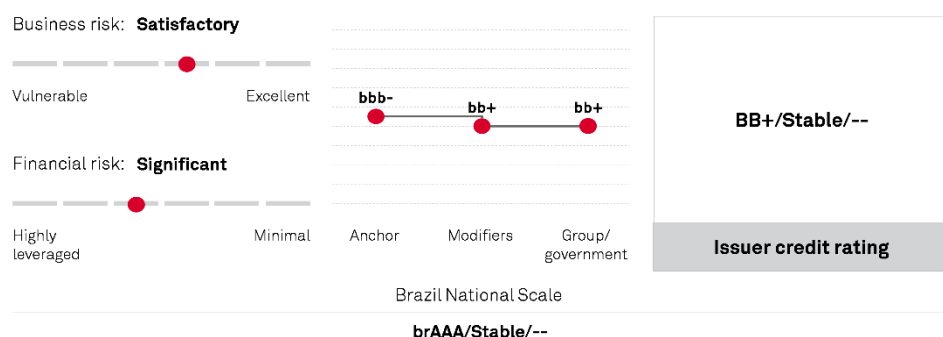


Klabin S.A.

September 2, 2022

Ratings Score Snapshot



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Credit Highlights

Overview

Key strengths

A leading position in Brazil's paper packaging production segment, with longstanding relationships with clients.

Ability to adjust products mix and export volumes based on market demand.

Vertical integration bolsters profitability.

Key risks

Exposure to cyclicalities in the forest and paper products industry, which has volatile input and selling prices.

Klabin S.A.'s financial policy allows net debt to EBITDA to reach 4.5x during investment cycles, and a limited track record of the company's commitment to its financial policies amid industry downturns.

Strong profitability as a result of high prices in 2022 and continued volume growth in the coming years. Given consistent growth in all business lines in the first half of 2022, compared with the same period in 2021, Klabin posted revenue growth of 25%, mainly

because of the 52% jump in revenue in the paper segment. Most of Klabin's products are convenience items, therefore, demand for them should remain steady in the coming years, continuing to fuel the company's revenue growth. Additionally, Klabin's announced new projects, aside from PUMA II, will expand the packaging production starting in 2023 and will also help raise revenues for the next few years. Moreover, Klabin has the flexibility to switch production between softwood and fluff, and selling Kraftliner to the market or using in its conversion lines. This, along with adjusting exports to shifting demand trends, result in market advantages capturing higher prices depending on the product mix. With high prices across all of the company's segments this year offsetting higher input costs and inflationary pressures, we forecast EBITDA margin flat at around 42% versus 2021.

High capital expenditures (capex) pressure free operating cash flows (FOCF) in 2022, but the latter to rise in the next two years. We forecast capex of about R\$5.4 billion in 2022 and R\$4.8 billion in 2023, mostly to increase production fund phase two of PUMA II project, and the Horizonte and Figueira projects announced earlier this year. Klabin will fund such investments mostly with current cash position and internal cash generation, along with other credit lines amounting to \$700 million possibly in 2023. Significant capex in 2022 will limit FOCF, but as investments gradually decrease, FOCF will be roughly R\$1.2 billion in 2023 and jump to about R\$ 4 billion in 2024 upon the completion and ramp-up of those projects.

Outlook

The stable outlook reflects our expectations of overall solid demand and high prices for the company's products to remain in the next few quarters, resulting in debt to EBITDA of about 3.0x and funds from operations (FFO) to debt around 20%. We expect such metrics despite high investments in the next two years and excluding the possible temporary foreign-exchange mismatch effects.

Downside scenario

We could downgrade Klabin in the next 12-18 months if we were to expect significantly weaker leverage metrics, with debt to EBITDA above 4.5x and FFO to debt below 12% after the completion of PUMA II. This could occur because of declining prices and appreciation of the Brazilian real or due to a more aggressive growth strategy.

Upside scenario

A positive rating action is possible if we expect Klabin's credit metrics to strengthen consistently. We would also need to see the company adhering to its financial policies, limiting the rise in leverage. Although unlikely in the next 12 months, an upgrade would depend on debt to EBITDA consistently below 3x and FFO to debt above 30% through the investment cycle.

Our Base-Case Scenario

Assumptions

- Brazil's GDP growth of 1.2% in 2022, 1.4% in 2023, and 2.0% in 2024.
- Exchange rates of about R\$5.00 per \$1 in 2022 and 2023, and R\$5.20 per \$1 in 2024.
- Average bleached hardwood kraft pulp (BHKP) listing in Europe close to \$1,100 per ton in 2022, declining 10%-15% in 2023 and 5%-10% in 2024 from previous year, compared with \$1,045 per ton in 2021. We apply about a 35% discount to listed prices.
- High demand and logistics difficulties resulting in higher prices in the domestic market in 2022 than in the previous year. Price of coated boards at R\$4,500 – R\$4,800 per ton in 2022 and growing 5%-7% in 2023-2024. Kraftliner prices in 2022 at about R\$4,800 per ton but to fall to about R\$4,500 per ton in the coming years. Corrugated boxes and industrial bags at about R\$5,300 per ton in 2022 and growing 3%-5% in 2023-2024.
- Annual market pulp production of 1.5 million – 1.6 million tons in 2022-2024.

- Costs and expenses increasing due to higher costs of chemicals, transportation, fuel, and energy.
- Annual capex of about R\$5.4 billion in 2022, R\$4.8 billion in 2023, of which R\$2 billion - R\$3 billion is for the PUMA II project, and R\$2.6 billion in 2024 mostly for maintenance and completion of some projects.
- Dividend distribution of R\$1.5 billion - R\$1.7 billion in the next three years.

Key metrics

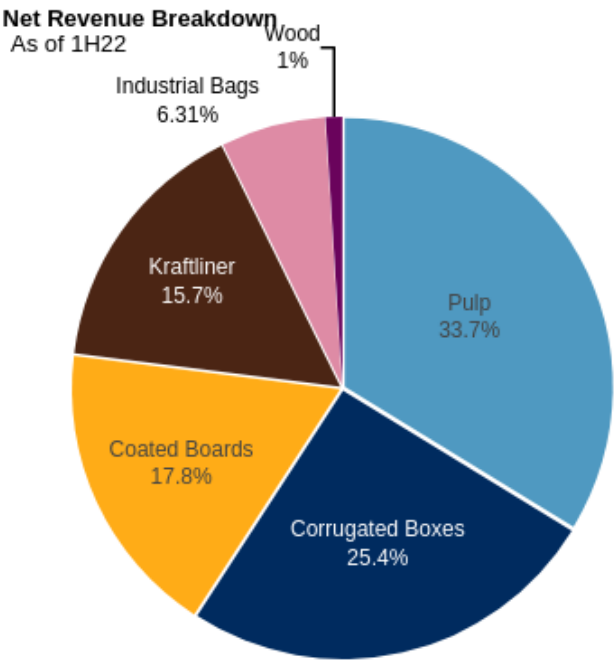
Klabin S.A.--Key Metrics*

Mil. R\$	2020a	2021a	2022e	2023e	2024e
Revenue	11,948.8	16,481.4	18,400-18,800	18,400-18,800	20,000-20,500
EBITDA	4,704.2	6,879.5	~7,800	7,800-8,000	8,400-8,800
EBITDA margin (%)	39.4	41.7	~42	40-44	40-44
Funds from operations (FFO)	3,255.6	4,738.2	~5,400	5,500-5,800	6,000 -6,500
Capital expenditure	4,566.8	3,446.5	~5,400	~4,750	~2,650
Free operating cash flow (FOCF)	1,014.1	(169.4)	~ (50)	~1,200	~4000
Debt	20,605.6	22,000.7	~22,800	~24,000	~22,500
Debt to EBITDA (x)	4.4	3.2	~3.0	2.5-3.5	2.5-3.5
FFO to debt (%)	15.8	21.5	20-25	20-25	25-30
FOCF to debt (%)	4.9	(0.8)	0	0-5	15-20

*All figures adjusted by S&P Global Ratings. a--Actual. e--Estimate. f--Forecast.

Company Description

Klabin is one of Brazil's largest pulp and paper producers, focused on several forest products, and it's the leading producer and exporter of paper packaging in the country. The company operates 22 plants in Brazil and one in Argentina. It owns 671,000 hectares (ha) of land with 287,000 ha of planted forests (170,000 ha of which are destined for long fiber and 117,000 for short fiber). Klabin's business units consist of forestry (wood planted from pine and eucalyptus), paper (coated boards and container boards), market pulp (hardwood, softwood, and fluff), and packaging (industrial bags and corrugated boxes).



Source: Company's fillings and S&P Global Ratings.

Peer Comparison

In the forest products segment, we compare Klabin mainly with other South American companies because their costs are affected by the same climate conditions, and they benefit from access to superior natural resources. Klabin has a smaller production capacity than Suzano S.A. and Celulosa Arauco y Constitucion S.A. On the other hand, Klabin posts more stable and higher margins than its peers outside Brazil, due to its strong presence in resilient end-markets (both regionally and globally) and its self-sufficient and integrated production lines geared towards the paper and packaging sectors, broadening its range of products. Klabin ranks behind global peers in the packaging and containers segment in terms of geographic diversification, production capacity, and revenues. However, Klabin has integrated and self-sufficient production lines, which help boost its profitability.

Klabin S.A.--Peer Comparisons

Klabin S.A.	Suzano S.A.	Celulosa Arauco y Constitucion S.A.	WestRock Co.	International Paper Co.
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Klabin S.A.--Peer Comparisons

Foreign currency issuer credit rating	BB+/Stable/--	BBB-/Stable/--	BBB-/Stable/--	BBB/Stable/A-2	BBB/Stable/A-2
Local currency issuer credit rating	BB+/Stable/--	BBB-/Stable/--	BBB-/Stable/--	BBB/Stable/A-2	BBB/Stable/A-2
Period	Annual	Annual	Annual	Annual	Annual
Period ending	2021-12-31	2021-12-31	2021-12-31	2021-09-30	2021-12-31
Mil.	R\$	R\$	R\$	R\$	R\$
Revenue	16,481	40,965	35,378	101,650	107,881
EBITDA	6,879	23,684	12,321	16,511	17,021
Funds from operations (FFO)	4,738	20,345	11,065	12,781	10,919
Interest	1,614	4,084	1,498	2,441	2,514
Cash interest paid	1,635	3,232	1,901	2,255	2,754
Operating cash flow (OCF)	3,277	17,625	10,195	13,338	11,961
Capital expenditure	3,447	6,225	8,106	4,346	2,992
Free operating cash flow (FOCF)	(169)	11,400	2,088	8,991	8,969
Discretionary cash flow (DCF)	(750)	11,237	(537)	7,060	(52)
Cash and short-term investments	8,422	21,099	5,633	1,577	8,580
Gross available cash	8,422	21,099	5,633	1,577	8,580
Debt	22,003	65,274	27,397	48,643	26,945
Equity	7,086	15,175	43,561	63,398	50,601
EBITDA margin (%)	41.7	57.8	34.8	16.2	15.8
Return on capital (%)	21.4	21.3	13.4	6.7	11.8
EBITDA interest coverage (x)	4.3	5.8	8.2	6.8	6.8
FFO cash interest coverage (x)	3.9	7.3	6.8	6.7	5.0
Debt/EBITDA (x)	3.2	2.8	2.2	2.9	1.6
FFO/debt (%)	21.5	31.2	40.4	26.3	40.5
OCF/debt (%)	14.9	27.0	37.2	27.4	44.4
FOCF/debt (%)	(0.8)	17.5	7.6	18.5	33.3
DCF/debt (%)	(3.4)	17.2	(2.0)	14.5	(0.2)

Business Risk

Klabin has a solid market position in the Brazilian paper and packaging segments and longstanding relationships with clients. The vertically integrated structure also allows the company to benefit from operational efficiencies that translate into higher margins than those of international peers. Despite these strengths, the cyclical nature of the forest and paper products industry limits the company's business. Klabin manages to diminish volatility through its capacity to increase exports or adjust its diverse mix of products towards the more profitable ones. Although Brazil's paper and packaging segment is fragmented and competitive, Klabin has a leading position with market shares of 56% in Kraftliner, 33% in coated boards, 50% in industrial bags, and 24% in corrugated boxes. We believe that longstanding relationships and the resilient nature of end markets (focused on food and consumer goods), coupled with access to rapidly growing and high-quality fiber in Brazil, gives Klabin an advantage over international players.

PUMA II is already in the second phase, 47% of the works is completed as of July 17, 2022, and the company expects it to be concluded during the first half of 2023. The project's second machine will have a 460,000 ton/year capacity after a ramp-up period of

about three years (estimated for 2023-2026). The first machine started operating in the third quarter of 2021 and is likely to reach capacity of 450,000 tons/year of Kraftliner by 2024.

Earlier this year, Klabin announced expansion of its corrugated boxes plant located in the city of Horizonte, the state of Ceará, with incremental capacity of 80,000 tons per year to serve the fruit market in the country's northeastern region. Additionally, it announced the construction of a new corrugated boxes plant in the state of São Paulo (the southeastern region), totaling incremental net capacity of 100,000 tons after optimizing existing capacity in other plants. Gross investments for the two projects total R\$1.76 billion (R\$188 million Horizonte and R\$1.57 billion Figueira) to be disbursed in 2022-2024. We expect Klabin to continue expanding its paper production in the coming years increasing the cash-flow predictability, given the shift in consumer habits from single-use plastic to paper packaging.

Financial Risk

High volumes and prices continue boosting Klabin's cash flows in 2022. For the coming years, we expect overall high prices for paper products and packages to compensate for lower pulp prices. We forecast the company to post EBITDA margin at 40%-42%, which coupled with our expectation of relatively stable debt levels, will result in debt to EBITDA of 2.5x-3.0x, compared with 3.2x in 2021 and 4.4x in 2020.

Klabin still has sizable investments until 2023 for PUMA II, but we expect the company to fund them mostly with operating cash flows and its solid cash position. In addition, the company has secured financing from BNDES for this project, which should be disbursed in 2022-2023. This provides adequate financial flexibility amid tightening financing conditions.

According to Klabin's financial policies, net debt to EBITDA (measured in dollars) must remain at 2.5x-3.5x and potentially rise to 4.5x during investments in expansion projects (internal or acquired ones totaling at least \$1 billion). Additionally, Klabin will continue paying dividends of about 15%-25% of adjusted EBITDA if its leverage is below 4.5x. We believe such policies signal commitment to credit quality, but the 4.5x threshold during investment cycles may pose some risks and keep our rating on the company at the current level. This factor is incorporated in our negative comparable rating analysis score. We'll monitor Klabin's adherence to its financial policies and leverage targets.

Klabin S.A.--Financial Summary

Period ending	Dec-31-2016	Dec-31-2017	Dec-31-2018	Dec-31-2019	Dec-31-2020	Dec-31-2021
Reporting period	2016a	2017a	2018a	2019a	2020a	2021a
Display currency (mil.)	R\$	R\$	R\$	R\$	R\$	R\$
Revenues	7,091	8,373	10,016	10,272	11,949	16,481
EBITDA	2,216	2,695	4,085	3,746	4,704	6,879
Funds from operations (FFO)	1,106	1,681	2,833	2,328	3,256	4,738
Interest expense	1,283	1,162	1,210	1,486	1,622	1,614
Cash interest paid	1,110	1,008	1,092	1,213	1,439	1,635
Operating cash flow (OCF)	1,120	1,813	2,839	2,935	5,581	3,277
Capital expenditure	2,436	925	1,096	2,546	4,567	3,447
Free operating cash flow (FOCF)	(1,316)	888	1,743	389	1,014	(169)
Discretionary cash flow (DCF)	(1,788)	369	903	(576)	720	(750)

Klabin S.A.--Financial Summary

Cash and short-term investments	6,464	8,272	7,047	9,731	6,557	8,422
Gross available cash	6,464	8,272	7,047	9,731	6,557	8,422
Debt	12,965	11,966	13,147	14,857	20,606	22,003
Common equity	6,665	7,234	6,533	6,501	4,385	7,086
Adjusted ratios						
EBITDA margin (%)	31.3	32.2	40.8	36.5	39.4	41.7
Return on capital (%)	11.7	11.3	16.8	12.9	14.1	21.4
EBITDA interest coverage (x)	1.7	2.3	3.4	2.5	2.9	4.3
FFO cash interest coverage (x)	2.0	2.7	3.6	2.9	3.3	3.9
Debt/EBITDA (x)	5.9	4.4	3.2	4.0	4.4	3.2
FFO/debt (%)	8.5	14.0	21.6	15.7	15.8	21.5
OCF/debt (%)	8.6	15.2	21.6	19.8	27.1	14.9
FOCF/debt (%)	(10.2)	7.4	13.3	2.6	4.9	(0.8)
DCF/debt (%)	(13.8)	3.1	6.9	(3.9)	3.5	(3.4)

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

	Debt	Shareholder Equity	Revenue	EBITDA	Operating income	Interest expense	S&PGR adjusted EBITDA	Operating cash flow	Dividends	Capital expenditure
Financial year	Dec-31-2021									
Company reported amounts	29,338	5,740	16,481	8,178	5,481	1,183	6,879	4,891	581	3,878
Cash taxes paid	-	-	-	-	-	-	(507)	-	-	-
Cash interest paid	-	-	-	-	-	-	(1,203)	-	-	-
Lease liabilities	1,087	-	-	-	-	-	-	-	-	-
Accessible cash and liquid investments	(8,422)	-	-	-	-	-	-	-	-	-
Capitalized interest	-	-	-	-	-	431	(431)	(431)	-	(431)

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

	Debt	Shareholder Equity	Revenue	EBITDA	Operating income	Interest expense	S&PGR adjusted EBITDA	Operating cash flow	Dividends	Capital expenditure
Dividends from equity investments	-	-	-	21	-	-	-	-	-	-
Nonoperating income (expense)	-	-	-	-	307	-	-	-	-	-
Reclassification of interest and dividend cash flows	-	-	-	-	-	-	-	(1,183)	-	-
Noncontrolling/ minority interest	-	1,347	-	-	-	-	-	-	-	-
EBITDA - Gain/(loss) on disposals of PP&E	-	-	-	(10)	(10)	-	-	-	-	-
EBITDA: Valuation gains/(losses)	-	-	-	(1,309)	(1,309)	-	-	-	-	-
EBIT: other	-	-	-	-	1,309	-	-	-	-	-
Working capital: other	-	-	-	-	-	-	-	669	-	-
OCF: other	-	-	-	-	-	-	-	(669)	-	-
Total adjustments	(7,336)	1,347	-	(1,298)	297	431	(2,141)	(1,614)	-	(431)
S&P Global Ratings adjusted	Debt	Equity	Revenue	EBITDA	EBIT	Interest expense	Funds from Operations	Operating cash flow	Dividends	Capital expenditure
	22,003	7,086	16,481	6,879	5,779	1,614	4,738	3,277	581	3,447

Liquidity

We view Klabin's liquidity as strong based on our expectation that its cash sources will exceed uses by about 1.5x in the next 12 months. The company's large cash balance, R\$7.4 billion as of June 2022, also provides financial flexibility to face unexpected downturns and to finance PUMA II and other projects recently announced. We expect the cash position to remain above R\$5 billion, combined with Klabin's revolving credit facility, to provide sufficient liquidity cushion. In addition, Klabin isn't subject to financial covenants on its debt, and it enjoys well-established, solid relationships with banks as well as a generally high standing in credit markets.

Principal liquidity sources

- Cash position of R\$7.4 billion as of June 2022.
- Undrawn credit facility of \$500 million.
- Cash FFO near R\$6.3 billion in the next 12 months after June 2022.
- The July 2022 issuance of the 14th debentures of R\$2.5 billion.

Principal liquidity uses

- Short-term debt maturities of R\$1.3 billion as of June 2022.
- Liquidation of bank loans totaling R\$2.6 billion, with proceeds of the July issuance.
- Capex of about R\$5 billion in the next 12 months after June 2022.
- Working capital needs of about R\$580 million.
- Dividends of about R\$1.6 billion in the next 12 months after June 2022.

Environmental, Social, And Governance

ESG Credit Indicators



ESG credit indicators provide additional disclosure and transparency at the entity level and reflect S&P Global Ratings' opinion of the influence that environmental, social, and governance factors have on our credit rating analysis. They are not a sustainability rating or an S&P Global Ratings ESG Evaluation. The extent of the influence of these factors is reflected on an alphanumeric 1-5 scale where 1 = positive, 2 = neutral, 3 = moderately negative, 4 = negative, and 5 = very negative. For more information, see our commentary "ESG Credit Indicators: Definition And Applications," published Oct. 13, 2021.

Pulp and paper production requires significant amounts of energy, water, and chemicals, and the process generates greenhouse gas (GHG) emissions, waste, and pollution. On the other hand, Klabin benefits from favorable climate conditions for eucalyptus and pine, which have the highest harvesting rates in the industry, as well as from owning the land. The company has an advanced land management, combining a high proportion of preserved and sustainably certified forestland. Also, Klabin's vertical integration, the relatively short distance from forests to its pulp mills, and high degree of energy self-sufficiency (about 75%) result in a very competitive cost structure. The company's pulp cash cost is at about \$258 per ton as of June 2022, a bit higher than in previous years because of the appreciation of the Brazilian real and higher input costs, but still among the lowest globally. We also see an accelerating trend of substitution of plastic packaging by paper packaging, which should favor demand growth for Klabin's products in the medium to long term.

Rating Above The Sovereign

The ratings on Klabin are two notches above our 'BB-' foreign currency rating on Brazil, reflecting our view that the company wouldn't default upon a hypothetical sovereign default. In our view, Klabin has moderate sensitivity to the domestic economy due to its partly export-oriented business. As a result, and given the company's asset concentration in Brazil, we may rate Klabin up to three notches above the Brazilian sovereign rating, and up to one notch above transfer and convertibility assessment of Brazil.

Our main assumptions for a hypothetical Brazilian sovereign default scenario include:

- GDP falls 10% in one year, resulting in the same decline in domestic volumes of pulp, paper, and packaging.
- Inflation doubles, and the company is unable to pass through all the resulting higher costs into prices.
- A 50% depreciation of the real, which would double Klabin's servicing costs on its foreign currency debt (in domestic currency terms) but would raise its export revenues.
- Hardwood pulp prices of \$550 per ton, in line with those in mid-2009, when prices dropped to a 10-year low.
- A doubling of interest rates, increasing interest expenses of local floating rate debt.
- A haircut of 70% applied to investments in Brazilian government securities and 10% haircut for liquid bank deposits.
- Capex at maintenance levels of about R\$1.2 billion.

In this scenario, we believe the company would maintain sufficient liquidity sources to cover its needs in a 12-month period. We consider that Klabin's partly export-oriented business, with ability to redirect its paper production to other markets if the domestic market deteriorates, somewhat insulate the company from a potential Brazilian economic downturn.

Issue Ratings--Recovery Analysis

Key analytical factors

- We assume a scenario with eroding macroeconomic and industry conditions, with low pulp and paper prices for a long period, resulting in much weaker cash flows, not sufficient to cover the company's interest and principal payments and maintenance capex.
- In our default scenario, EBITDA would plummet about 40% from the currently projected EBITDA in 2023, after the completion of PUMA II.
- In a default scenario, we expect Klabin to reorganize, rather than liquidate, because of its solid market position in the paper and packaging segments.
- We've valued the company on a going concern basis, using a 5.0x multiple applied to our projected emergence-level EBITDA, which results in an estimated gross emergence value of about R\$24 billion.

Simulated default assumptions

- Simulated year of default: 2027
- EBITDA at emergence: R\$4.8 billion
- Implied enterprise value (EV) multiple: 5.0x
- Estimated gross EV at emergence: R\$24 billion

Simplified waterfall

- Net EV after 5% administrative costs: R\$22.8 billion
- Senior secured debt: R\$3.5 billion
- Senior unsecured debt R\$29 billion
- Recovery expectation: 65%

Rating Component Scores

Foreign currency issuer credit rating	BB+/Stable/--
Local currency issuer credit rating	BB+/Stable/--
Business risk	Satisfactory
Country risk	Moderately High
Industry risk	Moderately High
Competitive position	Satisfactory
Financial risk	Significant
Cash flow/leverage	Significant
Anchor	bbb-
Diversification/portfolio effect	Neutral (no impact)
Capital structure	Neutral (no impact)
Financial policy	Neutral (no impact)
Liquidity	Strong (no impact)
Management and governance	Fair (no impact)
Comparable rating analysis	Negative (-1 notch)
Stand-alone credit profile	bb+

Related Criteria

- General Criteria: Environmental, Social, And Governance Principles In Credit Ratings, Oct. 10, 2021
- General Criteria: Group Rating Methodology, July 1, 2019
- Criteria | Corporates | General: Corporate Methodology: Ratios And Adjustments, April 1, 2019
- General Criteria: Methodology For National And Regional Scale Credit Ratings, June 25, 2018
- Criteria | Corporates | General: Recovery Rating Criteria For Speculative-Grade Corporate Issuers, Dec. 7, 2016
- General Criteria: Guarantee Criteria, Oct. 21, 2016
- Criteria | Corporates | Recovery: Methodology: Jurisdiction Ranking Assessments, Jan. 20, 2016
- Criteria | Corporates | General: Methodology And Assumptions: Liquidity Descriptors For Global Corporate Issuers, Dec. 16, 2014
- General Criteria: Country Risk Assessment Methodology And Assumptions, Nov. 19, 2013
- Criteria | Corporates | General: Corporate Methodology, Nov. 19, 2013
- General Criteria: Methodology: Industry Risk, Nov. 19, 2013
- General Criteria: Methodology: Management And Governance Credit Factors For Corporate Entities, Nov. 13, 2012
- General Criteria: Principles Of Credit Ratings, Feb. 16, 2011

Ratings Detail (as of September 02, 2022)*

Klabi S.A.

Issuer Credit Rating

BB+/Stable/--

Brazil National Scale

brAAA/Stable/--

Senior Unsecured

Ratings Detail (as of September 02, 2022)**Brazil National Scale*

brAAA

Issuer Credit Ratings History

29-Jun-2016	<i>Foreign Currency</i>	BB+/Stable/--
27-Oct-2015		BBB-/Negative/--
10-Sep-2015		BBB-/Watch Neg/--
29-Jun-2016	<i>Local Currency</i>	BB+/Stable/--
27-Oct-2015		BBB-/Negative/--
10-Sep-2015		BBB-/Watch Neg/--
16-Aug-2017	<i>Brazil National Scale</i>	brAAA/Stable/--
29-Jun-2016		brAA/Stable/--
27-Oct-2015		brAA+/Negative/--

*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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