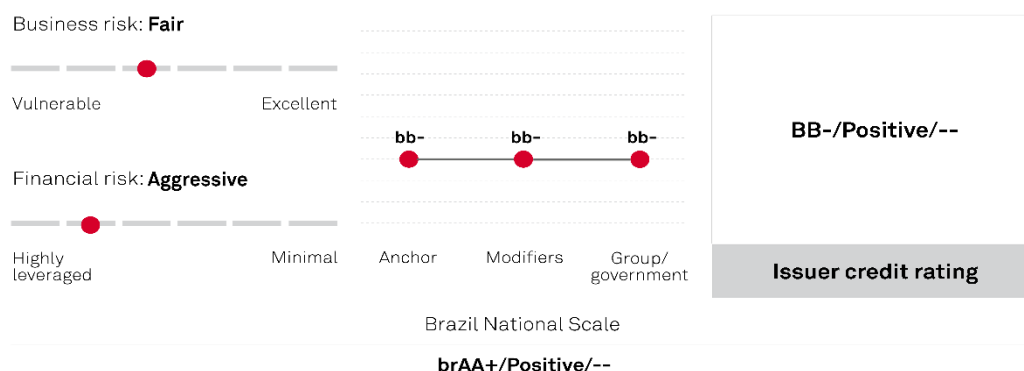


Ioche-Maxion S.A.

October 16, 2023

Ratings Score Snapshot



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Credit Highlights

Overview

Key strengths	Key risks
Among the world's largest wheel manufacturers.	Prolonged weak trucks market in Brazil in 2023.
A wide geographic footprint provides some cash-flow protection.	Pressured EBITDA margin in 2023 due to weak sales volume in Brazil.
Comfortable liquidity position with an extended debt profile and available revolving credit facility (RCF).	Global volumes of light vehicles to recover likely only by 2025.

We expect truck sales and production in Brazil to recover in the next two years on more reasonable prices and interest rates, higher credit availability, and good agricultural and industrial activities. With the trucks technology transition to Euro 6 from Euro 5 in Brazil this

year, average truck prices increased by about 25%-30%, on average. The combination of much higher prices with high basic interest rates lowered demand for new trucks in Brazil this year. According to the National Association of Automotive Vehicle Manufacturers (ANFAVEA), from January to August 2023, truck production in Brazil decreased 37.5% compared to the same period last year, while sales dropped 14%. Sales didn't fall at the same pace because automakers could sell Euro 5 inventory until first-quarter 2023.

Partially mitigating weak domestic demand, European demand for aluminum wheels for light vehicles is still recovering from the pandemic. Also, we believe the transition for electrification will boost sales in the coming years in that region. In North America, demand remains solid even amid economic uncertainties with high interest rates and low economic growth, while in Asia, Iochepe-Maxion S.A. will continue increasing its presence, fulfilling a production deficit of light vehicle wheels.

We believe Iochepe will maintain comfortable liquidity while refinancing upcoming debt maturities with long-term debt. Iochepe had elevated short-term debt maturities of R\$1.8 billion as of June 30, 2023, with about half of it due in first-quarter 2024 (R\$944 million). We believe the company will adequately refinance it with long-term debt issuances, as seen with the 12th debentures of R\$700 million issued in September 2023 and maturing in 2028. As of June 2023, Iochepe's weighted average maturity profile was above 3.5 years.

We expect margins will remain pressured in 2023, but recover next year. We now expect Iochepe to post an EBITDA margin of 8%-9% due to prolonged weak demand in Brazil, compared with our previous forecast of 9%-9.5% that considered a faster recovery in the second half of 2023. This will likely occur in the first half of 2024. In 2024, we forecast margins will return close to historical levels of above 10% amid lower inflation, low commodity prices, and a recovery in Brazilian demand for trucks.

Stronger demand in 2024 will support lower leverage than previously expected, with debt to EBITDA around 2x. We expect Iochepe will end 2023 with debt to EBITDA of about 3x, with low debt levels compensating for the weaker EBITDA generation. The company pre-paid its ninth and 10th debentures and other bank loans this year, resulting in a gross debt reduction of about R\$500 million. We expect the pent-up demand for trucks in 2024, continued recovery of light vehicle production and sales, and lower debt levels will probably drive the company's debt to EBITDA to around 2x in 2024, versus our previous expectation of around 2.5x.

Outlook

The positive outlook reflects our view that Iochepe will gradually recover margins and credit metrics by 2024 from expected higher demand for Euro 6 trucks in Brazil. With that, we expect an EBITDA margin of 10% for 2024, versus around 8%-9% in 2023.

The company's wide geographic diversification, with stronger results expected at its European operations this year, will partially offset the impact of Brazil's weaker demand for commercial vehicles. The outlook also incorporates our view that Iochepe will continue to improve its liquidity, extending its maturity profile and reducing debt levels.

Downside scenario

We could revise the outlook to stable in the next 12 months if the company's profitability and cash flow weaken, leading to higher leverage than our base-case expectations. This would likely be a result of tougher industry dynamics, with further auto manufacturing stoppages around the globe; lower demand; higher inflation weighing on costs and expenses; and greater energy costs in Europe. In this scenario, we expect Iochepe to post debt to EBITDA consistently close to 3.5x and negative free operating cash flow (FOCF).

Upside scenario

We could raise the ratings in the next 6-12 months if profitability and cash flow strengthen, with North American and European operations' results compensating for weaker results in Brazil amid lower interest expenses due to debt reduction. In this scenario, we would expect debt to EBITDA consistently close to 2.5x or below and FOCF to debt of 10%-15% or above.

Our Base-Case Scenario

Assumptions

- Average FX rate of R\$5.02 per \$1 in 2023, R\$5.10 per \$1 in 2024, and R\$5.20 per \$1 in 2025.
- Brazil's inflation rate of 4.9% in 2023, 3.9% in 2024, and 3.7% in 2025.
- Brazil's GDP growth of 2.9% in 2023, 1.2% in 2024, and 1.8% in 2025.
- Brazil's basic interest rate of 13% in 2023, 10.6% in 2024, and 9% in 2025.
- U.S. inflation of 4.1% in 2023, 2.4% in 2024, and 1.9% in 2025.
- U.S. GDP growth of 2.3% in 2023, 1.3% in 2024, and 1.4% in 2025.
- EU's inflation of 5.6% in 2023, 2.7% in 2024, and 2.0% in 2025.
- EU's GDP growth of 0.6% in 2023, 0.9% in 2024, and 1.5% in 2025.
- Lower volumes from commercial vehicles in Brazil in 2023 due to the truck technology change and not offset by wheels for light vehicles. In the next two years, we expect commercial vehicle activity to recover, with solid agricultural prospects and greater industrial activities, and light vehicles to continue recovering to pre-pandemic levels by 2025.
- Volumes for commercial and light vehicles in North America and Europe remain high, with higher demand for aluminum wheels in 2023. For the next two years, we expect continued solid volumes from Europe with the transition to electrification, but in North Americas volumes may be volatile given uncertainties around inflation and interest rates.
- Net revenue in 2023 to drop as the solid volumes in North America and Europe won't balance the volume decline in Brazil and lower prices in the U.S. and Brazil from lower input costs.
- Pressured EBITDA margin in 2023 due to lower sales and not offset by lower input costs and inflation in the three regions. We expect margins to recover in 2024-2025 from expected higher volumes, mainly in Brazil.
- Dividend payout at 37% of previous year's net income (in line with company's internal policies) and R\$50 million–R\$100 million annually to minority shareholders of Turkish and Indian operations.
- Debt reduction of about R\$500 million in 2023 and relatively stable debt levels in 2024-2025.

Key metrics

Iochepe-Maxion S.A.--Forecast summary

Period ending (Mil. BRL)	Dec-31-2019 2019a	Dec-31-2020 2020a	Dec-31-2021 2021a	Dec-31-2022 2022a	Dec-31-2023 2023e	Dec-31-2024 2024f	Dec-31-2025 2025f	Dec-31-2026 2026f
Revenue	10,016	8,761	13,688	16,948	15,534	17,013	18,530	19,740
Gross profit	1,605	1,122	2,264	2,300	2,121	2,575	2,845	3,184
EBITDA (reported)	1,096	372	1,841	1,737	1,350	1,695	1,938	2,239
Plus/(less): Other	(52)	41	(290)	(81)	15	--	--	--
EBITDA	1,043	414	1,551	1,656	1,365	1,695	1,938	2,239
Less: Cash interest paid	174	163	282	443	563	483	446	447
Less: Cash taxes paid	132	95	206	255	153	107	168	236
Funds from operations (FFO)	737	156	1,063	958	649	1,106	1,324	1,556
EBIT	611	(160)	1,027	1,257	927	1,250	1,486	1,793
Interest expense	173	205	293	528	592	483	446	447
Cash flow from operations (CFO)	658	113	1,020	1,879	1,050	1,363	1,249	1,514
Capital expenditure (capex)	484	336	485	489	560	600	600	500
Free operating cash flow (FOCF)	174	(223)	535	1,390	490	763	649	1,014
Dividends	109	146	166	236	105	58	138	217
Share repurchases (reported)	(3)	--	--	(13)	(14)	--	--	--
Discretionary cash flow (DCF)	62	(369)	369	1,142	370	705	510	797
Debt (reported)	3,062	5,120	5,532	6,477	5,995	6,004	5,883	5,950
Plus: Lease liabilities debt	73	--	53	47	50	52	54	55
Plus: Pension and other postretirement debt	(335)	(456)	(407)	(305)	(305)	(324)	(324)	(324)
Less: Accessible cash and liquid Investments	646	1,605	1,088	2,287	2,450	2,783	3,007	3,789
Plus/(less): Other	25	11	--	--	350	--	--	--
Debt	2,849	3,983	4,904	4,542	4,250	3,596	3,253	2,540
Equity	3,497	3,803	4,398	4,293	4,331	4,646	5,095	5,703
Cash and short-term investments (reported)	646	1,605	1,088	2,287	2,450	2,783	3,007	3,789
Adjusted ratios								
Debt/EBITDA (x)	2.7	9.6	3.2	2.7	3.1	2.1	1.7	1.1
FFO/debt (%)	25.9	3.9	21.7	21.1	15.3	30.7	40.7	61.2
EBITDA interest coverage (x)	6.0	2.0	5.3	3.1	2.3	3.5	4.3	5.0
CFO/debt (%)	23.1	2.8	20.8	41.4	24.7	37.9	38.4	59.6
FOCF/debt (%)	6.1	(5.6)	10.9	30.6	11.5	21.2	19.9	39.9
DCF/debt (%)	2.2	(9.3)	7.5	25.1	8.7	19.6	15.7	31.4
Annual revenue growth (%)	4.2	(12.5)	56.2	23.8	(8.3)	9.5	8.9	6.5
Gross margin (%)	16.0	12.8	16.5	13.6	13.7	15.1	15.4	16.1
EBITDA margin (%)	10.4	4.7	11.3	9.8	8.8	10.0	10.5	11.3
Return on capital (%)	9.9	(2.3)	12.0	13.9	10.6	14.9	17.9	21.6
Debt/debt and equity (%)	44.9	51.2	52.7	51.4	49.5	43.6	39.0	30.8

All figures are adjusted by S&P Global Ratings, unless stated as reported. a--Actual. e--Estimate. f--Forecast. R\$--Brazilian real.

Capital expenditure (capex) mostly to maintain operations. We forecast annual capex of R\$550 million-R\$600 million in 2023-2025, mostly for maintenance and productivity gains, but also for some special projects to increase capacity. Iochepe is in the final stages to conclude a capacity expansion for the Inmagusa plant in Mexico to meet increasing demand for commercial vehicles in North America. Additionally, in the second quarter of 2023, it started building a new plant in Europe to produce aluminum wheels for commercial vehicles.

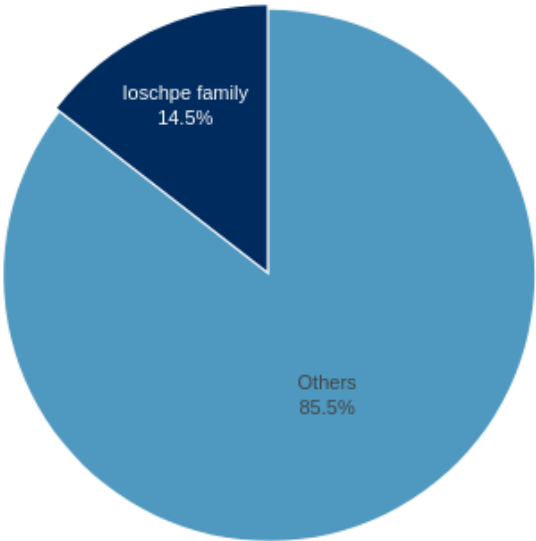
Company Description

Founded in 1918, Iochepe is a global manufacturer of steel wheels for light and commercial vehicles and agricultural machinery. It also manufactures aluminum wheels for light vehicles; side rails, crossmembers, and full frames for commercial vehicles; and structural components for light and commercial vehicles.

Iochepe currently has 33 manufacturing facilities across 14 countries. The company operates its core business through Maxion Wheels and Maxion Structural Components in the auto segment and through AmstedMaxion, which produces railway equipment in Brazil and other countries.

In the first half of 2023, revenue from Brazil and North America represented 26% and 28% of consolidated revenue, respectively, Europe was 36%, and Asia 9%.

Iochepe's ownership
as of June 30, 2023



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

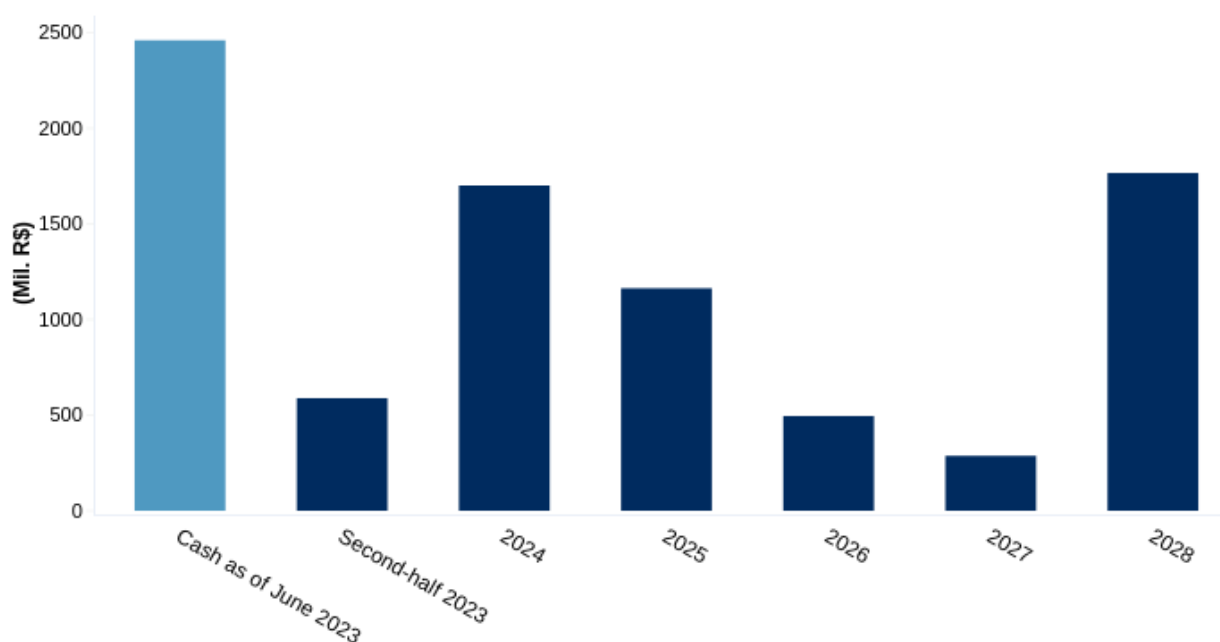
Financial Risk

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Debt maturities

Debt maturity profile

As of June 30, 2023



lochpe-Maxion S.A.--Financial Summary

Period ending	Dec-31-2017	Dec-31-2018	Dec-31-2019	Dec-31-2020	Dec-31-2021	Dec-31-2022
Reporting period	2017a	2018a	2019a	2020a	2021a	2022a
Display currency (mil.)	R\$	R\$	R\$	R\$	R\$	R\$
Revenues	7,488	9,616	10,016	8,761	13,688	16,948
EBITDA	874	1,100	1,043	414	1,551	1,656
Funds from operations (FFO)	553	745	737	156	1,063	958
Interest expense	215	192	173	205	293	528

Iochpe-Maxion S.A.--Financial Summary

Cash interest paid	225	179	174	163	282	443
Operating cash flow (OCF)	315	640	658	113	1,020	1,879
Capital expenditure	237	471	484	336	485	489
Free operating cash flow (FOCF)	78	169	174	(223)	535	1,390
Discretionary cash flow (DCF)	63	120	62	(369)	369	1,142
Cash and short-term investments	543	487	646	1,605	1,088	2,287
Gross available cash	543	487	646	1,605	1,088	2,287
Debt	2,653	2,746	2,849	3,983	4,904	4,542
Common equity	2,631	3,199	3,497	3,803	4,398	4,293

Adjusted ratios

EBITDA margin (%)	11.7	11.4	10.4	4.7	11.3	9.8
Return on capital (%)	7.9	11.8	9.9	(2.3)	12.0	13.9
EBITDA interest coverage (x)	4.1	5.7	6.0	2.0	5.3	3.1
FFO cash interest coverage (x)	3.5	5.2	5.2	2.0	4.8	3.2
Debt/EBITDA (x)	3.0	2.5	2.7	9.6	3.2	2.7
FFO/debt (%)	20.9	27.1	25.9	3.9	21.7	21.1
OCF/debt (%)	11.9	23.3	23.1	2.8	20.8	41.4
FOCF/debt (%)	2.9	6.2	6.1	(5.6)	10.9	30.6
DCF/debt (%)	2.4	4.4	2.2	(9.3)	7.5	25.1

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

Financial year	Dec-31-2022	Debt	Shareholder Equity	Revenue	EBITDA	Operating income	Interest expense	S&PGR adjusted EBITDA	Operating cash flow	Dividends	Capital expenditure
Company reported amounts		6,477	3,920	16,948	1,737	1,246	528	1,656	1,879	236	489
Cash taxes paid		-	-	-	-	-	-	(255)	-	-	-
Cash interest paid		-	-	-	-	-	-	(443)	-	-	-
Lease liabilities		47	-	-	-	-	-	-	-	-	-
Postretirement benefit obligations/ deferred compensation		305	-	-	(20)	(20)	-	-	-	-	-
Accessible cash and liquid investments		(2,287)	-	-	-	-	-	-	-	-	-
Income (expense) of unconsolid. cos.		-	-	-	(30)	-	-	-	-	-	-
Nonoperating income (expense)		-	-	-	-	61	-	-	-	-	-
Noncontrolling/minority interest		-	373	-	-	-	-	-	-	-	-
EBITDA - Gain/(loss) on disposals of PP&E		-	-	-	1	1	-	-	-	-	-

Reconciliation Of lochpe-Maxion 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
EBITDA:	-	-	-	31	31	-	-	-	-	-
Valuation gains/(losses)										
EBITDA: other	-	-	-	(62)	(62)	-	-	-	-	-
Total adjustments	(1,935)	373	-	(81)	11	-	(698)	-	-	-
S&P Global Ratings adjusted	Debt	Equity	Revenue	EBITDA	EBIT	Interest expense	Funds from Operations	Operating cash flow	Dividends	Capital expenditure
	4,542	4,293	16,948	1,656	1,257	528	958	1,879	236	489

Liquidity

lochpe's liquidity is adequate, in our view. We expect lochpe's sources of cash to exceed uses by 2.0x in the next 12 months, and sources minus uses to remain positive even if EBITDA were to decline 15%-30% from our current forecast. Since first-quarter 2023, the company is anticipating part of its receivables, improving working capital generation. Coupled with new debt issuances, this supports stronger liquidity throughout a more difficult 2023 in terms of operating cash flow. Moreover, lochpe has an available RCF of R\$500 million and a Finame credit line of R\$620 million available until February 2024. We don't believe the company will draw this line as it has been able to access credit markets to raise unsecured lines at lower costs.

We also view lochpe as having well-established and solid relationship with banks.

Principal liquidity sources

- Cash position of about R\$2.5 billion as of June 2023
- Undrawn committed credit lines of R\$500 million, maturing in 2025
- Forecast funds from operations of about R\$885 million in the 12 months starting June 2023
- Working capital inflow of almost R\$300 million in the next 12 months
- Proceeds from the 12th debenture issuance of R\$700 million in September 2023
-

Principal liquidity uses

- Short-term debt of R\$1.8 billion as of June 2023
- Capex of about R\$580 million in the next 12 months
- Seasonal working capital intra-quarters of about R\$300 million
- Dividend payment of about R\$60 million in 2024

Covenant Analysis

Requirements

The company cannot incur additional debt or distribute dividends above 25% if net debt to EBITDA is above 3.5x. This incurrence covenant is present on the 11th and 12th debentures and sustainability linked notes. The company has no acceleration financial covenant.

Compliance expectations

We forecast the company will demonstrate a cushion of more than 25% on the covenant by the end of 2023, and over 45% in the next two years on increasing cash generation.

Environmental, Social, And Governance

Environmental factors are a moderately negative consideration in our credit rating analysis of lochpe. This is because the global automotive industry is significantly exposed to environmental risks, given that electrification and the transition to CO2-neutral mobility are disruptive forces that will shape the industry.

In Europe and North America, regulatory rules are well advanced for light vehicles, but those for heavy vehicles will be implemented in the long term. Given significant exposure to both regions and to light vehicles, lochpe has been working on weight-reduction technology to meet original equipment manufacturers' needs.

Nevertheless, the company is the global leader in wheel manufacturing, which is less vulnerable to the global regulatory push. Also, lochpe is on track to reduce the intensity of its greenhouse gas emissions (scopes 1 and 2) 30% by 2025 from the 2019 level of 0.0003900028 tons of CO2 per kilogram produced, and to be carbon neutral by 2040.

Issue Ratings--Recovery Analysis

Key analytical factors

The recovery rating on lochpe's senior unsecured debentures is '4', with a recovery expectation of 35% and the recovery rating on company's senior unsecured notes is '3', with a recovery expectation of 65%. The higher recovery expectation on the senior notes issued by lochpe-Maxion Austria GmbH and Maxion Wheels de Mexico reflect our view that this debt would rank superior in the event of default versus the debt at the parent level.

- We assess recovery prospects using a simulated default scenario, with an EBITDA multiple valuation approach.
- Our simulated default scenario assumes a payment default in 2027 because of a severe global economic slowdown, sharply lower consumer discretionary income, and higher competition in the markets where lochpe operates, all of which would reduce its cash flow.
- We analyze recovery prospects under a going concern basis and use a 5x multiple to our projected emergence EBITDA, because we believe the company would likely be restructured instead of being liquidated in the event of default, given its strong position among auto suppliers and its solid operations that should generate consistent cash flow.
- In such a scenario, we estimate that EBITDA would decline about 30% from 2023 EBITDA of about R\$1.3 billion and wouldn't sufficiently cover the company's maintenance capex and interest expenses, triggering a payment default.

Simulated default assumptions

- Simulated year of default: 2027
- Emergence EBITDA: R\$980 million
- EBITDA multiple: 5x
- Estimated gross enterprise value (EV): R\$4.9 billion

- Jurisdiction: Brazil

Simplified waterfall

- Consolidated net EV after 5% administrative costs: R\$4.7 billion
- Net EV of its subsidiaries (approximately 70% of EBITDA): R\$3.3 billion
- Unsecured debt of the subsidiaries: R\$2.9 billion
- Net EV of lochpe-Maxion (the parent company; approximately 30% of EBITDA): R\$1.7 billion
- Secured debt: R\$800 million (Finame)
- Unsecured debt: R\$2.4 billion (bank loans and debentures at the parent level).
- Recovery expectations of senior unsecured notes: 65% (jurisdiction cap)
- Recovery expectations of debentures: 35%

*All debt amounts include six months of prepetition interest.

Rating Component Scores

Foreign currency issuer credit rating	BB-/Positive/--
Local currency issuer credit rating	BB-/Positive/--
Business risk	Fair
Country risk	Intermediate
Industry risk	Moderately High
Competitive position	Fair
Financial risk	Aggressive
Cash flow/leverage	Aggressive
Anchor	bb-
Diversification/portfolio effect	Neutral (no impact)
Capital structure	Neutral (no impact)
Financial policy	Neutral (no impact)
Liquidity	Adequate (no impact)
Management and governance	Satisfactory (no impact)
Comparable rating analysis	Neutral (no impact)
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

lochpe-Maxion S.A.

- Criteria | Corporates | General: Recovery Rating Criteria For Speculative-Grade Corporate Issuers, Dec. 7, 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
- Criteria | Corporates | General: Corporate Methodology, Nov. 19, 2013
- General Criteria: Ratings Above The Sovereign--Corporate And Government Ratings: Methodology And Assumptions, Nov. 19, 2013
- General Criteria: Methodology: Industry Risk, Nov. 19, 2013
- General Criteria: Country Risk Assessment Methodology And Assumptions, 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 October 16, 2023)*

lochpe-Maxion S.A.

Issuer Credit Rating	BB-/Positive/--
<i>Brazil National Scale</i>	brAA+/Positive/--
Senior Unsecured	
<i>Brazil National Scale</i>	brAA+

Issuer Credit Ratings History

19-Aug-2021		BB-/Positive/--
22-Apr-2021		BB-/Negative/--
19-Aug-2021	<i>Brazil National Scale</i>	brAA+/Positive/--
24-Aug-2020		brAA+/Negative/--
31-Mar-2020		brAAA/Watch Neg/--

*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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