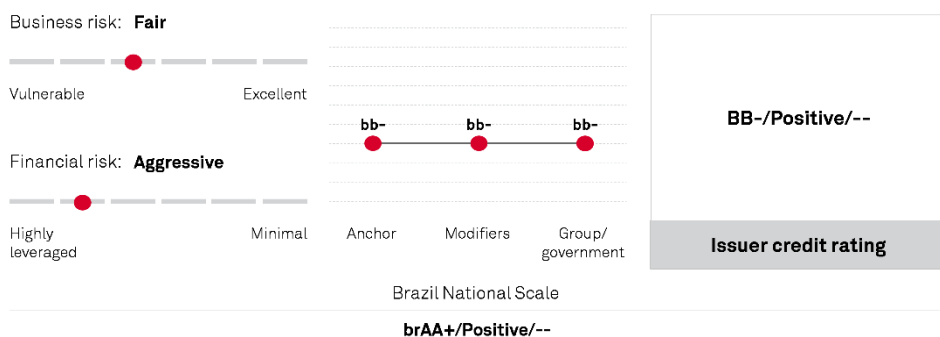


Update: lochpe-Maxion S.A.

October 13, 2022

Ratings Score Snapshot



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Credit Highlights

Overview

Key strengths

The world's top wheel manufacturer.

A wide geographic footprint provides some cash-flow protection.

Comfortable liquidity position with an extended debt profile and available revolving credit facility (RCF).

Key risks

Supply-chain problems causing inventory levels to rise.

Deteriorating global economic conditions could take a heavier toll on the auto industry.

We expect working capital to fall by the fourth quarter, allowing for solid cash flows in 2022 even amid lower profitability and high interest burden. lochpe-Maxion S.A.'s inventory has risen and become costlier due to the manufacturing pause among several clients and higher input costs. We expect lochpe to decrease its inventory levels during the fourth quarter at the same pace as automakers increase production, compensating for the working capital consumption in previous quarters of the year. As a result, we forecast operating cash flows at about R\$1 billion in 2022 despite the EBITDA margin compression and elevated interest expenses of about R\$485 million. We expect EBITDA margin to slip to about 10% in the next few years from 11.5% in 2021 due to the rise in raw

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materials, energy, labor and transportation costs globally. We forecast lochpe's gross debt of about R\$5.4 billion at year-end, and despite recent debt refinancing that extended the debt maturity profile and decreased cost of debt, about 50% of gross debt is exposed to Brazil's floating interest rate, causing elevated interest expenses.

lochpe's significant geographic diversification and increasing demand for its products in the coming years offset some product concentration. We expect lochpe to continue gradually expanding its capacity, for example, that of the wheel plant for commercial vehicles and agricultural machinery in Cruzeiro (Brazil) to meet the pent-up demand after the pandemic. Although the auto production hasn't recovered to pre-pandemic levels yet, we expect the semiconductor shortages to ease in the coming months, boosting the vehicle production and sales globally. According to IHS Markit, light-vehicle production should reach 91 million units by 2024, slightly above pre-pandemic levels of 89 million in 2019. And LMC Automotive forecasts the commercial-vehicle production in 2024 to reach about 3.6 million units, similar to 2019 level. lochpe's product range is narrow because wheel production represented 75% of total revenue in the first six months of 2022, while that of structural components 25%. On the other hand, lochpe has solid geographic diversification with operations across 14 countries, enabling close relationship with customers and suppliers. In the first six months of 2022, revenues from Brazil, North America, and Europe represented about 30% each, while that from Asia represented 9%. This tends to mitigate cash-flow volatility if economic or industry downturns occurs in any particular region.

We expect the company to continue refinance its debt and maintain comfortable liquidity. As was the case in the past, we believe lochpe will continue trying to match debt and cash flows in various currencies through debt refinancing. This would diminish potential hits to credit metrics from foreign-exchange (FX) movements and industry dynamics in each region. As of June 2022, about 50% of the company's total debt was in Brazilian reals, while revenues represented about 30%, followed by euros (36% and 30%), and dollars (9% and 30%). Additionally, we expect the ongoing debt refinancing to reduce the cost of debt and extend the debt maturity profile, with the weighted average maturity of debt close to four years as of June 2022.

lochpe has recently enhanced its liquidity cushion with a RCF of R\$500 million, which will be available for the next three years. We believe management is committed to keep a substantial liquidity position, unlike in the past when the company held a significant amount of short-term working capital lines.

The timing and eventual impacts of the ongoing investigation over a potential cartel involving lochpe's German subsidiary still unknown. In June 2022, lochpe announced that its German subsidiary is under investigation for noncompliance with competition laws in the light aluminum segment. In the first six months of 2022, revenue from light aluminum wheels at lochpe's European operations represented about 13.6% of total net revenue, while that from German operations was a smaller percentage. Reputational risks could increase if the company is found to be guilty. However, the timing and eventual financial impacts, for instance in the form of fines, are currently highly uncertain.

Outlook

The positive outlook reflects our view that lochpe will maintain adequate profitability with EBITDA margin of about 10%, as in the past few quarters, thanks to its wide geographic diversification and cost-efficiency measures, which should mitigate the supply chain risks. The outlook also incorporates our view that lochpe will continue to improve its liquidity, refinancing debt to extend its maturity profile.

Downside scenario

We could revise the outlook to stable in the next 12 months if the company's cash flows are weaker and leverage higher than our base-case expectations in the next several quarters. This would likely be a result of tougher industry dynamics with further auto manufacturing stoppages around the globe, lower demand, higher inflationary pressures on costs and expenses, and greater energy costs in Europe. In this scenario, we expect lochpe to post debt to EBITDA consistently close to 4x and negative free operating cash flows (FOCF).

Upside scenario

We could raise the ratings in the next 6-12 months if cash flows strengthen, allowing the company to reduce debt to EBITDA close to 2.5x in 2022 and 2023. We would also expect FOCF to debt near or above 10% next year.

Our Base-Case Scenario

Assumptions

- Average FX rate of R\$5.13 per \$1 in 2022, R\$5.18 per \$1 in 2023, and R\$5.23 per \$1 in 2024.
- Brazil's inflation rate of 9.6% in 2022, 5.0% in 2023, and 4.4% in 2024.
- Brazil's GDP growth of 2.5% in 2022, 0.6% in 2023, and 2.0% in 2024.
- Brazil's basic interest rate of 13.12% in 2022, 12.69% in 2023, and 8.25% in 2024.
- U.S. inflation of 8.3% in 2022, 3.7% in 2023, and 1.6% in 2024.
- U.S. GDP growth of 1.6% in 2022, 0.2% in 2023, and 1.6% in 2024.
- EU's inflation of 8.5% in 2022, 5.2% in 2023, and 2.1% in 2024.
- EU's GDP growth of 2.9% in 2022, 0.8% in 2023, and 2.0% in 2024.
- Volumes to continue recovering due to pent-up demand for passenger cars across all regions despite several stoppages in 2022. For 2023, we forecast recovery in production of aluminum wheels for light vehicles to continue, mostly in the U.S. and Brazil with the expected ease of semiconductor shortages and new contracts signed.
- Demand for commercial vehicles to remain robust given the continued rise in demand for logistics and infrastructure across all regions.
- EBITDA margin relatively stable in 2022-2024 given higher capacity utilization and price adjustments compensating for elevated inflation, and energy and input costs. Moreover, the company will continue benefiting from a more balanced cost structure given cost-cutting initiatives over the past few years.
- Capital expenditures (capex) for maintenance of operations, expansion of the production line in the Cruzeiro plant in Brazil and increase capacity for steel wheel production in Turkey to meet solid demand for commercial vehicles.
- Dividend payout at 37% of previous year's net income, and R\$50 million – R\$100 million annually to minority shareholders of Turkish and Indian operations.
- Debt refinancing in 2022, but gross debt reduction of about R\$600 million in 2023 thanks to increased cash generation.

Iochpe-Maxion S.A.--Key Metrics*

Mil. R\$	2020a	2021a	2022e	2023f	2024f
Revenue	8,761	13,688	~16,800	17,000- 17,500	18,400- 18,800
EBITDA margin (%)	4.7	11.3	10.0-10.5	10.0-10.5	10.0-10.5
Capital expenditure	336	485	~560	~550	~630
Free operating cash flow (FOCF)	(223)	(559)	~550	650-700	700-750
Adjusted Debt*	3,983	4,904	~4,700	4,000- 4,500	3,600- 4,000
Debt to EBITDA (x)	9.6	3.2	2.5-3.0	2.2-2.6	1.7-2.2
FFO to debt (%)	3.9	21.7	~20-25	25-30	35-40
FOCF to debt (%)	(5.6)	(11.4)	~10	15-20	15-20

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EBITDA interest coverage (x) 2.0 5.3 ~3.5 3.5-4.0 5.5-6.0

*All figures adjusted by S&P Global Ratings. a--Actual. e--Estimate. f--Forecast. *Reported debt is adjusted by Postretirement benefit obligations and leases.

Company Description

Founded in 1918, lochpe is a global manufacturer of steel wheels for light and commercial vehicles and agricultural machinery. It also manufactures aluminum wheels for light vehicles, and produces side rails, crossmembers, and full frames for commercial vehicles and structural components for light vehicles. lochpe currently has 32 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. lochpe's main shareholders are the founder's family, with 14.8% of total shares, followed by Alaska Investimentos Ltda. (10.8%), Vokin – VKN Administração de Recursos Ltda (7.7%), Fundo de Investimento em Ações WPA EST IE (7.2%), BlackRock Inc. (5.3%), and the remaining are free float.

Financial Risk

lochpe-Maxion 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	6,816	7,488	9,616	10,016	8,761	13,688
EBITDA	746	874	1,100	1,043	414	1,551
Funds from operations (FFO)	315	553	745	737	156	1,063
Interest expense	330	215	192	173	205	293
Cash interest paid	355	225	179	174	163	282
Operating cash flow (OCF)	268	315	640	658	113	(74)
Capital expenditure	293	237	471	484	336	485
Free operating cash flow (FOCF)	(26)	78	169	174	(223)	(559)
Discretionary cash flow (DCF)	(49)	63	120	62	(369)	(724)
Cash and short-term investments	432	543	487	646	1,605	1,088
Gross available cash	432	543	487	646	1,605	1,088
Debt	3,084	2,653	2,746	2,849	3,983	4,904
Common equity	2,017	2,631	3,199	3,497	3,803	4,398

Adjusted ratios

Iochpe-Maxion S.A.--Financial Summary

EBITDA margin (%)	10.9	11.7	11.4	10.4	4.7	11.3
Return on capital (%)	6.7	7.9	11.8	9.9	(2.3)	12.0
EBITDA interest coverage (x)	2.3	4.1	5.7	6.0	2.0	5.3
FFO cash interest coverage (x)	1.9	3.5	5.2	5.2	2.0	4.8
Debt/EBITDA (x)	4.1	3.0	2.5	2.7	9.6	3.2
FFO/debt (%)	10.2	20.9	27.1	25.9	3.9	21.7
OCF/debt (%)	8.7	11.9	23.3	23.1	2.8	(1.5)
FOCF/debt (%)	(0.8)	2.9	6.2	6.1	(5.6)	(11.4)
DCF/debt (%)	(1.6)	2.4	4.4	2.2	(9.3)	(14.8)

Reconciliation Of Iochpe-Maxion S.A. Reported Amounts With S&P Global Ratings' Adjusted Amounts - BRL (Millions)

	Debt	Shareholder equity	Revenue	EBITDA	Operating income	Interest expense	SPGR adj. EBITDA	OCF	Dividends	Capex
Period date	2022-06-30									
Company reported amounts	6,016.3	4,038.8	15,841.0	1,963.4	1,437.9	399.4	1,884.9	132.4	289.3	546.6
Cash taxes paid	-	-	-	-	-	-	(310.9)	-	-	-
Cash interest paid	-	-	-	-	-	-	(341.2)	-	-	-
Lease liabilities	36.6	-	-	-	-	-	-	-	-	-
Postretirement benefit obligations/deferred comp.	407.1	-	-	0.0	0.0	0.0	-	-	-	-
Accessible cash and liquid investments	(1,392.9)	-	-	-	-	-	-	-	-	-
Income (expense) of unconsolid. cos.	-	-	-	(33.0)	-	-	-	-	-	-

Reconciliation Of lochpe-Maxion S.A. Reported Amounts With S&P Global Ratings' Adjusted Amounts - BRL (Millions)

	Debt	Shareholder equity	Revenue	EBITDA	Operating income	Interest expense	SPGR adj. EBITDA	OCF	Dividends	Capex
Nonoperating income (expense)	-	-	-	-	12.6	-	-	-	-	-
Noncontrolling/minority interest	-	310.9	-	-	-	-	-	-	-	-
EBITDA: Gain/(loss) on disposals of PP&E	-	-	-	(14.7)	(14.7)	-	-	-	-	-
EBITDA: Valuation gains/(losses)	-	-	-	(7.0)	(7.0)	-	-	-	-	-
EBITDA: Other	-	-	-	(23.8)	(23.8)	-	-	-	-	-
Total adjustments	(949.2)	310.9	0.0	(78.5)	(32.9)	0.0	(652.1)	0.0	0.0	0.0
S&PGR adjusted	5,067.1	4,349.7	15,841.0	1,884.9	1,405.0	399.4	1,232.7	132.4	289.3	546.6

Liquidity

lochpe's liquidity is adequate, in our view. The company has increased its liquidity cushion by securing a RCF of R\$500 million and extending the debt maturity profile. We also view lochpe as having well-established and solid relationship with banks. The company has historically operated with a tight liquidity cushion, relying on the constant refinancing of high short-term working capital lines. We could revise our liquidity assessment to a stronger score if lochpe demonstrates a track record of maintaining sources over uses of liquidity above 1.5x across the industry cycles. We expect lochpe's sources of cash to exceed uses by 1.7x in the next 12 months, and sources minus uses to remain positive even if EBITDA were to decline 15%-30% from our current forecast.

Principal liquidity sources

- Cash position of about R\$1.3 billion as of June 2022.
- Undrawn committed credit lines of R\$500 million, maturing in 2025.
- Forecasted FFO of about R\$1.2 billion in the next 12 months after June 2022.
- A credit line of R\$620 million from the Brazilian Development Bank (BNDES) to be disbursed until due date in February 2023.

Principal liquidity uses

- Short-term debt of R\$1.3 billion as of June 2022.
- Working capital needs, considering potential intra-year requirements, of about R\$180 million.
- Capex of about R\$555 million in the next 12 months.
- Dividend payment in the next 12 months of about R\$160 million.

Covenant Analysis

Requirements

lochpe's debentures and sustainability-linked notes are subject to financial covenants of net debt to EBITDA below 3.5x. Covenants are measured semiannually. Covenants of the 8th, 9th, 10th debentures are of debt payment acceleration and of the 11th debentures and sustainability linked notes of incurrence.

Compliance expectations

We forecast the company will have a cushion of more than 30% on the covenants' measurement in the next few years.

Environmental, Social, And Governance

ESG Credit Indicators

E-1	E-2	E-3	E-4	E-5	S-1	S-2	S-3	S-4	S-5	G-1	G-2	G-3	G-4	G-5
- Climate transition risks					- N/A					- N/A				

N/A—Not applicable. 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 Indicator Definitions And Applications," published Oct. 13, 2021.

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 significant exposure to light vehicles, lochpe has been working in 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 has a target to reduce greenhouse gas emissions intensity (Scopes 1 and 2) by 30% by 2025 from the 2019 level of 0.0003900028 tons of CO2 per kilogram produced, and to be carbon neutral by 2040.

Rating Above The Sovereign

Our 'BB-' rating on lochpe is at the same level as the sovereign rating on Brazil, but with a positive outlook versus the stable one on Brazil. Therefore, we test company's ability to withstand a sovereign stress test. lochpe is domiciled in Brazil, but with significant operations abroad, which provides resilient cash flows during periods of domestic industry weakness. As a result, in a scenario of a hypothetical sovereign default, we believe the company would maintain sufficient liquidity sources to cover its needs in a 12-month period.

Issue Ratings--Recovery Analysis

Key analytical factors

The recovery rating on lochpe's senior unsecured debentures is '4' with a recovery expectation of 30%. 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.

Update: lochpe-Maxion S.A.

- Our simulated default scenario assumes a payment default in 2026 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 flows.
- 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 flows.
- In such a scenario, we estimate that EBITDA would decline about 50% from 2021 EBITDA of about R\$1.5 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: 2026
- Emergence EBITDA: R\$760 million
- EBITDA multiple: 5x
- Estimated gross enterprise value (EV): R\$3.8 billion
- Jurisdiction: Brazil

Simplified waterfall

- Consolidated net EV after 5% administrative costs: R\$3.6 billion
- Net EV of its subsidiaries (approximately 70% of EBITDA): R\$2.5 billion
- Unsecured debt of the subsidiaries: R\$2.3 billion
- Net EV of lochpe-Maxion (the parent company; approximately 30% of EBITDA): R\$1.1 billion
- Secured debt: R\$357 million
- Unsecured debt: R\$2.9 billion (bank loans and debentures at the parent level).
- Recovery expectations of senior unsecured notes: 65% (jurisdiction cap)
- Recovery expectations of debentures: 30%

*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: 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
- 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
- General Criteria: Methodology: Industry Risk, Nov. 19, 2013
- 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: 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 13, 2022)*

lochpe-Maxion S.A.

Issuer Credit Rating

BB-/Positive/--

Brazil National Scale

brAA+/Positive/--

Senior Unsecured

Ratings Detail (as of October 13, 2022)*

Brazil National Scale

brAA+

Issuer Credit Ratings History

19-Aug-2021

BB-/Positive/--

22-Apr-2021

BB-/Negative/--

19-Aug-2021

Brazil National Scale

brAA+/Positive/--

24-Aug-2020

brAA+/Negative/--

31-Mar-2020

brAAA/Watch Neg/--

11-Jul-2018

brAAA/Stable/--

20-Dec-2017

brAA/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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