

## CREDIT OPINION

14 April 2022

### Update



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### RATINGS

#### lochpe-Maxion S.A.

Domicile	Cruzeiro, Brazil
Long Term Rating	Ba3
Type	LT Corporate Family Ratings
Outlook	Stable

Please see the [ratings section](#) at the end of this report for more information. The ratings and outlook shown reflect information as of the publication date.

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### CLIENT SERVICES

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## lochpe-Maxion S.A.

### Update to credit analysis

#### Summary

[lochpe-Maxion S.A.](#)'s Ba3 ratings reflect the company's size, scale and position as a leading global supplier of steel and aluminum wheels for light and commercial vehicles, and as a major provider of structural components in the Americas; its good geographic diversification; and its long-standing relationships with original equipment manufacturers (OEMs). The rating also incorporates lochpe-Maxion's adequate corporate governance standards, its experienced management team and its strengthened financial policies.

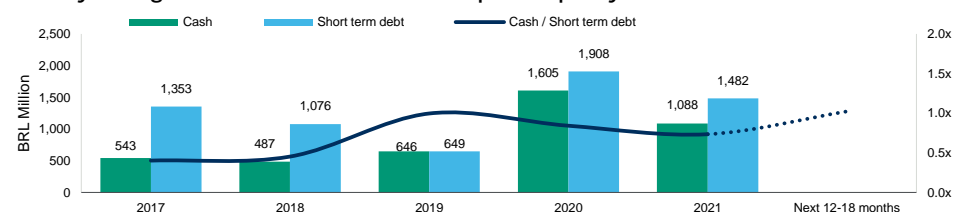
The company's adequate liquidity after several liability management initiatives carried out by the company since the beginning of 2021 also supports its rating, with its cash position (pro forma to a recent debenture issuance) covering all short-term debt maturities.

The rating also reflects lochpe-Maxion's ability to expand market share and its track record of robust revenue growth, even when the operating environment is difficult for the global automotive industry; and its adequate credit metrics, with adjusted leverage ranging between 3.0x and 4.0x through economic cycles.

lochpe-Maxion's ratings are constrained by its limited free cash flow (FCF) generation as a result of the industry's thin margins and capital intensity. Additional rating constraints include the company's history of growth through leveraged acquisitions, although it will likely focus on organic growth in the next few years; and its exposure to the cyclical nature of the automotive industry and the volatility in the prices of raw materials (steel and alumina). The company's exposure to a commoditized product offering and the bargaining power of large OEMs is also credit negative because it increases pricing pressure and limits margin expansion.

Exhibit 1

#### Liability management initiatives will further improve liquidity



Source: Moody's Financial Metrics and Moody's Investors Service estimates

## Credit strengths

- » Size and scale as a leading global supplier of wheels and structural components
- » Good geographic diversity and long-standing relationships with OEMs
- » Adequate corporate governance and strengthened financial policies
- » Adequate liquidity after initiatives carried out since the beginning of 2021
- » Recovery in credit metrics to pre-pandemic levels

## Credit challenges

- » Exposure to the cyclical nature of the automotive industry
- » Commoditized product offering and volatility in the prices of raw materials
- » Acquisitive growth history

## Rating outlook

The stable outlook reflects our expectations that lochpe-Maxion's profitability and leverage will remain adequate in the next 12-18 months despite potential market volatility; and that the company will prudently manage debt refinancing, capital spending and dividend distributions to preserve its liquidity.

## Factors that could lead to an upgrade

lochpe-Maxion's rating could be upgraded if its profitability improves, with adjusted leverage below 3.0x, and its interest coverage ratio (EBITA/interest expense) approaches 3.5x on a sustained basis. For an upgrade, lochpe-Maxion would have to maintain adequate liquidity, with cash coverage of short-term debt above 1.0x on a sustained basis; and positive FCF generation, which would help the company withstand the volatility in its end markets.

## Factors that could lead to a downgrade

lochpe-Maxion's rating could be downgraded if its profitability deteriorates, with an EBITA margin below 8%, while its adjusted leverage is maintained above 4.0x and its FCF generation remains negative without any prospect of improvement. A deterioration in the company's liquidity could also lead to a rating downgrade. Weaker financial policies — reflected in funding concentrated in short-term facilities, a sizable debt-funded acquisition or a large shareholder distribution — would also strain the rating. Finally, an increase in the proportion of secured debt compared with unsecured debt would also lead to a downgrade of the rating of the unsecured notes.

This publication does not announce a credit rating action. For any credit ratings referenced in this publication, please see the ratings tab on the issuer/entity page on [www.moody's.com](http://www.moody's.com) for the most updated credit rating action information and rating history.

## Key indicators

Exhibit 2

### lochpe-Maxion S.A.

US Millions	Dec-16	Dec-17	Dec-18	Dec-19	Dec-20	LTM (Dec-21)	Forward view Next 12-18 months
Revenue	1,965.0	2,345.5	2,648.9	2,543.9	1,716.9	2,541.8	\$2,800 - 3,100
EBITA Margin %	7.2%	8.3%	7.8%	7.1%	0.4%	7.9%	6.5 - 7.5%
Debt / EBITDA	4.3x	3.6x	3.0x	3.2x	10.3x	3.8x	3.0 - 4.0x
EBITA / Interest Expense	1.4x	2.4x	3.0x	3.0x	0.1x	2.7x	2.3 - 2.7x
RCF / Net Debt	8.1%	15.2%	23.1%	21.9%	1.1%	16.1%	14 - 18%

All figures and ratios are calculated using Moody's estimates and standard adjustments. Moody's Forecasts (f) or Projections (proj.) are Moody's opinion and do not represent the views of the issuer. Periods are financial year-end unless indicated. LTM = Last 12 months.

Sources: Moody's Financial Metrics™ and Moody's Investors Service estimates

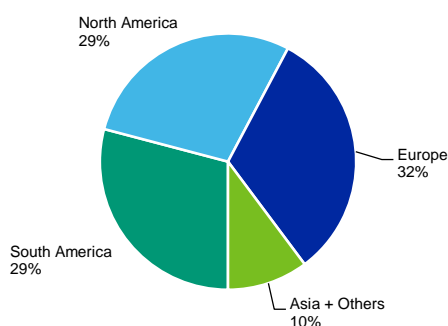
## Profile

Headquartered in Cruzeiro, Brazil, lochpe-Maxion S.A. is the largest global producer of steel wheels for light and commercial vehicles, is among the top ten global producers of aluminum wheels for light vehicles, and is a leading producer of side rails and chassis in the Americas. The company has 32 plants located in 14 countries in Europe, South America, North America, Asia and Africa, with a total production capacity of 62 million steel wheels and 17 million aluminum wheels a year.

lochpe-Maxion also has a 19.5% interest in an associated company that produces freight cars, railway wheels and castings, and industrial castings in Brazil. In 2021, the company generated BRL13.7 billion (\$2.5 billion) in net revenue and BRL1.6 billion (\$300 million) in EBITDA.

Exhibit 3

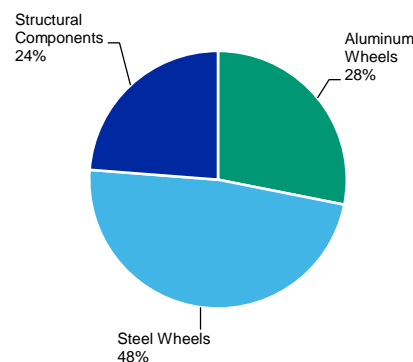
### Net revenue by geography 2021



Source: Company

Exhibit 4

### Net revenue by product 2021



Source: Company

## Detailed credit considerations

### Size and scale as a leading supplier of wheels globally and structural components in the Americas

lochpe-Maxion is the largest global supplier of steel wheels for light and commercial vehicles, is among the top ten global suppliers of aluminum wheels for light vehicles and is a major provider of structural components in the Americas. As of December 2021, the company had around 17% of the global market share for steel wheels for light vehicles, 15% for steel wheels for commercial vehicles and 3% for aluminum wheels for light vehicles. The company has a market share of 73% for side rails and 43% for chassis in Mercosur, and about 55% for side rails in North America.

Scale and market position are important determinants of business strength in the auto supplier industry because they usually reflect a company's ability to withstand the effects of changes in product demand, and its bargaining strength with customers and suppliers. In this sense, the company is better positioned than its smaller competitors to withstand pricing pressure from OEMs, raw material price increases and technological changes. However, the company is not fully insulated from any of those risks.

#### **Good geographic diversity and long-standing relationships with OEMs**

lochpe-Maxion's wide geographic footprint with 32 production sites in 14 different countries, located close to OEMs' facilities, helps reduce client transportation costs, which is a key competitive factor in this industry. The company has a geographically diverse revenue base, with 32% of total revenue coming from Europe, followed by North America (29%), South America (29%), and Asia and others (10%) in 2021, which reduces risks related to regional downturns in the automotive industry.

The company's long-standing relationships with OEMs, and its proven track record of timely and high-quality deliveries are credit positive. OEMs' wheel purchase orders take into consideration the auto supplier's engineering capability, quality, price and performance, making proven operational capabilities a differentiator during the customer's decision-making process. Engineering and performance tests for wheel programs increase switching costs for OEMs, mitigating business disruption risks. Finally, pass-through clauses for raw material price increases exist for both aluminum and steel wheels. In this sense, lochpe-Maxion's global relationships with OEMs facilitate negotiations and give the company an edge over smaller, regional competitors.

#### **Commoditized product offering and volatility in the prices of raw materials**

Around 76% of lochpe-Maxion's revenue comes from sales of wheels for light and commercial vehicles, with a particularly large exposure to steel wheels for light and commercial vehicles (48% of total revenue in 2021). Aluminum wheels represented 28% of total revenue, with the remaining 24% coming from the sale of structural components, such as chassis and side rails. The fierce competition and bargaining strength of OEMs increase pricing pressure in all of these segments and limit margin expansion for lochpe-Maxion on a sustained basis. Furthermore, the company is exposed to the volatility in the prices of steel and alumina, two key raw materials in the production of wheels and structural components, and to potential changes in existing import tariffs in its key markets.

Steel wheels are facing competition from other technologies because OEMs are prioritizing lightweight aluminum wheels that support vehicles' performance and lower carbon emission. In mature markets, such as the [US](#) (Aaa stable), only 20% of light vehicles and light-duty trucks have steel wheels, compared with 50% in developing economies such as [Brazil](#) (Ba2 stable). However, steel wheels still represent a cheap solution for entry-level cars and spare wheels, and continue to offer greater resistance than aluminum wheels for commercial vehicles. Furthermore, the introduction of new technologies that reduce steel wheels' weight and new products that mix steel and aluminum will benefit the segment, potentially slowing the migration of steel wheels to aluminum wheels. The penetration rate of steel wheels in mature markets will remain near the current levels in the next few years, providing some stability to lochpe-Maxion's business model despite the pricing pressure.

China's large production capacity for aluminum wheels results in pricing pressure for this segment. Currently, Europe has anti-dumping measures in place to prevent increased imports from China. In Brazil, the end of Inovar-Auto incentive programme as of year-end 2017 removed the tax benefits for OEMs that used locally produced auto parts, but so far, there has been no significant increase in the import of auto parts because of the depreciation of the local currency. While we recognize that any change in the current regulation could strain lochpe-Maxion's profitability, the company has competitive production costs that ensure the viability of its operations globally, even with fiercer competition from imports.

The volatility in the prices of lochpe-Maxion's main raw materials, steel and alumina, is an additional credit negative. However, this volatility is an inherent risk for this industry. Raw materials represent around 55% of the company's total operating costs. Aluminum and steel prices have been highly volatile, with prices increasing significantly since the beginning of 2021. This volatility can lead to a temporary deterioration in lochpe-Maxion's profitability, in case the company is not able to pass through price increases to OEMs in a timely manner, although we recognize the company's track record of margin stability coming from the existence of pass-through clauses with a maximum time lag of 90 days in contracts with OEMs.

#### **Exposure to the cyclicity of the automotive industry**

lochpe-Maxion is exposed to the cyclicity of the automotive industry in its key markets such as Europe, the US and Brazil. Additionally, lochpe-Maxion has a concentrated client base, with its five largest clients representing nearly 45% of revenue, which

exposes the company to business disruption risks. We lowered our light vehicle sales growth estimates for 2022, and now expect global light vehicle sales in 2022 to rise around 3.3%, versus our earlier forecast of 6.2% growth. For 2023, we continue to expect close to 6% growth, though from a lower base.

The revision reflects our lower global GDP growth forecast for 2022 and 2023 after Russia's invasion of Ukraine and production outages at plants in Ukraine that produce parts such as vehicle wiring harnesses, which further disrupted the automotive supply chain beyond the ongoing semiconductor shortage. However, we expect supply bottlenecks to be temporary and more normal component supplies to be available from the third quarter of 2022 onwards. We also expect demand for vehicles to continue to exceed supply throughout the year.

lochpe-Maxion's operating performance deteriorated significantly in 2020, but credit metrics recovered to close to pre-pandemic levels in 2021, supported by the gradual easing of lockdown measures and the pace of economic and automotive production recovery in each region where the company operates. Through economic cycles, we expect lochpe-Maxion to continue to outgrow the market based on market share expansion. However, we expect the company to remain exposed to regional downturns in the automotive industry, particularly in 2022 at its European operations as a result of the conflict. The company's main operation in Europe is located in Turkey, where the company produces light vehicle wheels to export to other European markets. However, lochpe-Maxion has heavy vehicle wheel operations in Germany, and remains exposed to potential volatility in industrial output and sales in Europe in case of an escalation of the current conflict.

### Credit metrics rebounded from pandemic slump

lochpe-Maxion was able to improve profitability and leverage consistently since 2015, even as the Brazilian automotive market deteriorated. The company's global footprint helps mitigate regional downturns in the automotive industry and also reduces exposure to currency volatility.

In 2020, the pandemic led a number of automotive OEMs and commercial vehicle manufacturers and auto parts suppliers to temporarily close facilities, which significantly impaired sales volumes and profitability. In 2020, lochpe-Maxion's total sales declined 13% from the level in 2019, weakened by the halt of OEMs' production during H1 2020. The company's profitability also declined because of less fixed-cost dilution and a less favorable sales mix, with a lower share of sales related to commercial vehicles. Accordingly, the company's Moody's-adjusted EBITDA declined to BRL566 million for 2020 (down 50% from the previous year) and its adjusted EBITDA margin closed at 6.5%, down from 11.1% in 2019. The company's revenue declined less than its sales volumes because of the sharp depreciation of the company's functional currency, the Brazilian real, and the translation of its sales in hard currencies.

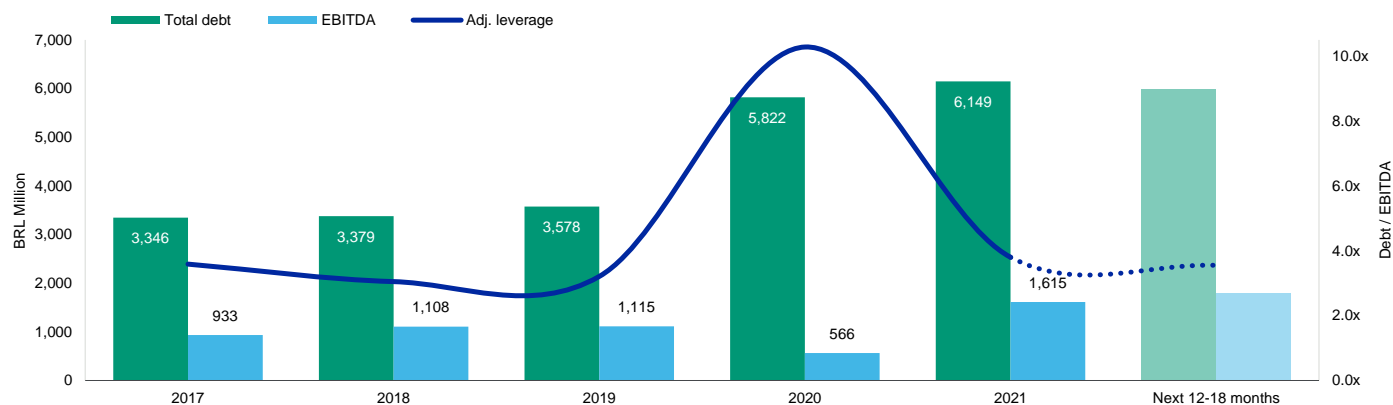
In 2021, lochpe-Maxion's revenue increased to BRL13.7 billion, which was above the pre-pandemic levels, while its EBITDA margin recovered to BRL1.6 billion despite the raw material price pressure. The improvement reflected the global rebound in automotive production despite the semiconductor shortage, market share gains with the ramp-up of a new plant in India and introduction of new products, and the company's strategy to prioritize sales to the less chip-intensive commercial vehicles.

The higher EBITDA allowed lochpe-Maxion's Moody's-adjusted gross leverage to decline to 3.8x in 2021 from the 10.3x peak in 2020. The company also paid down around BRL400 million in short-term debt during 2021, which was raised during the pandemic to cover liquidity needs.

Despite the volatility in the operating environment, we expect the company to maintain its conservative approach to leverage and liquidity during future crises, proactively adjusting costs, cash outflows and its capital structure to reduce cash burn and liquidity risks. A longer-than-expected period of weak sales or a significant increase in liquidity risks would also strain the rating.

Exhibit 5

### Improved operations and debt reduction supported leverage reduction Moody's-adjusted metrics



Sources: Moody's Financial Metrics™ and Moody's Investors Service estimates

## ESG considerations

### Iochepe-Maxion S.A.'s ESG Credit Impact Score is Moderately Negative CIS-3

Exhibit 6

#### ESG Credit Impact Score

# CIS-3

## Moderately Negative



For an issuer scored CIS-3 (Moderately Negative), its ESG attributes are overall considered as having a limited impact on the current rating, with greater potential for future negative impact over time. The negative influence of the overall ESG attributes on the rating is more pronounced compared to an issuer scored CIS-2.

Source: Moody's Investors Service

**CIS-3** - Iochepe-Maxion's ESG Credit Impact Score is moderately negative. Environmental risks relate directly to the declining trend for steel wheels and migration to aluminum wheels and other blended technologies as part of customers' ability to reduce vehicle weight and increase efficiency to meet increasing emissions regulations. However, lack of product substitution for wheels limits Iochepe-Maxion's exposure to the automotive electrification trends. Social risks incorporate managing customer relations, responsible production, and health and safety requirements. Governance aspects are incorporated in the rating, and include strengthened financial policies and our expectations of more conservative financial and liquidity management.

Exhibit 7

#### ESG Issuer Profile Scores

### ENVIRONMENTAL

# E-3

## Moderately Negative



### SOCIAL

# S-3

## Moderately Negative



### GOVERNANCE

# G-3

## Moderately Negative



Source: Moody's Investors Service

## Environmental

**E-3** - Iochpe-Maxion's environmental risks relate directly to customers' ability to reduce vehicle weight and increase efficiency to meet increasing emissions regulations. Steel wheels are facing competition from other technologies because OEMs are prioritizing lightweight aluminum wheels that support vehicles' performance and lower carbon emission. The penetration rate of steel wheels in mature markets will remain near the current levels over time and there is a lack of viable substitutes for wheels, which provide some stability to Iochpe-Maxion's business model despite the pricing pressure. The company has pledged that it will reduce its greenhouse gas emissions by 30% until December 2025, by 70% by December 2030 and by 100% by 2040.

## Social

**S-3** - Iochpe-Maxion is exposed to risks related to customer relations, health and safety, and responsible production given the nature of its manufacturing operations.

## Governance

**G-3** - Iochpe-Maxion is a publicly traded company, with shares listed on the B3 stock exchange since 1984, currently as part of Novo Mercado, the level with the highest standards of corporate governance in Brazil. Its largest shareholder is the Ioschpe family with 14.7% of total shares, followed by Alaska Investimentos Ltda (12.1%), Fundo de Investimento em Ações WPA EST IE (8.4%) and Vokin-VKN Administração de Recursos Ltda. (5.05%); 1.35% are treasury shares. The remaining shares are freely traded in the market by domestic and international investors. The company's board of directors comprises nine members, of which four are members of the Ioschpe family. The company has audit, finance and compensation committees in place. The finance and compensation committees are composed of independent board members, while the audit committee has two members appointed by the company's board of directors and one independent member. The members of the Ioschpe family vote together based on a shareholders' agreement valid through 2023. There are no family members in the company's management team, which is composed of experienced professionals with many years of experience in the Brazilian and international markets. Currently, the company has formal financial policies regarding target leverage, dividend distribution and cash management, and is in the process of implementing policies related to minimum cash and cash coverage of short-term debt. The company's leverage target accommodates eventual M&A activity, but existing financial covenants limit the risk of any sizable debt-funded acquisition in the medium term. The company's bylaws have a poison pill, establishing that any shareholder acquiring or becoming a holder of 15% or more of Iochpe-Maxion's total shares has to make a public offering for the acquisition of all shares issued by the company, which limits risks related to change in control. Iochpe-Maxion's corporate governance standards are in line with those of other public companies in Brazil listed under B3's Novo Mercado, but could improve with the continued implementation of more conservative liquidity policies. The balanced risks and improvements in corporate governance, including the significant improvement in the company's financial policies and liquidity since the beginning of 2021, are incorporated into the rating.

ESG Issuer Profile Scores and Credit Impact Scores for the rated entity/transaction are available on [www.moody's.com](http://www.moody's.com). To view the latest scores, please click [here](#) to go to the landing page for the entity/transaction on MDC and view the ESG Scores section.

## Liquidity analysis

Iochpe-Maxion's liquidity has improved since the beginning of 2020, reflecting several initiatives carried out by the company to improve its debt amortization schedule. Iochpe-Maxion has raised BRL850 million in new short-term credit lines to mitigate potential liquidity squeezes during the pandemic; replaced BRL940 million in short-term and medium-term debt by a new line from [Banco Nac. Desenv. Economico e Social - BNDES](#) (Ba2 stable) and [Banco de Desenvolvimento de Minas Gerais S.A.](#) (B2 stable) with two years of grace period and final maturity in 2027; issued \$400 million in sustainability-linked notes with maturity in 2028 to repay upcoming debt maturities; used cash to pay down short-term debt; and more recently announced a new BRL750 million debenture issuance, which will be used to refinance upcoming debt maturities.

Pro forma to the debenture issuance announced in March 2022, the company's cash position of BRL1.1 billion will be sufficient to cover all short-term debt maturities, and the company will still have about BRL620 million in undrawn facilities with BNDES. Iochpe-Maxion continues to work on additional refinancing initiatives to lengthen its debt amortization schedule further.

Given the strong volatility on the demand side with recurring production downtimes by the automakers in 2021, the company significantly increased its level of aluminum and steel inventories, also driven by the sharp rise in prices of these inputs. This increase



has resulted in higher-than-usual working capital consumption, hurting its cash flow from operations (CFO) over the period. The level of raw material inventories should normalize until year-end 2022.

Although we expect lochpe-Maxion to generate positive FCF in the next few years, its internal cash generation will remain limited by the industry's thin margins and capital intensity. We estimate that the company will likely have to invest around 30% of EBITDA in capital spending annually to maintain its operations and meet the growing demand for aluminum wheels in the upcoming years, after the company concluded its expansion in India and investments in China, which will start to ramp up in H2 2022. While necessary to maintain its current market position, these investments will consume most of the company's CFO. Before the pandemic, in 2018-19, lochpe-Maxion generated CFO of around BRL650 million-BRL700 million, which was mainly directed toward expansion investments and dividend payments, resulting in muted FCF in this period. Absent production shocks in 2022, the company will likely return to positive FCF generation of about BRL100 million a year.

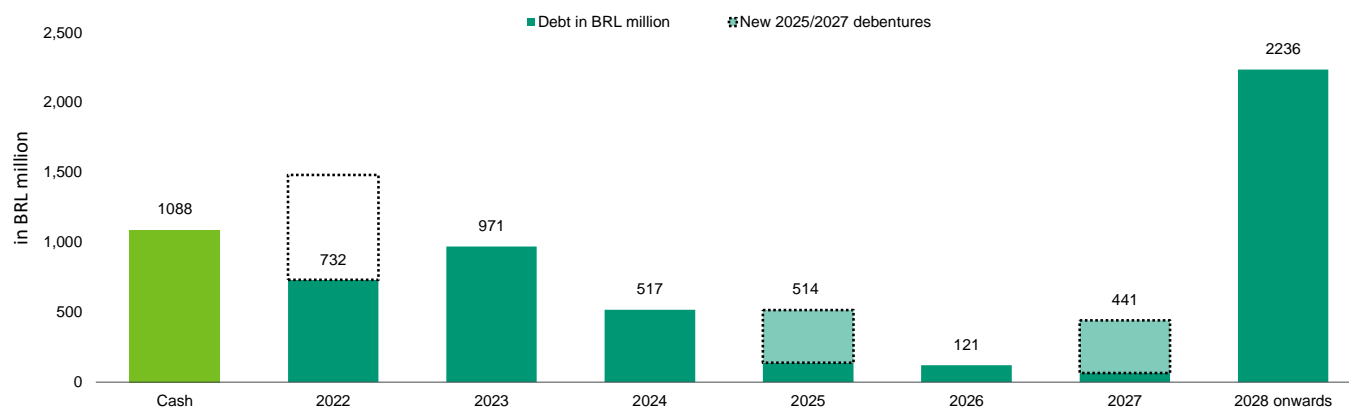
The company's bylaws have established a dividend payout of 37% of net income, above the 25% payout required by Brazilian laws. For 2021, lochpe-Maxion announced dividend distribution of BRL200 million. lochpe-Maxion is also required to pay 50% of net income from its joint venture in Turkey, which represents a cash outflow of about BRL100 million per year. Although these dividend distributions did not strain its liquidity, they have prevented a larger debt reduction over the past years and the consequent improvement in the company's liquidity.

Historically, lochpe-Maxion has maintained an adequate buffer under financial covenants applicable to part of its total outstanding debt, setting a maximum reported net leverage of 3.5x measured semiannually. However, the pandemic-induced economic shock forced the company to ask for a waiver from creditors to suspend the measure of the covenants in June and December 2020. In March 2021, lochpe-Maxion renegotiated with debenture holders the measure of the covenants for June and December 2021 to eliminate risks related to debt acceleration during 2021.

lochpe-Maxion grew through leveraged acquisitions and although we expect the company's focus to be on organic growth in the medium term, we see risks related to additional debt-funded acquisitions in the long term, when the company is able to improve its balance sheet further.

Exhibit 8

#### Pro forma debt schedule (considering the new BRL750 million debenture issuance)



Sources: Company and Moody's Investors Service

### Methodology and scorecard

lochpe-Maxion's scorecard-indicated rating under our global [Automotive Supplier Industry](#) rating methodology (published in May 2021) maps to Ba3, in line with the rating currently assigned to the company. The scorecard-indicated rating primarily reflects the strong recovery in credit metrics post pandemic. Our 12-18-month forward-looking scorecard-indicated rating maps to Ba3, reflecting our expectation that profitability and leverage will remain adequate despite potential market volatility, with liquidity prudently managed by the company.



Exhibit 9

## Rating factors

Iochpe-Maxion S.A.

Automotive Supplier Industry Scorecard [1][2]			Current FY 12/31/2021		Moody's 12-18 Month Forward View As of 4/11/2022 [3]	
Factor 1 : Scale (10%)	Measure	Score			Measure	Score
a) Revenue (USD Billion)	\$2.5	B			\$2.8 - 3.1	B
Factor 2 : Business Profile (15%)						
a) Business Profile	Ba	Ba			Ba	Ba
Factor 3 : Profitability and Efficiency (25%)						
a) EBITA Margin	7.9%	B			6.5% - 7.5%	B
b) Expected Free Cash Flow Stability	Ba	Ba			Ba	Ba
Factor 4 : Leverage and Coverage (30%)						
a) Debt / EBITDA	3.8x	B			3.0x - 4.0x	B
b) EBITA / Interest Expense	2.7x	B			2.3 - 2.7x	B
c) Retained Cash Flow / Net Debt	16.1%	Ba			14 - 18%	Ba
Factor 5 : Financial Policy (20%)						
a) Financial Policy	Ba	Ba			Ba	Ba
Rating:						
a) Scorecard-Indicated Outcome					Ba3	
b) Actual Rating Assigned					Ba3	

[1] All ratios are based on 'Adjusted' financial data and incorporate Moody's Global Standard Adjustments for Non-Financial Corporations.

[2] As of 12/31/2021.

[3] This represents Moody's forward view, not the view of the issuer, and unless noted in the text, does not incorporate significant acquisitions and divestitures.

Source: Moody's Financial Metrics™

## Appendix

Exhibit 10

## Peer comparison

(in US millions)	Iochpe-Maxion S.A. Ba3 Stable			Nemak, S.A.B. de C.V. Ba1 Stable			Superior Industries Internat B2 Stable		
	FYE Dec-19	FYE Dec-20	LTM Dec-21	FYE Dec-19	FYE Dec-20	LTM Dec-21	FYE Dec-19	FYE Dec-21	LTM Dec-21
Revenue	\$2,544	\$1,717	\$2,542	\$4,020	\$3,108	\$3,802	\$1,372	\$1,385	\$1,385
EBITDA	\$283	\$111	\$300	\$537	\$414	\$504	\$170	\$160	\$160
Total Debt	\$889	\$1,121	\$1,104	\$1,604	\$1,727	\$1,660	\$728	\$748	\$748
Cash & Cash Equiv.	\$161	\$309	\$195	\$312	\$438	\$283	\$78	\$113	\$113
EBITA Margin	7.1%	0.4%	7.9%	6.9%	4.9%	6.0%	6.7%	6.1%	6.1%
EBITA / Int. Exp.	3.0x	0.1x	2.7x	3.3x	1.9x	2.1x	1.8x	1.8x	1.8x
Debt / EBITDA	3.2x	10.3x	3.8x	2.9x	3.9x	3.3x	4.3x	4.7x	4.7x
RCF / Net Debt	21.9%	1.1%	16.1%	17.0%	22.1%	27.0%	14.3%	14.1%	14.1%

Source: Moody's Financial Metrics™

## Exhibit 11

## Moody's-adjusted debt breakdown

Ioche-Maxion S.A.

	FYE Dec-16	FYE Dec-17	FYE Dec-18	FYE Dec-19	FYE Dec-20	FYE Dec-21
(in US Millions)						
<b>As Reported Debt</b>	<b>940.2</b>	<b>857.2</b>	<b>726.0</b>	<b>761.1</b>	<b>985.8</b>	<b>993.2</b>
Pensions	117.7	127.0	121.5	128.3	135.1	110.7
Operating Leases	31.9	24.5	24.2	0.0	0.0	0.0
<b>Moody's-Adjusted Debt</b>	<b>1,089.8</b>	<b>1,008.6</b>	<b>871.7</b>	<b>889.3</b>	<b>1,120.9</b>	<b>1,104.0</b>

All figures are calculated using Moody's estimates and standard adjustments.

Source: Moody's Financial Metrics™

## Exhibit 12

## Moody's-adjusted EBITDA breakdown

Ioche-Maxion S.A.

	FYE Dec-16	FYE Dec-17	FYE Dec-18	FYE Dec-19	FYE Dec-20	FYE Dec-21
(in US Millions)						
<b>As Reported EBITDA</b>	<b>238.4</b>	<b>220.1</b>	<b>294.5</b>	<b>292.8</b>	<b>77.3</b>	<b>353.4</b>
Operating Leases	10.0	8.5	8.6	0.0	0.0	0.0
Unusual	-19.5	57.3	-1.8	-15.7	33.7	-47.1
Non-Standard Adjustments	8.3	6.3	4.0	6.1	0.0	-6.3
<b>Moody's-Adjusted EBITDA</b>	<b>237.2</b>	<b>292.1</b>	<b>305.3</b>	<b>283.2</b>	<b>111.0</b>	<b>299.9</b>

All figures are calculated using Moody's estimates and standard adjustments.

Source: Moody's Financial Metrics™

## Ratings

## Exhibit 13

Category	Moody's Rating
<b>IOCHPE-MAXION S.A.</b>	
Outlook	Stable
Corporate Family Rating	Ba3
<b>IOCHPE-MAXION AUSTRIA GMBH</b>	
Outlook	Stable
Bkd Senior Unsecured	Ba3

Source: Moody's Investors Service

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