

# Aluminum Market Report

## 2Q<sup>24</sup>



## Disclaimer

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Future considerations substantially depend on general economic, political, and trade conditions in Brazil and global markets, as well as existing and future government regulations, among other factors.

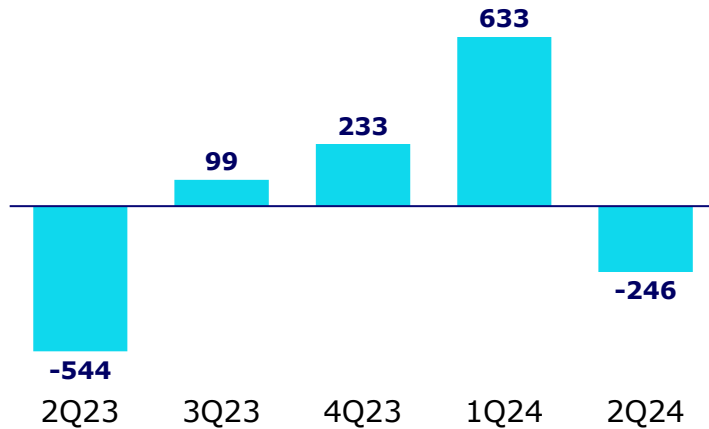
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# After a seasonal decline in 1Q24, demand recovery generates a deficit balance in 2Q24

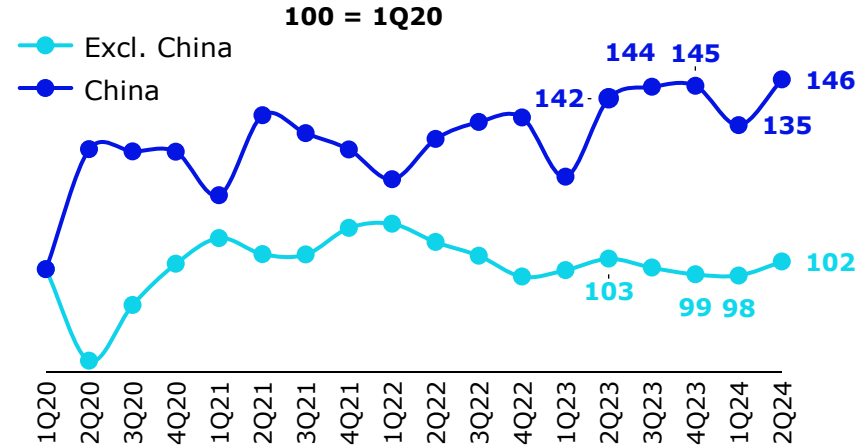
## Global Balance<sup>1</sup> (kt) – Supply vs. Demand



<sup>1</sup> Balance adjusted with primary Aluminum exports and imports

**Demand recovery in 2Q24 caused the aluminum market to return to a deficit level, which had not occurred since 2Q23.**

## Primary Aluminum Demand

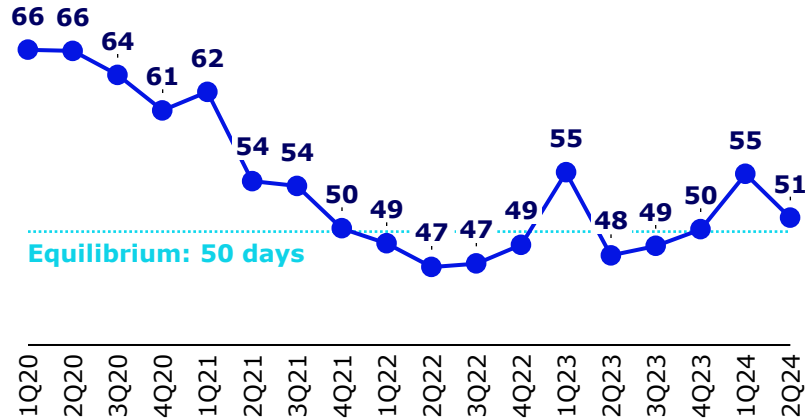


**Demand in China reached the highest level in recent years, despite concerns about the country's macroeconomic performance. In the rest of the world, demand also accelerated, in line with the level of 2Q23.**



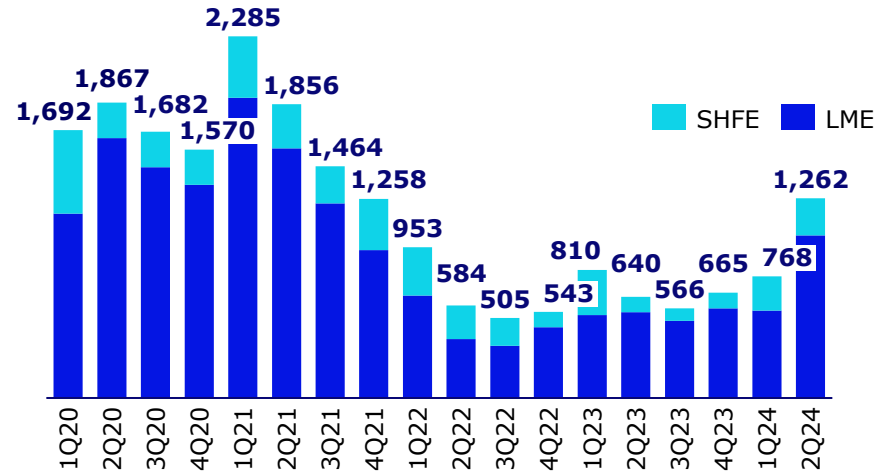
# Increased demand and a deficit balance reduced inventories in days of consumption in 2Q24

## Global stocks in days of consumption<sup>1</sup>



Impacted by the deficit market and higher demand, stocks in days of consumption decreased to 51 days, close to the equilibrium level.

## LME and SHFE exchange stocks (kt)



In May, a metal influx caused the official stocks (LME + SHFE) to reach a level above 1Mt for the first time since 4Q21. This material was previously in non-official stocks<sup>2</sup> and was placed in the LME by a market trader.

Source: CRU Aluminum Market Outlook Jul 2024, CRU Aluminum Monitor (Jul 2024) and company analysis.

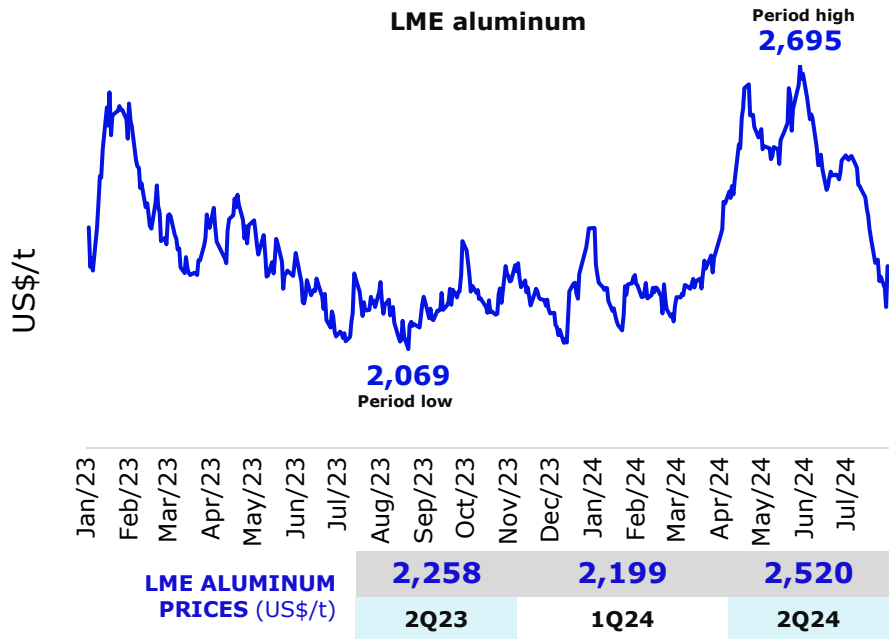
Note: Historical figures tend to vary depending on the supply & demand model updates made by CRU consulting

<sup>1</sup> Days of consumption = total stocks/(period demand/period days) | <sup>2</sup> Non-official stocks: total stocks (-) LME (-) SHFE

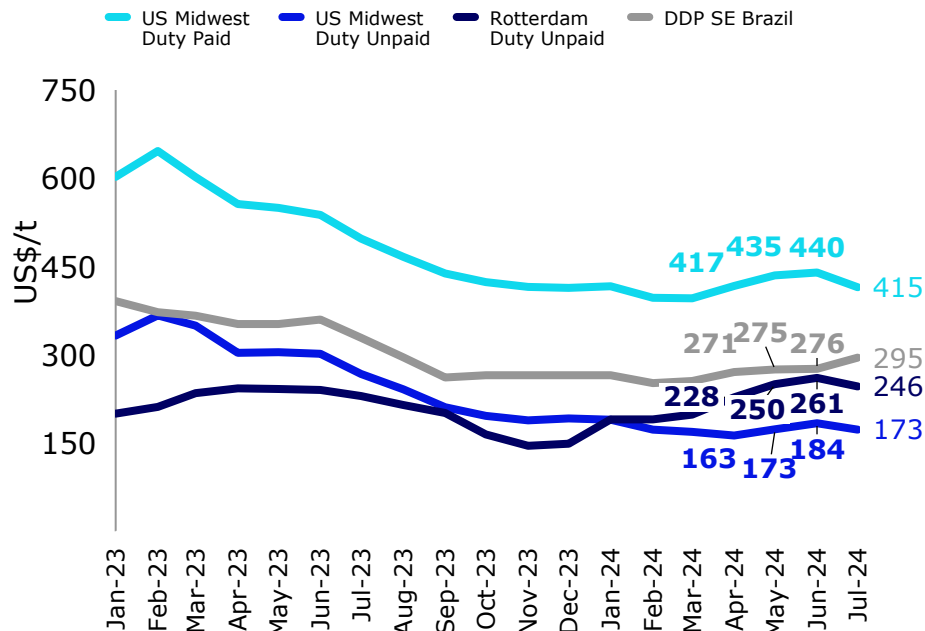


# Improved fundamentals boosted the LME in 2Q24, but a worsening scenario caused the LME to decline in July

After reaching the highest value in the last 2 years in May, the LME price slowed down in June and July, with deteriorating market prospects, especially in China

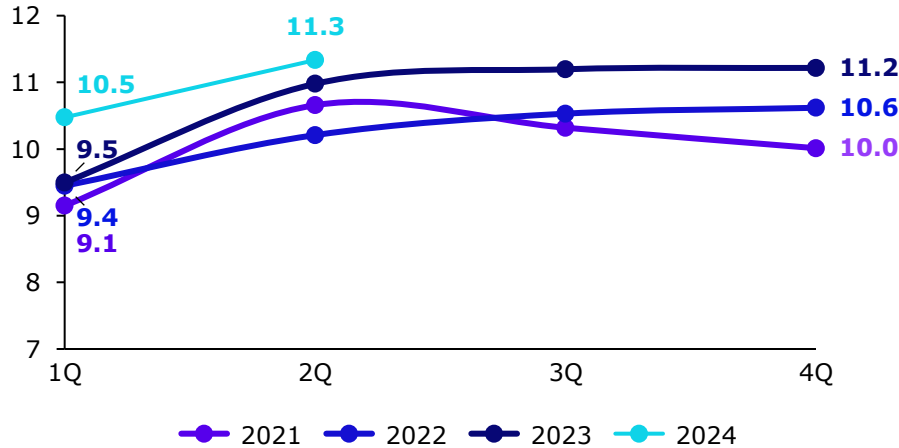


A deficit market and higher logistics costs had a positive impact on premiums in 2Q24. In July, international premiums followed the downward trend of the LME



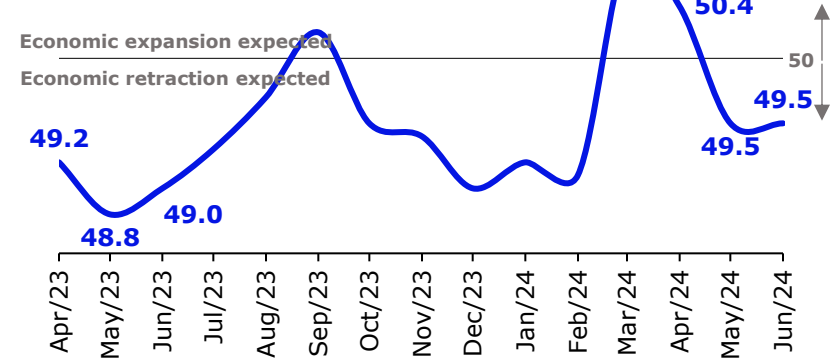
# Aluminum consumption in China remains at high levels in 2Q24, despite the PMI decline

### Primary Aluminum Consumption (Mt)



Aluminum consumption in China reached the highest level in recent years in 2Q24, even as the country faces macroeconomic challenges; government incentives and energy transition supported growth.

### Chinese Manufacturing PMI (NSB)

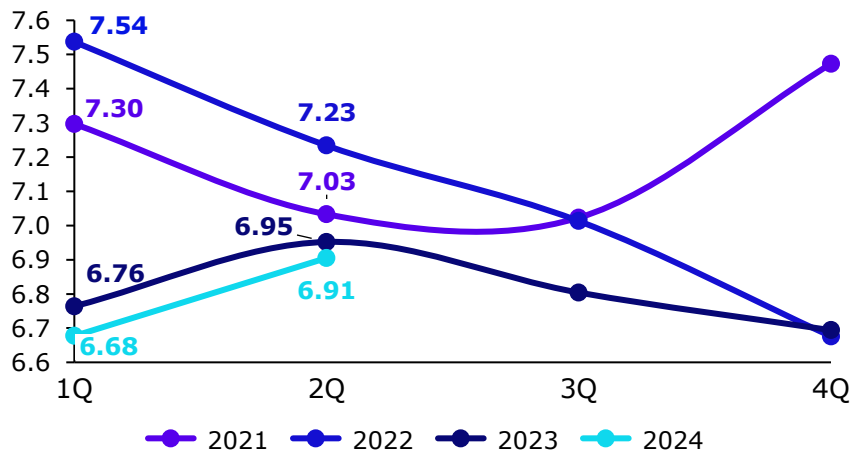


After remaining in expansion for two months, China's manufacturing PMI declined. However, it is still at higher levels than the same period last year.



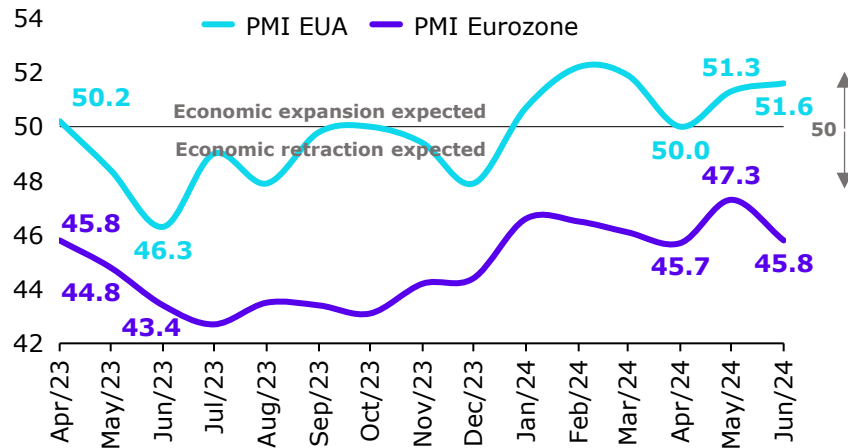
# Demand in the rest of the world remains at low levels, cba but the PMI indicates a possible recovery in the US

## Primary Aluminum consumption ex-China (Mt)

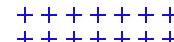


Demand in the rest of the world remains at levels similar to 2023. Historically, the summer months in the northern hemisphere negatively impact the indicator, so a recovery is expected towards the end of the year

## Regional Manufacturing PMI United States and Eurozone

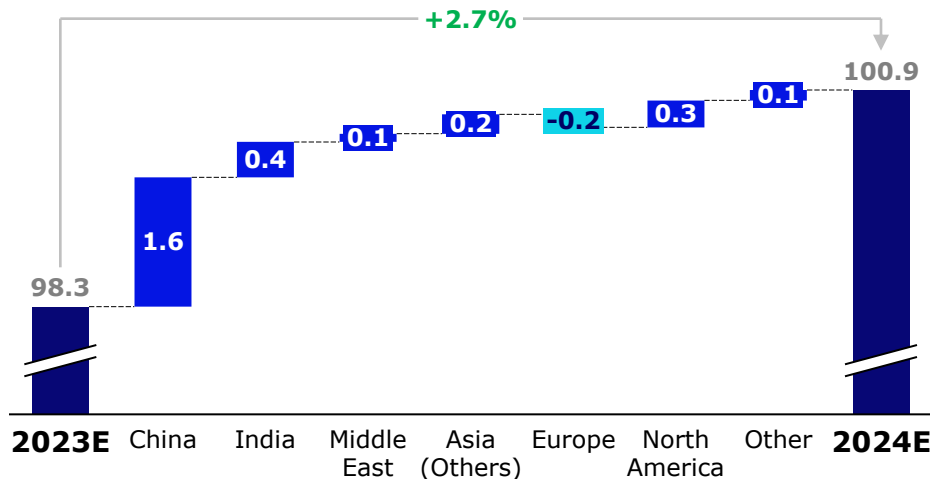


The US manufacturing PMI has remained above the economic expansion line for 6 consecutive months. In Europe, although still below the expansion line, the regional PMI level is higher than that seen in 2023.



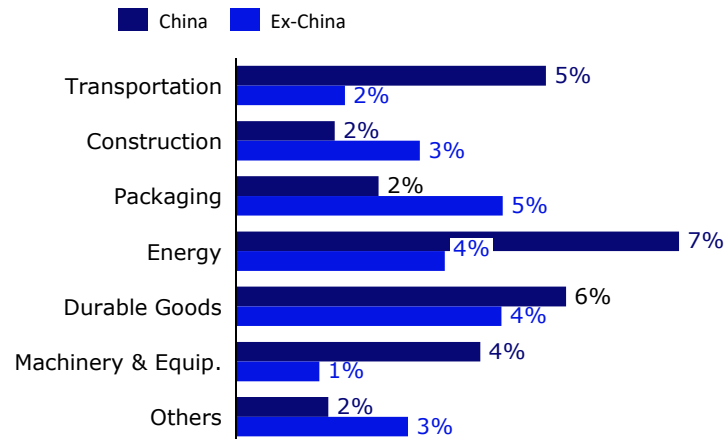
# Improved conditions are expected to boost demand in 2024 in most regions

Global downstream aluminum demand (Mt)



After a slowdown in demand in some regions in 2023, a recovery is expected in 2024, mainly driven by China's recovery, which is expected to rise despite concerns about the real estate and construction sectors, which may cause fluctuations in the indicator throughout the year

Aluminum downstream demand growth in 2024 by segment (% YoY)



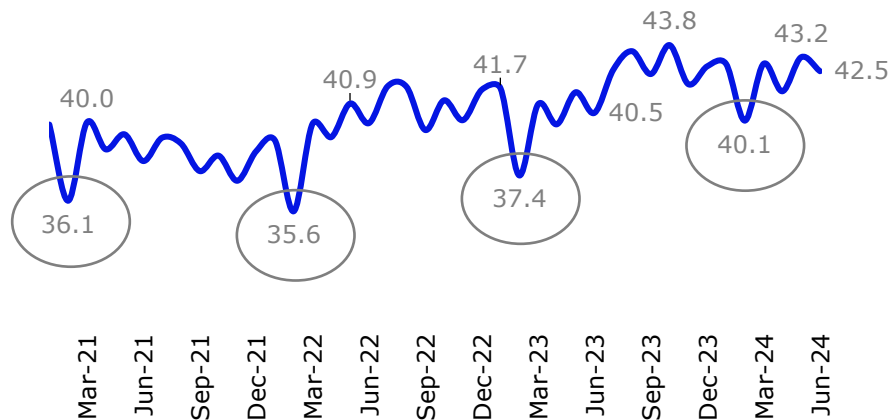
Increased investments in energy transition in China are one of the main drivers of demand during the year. In the rest of the world, a recovery in all sectors is expected





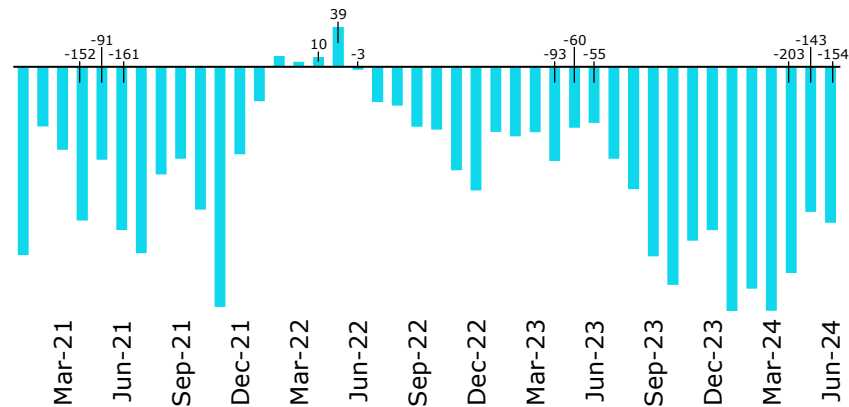
# Yunnan has fully restarted its capacity, imports remain high in China

### Annualized primary aluminum production in China (Mt)



Despite announcing the return of only half of the capacity closed in November in Yunnan, the province is operating at full capacity. The recurrence of these closures in recent years indicates that this may happen again towards the end of 2024.

### Net primary aluminum exports in China (kt)



Despite slower momentum compared to 1Q24, China remained a net importer in 2Q24. Compared to the same period in recent years, the indicator remained above average.



# Brazil: demand remains consistent in 2Q24 and shows an increase compared to 2Q23

Highlight for sales of road implements, due to the new technology Euro 6 and the increase in sales of trucks with 4th axis, boosting the aluminum sheet market.

Bus Bodies production showed good results in 2Q24 (sheet), reflecting advance of Government program "Caminhos da Escola".

Metal packaging production continues to grow in 2Q24. The shortage of 2023 inventories and increasing demand are resulting in a better market to foil.

Aluminum cables market continues with positive and consistent demand.

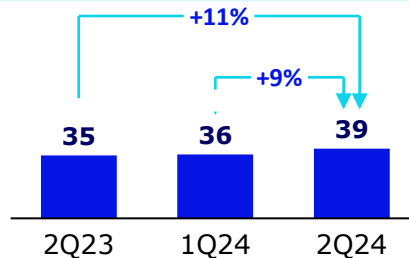
Domestic premium increased, following the trend of international premiums, but still below 2Q23 levels.

Brazil DDP SE <sup>1</sup> Premium <sup>1</sup> (US\$/t)	352	257	274
	2Q23	1Q24	2Q24

## Sectorial Indexes

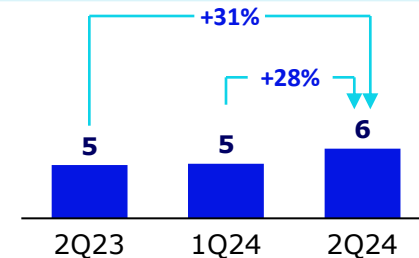
### Road Implements Sales (Anfir)

Thousand units



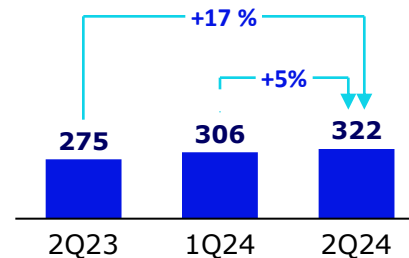
### Bus Bodies Production (Fabus)

Thousand units



### Metal Packaging Production (IBGE)

kt

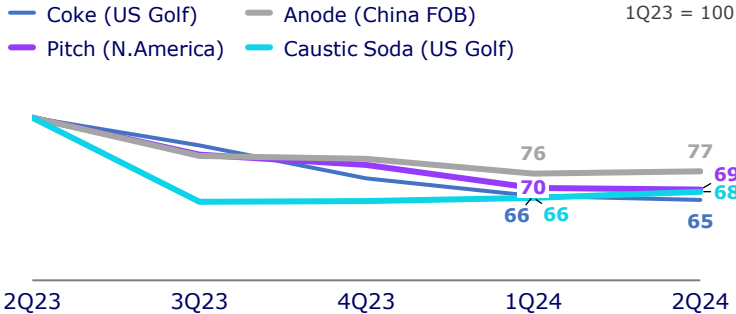


<sup>1</sup> Brazil DDP SE: referring to product P1020 – standard ingot, sow e T-bars  
Sources: Premium DDP - S&P Global Platts, sources aforementioned and company analysis

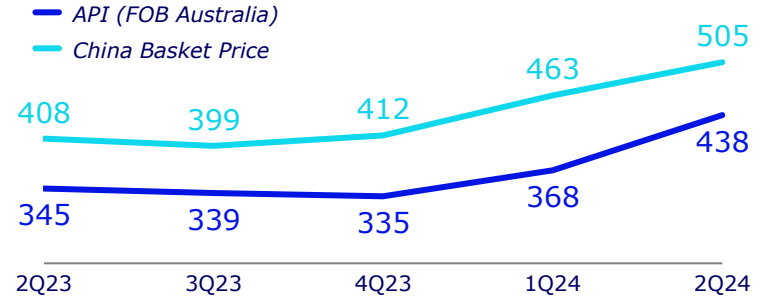


# Prices of raw materials stabilized, and alumina surged due to production disruption in Australia

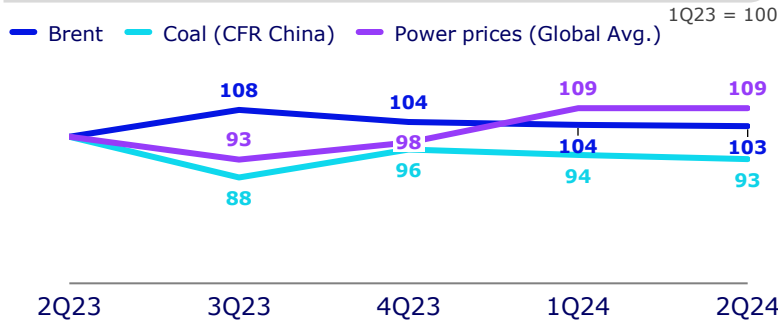
**Price Index  
Carbon Products and Caustic Soda**



**Alumina Prices (US\$/t)**



**Price Index – Energy Prices**



After a downward trend, main raw materials remained stable in 2Q24, as did the prices of electricity, coal and Brent oil.

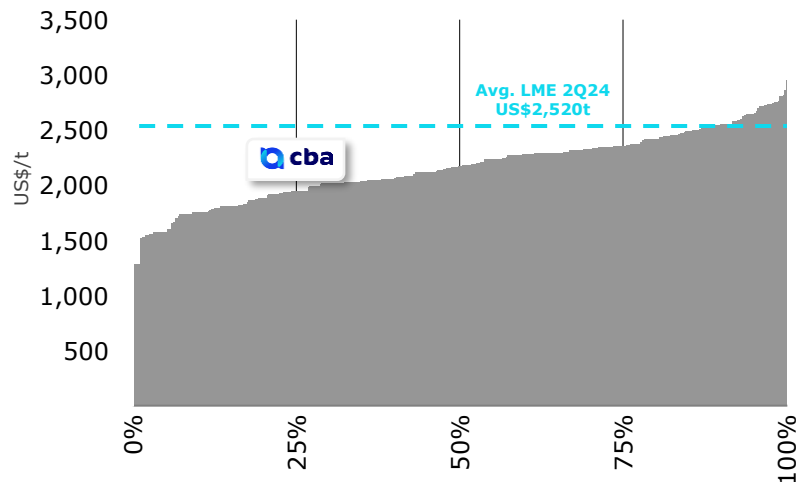
The closure of capacity due to force majeure in Australia caused concern in the alumina market, leading to an increase compared to 1Q24. Recently, the situation has normalized, and prices have stabilized.



# Despite the increase in alumina prices, producers worldwide saw margin gains compared to 1Q24

The rise in the dollar favors CBA, which continued on the path of a more competitive cost in the industry cash cost curve in 2Q24.

**Liquid Aluminum Cash Cost 1Q24**  
CRU Liquid Metal Cost (US\$/t)



Despite the higher price of alumina, producers worldwide saw an increase in their margins compared to 1Q24. In China, although margins improved compared to the previous quarter, the level is below the same period last year.

## EX-CHINA

Margin Index  
(2Q23 = 100)

	2Q23	3Q23	4Q23	1Q24	2Q24	YoY	QoQ
CRU Alumina Price (FOB Australia) (\$/t)	345	339	335	368	438	+27%	+19%
Energy Price Hydro (\$/MWh)	27.9	25.6	25.7	26.1	27.2	-3%	+4%
Energy Price All sources (\$/MWh)	30.2	27.9	28.1	29.2	29.5	-3%	+1%
Margin Index (2Q23 = 100)	100	94	95	95	129		

## CHINA

	2Q23	3Q23	4Q23	1Q24	2Q24	YoY	QoQ
CRU China Alumina Basket Price (\$/t)	408	399	412	463	505	+24%	+9%
Energy Price @ Coal (\$/MWh)	57.7	51.4	56.2	63.5	63.3	+10%	0%
Energy Price @ All Sources (\$/MWh)	56.5	52.5	56.6	63.9	63.6	+13%	0%
Margin Index (2Q23 = 100)	100	105	97	72	94		





# Market Dynamics

## OPPORTUNITIES

- ✓ Chinese commitment to capacity cap may offer opportunities for the aluminum industry
- ✓ Improved market outlook in 2025 should have a positive impact on LME aluminum prices and premiums
- ✓ Aluminum imports are expected to fall in the second half of 2024 due to rising freight costs and logistical delays for products coming from Asia to Brazil

## IMPORTANT CONSIDERATIONS

- ✓ Geopolitical and trade conflicts influencing industry dynamics
- ✓ Slowdown in the real estate and construction sectors in China
- ✓ Yunnan has resumed full capacity but may face new closures at the end of the year, a period of lower water flow
- ✓ Vehicle exports from Brazil are expected to remain low due to the cooling of the market in South America

# Key Takeaways

**Aluminum LME prices increased sharply in 2Q24 due to improved macroeconomic prospects. The recent decline is due to a slowdown in demand, with recovery expected by the end of the year.**

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**Demand in China recovered in 2Q24, but weakness in the real estate and construction sectors could slow the indicator in the coming months.**

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**The province of Yunnan has returned to full capacity, but the recurring shutdowns in recent years may happen again at the end of 2024.**

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**Sales of road implements achieved strong results in 2Q24, driven by the Euro 6 technology and increased sales of trucks with 4th axis, boosting the aluminum sheet market.**

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**Metal packaging production performed well for the second consecutive quarter in 2024, driven by the reduction of 2023 inventories and the increasing demand for foils.**

