



Unprecedented energy prices hit the aluminium market

Aluminium Market Outlook

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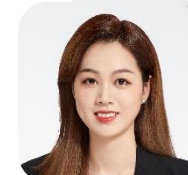
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Market Outlook summary

Production

- China: Chinese aluminium production to grow by 4.6% y/y but growth is slowing. All smelters in Sichuan are shut down because of a power shortage. Severe drought and heatwave reduce hydro-power generation. No impact on Yunnan so far.
- World ex. China: Primary production growth outside China to shrink 0.1% y/y in 2022. European struggles continue. Sivalco smelter closing in September and further cuts considered at Neuss. UC Rusal output stable but Taishet ramp up is slower than anticipated.

Consumption

- We further lowered our demand forecast for 2022 in the world ex. China compared to July. High gas prices have put Europe on the brink of recession which is causing weaker demand growth. In North America, tighter monetary policy is slowing demand growth.
- We have also lowered our forecast for Chinese consumption in 2022. Previously expected y/y growth of 0.3% in 2022. We now expect 0.1% y/y, given the very weak prospects in the real estate sector.

Market balance and prices

Market balance

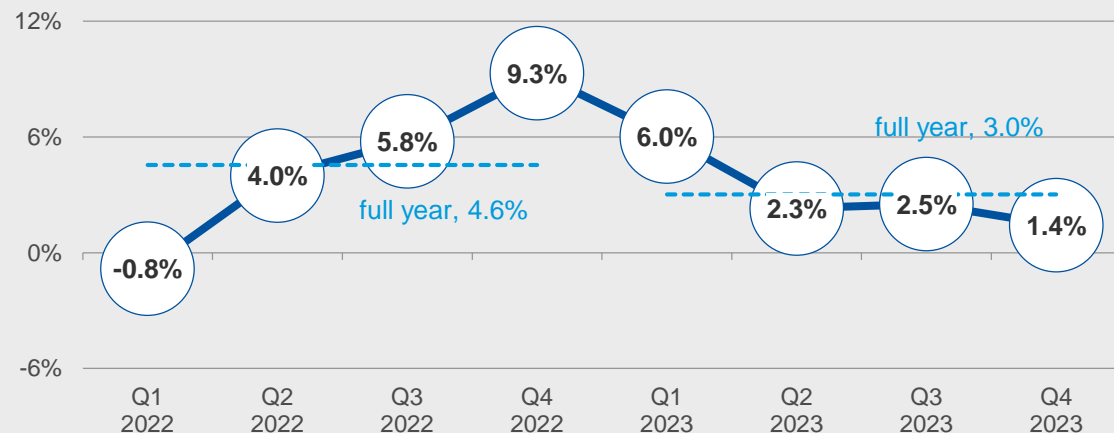
- Globally, we see a slightly higher deficit in 2022 and a lower surplus in 2023. This is due to the impact of production cuts offsetting lower consumption.
- In China, however, we see the surplus increasing in 2022 as consumption falls by more than production.
- World ex. China's deficit is rising by more however as production cuts dominate, especially in Europe.

Price forecast

- **LME:** 3-month price of \$2,525 /t in Q4 2022, unchanged from our July report.
- **SHFE:** price forecast raised to RMB 17,250 /t in Q4 2022, as we see prices supported by cuts to production with the impact of the drought and Sichuan smelter closures.
- **Premiums:** Forecasts for US Midwest, Japan MJP and European ingot premiums are all unchanged.

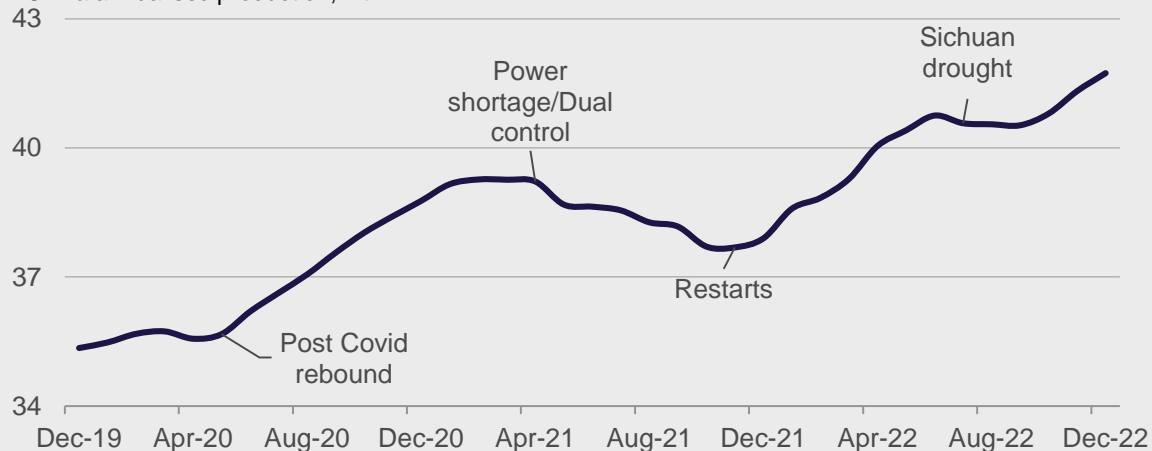
China production: All smelters in Sichuan shut due to energy shortage

China aluminium production, y/y % change



Weather extremes dampen production growth again

China annualised production, Mt



Outlook

Chinese production will increase by 4.6% in 2022. Growth will start to slow to 3.0% next year.

Key developments

Chinese smelters output growth has stalled at 40.6 Mt in July.

Following partial production cuts, the entire smelting industry in Sichuan with a capacity of 1.1 Mt closed in mid-August due to a power shortage.

The drought and extreme heat in the region over the past months resulted in the hydro-power stations not being able to meet demand. Sustained rainfall is expected in the next days which could relax the situation. Gradual smelter restarts are not expected before mid-September.

Hydro-power dependent Sichuan is normally a net-energy exporter and the shortage has also affected smelters in Chongqing.

Reservoir levels in Yunnan remain sufficient as a result of above average precipitation during the dry season earlier this year. CRU continues to closely monitor the situation as we are moving into the dry season in November.

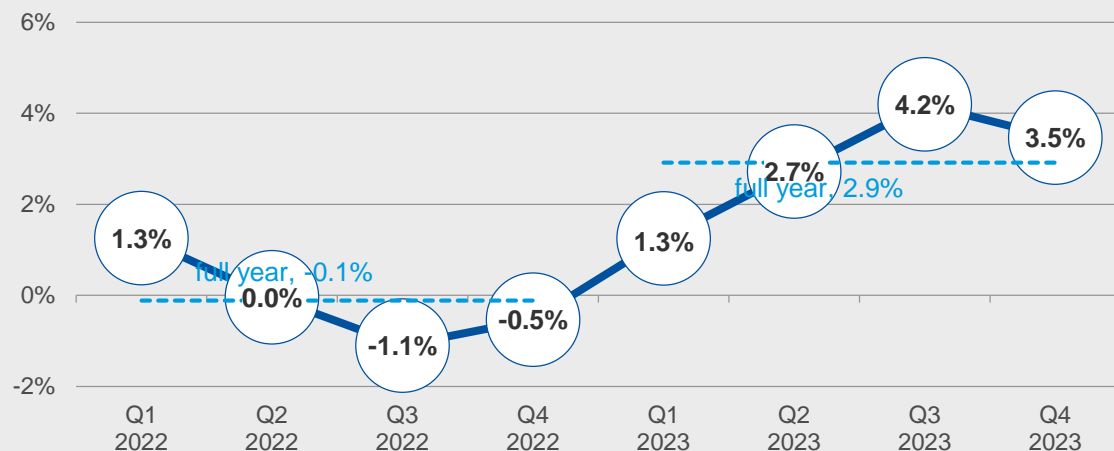
Risks

Upside risk is provided by the rebound of the SHFE over the last month.

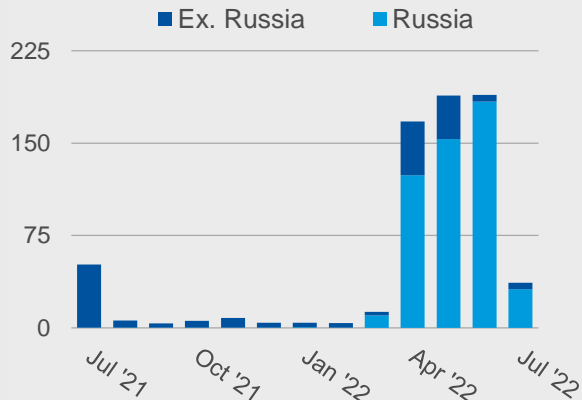
A potential energy shortage in Yunnan, as seen in 2021, is a downside risk.

World ex. China production: Slower ramp-ups and restarts hit output

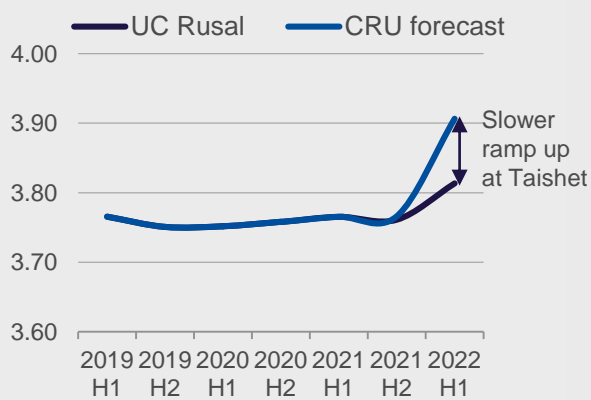
World ex. China aluminium production, y/y % change



New hit to UC Rusal's alumina supply
Alumina exports from China in kt



Annualised production by UC Rusal
in Mt annualised production



Outlook

Production outside China is expected to shrink by 0.1% in 2022, down from our July forecast of a 0.9% growth. Growth is expected to bounce back to 2.9% in 2023, unchanged from our July forecast.

Key developments

UC Rusal published an increased production numbers for 2022 H1 but the ramp-up of the Taishet smelter is understood to progress at lower speed than anticipated by CRU. Reduced sales numbers in H1 and lower imports of alumina from China put pressure on the company ([CRU insight](#)).

European output is hit by further production cuts. Norsk Hydro announced the closure of the Slovalco smelter by the end of September. Speira will decide on a potential further production cut at its Neuss smelter in September.

The restart at Sao Luis is progressing at low speed with output for 2022 Q2 reported at 750 t. The Tsingshan smelter is understood to start production later this year.

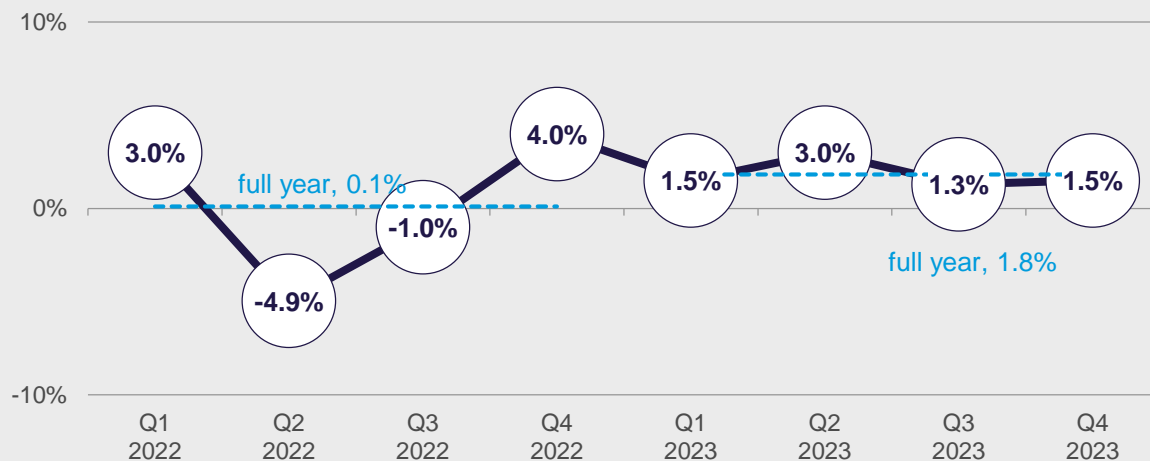
Risks

Further energy and coal price related production cuts in Europe, the US and potentially India provide downside risk. Russian output could decrease.

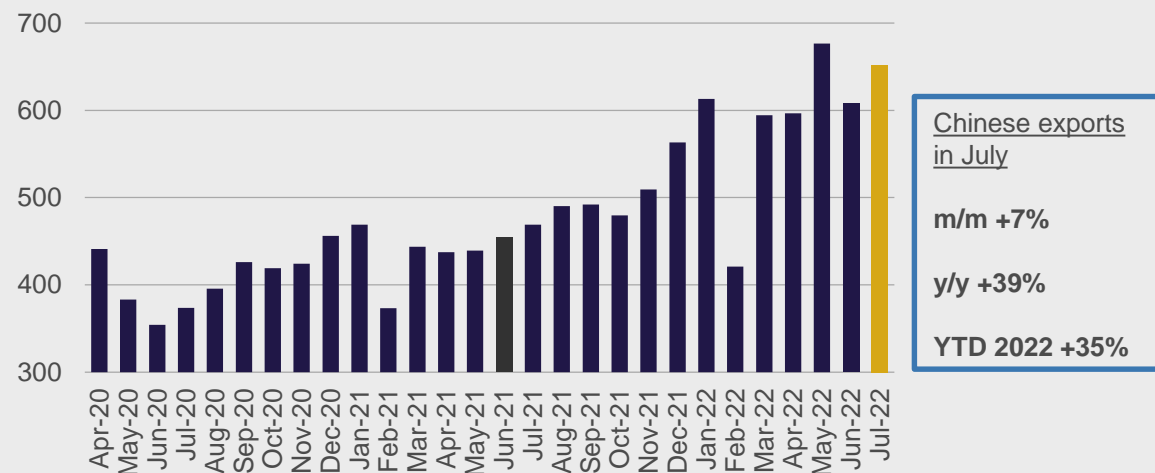
Upside risk is provided by faster and/or earlier than expected ramp ups and restarts at Sao Luis, Kitimat, Taishet, Tsingshan and Ferndale. A relaxation of the energy situation could spur production increases in the US and India.

China consumption: the property sector remains cause for concern

China aluminium consumption, y/y % change



Chinese export of unwrought aluminium and products, '000 t



Outlook

We forecast consumption to grow by 0.1 % y/y in 2022.

Key developments

Chinese July data shows that the real estate slump has intensified. NBS reported that property investment by developers contracted 6.4% in the first seven months.

Investment funds have stayed away from Chinese property developers, reducing a potential source of funding. Meanwhile, new home prices in 70 major cities dropped for an 11th consecutive month in July.

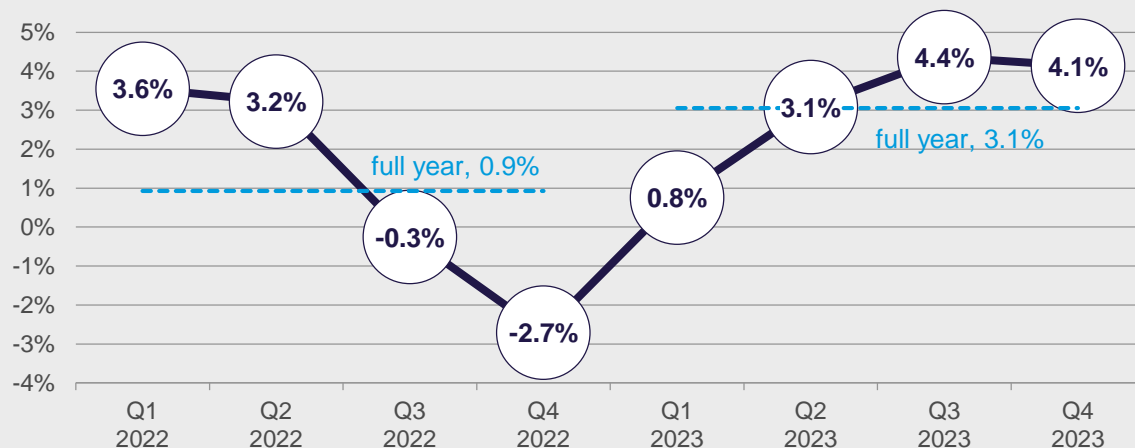
Heat waves in Sichuan, Chongqing, Zhejiang and Jiangsu hit semis production further weakening primary demand.

Risks

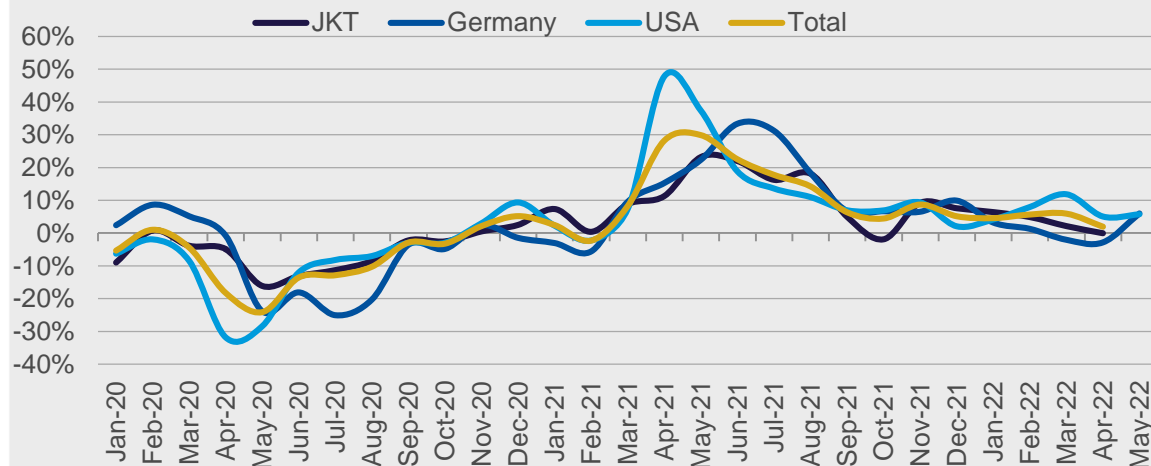
China's demand recovery following lockdown easing, will take longer than first expected. But the risk is that it will fail to emerge at all.

World ex. China consumption: demand is dampened by inflation

World ex. China aluminium consumption, y/y % change



Aluminium rolled products and extrusions reported production, y/y change



Outlook

We forecast consumption to grow by 0.9% y/y in 2022, which is lower than our July forecast of 1.5%.

Key developments

A recession is looking more likely in Europe, with inflation rate reaching 8.9% in the Eurozone in July. Consumers and producers are feeling the squeeze of higher gas prices, with more increases to come.

Russia has announced maintenance of the Nord stream 1 gas pipeline in September, which means Europe will face further shortages. In the US, we are also seeing the impact of inflation as the Fed tightens monetary policy.

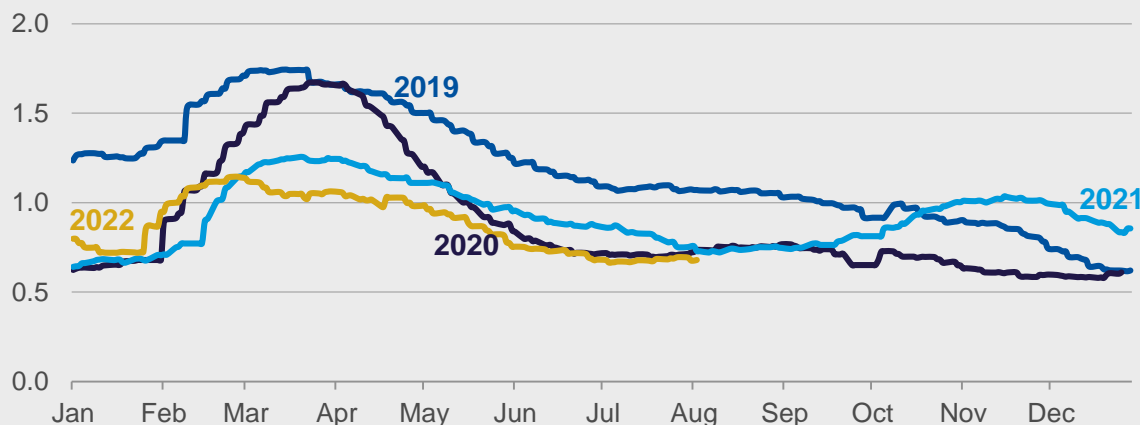
Risks

A complete shut down of Nord Stream 1 could cause severe gas shortages in Europe and send the region into recession.

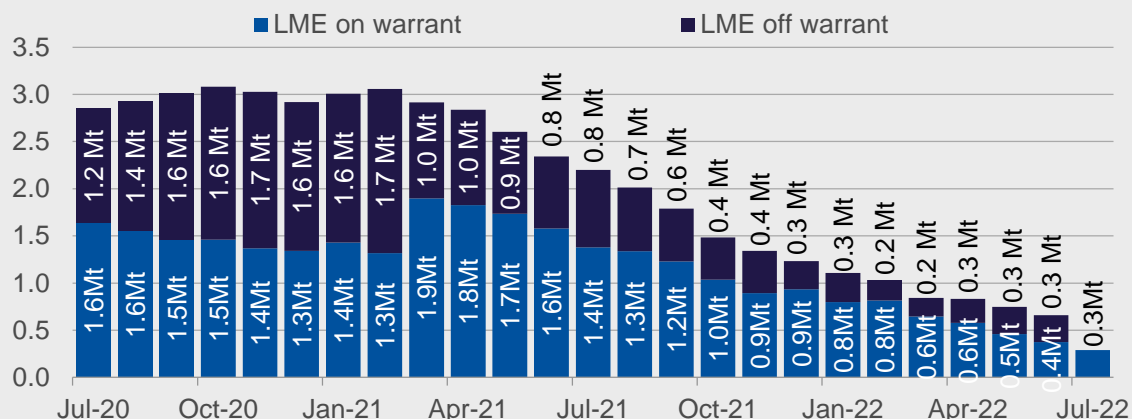
LME stocks rise for the first week in many. Chinese stocks flat

Outlook

China SHFE plus unregistered warehouse inventories, million tonnes



LME aluminum inventories, million tonnes



DATA: CRU, LME, SHFE NOTE: LME off-warrant is reported with a two-month lag

Global inventories are expected to be 9.3 Mt in Q3 2022, which is 50 days of consumption.

World ex. China

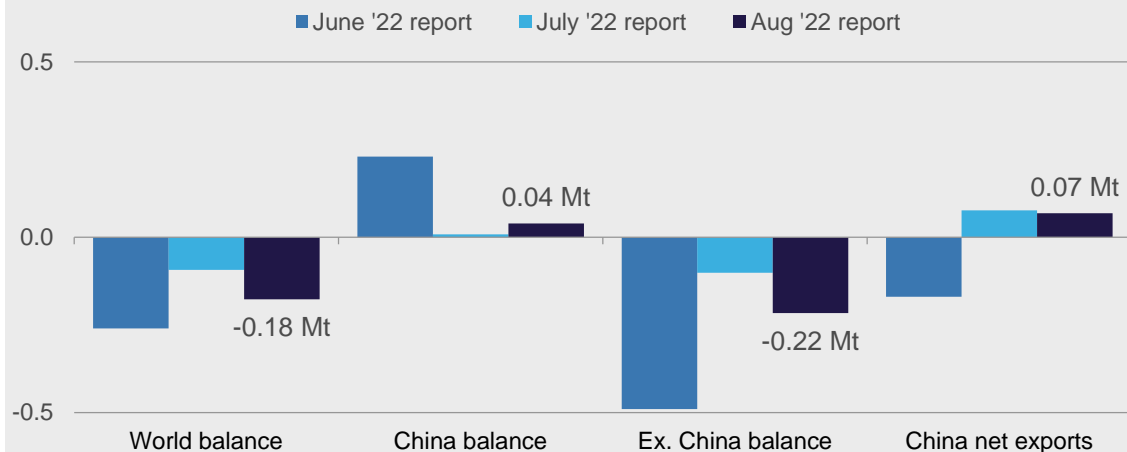
LME stocks were 278,025 t at 26 Aug, up by 4,250 t from last Friday. This week marks the end of a long series of drops in LME stocks with large inflows reported in Port Klang, Malaysia. Since last Friday a total of 13,625 t were delivered in Port Klang. In total in August 26,850 t were delivered into LME approved warehouses. The deliveries come in a critical context when demand has been weak both in China and RoW, and physical premiums have declined sharply. Furthermore, the downside risk is prompting some deliveries back to the LME system. We can expect the long trend of lower LME stocks to turn around gradually.

China

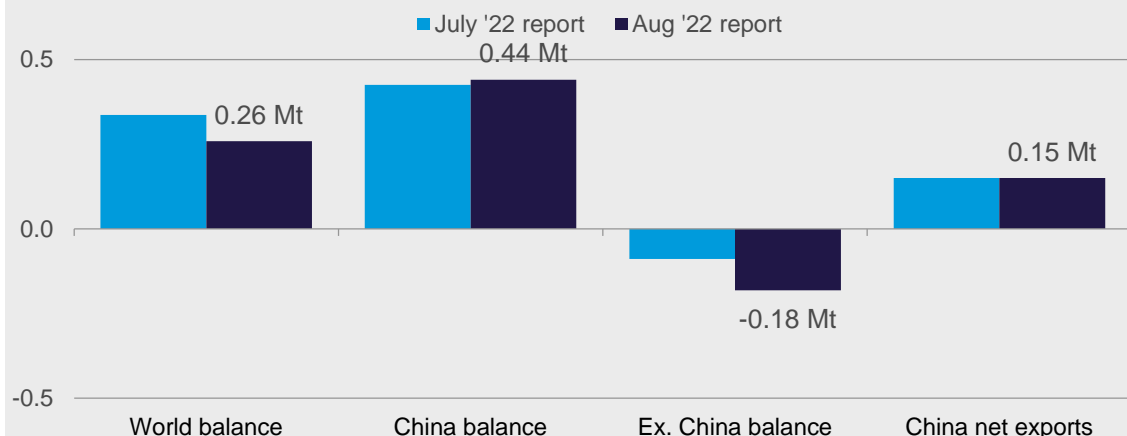
Chinese reported stocks were 670,000 t as 26 August, down 4,900 t from last Friday partly due to some ingot being shipped from warehouses in Guangdong to eastern China. This is partly due to some ingot being shipped from warehouses in Guangdong to Eastern China. Once again, an increase of 6,678 t w/w in SHFE stocks was offset by a drop of 11,578 in unregistered stocks. Since the start of August Chinese reported stocks are stable. The unregistered stock drop is linked to disruptions in the Xinjiang rail network.

Balance: Deficit slightly increasing, surplus falling in 2022 and 2023

2022 aluminium market balance, million tonnes



2023 aluminium market balance, million tonnes



Outlook

In July we forecast a 2022 world deficit of 90 Kt, down from a much larger expected deficit earlier in the year. We now forecast a higher deficit of 180 Kt, based on cuts to production more than offsetting the impact of lower consumption in the world ex China.















China

In China we have a different trend with the surplus increasing from 90 Kt to 110 Kt in 2022. This is due to consumption falling by more than production. In 2023 we forecast a surplus of 0.6 Mt approximately, unchanged.

World ex. China

We now forecast the world ex. China deficit to rise from 100 Kt to 220 Kt in 2022. This is due to production cuts in Europe and the US offsetting lower consumption. But there is a risk that demand forecasts are further cut.

LME 7 Signals: demand outweighs supply concerns

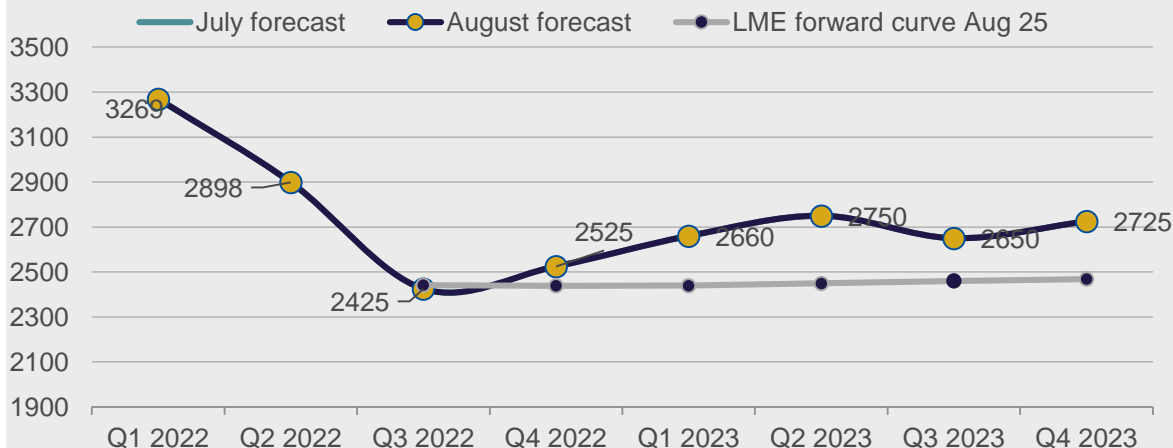
CRU's Seven Price Signals (forecast)	Bull/Bear/Neutral	Next month	Next 6 months
US dollar: The minutes from the July Fed meeting released in August indicated that central bankers remained alarmed over persistently high inflation and a "very tight" labour market. For that reason, they anticipate having to raise the target range for the short-term interest rates beyond the "neutral" rate and toward a "restrictive" policy stance. This is all bullish dollar.	Bearish		
Energy prices: European natural gas prices surged again this week after Russia's Gazprom said it would shut down the Nord Stream 1 pipeline for maintenance for three days from the end August. The futures gas price for September delivery at the Dutch TTF hub, a European benchmark for natural gas trading, was last seen trading at 265 euros per megawatt hour.	Bullish		
Chinese economy: On Monday, China's central bank cut its key lending rates in a bid to support a struggling real estate sector amid the ongoing mortgage crisis. Furthermore, the country is battling its worst heatwave in 60 years, which is forcing some provinces to shut factories to save power. After the lockdowns in the Spring, this represents a new challenge for Chinese domestic demand.	Neutral		
Chinese arbitrage: Chinese imports of unwrought aluminium and products remained weak in July amid deteriorating arbitrage conditions due to the weaker SHFE price versus the LME. Meanwhile, exports of aluminium products remained strong in July, up 7% m/m, as factory activity improved from the period of lockdowns.	Neutral		
Investors: The net long exposure by investment funds has continued to drop to a low of 49,900 lots as of 5 August. This came despite prices rallying towards \$2,500 /t in the first half of August. Some longs have returned since but that remains shy as the price is unable to break its nearby resistance levels. As for the shorts, the gross position increased to 53,600 lots as of 19 August, the highest short exposure since July 2020.	Neutral		
Operating costs: Cost pressure has eased in China as the SHFE cash price has managed to build support above RMB18,000 /t. As for the rest of the world, a fresh surge in gas prices in Europe is placing more capacity at risk of immediate closure. Hydro recently announced it will close Slovalco in September due to high electricity prices, which come earlier than previously expected.	Bullish		
Aluminium market: The main concern remains the state of demand as the recent heatwave in China is impacting more semis capacity than primary. As for the rest of the world, the end of the summer is looming and there is a lot of uncertainty about how demand will perform in Q4 as inflation is showing no sign of easing. Nevertheless, potential cost related closures should keep providing support to the LME price.	Neutral		

LME price forecast: CRU confirms its LME outlook from July

LME aluminium 3-month price, \$/t



CRU LME 3-month price forecast, \$/t



Next month

The fact the LME 3-month price has averaged so far \$2,415 /t in Q3 is confirming our previous forecast of \$2,425 /t for this quarter. We expect the price to remain supported by the risk of closures outside of China as power prices are showing no sign of easing. However, any rally will be short-lived due to rising concerns about demand, both in China and the rest of the world.

Next 3 to 6 months

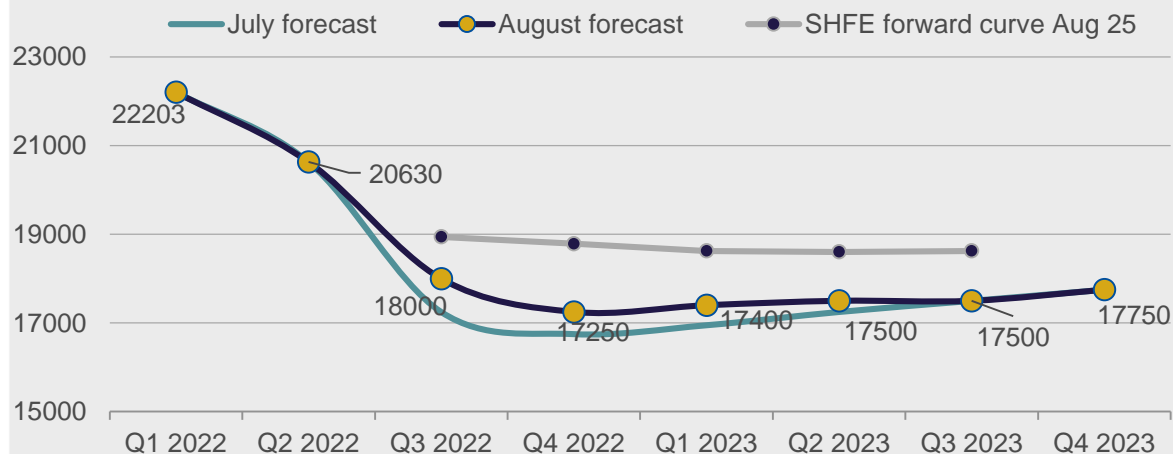
We also maintain our forecast of \$2,525 /t for Q4 as well as for the subsequent quarters. Although demand outside of China remains highly uncertain due to rising inflation, in China we expect demand to improve from September as a more favourable weather will allow the semis plants that were forced to close to restart.

SHFE price forecast: No v shape recovery to support SHFE in Q4

SHFE cash price, RMB/t



CRU SHFE cash price forecast, RMB/t



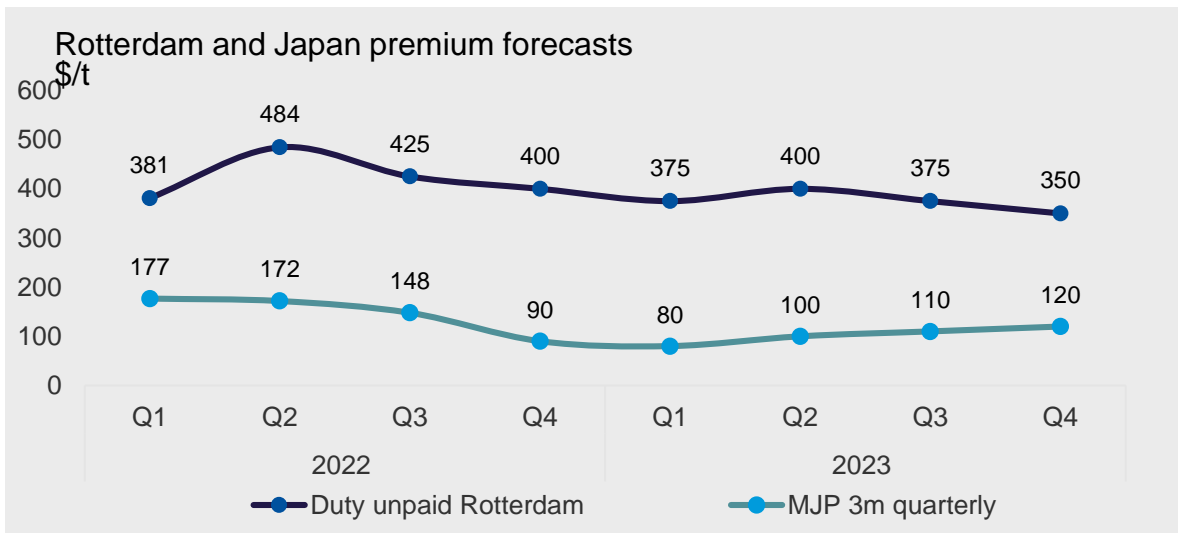
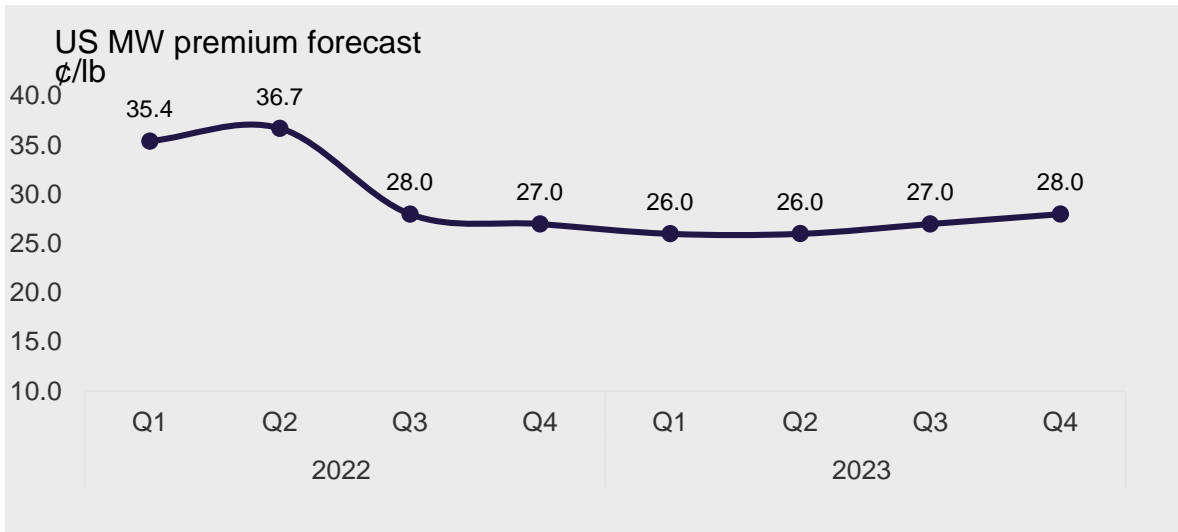
Next month

The SHFE cash price has shown some good resilience by building a solid support above RMB18,000 /t. Consequently, we have upgraded our forecast for Q3 to RMB18,000 /t from the previous RMB17,250 /t. Since the recent forced closures due to the heatwave are impacting more semis capacity than primary, the price will remain capped by the negative impact this has on demand.

Next 3 to 6 months

Demand will improve in September amid the restarts from the forced closures due to the heatwave, but it will not grow as sharply as previously anticipated. Consequently, there will not be a V shape recovery in Q4 amid the ongoing difficulties facing the real estate sector. Global inflation, the risk associated with Covid-19 and the weaker demand outside of China are also factors to take into consideration.

Premiums: the outlook turns bearish for ingot premiums



US Midwest: The Midwest premium continued to drop in August and is now trading below 26 ¢/lb. Demand has been weaker as confirmed by the latest shipment data for July and sentiment has turned bearish for the rest of the year. Inflation is hitting hard the downstream industry and as a result impacts aluminium demand. Nevertheless, we expect to be close to a bottom and we still forecast the premium to average 27 ¢/lb in Q4.

Rotterdam: The Rotterdam duty paid premium reached a low point of \$460 /t in the second half of August as sentiment turns increasingly bearish on demand for the latter part of 2022. News of further European closures did little to support the premium as the focus is now on how demand will perform in Q4 as costs keep increasing. As a result, we have revised lower our forecast for duty paid in 2022 Q4 and 2023 Q1 to \$488 /t and \$466 /t respectively.

Japan: Demand in Japan remained weak in August amid the holiday season but also a still struggling automotive sector. The outlook is not better for Q4, and our market contacts now expect the Q4 premium to be significantly lower from Q3 (\$148 /t). As a result, we have adjusted lower our forecast for MJP over the forecast period and expect Q4 to set at \$90 /t. The negotiations are due to start from next week.

Price forecast risks

Upside risks

An escalation in the Ukraine war could lead to sanctions being applied to Russian aluminium, significantly disrupting global supply and supporting higher prices.

Higher gas prices in Europe could cause further smelter curtailments supporting prices and premiums in Europe.

Energy rationing by European governments in the winter could cause a substantial cut in primary production.

Chinese smelter expansions may slow or China's drought may last for longer than expected, further hitting production.

Downside risks

Weakness in the Chinese real estate and industrial sectors may last for longer than expected.

Chinese smelter restarts may be faster than expected or the drought may clear up leading to normalized power supply.

Monetary tightening, inflation and weak consumer demand may trigger a global recession, sharply cutting demand.

Key factors that we are watching?

Rising smelting costs:

- Rising energy and gas prices can reach a tipping point where European, US or Asian primary production is pushed further into losses, leading to curtailment

Falling premiums:

- This is placing additional economic pressure on primary producers in the world ex. China.

Drought in China:

- Has led to smelter shutdowns but is unpredictable.

Chinese lockdowns:

- Without a robust domestic recovery Chinese exports will continue pressure prices and premiums in the RoW.

Evolution of the Ukraine war:

- Escalation, energy rationing & sanctions remain possible.

Market summary

CRU Aluminium market overview, August 2022

	2022 Q1	2022 Q2	2022 Q3	2022 Q4	2023 Q1	2023 Q2	2023 Q3	2023 Q4	2022	change on July report	2023	change on July report		
Production, '000t														
China	9,593	10,072	10,220	10,405	10,171	10,304	10,478	10,554	40,289	↘	-66	41,508	↘	0
World ex. China	7,141	7,189	7,202	7,286	7,230	7,384	7,505	7,539	28,818	↓	-278	29,658	↓	-284
Total World	16,733	17,260	17,422	17,691	17,401	17,688	17,983	18,094	69,107	↓	-344	71,166	↓	-283
Consumption, 000t														
China	9,423	10,130	10,216	10,413	9,564	10,434	10,349	10,570	40,182	↘	-88	40,917	↘	-15
World ex. China	7,564	7,262	7,000	7,276	7,621	7,486	7,305	7,578	29,102	↓	-172	29,990	↓	-191
Total World	16,987	17,392	17,216	17,690	17,185	17,920	17,654	18,148	69,285	↓	-259	70,907	↓	-206
Chinese net exports, 000t														
China primary net exports	-18	31	35	20	38	38	38	38	68	↘	-9	150	→	0
Balance, 000t														
China	188	-89	-31	-28	570	-168	91	-54	39	↘	31	440	↘	15
World ex. China	-442	-42	237	30	-354	-64	237	-1	-216	↓	-115	-182	↘	-93
Total World	-253	-131	206	2	216	-232	328	-54	-177	↘	-84	259	↘	-78
Inventories, 000t														
Ex. China reported	2,321	2,050	1,962	2,002	1,962	1,922	1,962	1,937	2,002	↘	-37	1,937	↘	-37
Total World	9,160	9,022	9,267	9,303	9,519	9,287	9,616	9,581	9,303	↘	-16	9,581	↘	-75
Prices, \$/t														
LME cash	3,280	2,875	2,430	2,525	2,655	2,745	2,645	2,720	2,777	↘	0	2,691	↘	0
LME 3-month	3,269	2,898	2,425	2,525	2,660	2,750	2,650	2,725	2,779	↘	0	2,696	↘	0
SHFE cash, RMB/t	22,203	20,630	18,000	17,250	17,400	17,500	17,500	17,750	19,521	↑	313	17,538	↑	175
SHFE cash	3,479	3,236	2,827	2,713	2,740	2,759	2,761	2,813	2,918	↘	57	2,768	↑	27
US Midwest, ¢/lb	35.4	36.7	28.0	27.0	26.0	26.0	27.0	28.0	31.8	↘	0.0	26.8	↘	0.0
Rotterdam DUP	381	484	425	450	425	400	375	350	435.1	↘	0.0	388	↘	0.0
Rotterdam DP	480	600	511	539	517	494	466	442	532.4	↘	0.0	480	↘	0.0
Japan CIF 3-month	177	172	148	120	90	110	100	120	154	↘	0.3	105	↘	0.0



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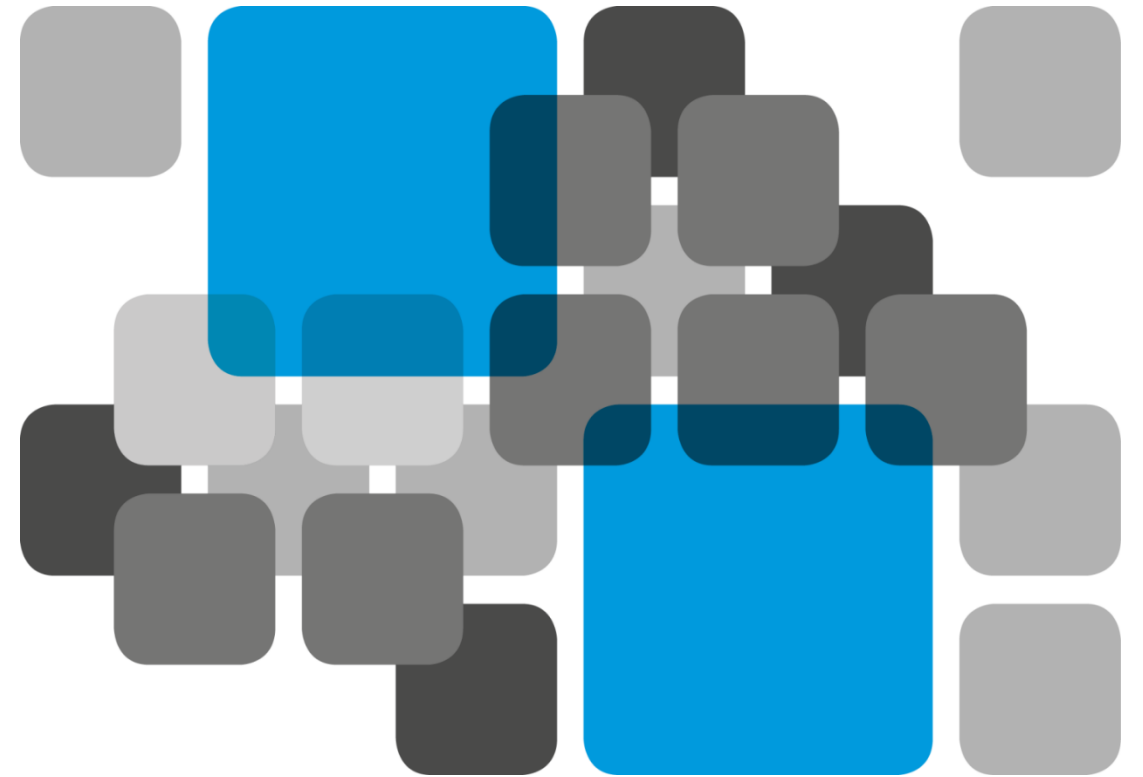
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