

## Aluminium to slip into a deeper deficit

Slower growth in primary aluminium production and strong consumption suggest the aluminium market will see a larger deficit over 2022. This deficit, coupled with steadily declining inventories mean prices should trade higher



Workers at an aluminium factory in Hebei Province, China

### The second-best performer in 2021

Aluminium prices have continued to rise over 2021 and it's the second-best performer amongst LME base metals after tin. As we noted earlier this year, the [aluminium market is entering into a new era](#) with prices steadily grinding higher as the market continues to tighten, despite China having released stocks from its state reserves. In October, LME 3M prices surged, breaking above the US\$3,200/t mark as supply was [caught in a perfect storm](#) with the energy crisis in China and Europe.

### Question marks around primary supply growth

Primary aluminium's supply-side developments are key here. They're dominated by significant disruptions due to China's 'dual-control' mandate of energy intensity and total energy consumption. Lately, power shortages from China and Europe have led to lower than expected supply growth.

As the world's largest primary aluminium producer and the key growth contributor over the last

decade, Chinese primary production fell short of expectations by more than 1.2Mt. We expected growth to be close to 8% YoY but the final figure came in at just above 3%. At the peak, more than 3.8Mt of capacity was impacted and 80% was due to the dual-control mandate.

We assume the power issues that affected a large part of China during the last quarter of 2021 will continue into early 2022. And Chinese 'green' policies are detrimental to the timing and scale of restarts and whether those uncommitted projects will actually be given the go-ahead.

---

### *Aluminium smelters saw a double-whammy due to both the power crunch and the dual-control mandate*

---

Another uncertainty centres around Yunnan, which has emerged as China's largest primary aluminium production hub. Power shortages emerged in the region earlier this year (before the widespread power crunch in 4Q21) due to low water reservoirs, and aluminium smelters saw a double-whammy due to both the power crunch and the dual-control mandate. For 2022, we only expect very moderate growth in production with restarts and ramp-ups only likely in the latter part of the year. Over the medium term, secondary supply will need to pick up the pace to fill the gap. There have been quite a few projects announced recently, but the supply of secondary aluminium is inelastic and it will take some time to see any significant volume.

As such, additional primary supply growth is heavily reliant on the rest of the world. However, access to cheap and clean power supplies remains a key factor determining the sustained supply growth from existing projects and new supply in the future. The power crisis in Europe is expected to lead to primary production falls for the third year in a row. The latest developments regarding an Icelandic energy supplier cutting power to aluminium smelters highlights the fragility of the situation. Within the announced restarts and new projects in the medium term, we expect very limited capacity to come online in 2022.

## **Consumption continues to power on with a hint of 'green'**

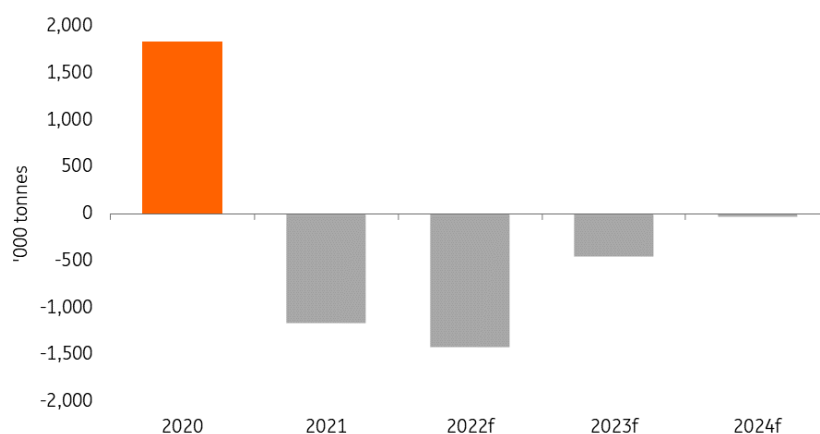
Aluminium consumption continued to recover strongly in 2021, underpinned by large stimulus packages. This is in spite of many supply chain constraints. In addition, we're seeing more aluminium consumption from green-related areas such as solar energy and the 'lightweighting' of autos. We expect aluminium to continue to benefit from this global energy transition-related area in the future ([Electric vehicles to drive metals demand higher](#)).

Semiconductor shortages have had a widespread impact on automakers. Nevertheless, aluminium's heavier use in some premium end vehicles has been less impacted as automakers prioritise this part of the car segment. ING economists expect the semiconductor shortage to let up in 2022, but only gradually. Hence, we expect this aluminium consumption to rebound next year. We also expect strong construction demand to continue to power on from North America and Europe, although strong consumer demand from the US may cool a little as the economy pivots from goods to services, weighing on Chinese exports of aluminium goods and semis.

We think China's total primary aluminium consumption growth will cool in 2022 to 0.5% YoY. Incremental consumption will be heavily reliant on the country's domestic market. Despite great concerns around the Chinese property sector, we expect late-stage property construction to

turn more supportive to aluminium consumption. As we also discussed in the iron ore section, we do not expect a reversal of government policy, rather some fine-tuning supportive measures to drive pipeline projects to completion.

## Primary aluminium market balance



Source: IAI, ING Research

## Prices expected to recover some lost ground

In late October, aluminium prices slipped from US\$3,100s/t as the market saw disruptions peak and Chinese coal prices fall after strong government intervention in the market. However, primary aluminium supply continues to lag behind consumption which suggests that the market will continue to tighten, and as a result support prices. [Cost inflation](#) is another issue despite falling coal prices. We expect the aluminium market to slip into a deeper deficit of around 1.5Mt in 2022 and prices to recover their lost ground.

### ING forecasts

	1Q22	2Q22	3Q22	4Q22	FY22
LME Aluminium (US\$/t)	2,850	2,950	2,900	2,910	2,900

Source: ING Research

## Author

### Alissa Lefebvre

Economist

[alissa.lefebvre@ing.com](mailto:alissa.lefebvre@ing.com)

### Deepali Bhargava

Regional Head of Research, Asia-Pacific

[Deepali.Bhargava@ing.com](mailto:Deepali.Bhargava@ing.com)

### Ruben Dewitte

Economist

+32495364780

[ruben.dewitte@ing.com](mailto:ruben.dewitte@ing.com)

**Kinga Havasi**

Economic research trainee

[kinga.havasi@ing.com](mailto:kinga.havasi@ing.com)

**Marten van Garderen**

Consumer Economist, Netherlands

[marten.van.garderen@ing.com](mailto:marten.van.garderen@ing.com)

**David Havrlant**

Chief Economist, Czech Republic

420 770 321 486

[david.havrlant@ing.com](mailto:david.havrlant@ing.com)

**Sander Burgers**

Senior Economist, Dutch Housing

[sander.burgers@ing.com](mailto:sander.burgers@ing.com)

**Lynn Song**

Chief Economist, Greater China

[lynn.song@asia.ing.com](mailto:lynn.song@asia.ing.com)

**Michiel Tukker**

Senior European Rates Strategist

[michiel.tukker@ing.com](mailto:michiel.tukker@ing.com)

**Michal Rubaszek**

Senior Economist, Poland

[michal.rubaszek@ing.pl](mailto:michal.rubaszek@ing.pl)

**This is a test author**

**Stefan Posea**

Economist, Romania

[tiberiu-stefan.posea@ing.com](mailto:tiberiu-stefan.posea@ing.com)

**Marine Leleux**

Sector Strategist, Financials

[marine.leleux2@ing.com](mailto:marine.leleux2@ing.com)

**Jesse Norcross**

Senior Sector Strategist, Real Estate

[jesse.norcross@ing.com](mailto:jesse.norcross@ing.com)

**Teise Stellema**

Research Assistant, Energy Transition

[teise.stellema@ing.com](mailto:teise.stellema@ing.com)

**Diederik Stadig**

Sector Economist, TMT & Healthcare

[diederik.stadig@ing.com](mailto:diederik.stadig@ing.com)

**Diogo Gouveia**

Sector Economist

[diogo.duarte.vieira.de.gouveia@ing.com](mailto:diogo.duarte.vieira.de.gouveia@ing.com)

**Marine Leleux**

Sector Strategist, Financials

[marine.leleux2@ing.com](mailto:marine.leleux2@ing.com)

**Ewa Manthey**

Commodities Strategist

[ewa.manthey@ing.com](mailto:ewa.manthey@ing.com)

**ING Analysts**

**James Wilson**

EM Sovereign Strategist

[James.wilson@ing.com](mailto:James.wilson@ing.com)

**Sophie Smith**

Digital Editor

[sophie.smith@ing.com](mailto:sophie.smith@ing.com)

**Frantisek Taborsky**

EMEA FX & FI Strategist

[frantisek.taborsky@ing.com](mailto:frantisek.taborsky@ing.com)

**Adam Antoniak**

Senior Economist, Poland

[adam.antoniak@ing.pl](mailto:adam.antoniak@ing.pl)

**Min Joo Kang**

Senior Economist, South Korea and Japan

[min.joo.kang@asia.ing.com](mailto:min.joo.kang@asia.ing.com)

**Coco Zhang**

ESG Research

[coco.zhang@ing.com](mailto:coco.zhang@ing.com)

**Jan Frederik Slijkerman**

Senior Sector Strategist, TMT

[jan.frederik.slijkerman@ing.com](mailto:jan.frederik.slijkerman@ing.com)

**Katinka Jongkind**

Senior Economist, Services and Leisure  
[Katinka.Jongkind@ing.com](mailto:Katinka.Jongkind@ing.com)

**Marina Le Blanc**  
Sector Strategist, Financials  
[Marina.Le.Blanc@ing.com](mailto:Marina.Le.Blanc@ing.com)

**Samuel Abettan**  
Junior Economist  
[samuel.abettan@ing.com](mailto:samuel.abettan@ing.com)

**Franziska Biehl**  
Economist, Germany  
[Franziska.Marie.Biehl@ing.de](mailto:Franziska.Marie.Biehl@ing.de)

**Rebecca Byrne**  
Senior Editor and Supervisory Analyst  
[rebecca.byrne@ing.com](mailto:rebecca.byrne@ing.com)

**Mirjam Bani**  
Sector Economist, Commercial Real Estate & Public Sector (Netherlands)  
[mirjam.bani@ing.com](mailto:mirjam.bani@ing.com)

**Timothy Rahill**  
Credit Strategist  
[timothy.rahill@ing.com](mailto:timothy.rahill@ing.com)

**Leszek Kasek**  
Senior Economist, Poland  
[leszek.kasek@ing.pl](mailto:leszek.kasek@ing.pl)

**Oleksiy Soroka, CFA**  
Senior High Yield Credit Strategist  
[oleksiy.soroka@ing.com](mailto:oleksiy.soroka@ing.com)

**Antoine Bouvet**  
Head of European Rates Strategy  
[antoine.bouvet@ing.com](mailto:antoine.bouvet@ing.com)

**Jeroen van den Broek**  
Global Head of Sector Research  
[jeroen.van.den.broek@ing.com](mailto:jeroen.van.den.broek@ing.com)

**Edse Dantuma**  
Senior Sector Economist, Industry and Healthcare  
[edse.dantuma@ing.com](mailto:edse.dantuma@ing.com)

**Francesco Pesole**

FX Strategist

[francesco.pesole@ing.com](mailto:francesco.pesole@ing.com)

**Rico Luman**

Senior Sector Economist, Transport and Logistics

[Rico.Luman@ing.com](mailto:Rico.Luman@ing.com)

**Jurjen Witteveen**

Sector Economist

[jurjen.witteveen@ing.com](mailto:jurjen.witteveen@ing.com)

**Dmitry Dolgin**

Chief Economist, CIS

[dmitry.dolgin@ing.de](mailto:dmitry.dolgin@ing.de)

**Nicholas Mapa**

Senior Economist, Philippines

[nicholas.antonio.mapa@asia.ing.com](mailto:nicholas.antonio.mapa@asia.ing.com)

**Egor Fedorov**

Senior Credit Analyst

[egor.fedorov@ing.com](mailto:egor.fedorov@ing.com)

**Sebastian Franke**

Consumer Economist

[sebastian.franke@ing.de](mailto:sebastian.franke@ing.de)

**Gerben Hieminga**

Senior Sector Economist, Energy

[gerben.hieminga@ing.com](mailto:gerben.hieminga@ing.com)

**Nadège Tillier**

Head of Corporates Sector Strategy

[nadege.tillier@ing.com](mailto:nadege.tillier@ing.com)

**Charlotte de Montpellier**

Senior Economist, France and Switzerland

[charlotte.de.montpellier@ing.com](mailto:charlotte.de.montpellier@ing.com)

**Laura Straeter**

Behavioural Scientist

+31(0)611172684

[laura.Straeter@ing.com](mailto:laura.Straeter@ing.com)

**Valentin Tataru**

Chief Economist, Romania

[valentin.tataru@ing.com](mailto:valentin.tataru@ing.com)

**James Smith**

Developed Markets Economist, UK

[james.smith@ing.com](mailto:james.smith@ing.com)

**Suvi Platerink Kosonen**

Senior Sector Strategist, Financials

[suvi.platerink-kosonen@ing.com](mailto:suvi.platerink-kosonen@ing.com)

**Thijs Geijer**

Senior Sector Economist, Food & Agri

[thijs.geijer@ing.com](mailto:thijs.geijer@ing.com)

**Maurice van Sante**

Senior Economist Construction & Team Lead Sectors

[maurice.van.sante@ing.com](mailto:maurice.van.sante@ing.com)

**Marcel Klok**

Senior Economist, Netherlands

[marcel.klok@ing.com](mailto:marcel.klok@ing.com)

**Piotr Poplawski**

Senior Economist, Poland

[piotr.poplawski@ing.pl](mailto:piotr.poplawski@ing.pl)

**Paolo Pizzoli**

Senior Economist, Italy, Greece

[paolo.pizzoli@ing.com](mailto:paolo.pizzoli@ing.com)

**Marieke Blom**

Chief Economist and Global Head of Research

[marieke.blom@ing.com](mailto:marieke.blom@ing.com)

**Raoul Leering**

Senior Macro Economist

[raoul.leering@ing.com](mailto:raoul.leering@ing.com)

**Maarten Leen**

Head of Global IFRS9 ME Scenarios

[maarten.leen@ing.com](mailto:maarten.leen@ing.com)

**Maureen Schuller**

Head of Financials Sector Strategy

[Maureen.Schuller@ing.com](mailto:Maureen.Schuller@ing.com)

**Warren Patterson**

Head of Commodities Strategy

[Warren.Patterson@asia.ing.com](mailto:Warren.Patterson@asia.ing.com)



**Rafal Benecki**

Chief Economist, Poland

[rafal.benecki@ing.pl](mailto:rafal.benecki@ing.pl)

**Philippe Ledent**

Senior Economist, Belgium, Luxembourg

[philippe.ledent@ing.com](mailto:philippe.ledent@ing.com)

**Peter Virovacz**

Senior Economist, Hungary

[peter.virovacz@ing.com](mailto:peter.virovacz@ing.com)

**Inga Fechner**

Senior Economist, Germany, Global Trade

[inga.fechner@ing.de](mailto:inga.fechner@ing.de)

**Dimitry Fleming**

Senior Data Analyst, Netherlands

[Dimitry.Fleming@ing.com](mailto:Dimitry.Fleming@ing.com)

**Ciprian Dascalu**

Chief Economist, Romania

+40 31 406 8990

[ciprian.dascalu@ing.com](mailto:ciprian.dascalu@ing.com)

**Muhammet Mercan**

Chief Economist, Turkey

[muhammet.mercan@ingbank.com.tr](mailto:muhammet.mercan@ingbank.com.tr)

**Iris Pang**

Chief Economist, Greater China

[iris.pang@asia.ing.com](mailto:iris.pang@asia.ing.com)

**Sophie Freeman**

Writer, Group Research

+44 20 7767 6209

[Sophie.Freeman@uk.ing.com](mailto:Sophie.Freeman@uk.ing.com)

**Padhraic Garvey, CFA**

Regional Head of Research, Americas

[padhraic.garvey@ing.com](mailto:padhraic.garvey@ing.com)

**James Knightley**

Chief International Economist, US

[james.knightley@ing.com](mailto:james.knightley@ing.com)

**Tim Condon**

Asia Chief Economist

+65 6232-6020

**Martin van Vliet**

Senior Interest Rate Strategist

+31 20 563 8801

[martin.van.vliet@ing.com](mailto:martin.van.vliet@ing.com)

**Karol Pogorzelski**

Senior Economist, Poland

[Karol.Pogorzelski@ing.pl](mailto:Karol.Pogorzelski@ing.pl)

**Carsten Brzeski**

Global Head of Macro

[carsten.brzeski@ing.de](mailto:carsten.brzeski@ing.de)

**Viraj Patel**

Foreign Exchange Strategist

+44 20 7767 6405

[viraj.patel@ing.com](mailto:viraj.patel@ing.com)

**Owen Thomas**

Global Head of Editorial Content

+44 (0) 207 767 5331

[owen.thomas@ing.com](mailto:owen.thomas@ing.com)

**Bert Colijn**

Chief Economist, Netherlands

[bert.colijn@ing.com](mailto:bert.colijn@ing.com)

**Peter Vanden Houte**

Chief Economist, Belgium, Luxembourg, Eurozone

[peter.vandenhoute@ing.com](mailto:peter.vandenhoute@ing.com)

**Benjamin Schroeder**

Senior Rates Strategist

[benjamin.schroeder@ing.com](mailto:benjamin.schroeder@ing.com)

**Chris Turner**

Global Head of Markets and Regional Head of Research for UK & CEE

[chris.turner@ing.com](mailto:chris.turner@ing.com)

**Gustavo Rangel**

Chief Economist, LATAM

+1 646 424 6464

[gustavo.rangel@ing.com](mailto:gustavo.rangel@ing.com)

**Carlo Cocuzzo**

Economist, Digital Finance

+44 20 7767 5306

[carlo.cocuzzo@ing.com](mailto:carlo.cocuzzo@ing.com)