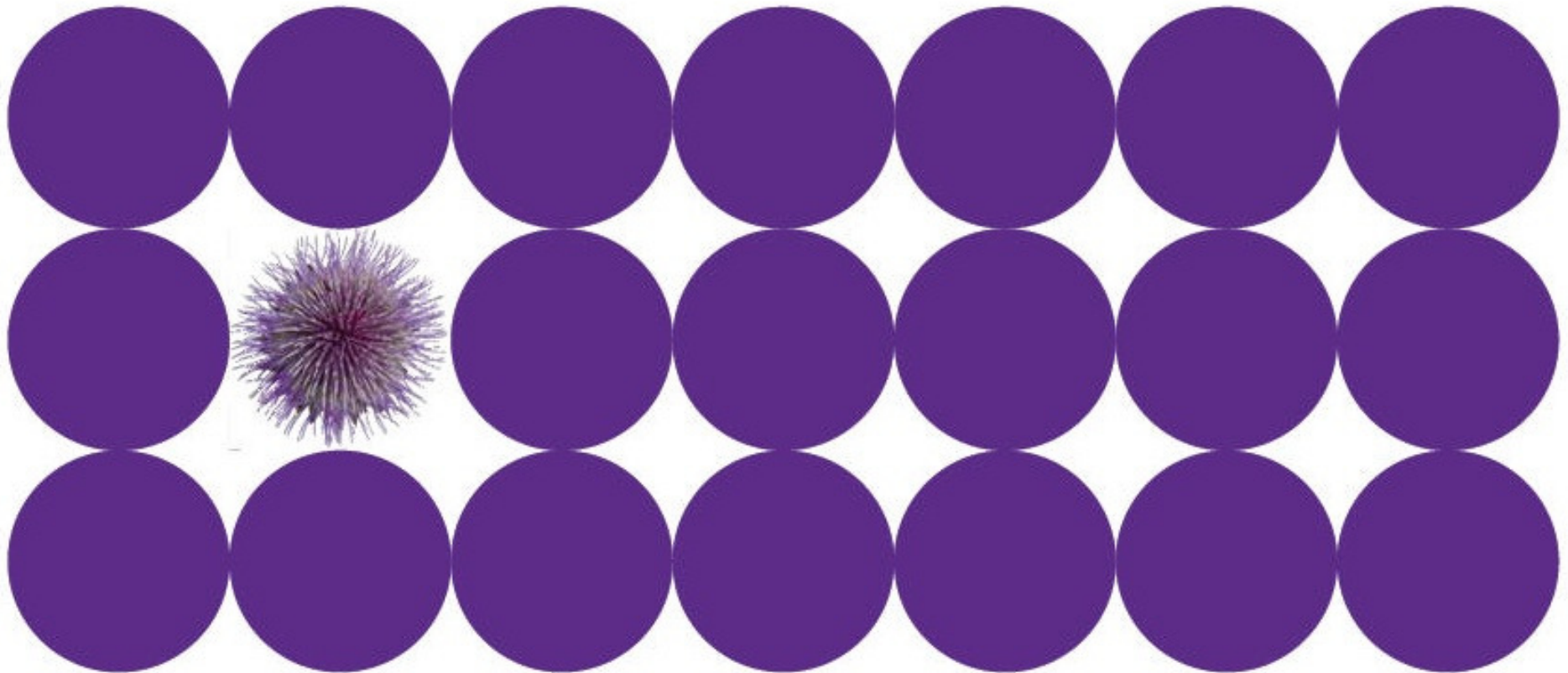


The future of the bauxite and alumina industry



Presented by Executive Vice President Johnny Undeli, Hydro
Miami March 7, 2012

The world economy is uncertain again ...



politics.co.uk

Rio Tinto Alcan announces intention to close Lynemouth aluminium smelter



Alcoa to Review Australian Smelter

By: Zacks Equity Research
February 08, 2012 | Comments: 0
Recommended this article (0)
AA | RIO | ACH | BHP



Alcoa of Australia Ltd., jointly owned by **Alcoa Inc. (AA)** and Alumina Ltd., announced that it will review the future prospects of its Point Henry aluminium smelter in the state of Victoria due to tough global economic conditions.

As per Alcoa, the aluminum industry has been adversely affected by a number of factors, including metal prices, input costs and exchange rates, which have made Point Henry smelter unprofitable. Moreover, the smelter is under review due to the increasing value of Australian dollar, which is exerting pressure on the market



Alcoa To Curtail Smelting Plants In Italy, Spain

FINANCIAL TIMES

Last updated: October 17, 2011 2:00 pm

Rio Tinto to divest \$8bn of aluminium assets

By Sarah Mishkin



Rio Tinto is to divest an estimated \$8bn of aluminium assets as the miner seeks to cut costs and improve the financial performance of Alcan, the group it acquired for \$38bn in 2007.

The decision by the world's second biggest mining group by sales could see 13 aluminium assets sold or spun off into a new company that could itself

become a significant producer.

theguardian

Rio Tinto's Tom Albanese says that he doesn't want a bonus



UPDATE 2-Norsk Hydro cuts Australia output; may not be enough

BusinessDay

BHP looks at aluminium businesses

Will not allocate more capital to struggling aluminium units including smelters in SA, BHP Billiton looking at rationalising excess capacity

PHAKAMISA NDZAMELA

Published: 2012/02/09 08:56:51 AM



RUSAL says may cut aluminium output by 6 pct in 18 mths

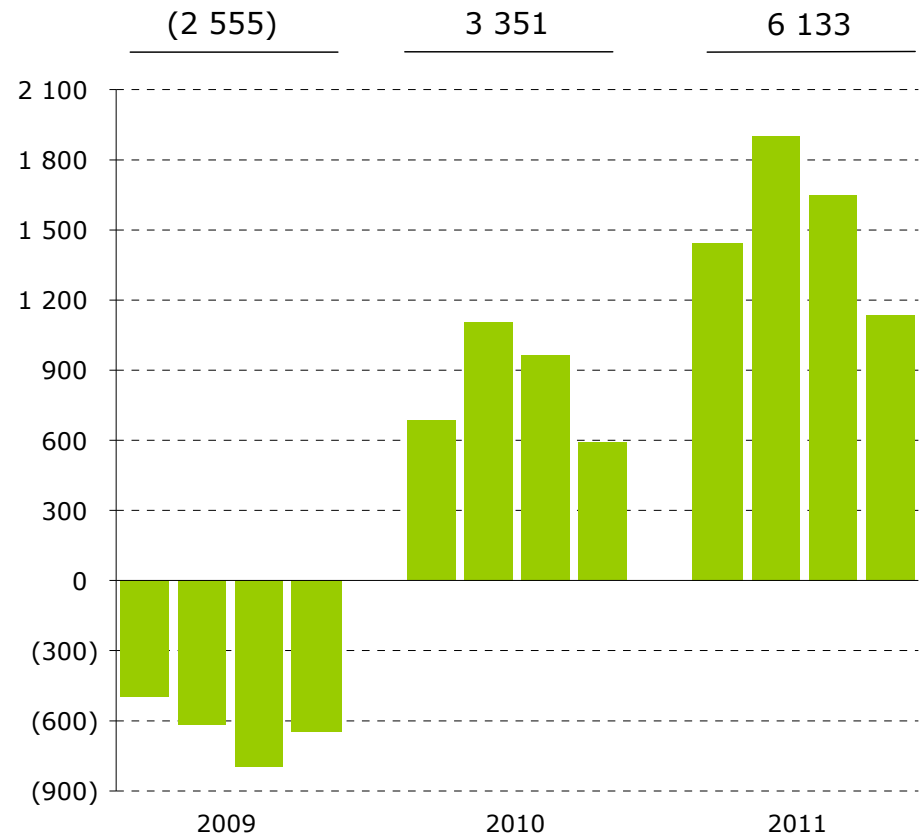


2011: Reflecting a new Hydro

- Improved earnings in 2011
- Established fully-integrated aluminium company
- Achieved strong operational improvements in Bauxite & Alumina
- Completed Qatalum ramp-up
- Strengthened focus on cost improvement programs
- Maintained solid financial position

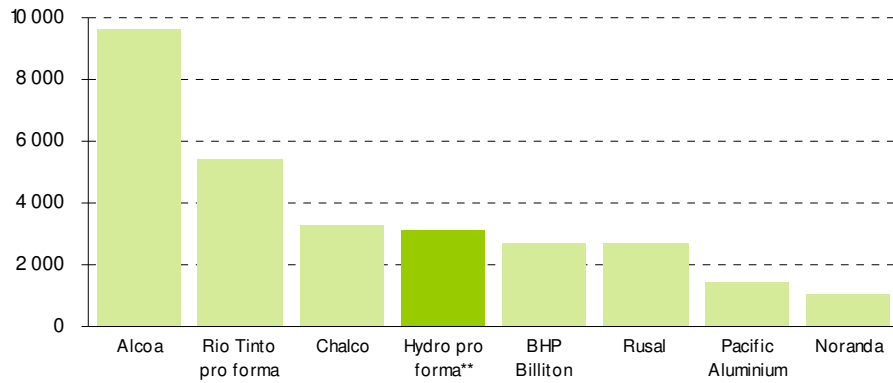
Underlying EBIT

NOK million

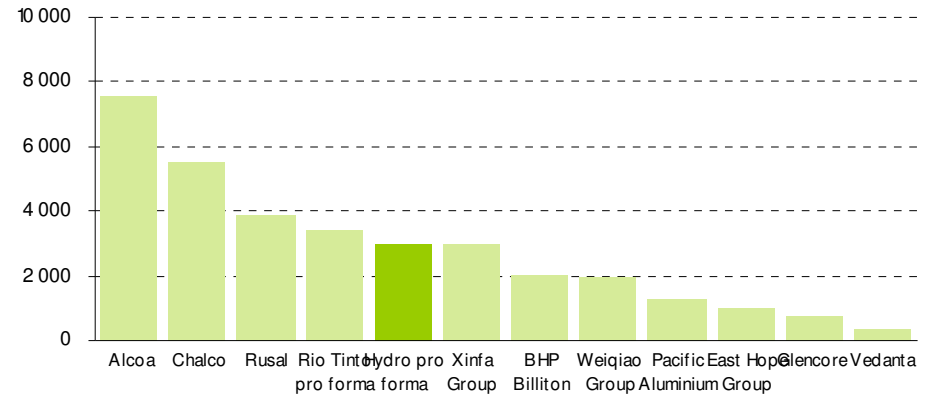


Global structure

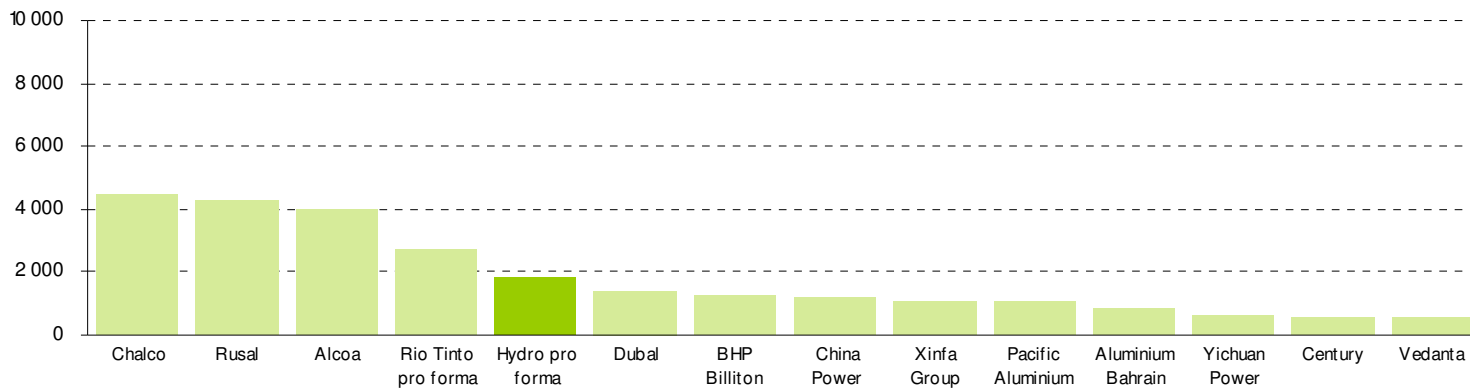
Bauxite Production for 2011 in aluminium equivalents



Alumina production for 2011 in aluminium equivalents, million tonnes

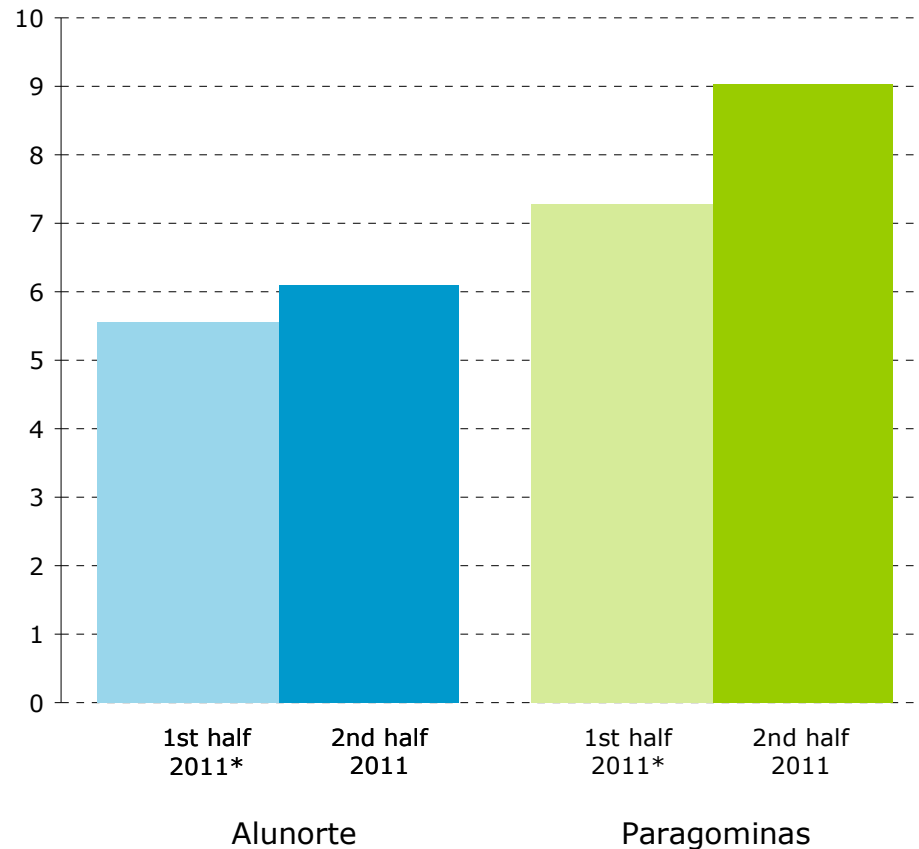


Metal production for 2011 in aluminium equivalents, million tonnes



Further improved production in Brazil

Annualized production million tonnes



- Paragominas H2 bauxite production up 23% from H1, 2011
- Alunorte H2 alumina production up 9% from H1, 2011
- Stabilizing production at higher level
 - Paragominas above 9 mtpy
 - Alunorte above 6 mtpy

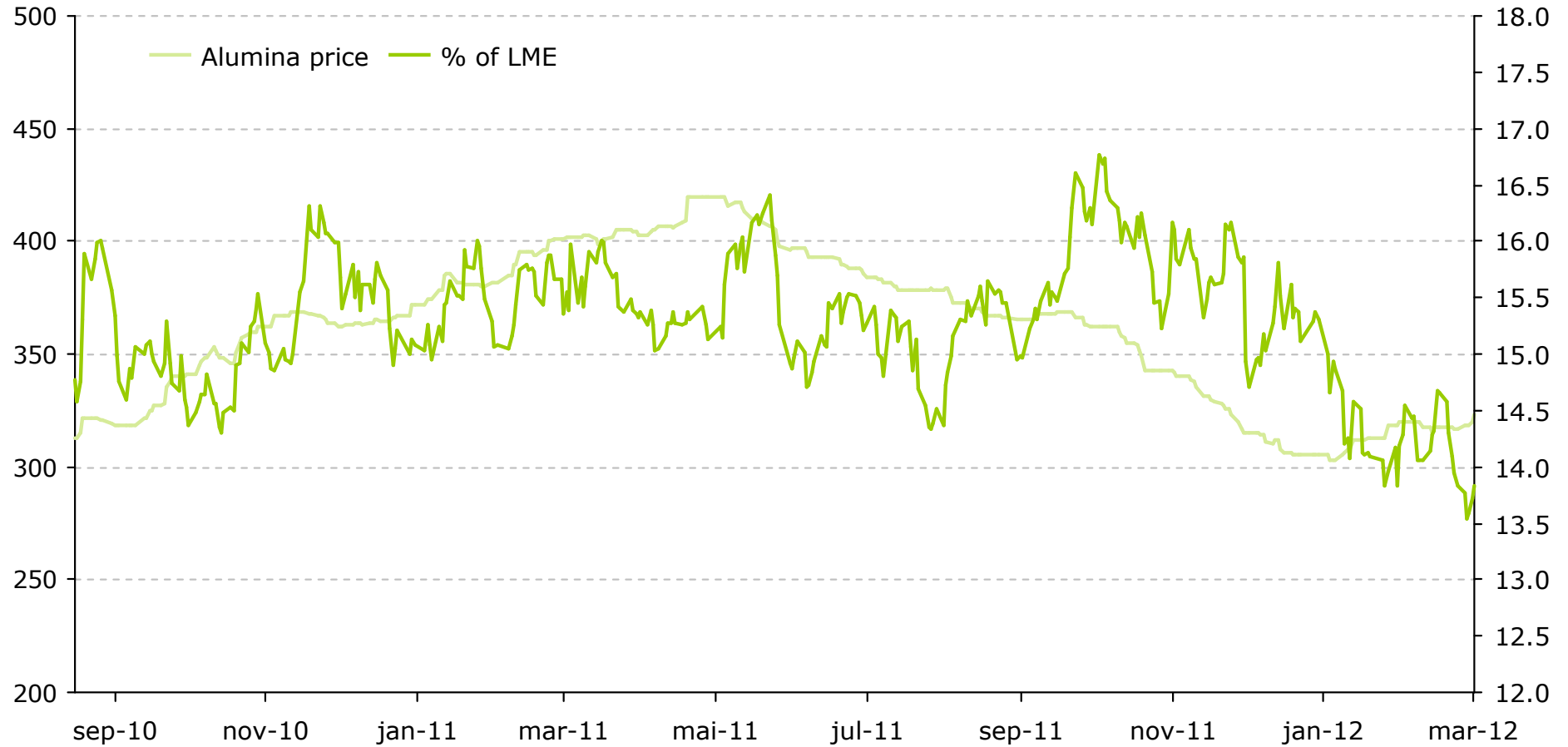
* Pro-forma

Softening alumina price

Platts index in USD

USD per mt

Percent



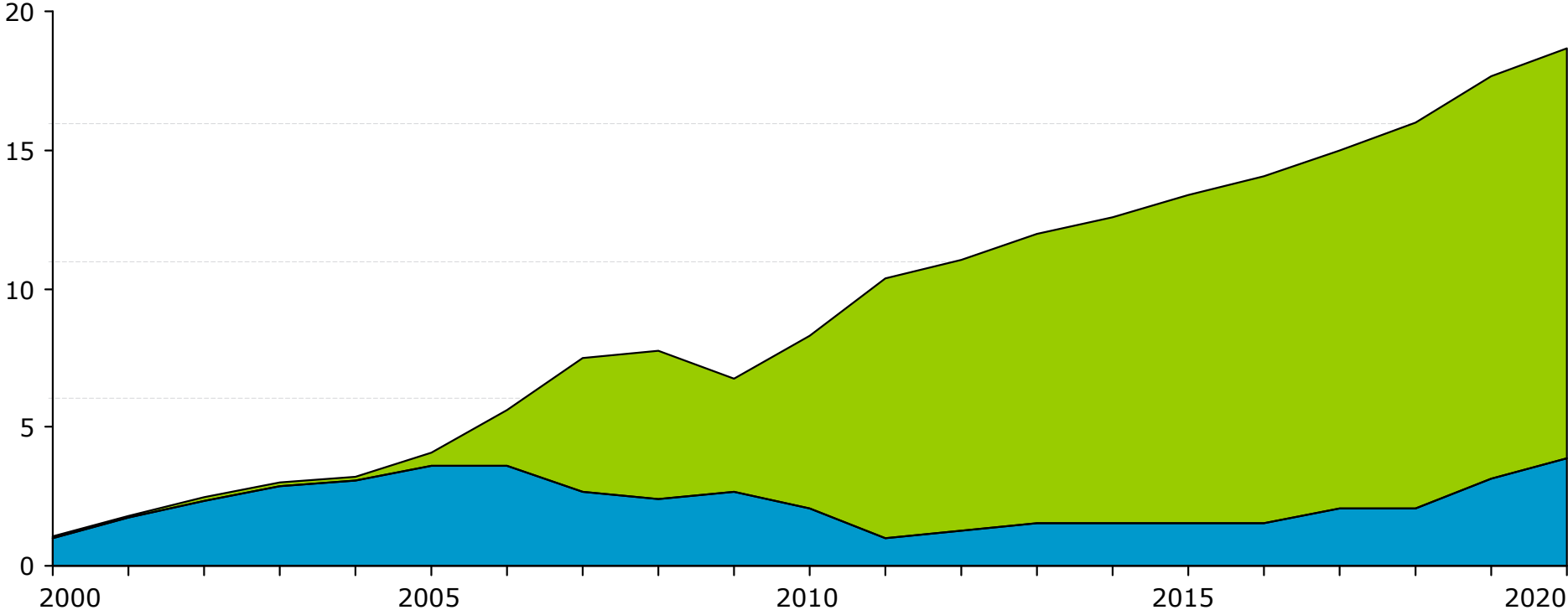
Source: Platts

China's import of bauxite and alumina

2000 – 2020

Million tonnes
aluminium
equivalents

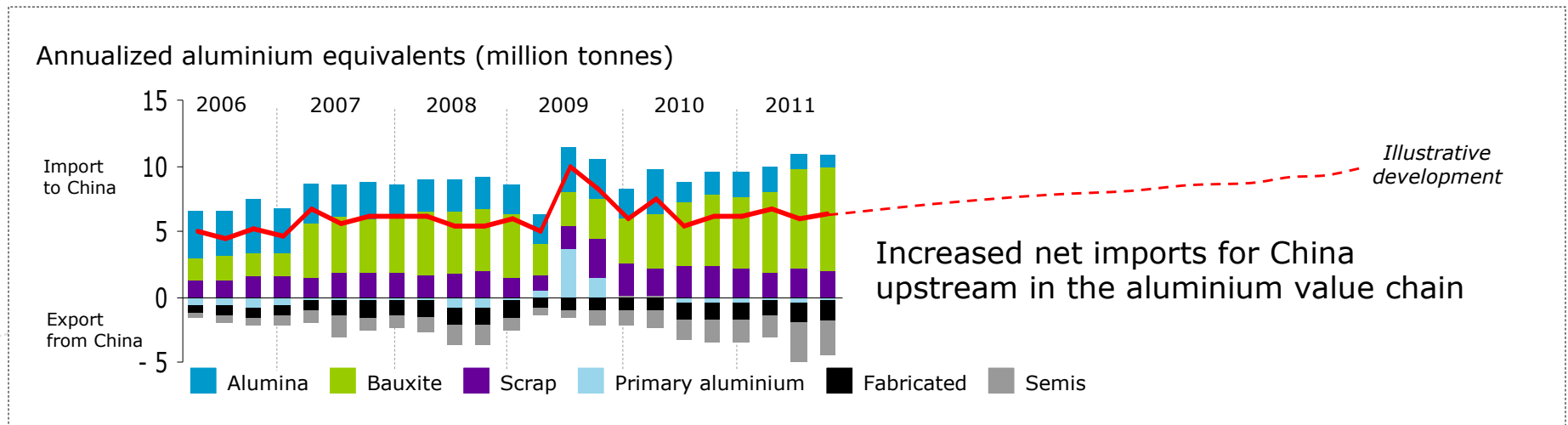
Bauxite import
Alumina import



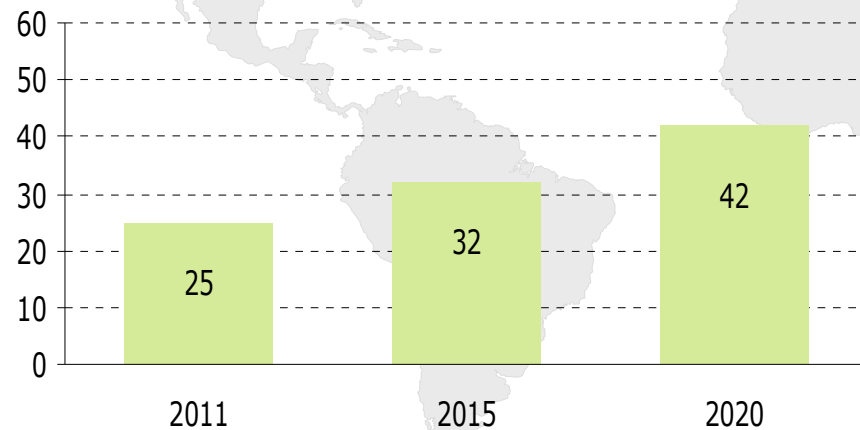
Source: Hydro analysis, Antaike



China may become increasingly short upstream



Demand for semis, China (million tonnes)



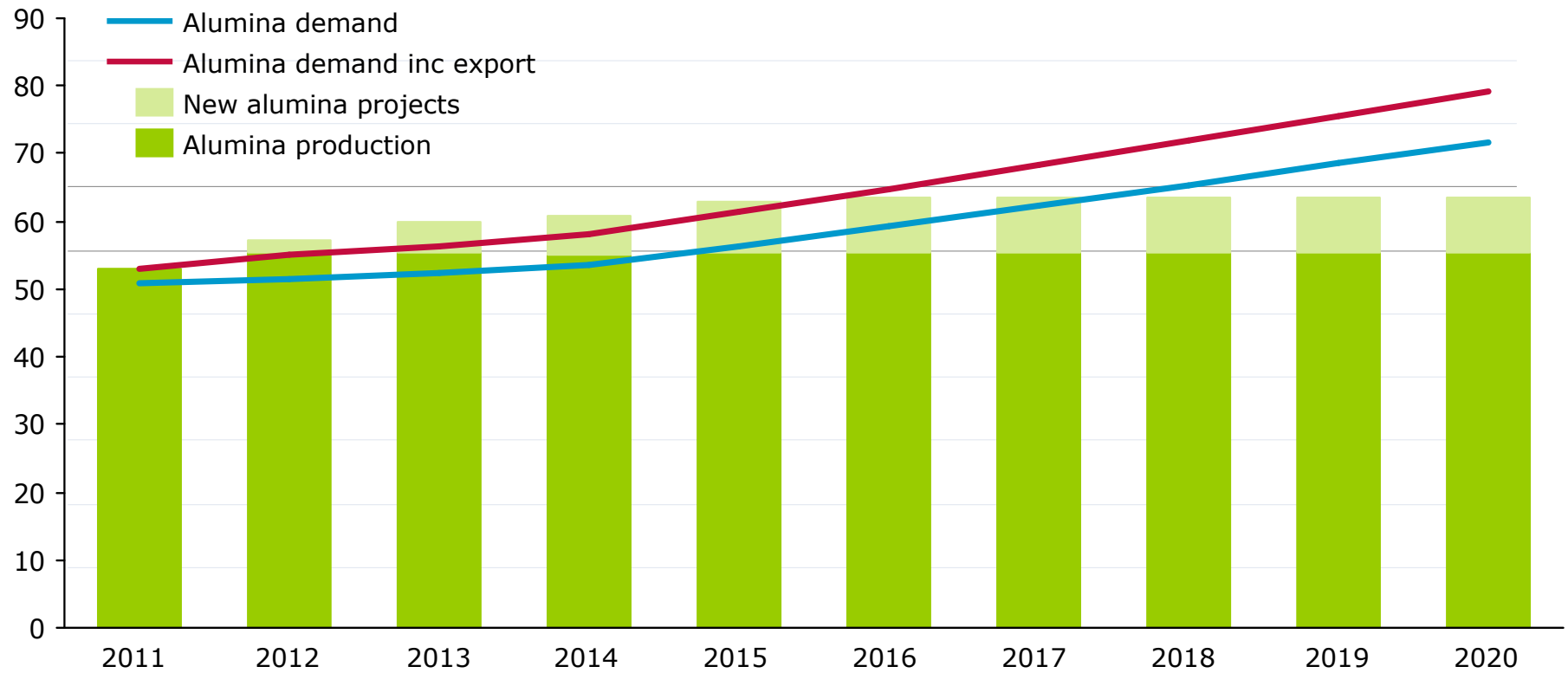
China's demand for semis is expected to increase substantially

Source: CRU/Antaika/Hydro

*Bauxite/Alumina to aluminium conversion factor: 5.4 / 1.925

Alumina balance ROW + net import China

2011 – 2020 Figures in million tonnes



Capacity utilization rate

90%

93%

93%

94%

94%

95%

— New capacity needed —>

Closures included in base case: Permanent closure: Alpart, Kirkvine, Eurallumina, Podgorica, Gardanne (2014) Partly closure: Friguia, Ghandja

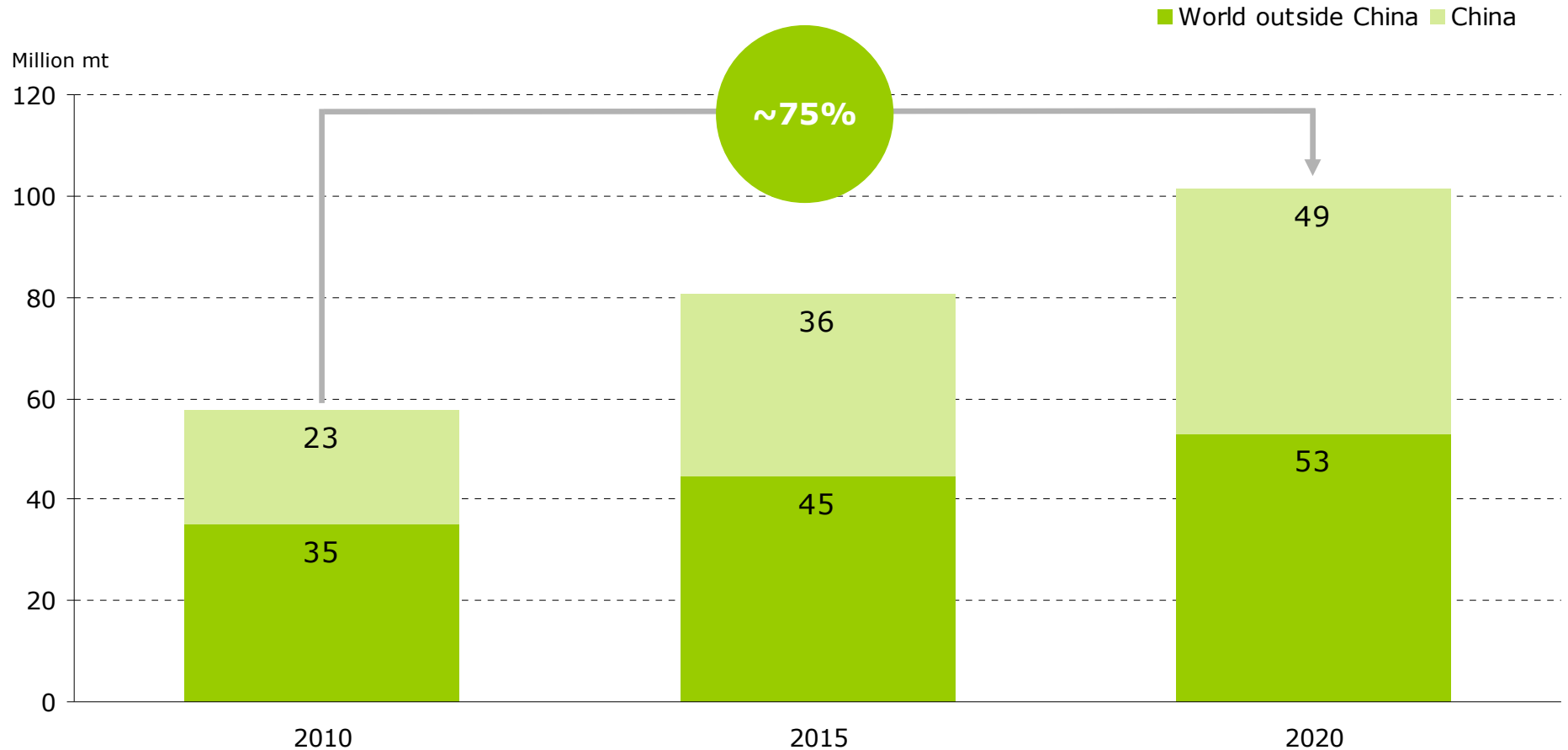
We may postpone the CAP project



Long-term outlook remains encouraging

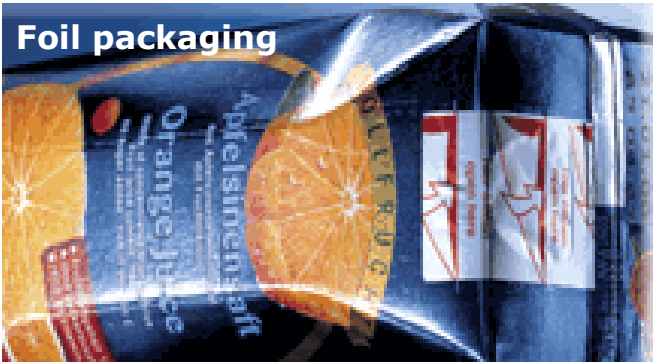
Shift from LME to alumina fundamentals gains ground

Demand for semis



Source: CRU

Innovation drives aluminium demand



www.hydro.com