ALUMINA LIMITED

ASX Announcement 26 February 2014

Presentation at Metal Bulletin Conference

Attached is a copy of a presentation prepared by Mr Andrew Wood, Group Executive Strategy & Development, for the Metal Bulletin Bauxite & Alumina Conference held on 25 February 2014.

Stephen Foster
Company Secretary

26 February 2014

Alumina Limited

ABN 85 004 820 419

GPO Box 5411
Melbourne Vic 3001
Australia

Level 12 IBM Centre
60 City Road
Southbank Vic 3006
Australia

Tel +61 (0)3 8699 2600
Fax +61 (0)3 8699 2699
Email info@aluminalimited.com

MetalBulletin Events

20th Bauxite & Alumina Conference • 24-26 February 2014 • The Conrad, Miami

Andrew Wood
Group Executive Strategy & Development
Alumina Limited

Keeping the bauxite and alumina industry profitable – challenges and opportunities

andrew.wood@aluminalimited.com

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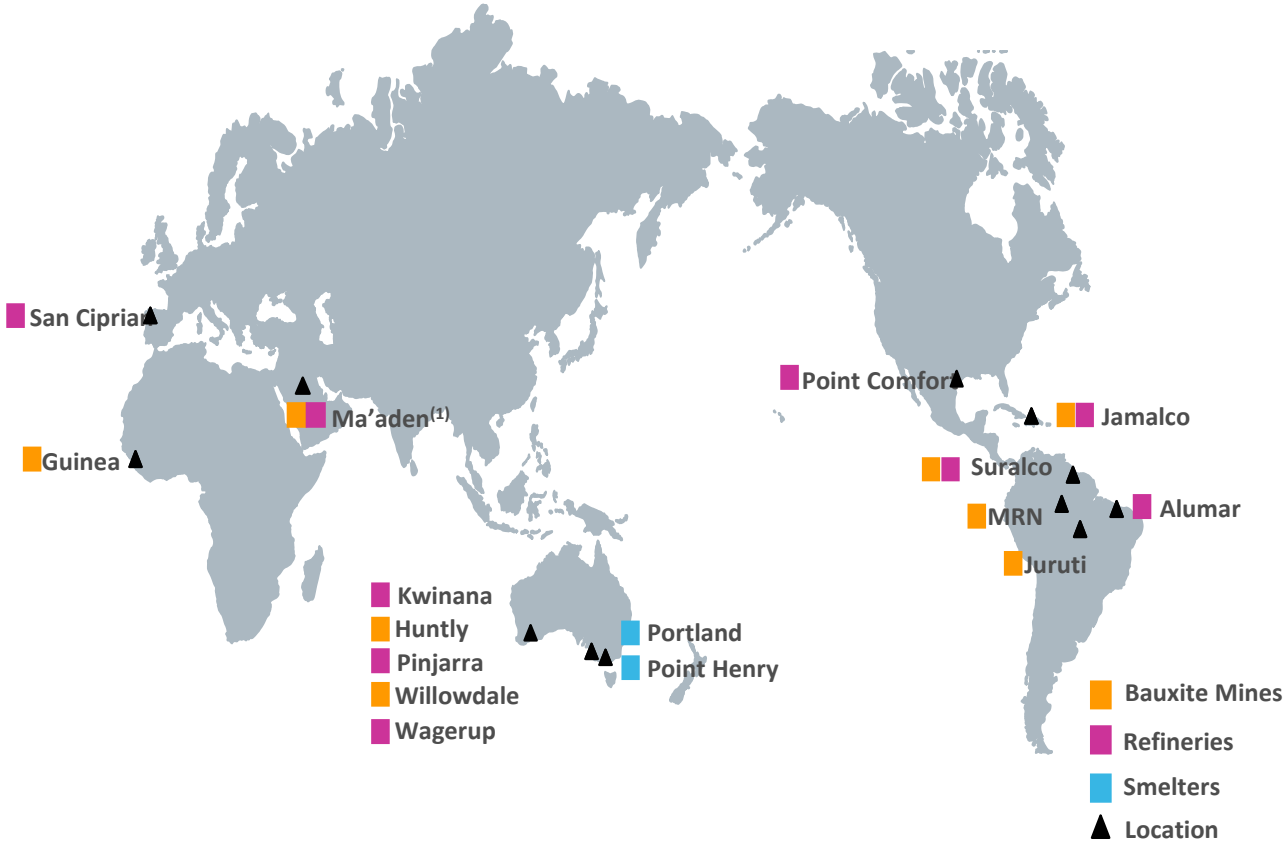
AWAC JV – world's largest bauxite and alumina producer

- Alcoa Inc. 60% (and manager), Alumina Limited 40% ownership
- 7 + bauxite mines and 8 refineries, with 15.8 million tonnes of alumina produced in 2013
- 2 smelters – JV produced 354,000 tonnes of aluminium in 2013 (Point Henry to shut in 2014)
- Mine and refinery (1.8m t) project in Saudi Arabia – JV with Ma'aden (AWAC 25.1%), under construction



(1) *Greenfield project that is expected to begin production in the fourth quarter of 2014*

Strong demand growth for alumina, largely in China, Middle East and India

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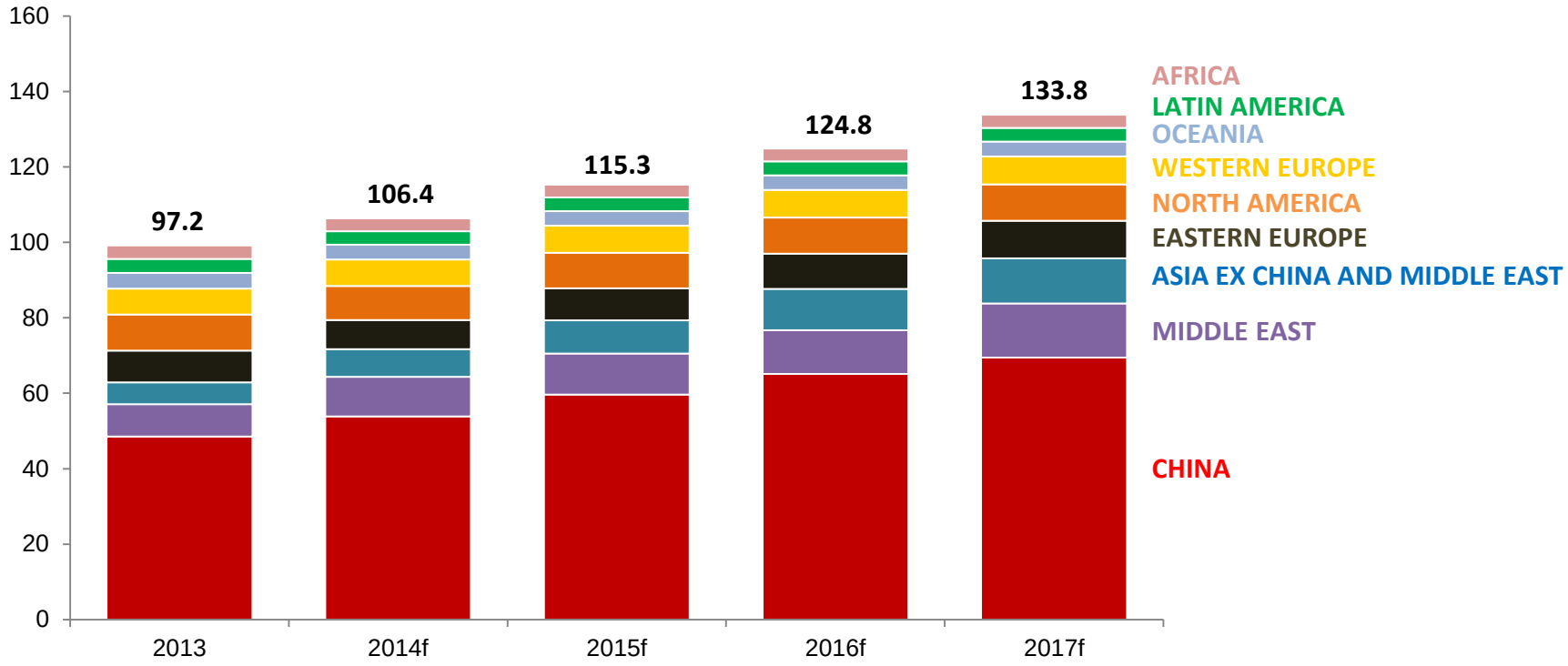
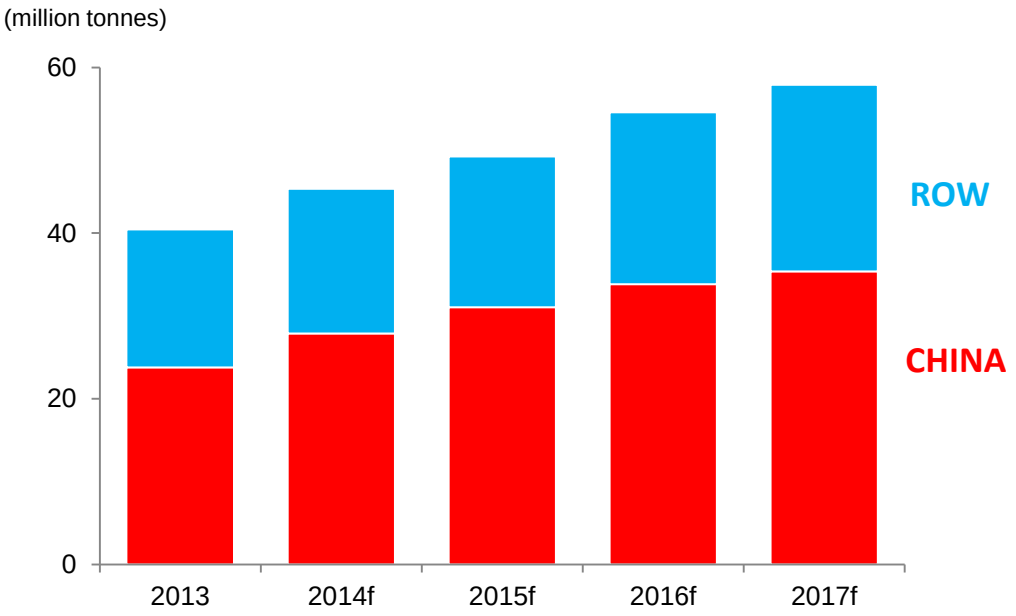
Global Metallurgical Alumina Demand Forecast
(million tonnes of alumina)



Source: HARBOR Aluminum, February 2014

Global third party alumina growing at a faster rate

Global Third Party Metallurgical Alumina Demand Growth Forecasts



Expected demand growth 2013-17 of 9.4%:
- **11.6 million tonnes in China**
- **5.8 million tonnes outside China**

Some near term downside demand risks

Global Third party Alumina Demand Chart: HARBOR Aluminum, January 2014

Most planned extra capacity is Asian – risk of further delays due to bauxite and infrastructure gaps

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Alumina Output Expansions Planned Outside China 2014-2017

Region	Country	Company	Refinery	2014F	2015F	2016F	2017F	Type	Comments
Asia ex China	Saudi Arabia	AWAC-Ma'aden	Ras Al Khair	1,500	300			Greenfield	Commissioning on track for Q4 2014
	India	Hindalco	Utkal-Salampur, Orissa	1,500				Greenfield	Commissioned in 2013 and in the process of ramping-up
		Anrak	Anrak Alumina		1,500			Greenfield	Commissioning high likely delayed to 2015
		Vedanta	Lanjigarh				2,035	Brownfield	The expansion is on hold due to inability to secure long term bauxite supply. The company has not been able to mine bauxite at some sites.
		Hindalco-Adilya	Orissa		1,500			Greenfield	
		Nalco	Damanjodi			1,000		Brownfield	Approval for mining lease received from Govt of Odisha. DPR under preparation
	Vietnam	Vinacomin	Lam Dong	600				Greenfield	Production started last year, after various delays. Already exporting to China.
		Vinacomin	Nhan Co	650				Greenfield	Likely to experience delays
	Indonesia	PT Antam	Mempawah, West Kalimantan			1,200		Greenfield	The project is on feasibility study. The company is still looking for JV partners. Estimated to start commercial operation in 2016. Possible delays
		Hongqiao Group	Well Harvest Winning Alumina		1,000		1,000	Greenfield	First 1mt phase scheduled to start in 2015 . Second 1mt phase scheduled for 2017
Latin America	Brazil	Hydro Aluminium	CAP				1,860	Greenfield	The 1.86mt project has been shelved by the company amid "market conditions". Commissioning year high likely to be beyond 2016

Table: HARBOR Aluminum, January 2014. Numbers are thousands of tonnes

Can refining construction costs be lower?

- RoW refinery construction:
  - Often new design each time
  - $1600-2000+ per tonne for average refining capacity
  - Antam Tayan 300,000 tpa chemical grade refinery approx. $1600/t (due around April)
  - Usually 4-5 years, mainly due to design and time and complexity of approvals required
- Chinese refinery construction (in China):
  - Typically off-the-shelf modular design (400,000-700,000 tonnes)
  - Extra capacity by adding modules
  - $600-800 per tonne for average refining capacity
  - Usually 1-2 years to build
- Potential for Chinese refinery construction (in Indonesia):
  - Estimated cost of $1,200 per tonne of alumina capacity
  - Plus infrastructure and mine costs (including port, roads, power, water)
  - Assumes most construction work in China, shipped to Indonesia, assembled by Chinese labour
  - Three years?
  - Query extent of Governments' support required
  - This could be the new RoW low cost construction model if it works

Downward shift in global alumina industry cost curve last year

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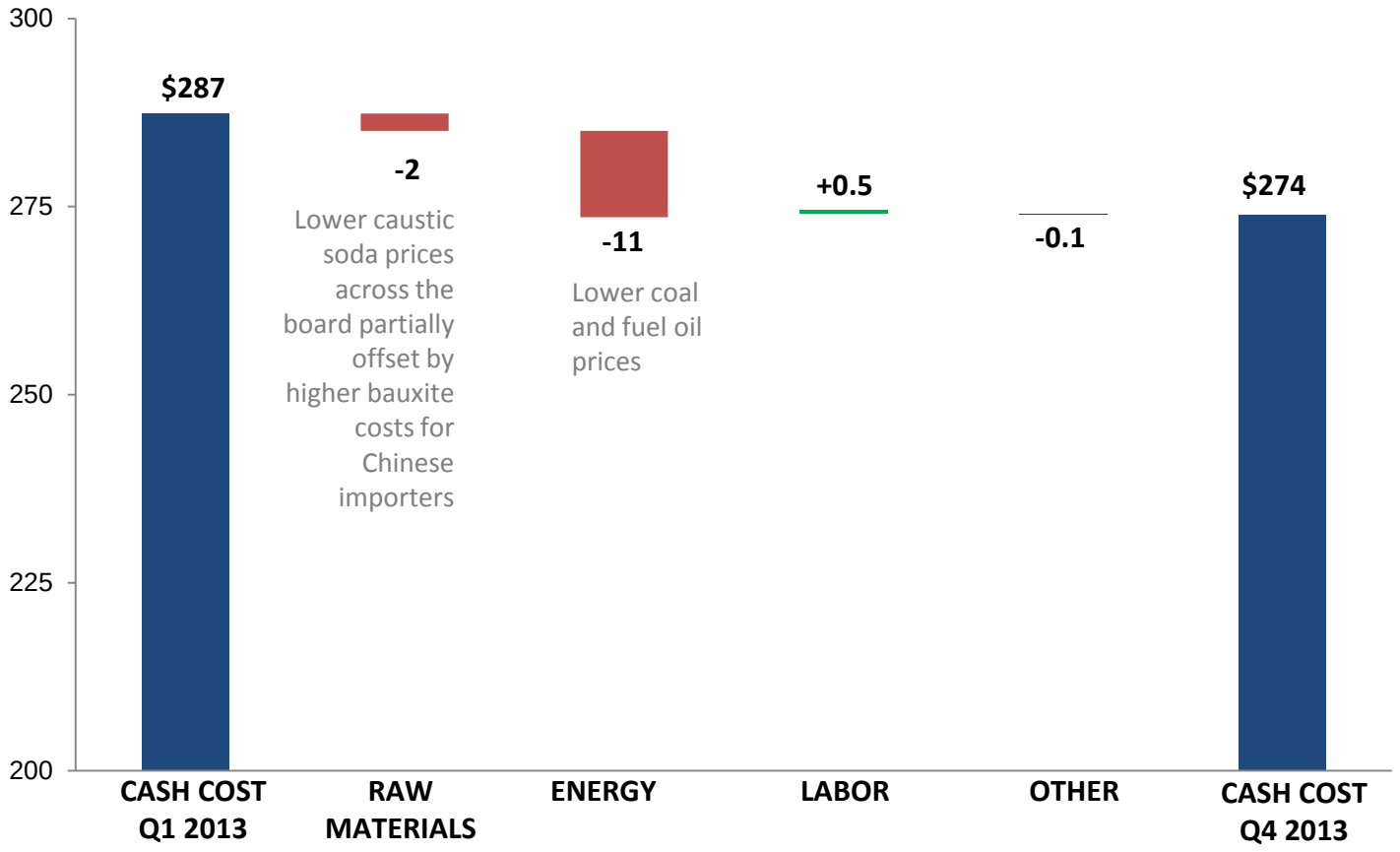
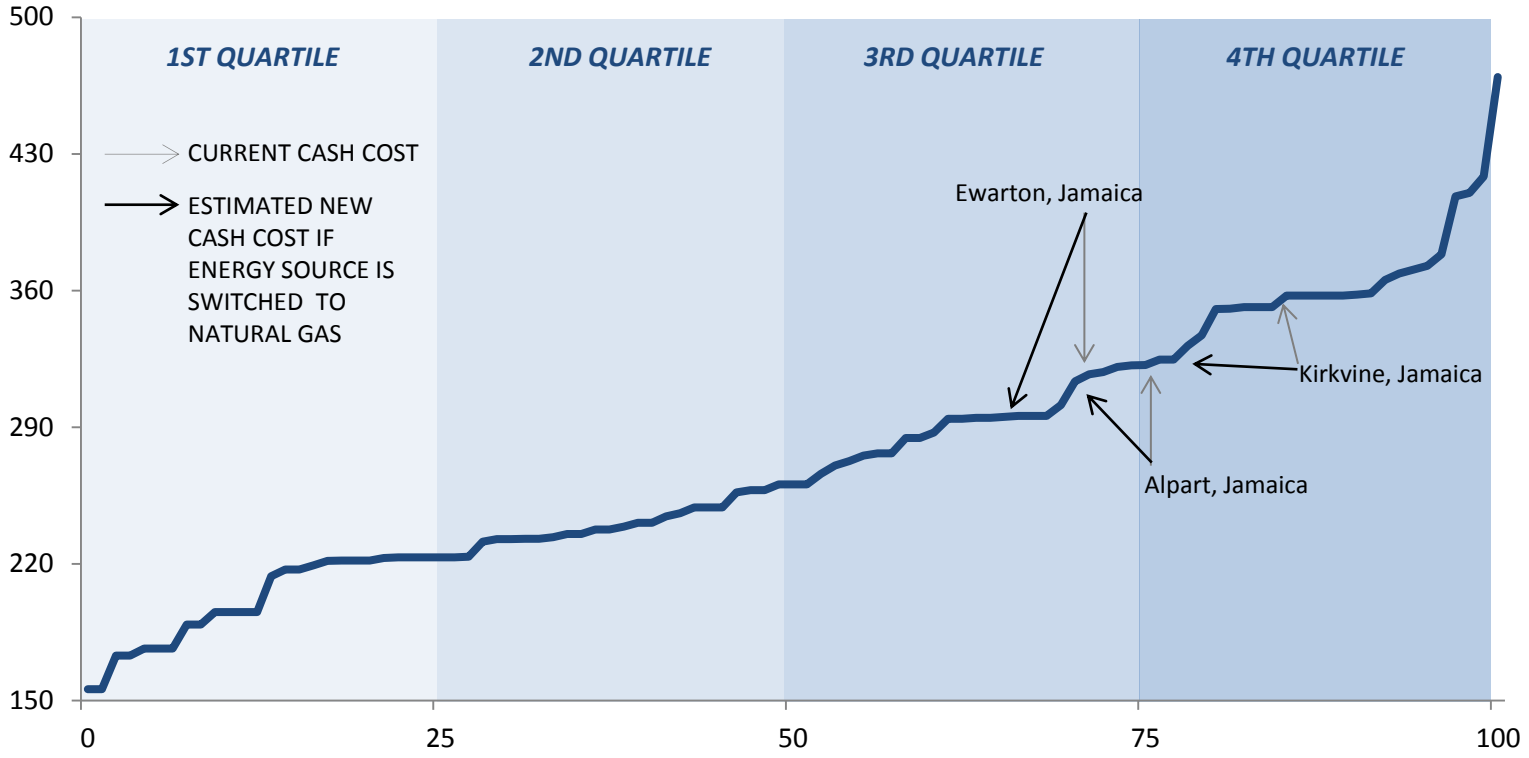
Global Metallurgical Alumina Industry Output Cash Cost Bridge
($/tonnes of alumina)



Source: HARBOR Aluminum, February 2014

Some opportunities to move down cost curve by switching to cheaper energy sources, like natural gas or coal

Global Metallurgical Alumina Industry Output Cash Cost Curve by Refinery*
(4Q 2013; $/tonnes of alumina)



- *Cash cost = raw materials + energy + labour + other operating costs*

Source: HARBOR Aluminum, February 2014

Caustic supply and pricing correlated to global and regional trends

- Caustic soda is a co-product (with chlorine)
  - chlorine as a gas difficult to store
- Cyclical pricing for caustic driven by the chlorine market
  - broadly moves with GDP growth
- Alumina industry (10-13% of caustic market) is a price taker
- Captive chlor-alkali plants (with cheap ethylene) located near chlorine markets (caustic is generally the more tradeable of the two)
- Little ability for alumina industry to impact pricing or availability of caustic in the long term
  - risk and cost minimisation though procurement strategies

Bauxite and alumina industry essentially price-takers on freight too

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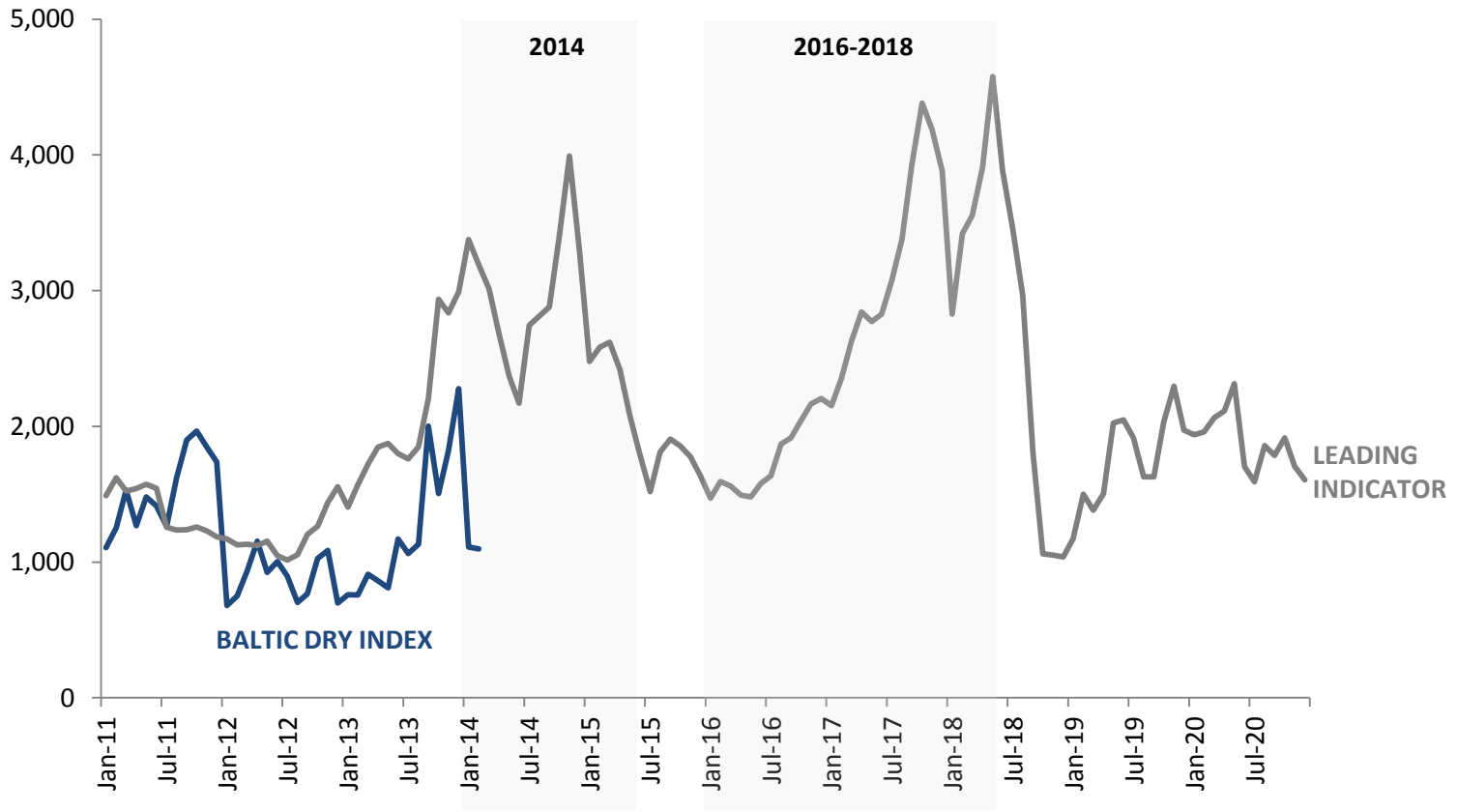
Baltic Dry Index and Leading Indicator
(units)



Source: HARBOR Aluminum, February 2014

Viable smelters are important: 15.3 million tpa of operating capacity is cash negative

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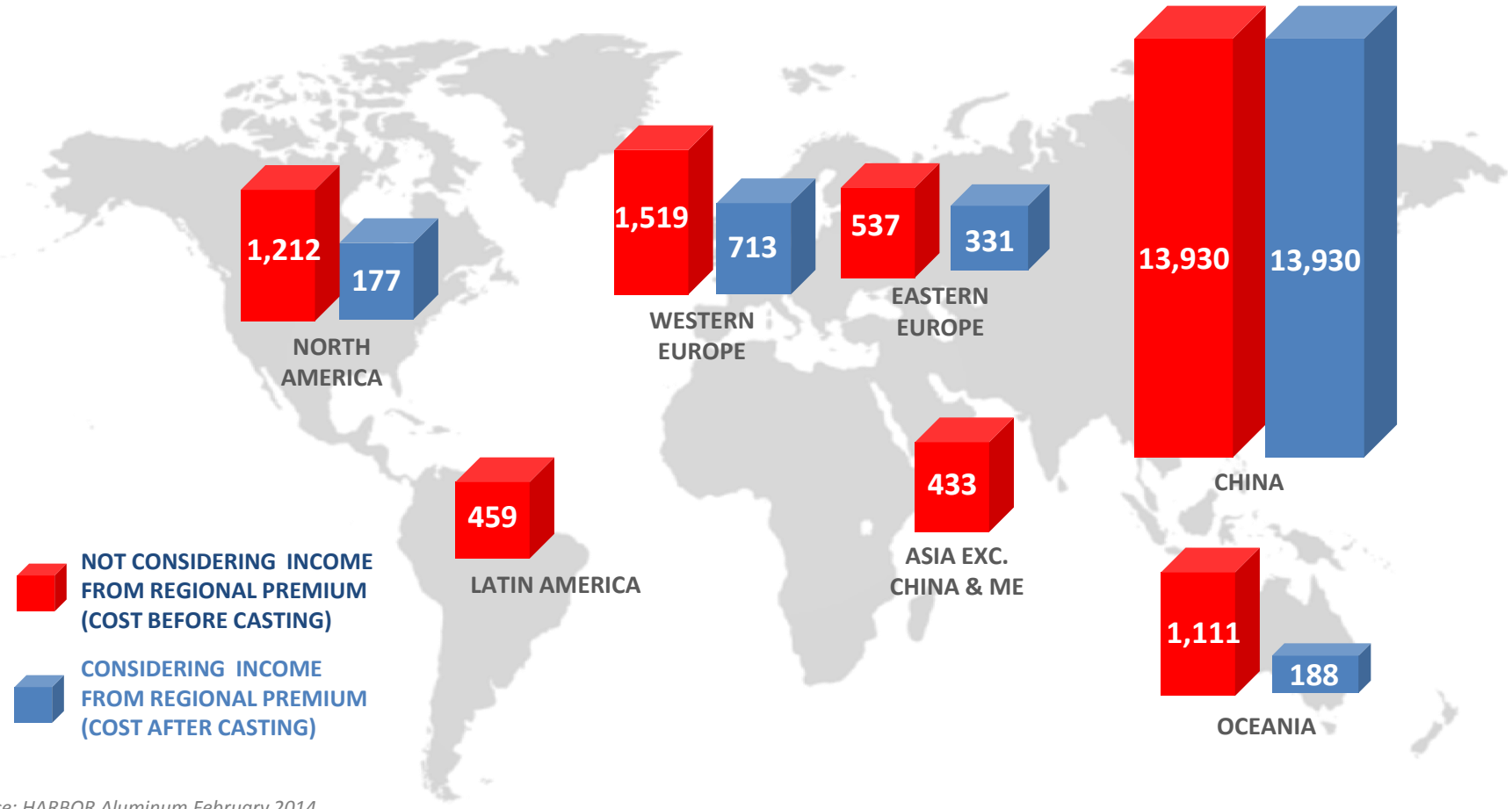
Primary Aluminum Operating Capacity Underwater in a Cash Basis by Region*

(thousand tonnes per year)



Source: HARBOR Aluminum February 2014

**Cash-cost basis (does not include, depreciation, interest payments, sustained capital expenses or working capital and excludes applicable VAT of 17% that Chinese aluminum smelters pay on raw materials, energy and services. Assuming LME cash prices of $1,769 per mton and SHFE 1M prices of $2,011 per mton*

Stocks have been coming down but there is still considerable overhang

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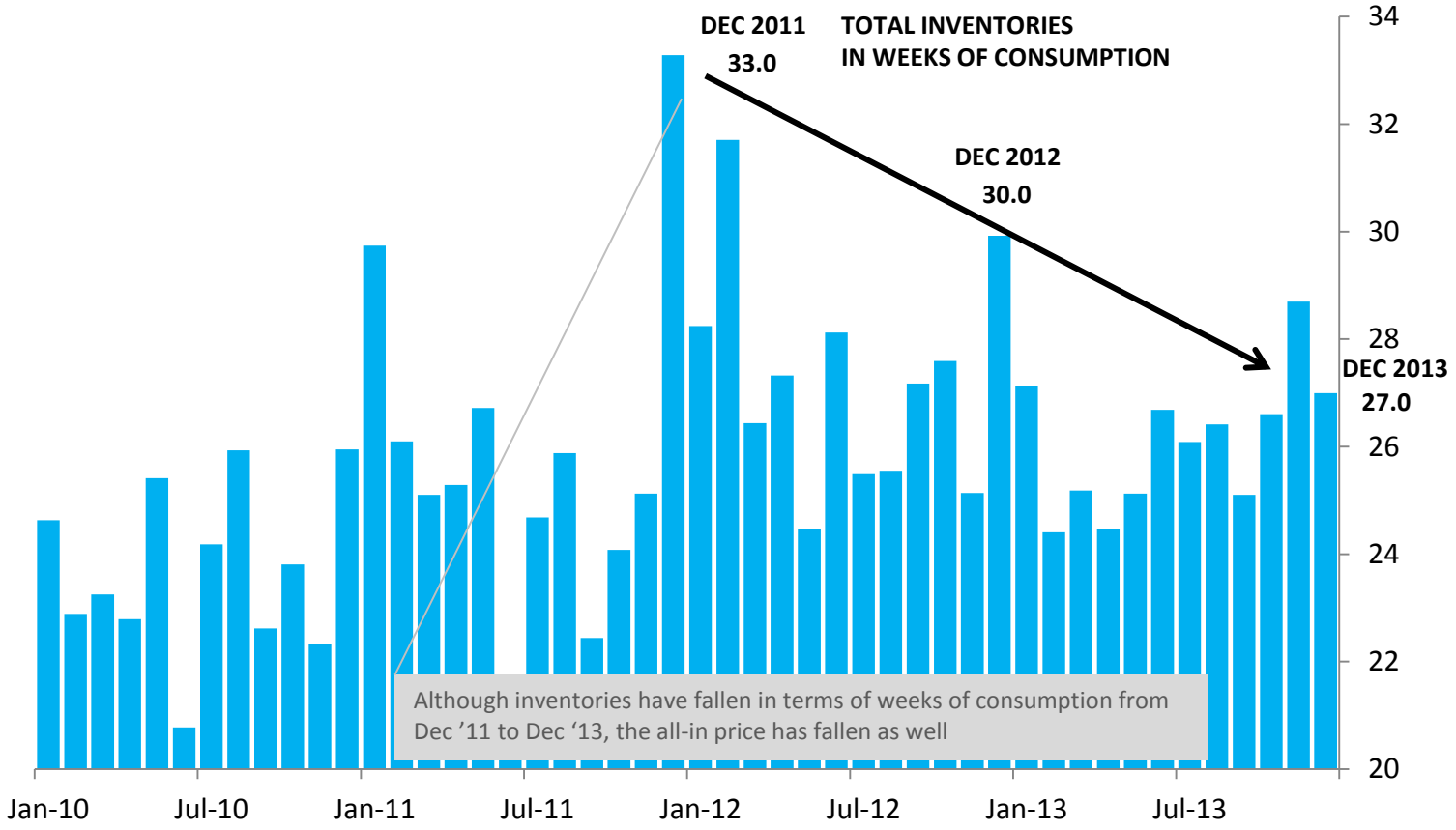
Total* Primary Aluminum Inventories in Row in Weeks of Consumption

($/tonnes vs weeks; monthly data)



Source: HARBOR Aluminum, February 2014

RoW index prices reflect alumina fundamentals

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Jan-June 2012
- Chinese imports spike
- China bauxite shortages, cuts alumina
- High Chinese alumina prices make Aust attractive
- (Apr-Aug) - Caustic price spike
- (Jan-Mar) -LME Al jumps $300/t

Jun-Jul 2012
- Atlantic surplus (smelter curtailments)
- Atlantic discounted by $10/t to Australia
- Brent crude falls $31/bbl (May-June)
- LME Al drops nearly $500/t (March-June)

Aug-Dec 2012
- Atlantic surplus evaporates
- India, Guinea, Jamaica cut alumina output
- Chinese buyers absorb Atlantic longs
- Brent crude regains $28/bbl June-August

Sep 2012-Feb 2013
- Caustic soda weakens

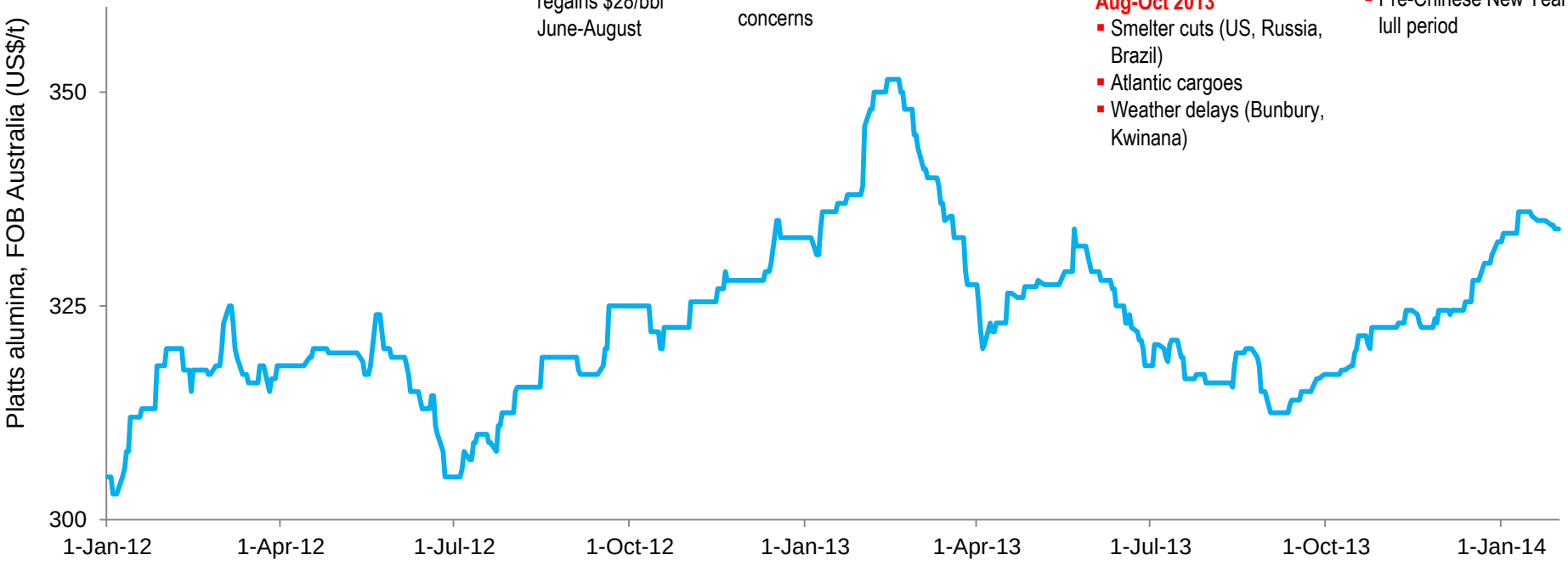
Jan-Feb 2013
- Queensland (floods) shortages
- Gove closure concerns

Mar-Apr 2013
- Australia normalizes, supply worries ease
- Low Chinese prices (importers resell contracted cargoes)
- LME Al pressured by macroeconomic woes

Apr-Jul 2013
- Gove cut, port delays lift price
- Smelter cuts (India, Malaysia)
- Vedanta restarts alumina
- China imports fall, reselling
- LME Al falls to 4-year low
- Alunorte refinery cuts

Aug-Oct 2013
- Smelter cuts (US, Russia, Brazil)
- Atlantic cargoes
- Weather delays (Bunbury, Kwinana)

Nov 2013 to Jan 14
- Gove refinery suspension announced
- Indonesian bauxite export ban implemented
- Smelter restarts (Saudi Arabia, Malaysia)
- Smelter capacity reviews (Europe, US, South Africa)
- Pre-Chinese New Year lull period



Source: Platts, January 2014

Fundamentals of Chinese domestic price

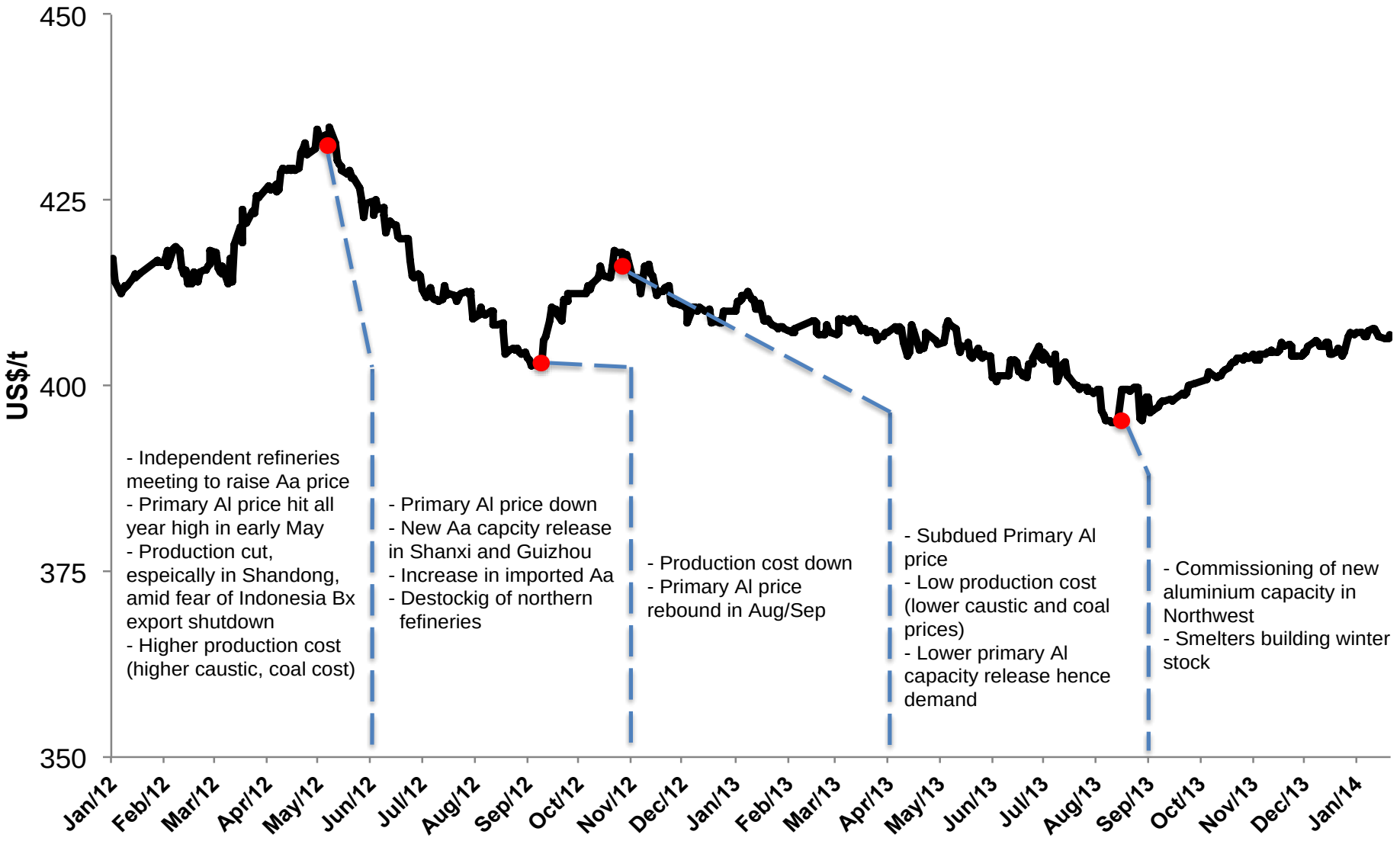


Chart: CMAAX (China ex-works) Alumina Prices (US$/t), CM Group, CMAAX January 2014

Two distinct markets – but Chinese arbitrageurs impact RoW pricing

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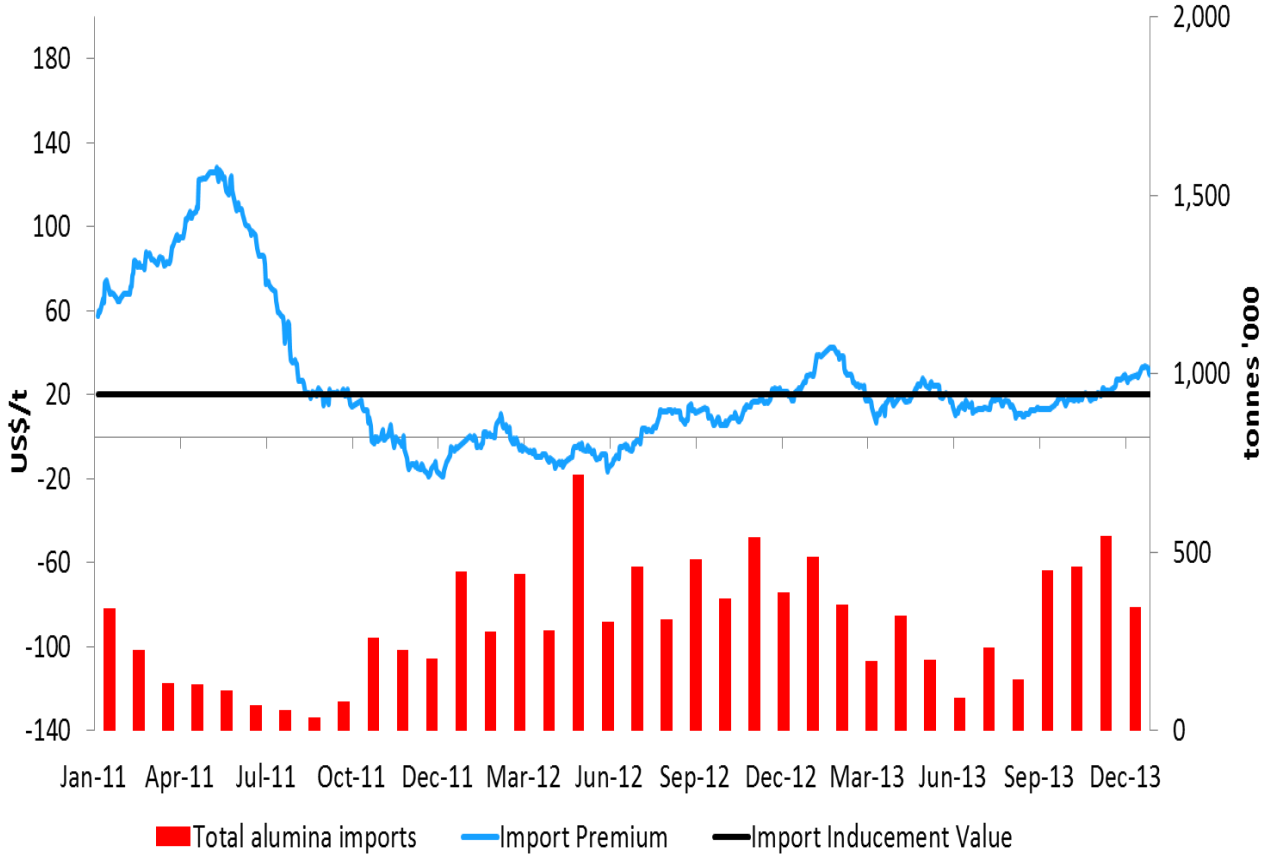
Chinese vs Aust. Alumina Prices (CMAAX less Aust. FOB adjusted) (US$/t) and Import Volumes (thousand tonnes/month)



- China and RoW two distinct alumina markets lined by Chinese imports
- Import prices tracking $20/t "import inducement premium" in 2013, resulting in lower imports
- Any future bauxite shortages in China may induce more alumina imports

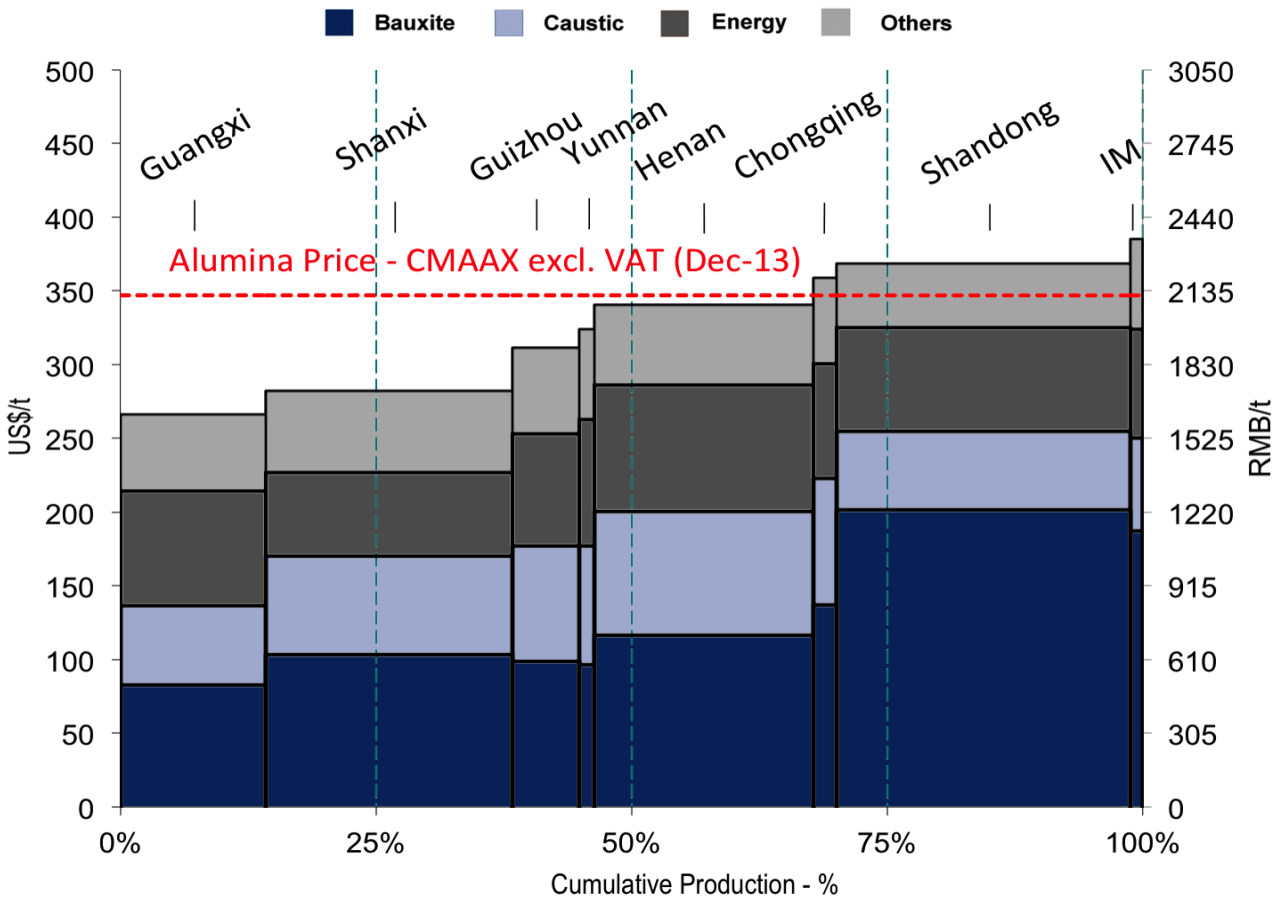
Chart: CM Group, CMAAX, Platts, China Customs, January 2014

China not expected to export much alumina

- Very few exports of alumina from China historically
- Exports unlikely for extended periods or large volumes as:
  - no VAT export rebate (unlike Australia)
  - land and sea freight cost disadvantage
  - logistical issues: most Chinese alumina is bagged
  - alumina quality variance risks for non-Chinese smelters
  - high operating costs generally
  - policy of value-adding

World marginal cost producers in Shandong - Henan and Shanxi may move up curve

China Alumina Cash Cost Curve by Province

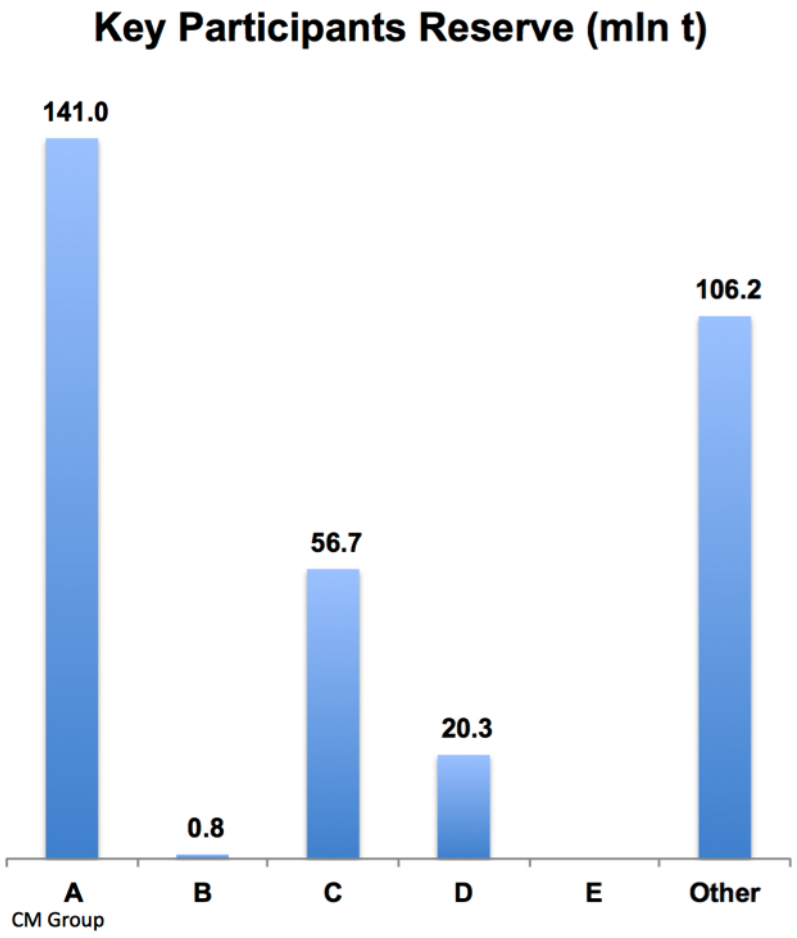


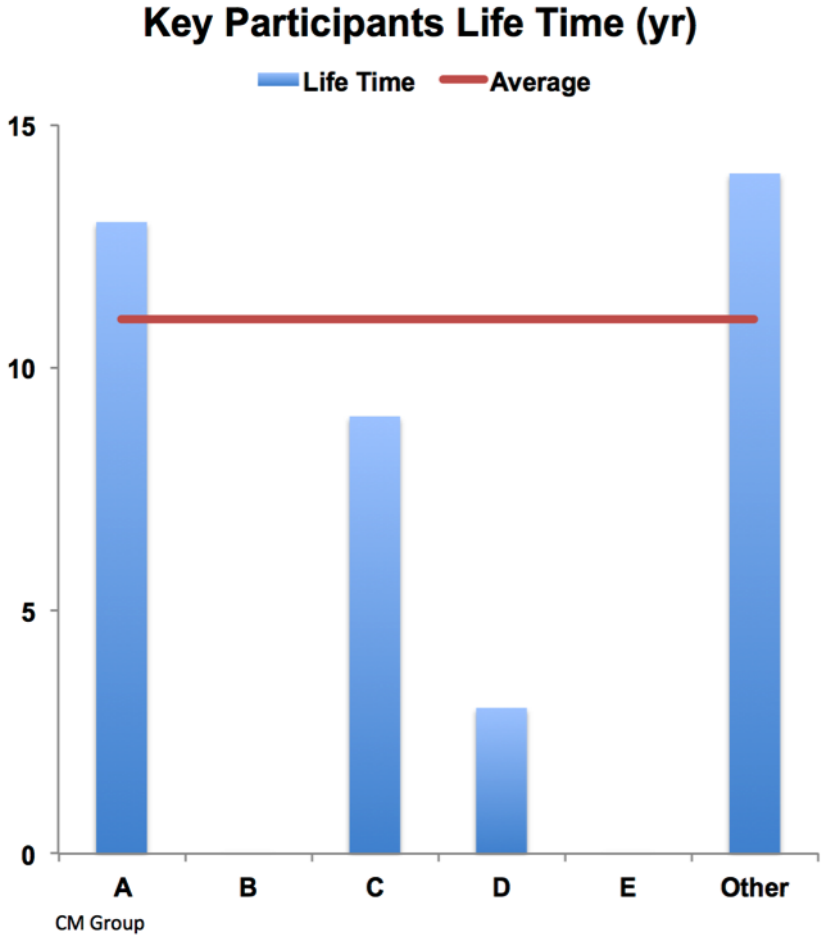
- Cost of processing bauxite is increasing
- Henan and Shanxi costs could increase as grades deplete and allocation restricts bauxite movements from around 2019

Shandong is global marginal producer, with approx. 20 m tonnes of capacity

Chart: China Alumina Cash Cost Q4 2013, excluding VAT, CM Group, January 2014

Reserves & forecast life of key participants in Henan





- Note: Life = Year of Depletion -2012. The “average life” is if all the bauxite in the province is pooled

Chart: CM Group, February 2014

Chinese bauxite import volumes expected to continue to grow

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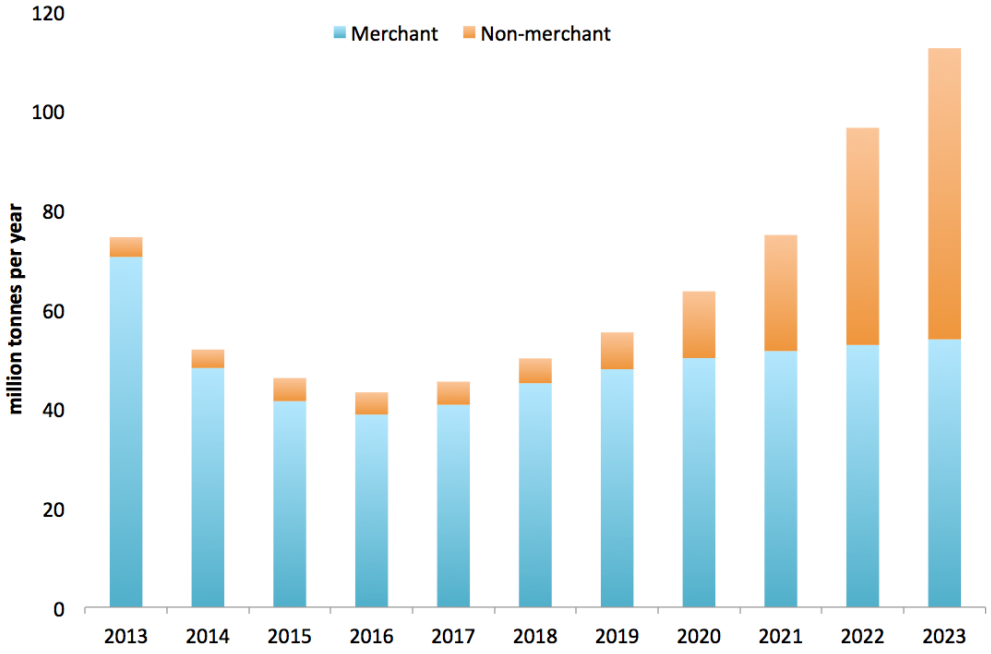
Forecast Chinese Bauxite Imports by Destination Province - 2013 to 2023 (mln t/yr)

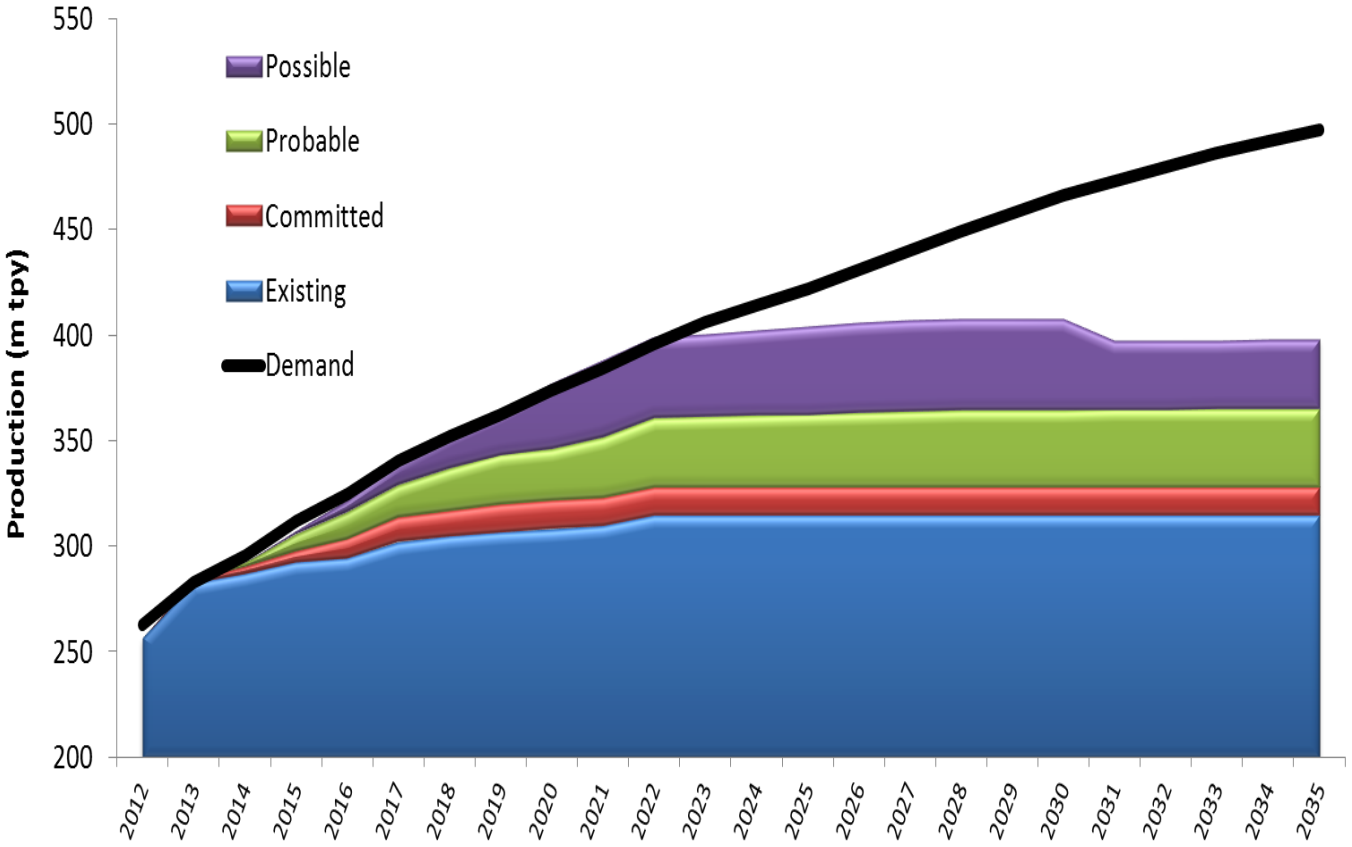


- Shandong to remain the major merchant bauxite-consuming province over the period to 2023
- Under-utilised logistics allow Inner Mongolia (rail) and Chongqing (barge) to become new entrants
- Henan and Shanxi refineries likely to import significant bauxite tonnes (due to local allocation and quality issues)

Chart: CM Group, January 2014

Numerous (known and unknown) bauxite projects needed to meet future demand

Supply-demand Gap Expected to Develop from 2015



- Bauxite is globally plentiful, but of differing quality and development and financing is becoming slower/harder
  - Government approvals
  - Capital costs and available infrastructure
  - Nationalistic policies & taxes
- Global demand and value of bauxite has been increasing

Source: Bauxite demand and supply, 2012 to 2035 , CRU's Bauxite Long Term Market Outlook, 2013 edition

Global bauxite economic reserves

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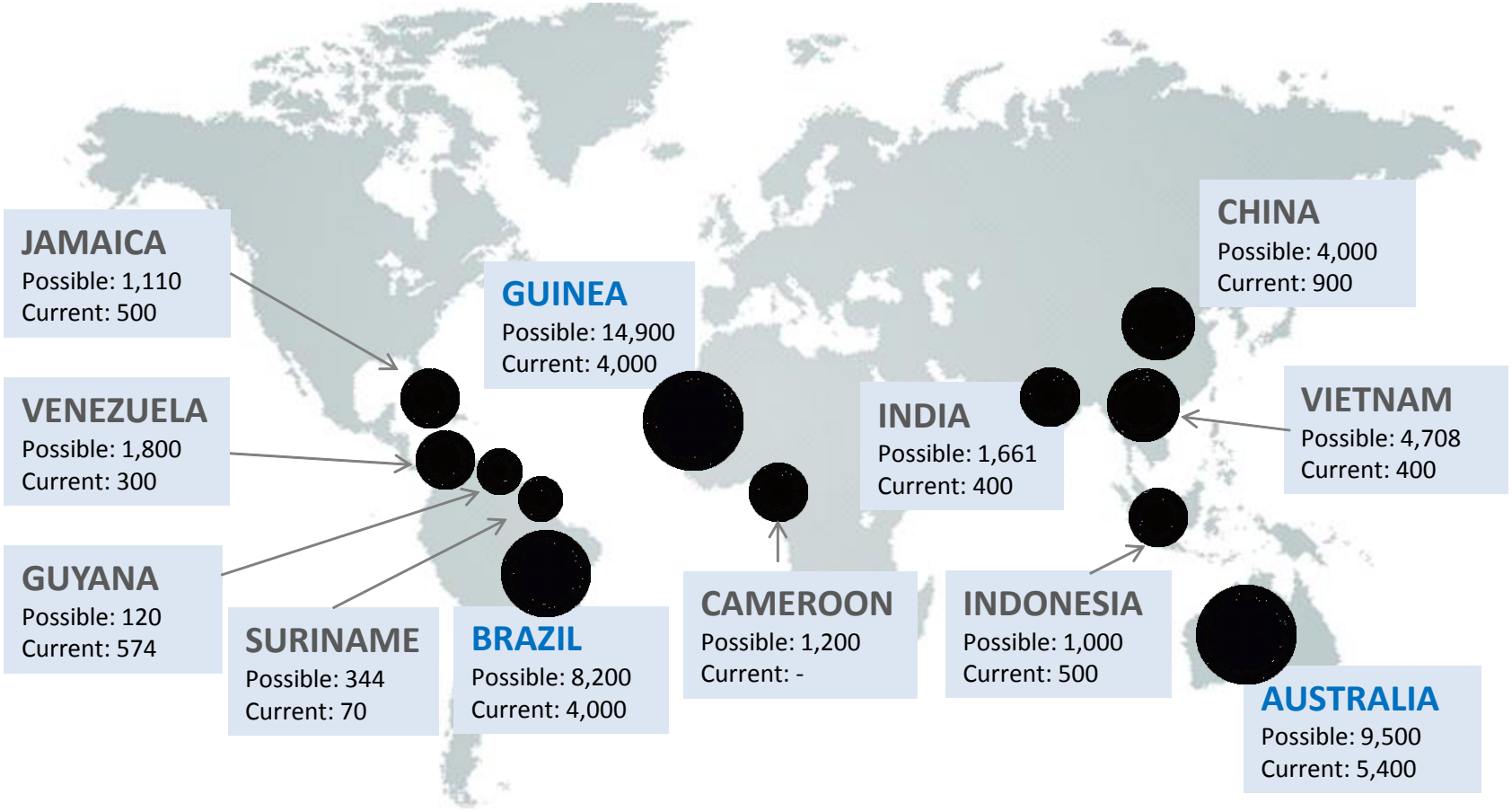
Bauxite Reserves – Selected Countries
(million tonnes)



Source: HARBOR Intelligence, February 2014

Bauxite pricing and profitability

- Expectation of reduced level of bauxite exports from Indonesia in future
- Expected sharp rise from 2019/20 in China's imported bauxite needs for Henan and Shanxi in particular
- Some analysts publish FOB/CIF bauxite prices (e.g. Metal Bulletin, Harbor)
- Desirability (at least for the miners) of a market-based bauxite index (similar to the alumina price indices of MB, Platts, CRU and CMAAX)
- Bauxite index based on benchmark(s) (type, alumina content, silica content and moisture at least) or calculated on a "value-in-use" basis
- CM Group publishes an index called CBIX which is a "value in use" reference price

Corporate Social Responsibility

- Many stalled bauxite and alumina projects today have various community, environmental or Governmental issues
- CSR important for any new bauxite mines in developing countries (particularly without a good industry history there)
- To ensure sustainability, developments and operations should occur in a socially responsible manner
- Even greater need for industry to engage with wider groups of stakeholders – upstream and downstream
- This is likely to add to the cost in many cases but is vital for the health, longevity and profitability of the industry

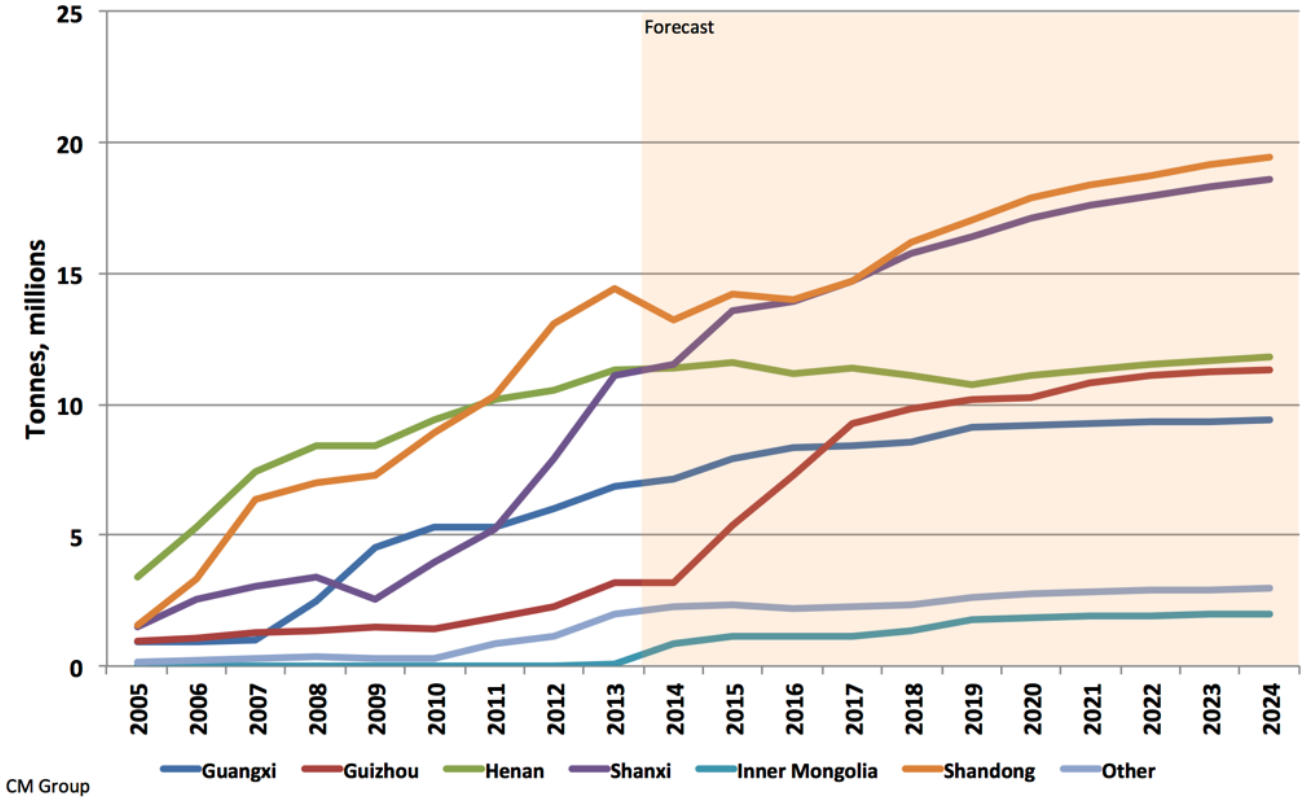
Potential technology developments

- Chinese bauxite quality issues could be improved
  - by blending, flotation, sintering etc., but at a high cost
- 11 flyash projects being pursued in China
  - a long way to prove commercial viability
- Flyash plants not likely to be competitors on cost with Bayer process with current flow sheets
  - Higher energy usage, capital costs and potential SGA quality issues
- Orbite pilot producing high purity alumina from clay via HCL
  - competitive in high purity alumina, query jump to SGA production
- Other projects underway (e.g. AMMG) but may be too early to judge

Productivity gains and M&A activity

- High cost smelters in Europe and North America and efficient smelting in China challenge the integrated industry model
- Chinese Government policy encouraging some consolidation in the Chinese alumina and aluminium industry
- Other options for trying to move down the cost curve and improve profitability include:
  - productivity gains and capacity creep
  - acquisitions, to enable consolidation at a low point in the cycle and curtailing higher cost production

Chinese long term alumina production growth



- Historical and forecast alumina production by province 2005-2024 (million tonnes)

Chart: CM Group, February 2014

Summary

- Alumina supply/demand oversupplied to balanced outside China, near term
  - some upside and downside risks; high cost refiners may cut production
- Opportunities for better margins:
  - energy conversion
  - expect some consolidation at low point in cycle through M&A
  - indices reflecting alumina fundamentals a better way to compensate refiners
  - those with access to bauxite at a lower price than rising cost imports into China
- Corporate Social Responsibility – both a challenge and an opportunity
- Indonesia: pivotal as to future bauxite source and test ground for Chinese refineries
- Chinese domestic bauxite issues worsening (quality, depletion, allocations):
  - forecast strong increase in imported bauxite required by China from 2019
  - extra costs to push other provinces to join Shandong as world's marginal cost producer
- Unclear where future world bauxite needs will come from and at what cost
- Significant alumina supply shortfall risk in medium-long term outside China
  - alumina price (below incentive price) discourages producers from committing to expansions