



The China Influence – Commodity Markets to 2012 and Beyond

Dr Allan Trench - CRU Strategies

Australian Resources Chinese Investment Conference

Adelaide July 2010

LONDON | BEIJING | SANTIAGO | SEATTLE | SYDNEY | RIO DE JANEIRO | PITTSBURGH | MUMBAI

CRU | THE INDEPENDENT AUTHORITY®

MINING | METALS | POWER | CABLES | FERTILIZERS | CHEMICALS

www.crustrategies.com

31 Mount Pleasant, **London** WC1X 0AD UK
Tel: +44 20 7903 2000 Fax: +44 20 7278 0003

517, Tower 2, Bright China Chang An Building,
7 Jianguomennei Avenue, **Beijing** 100005, China
Tel: +86 10 6510 2206 Fax: +86 10 6510 2207

Augusto Leguía Norte N° 100 of.506,
Las Condes, **Santiago**, Chile
Tel: +56 2 231 3900 Fax: +56 2 231 4314

PO Box 1269, **Langley**, WA 98260 USA
Tel: +1 360 321 4707 Fax: +1 360 3214709

2000 Corporate Drive, Suite 200,
Wexford, PA 15090, USA
Tel: +1 724 940 7100 Fax: +1 724 940 4488

Level 2, Kalpataru Synergy, Opp. Grand Hyatt,
Santa Cruz (East), **Mumbai** 400055, INDIA
Tel: +91 22 3953 7395 Fax: +91 22 3953 7200



Overview – The China Influence on Commodity Markets

- ✓ Background information on CRU
- ✓ Impact of the Global Financial Crisis (GFC) and the macroeconomic context for commodity prices
- ✓ The importance of China to past & future metal demand
- ✓ Which metals will perform well in future ?
- ✓ Market Example – China context and impact upon copper



CRU – Delivering Crucial Commodity Intelligence

- International Consulting firm based in London, and with 12 offices around the world
- Independent; Operating for 40 years
- 150 industry experts focused solely on mining & metals industries
 - Have a deep understanding of supply & demand issues across a wide breadth of commodities

Regular CRU product coverage

Specialised CRU product coverage

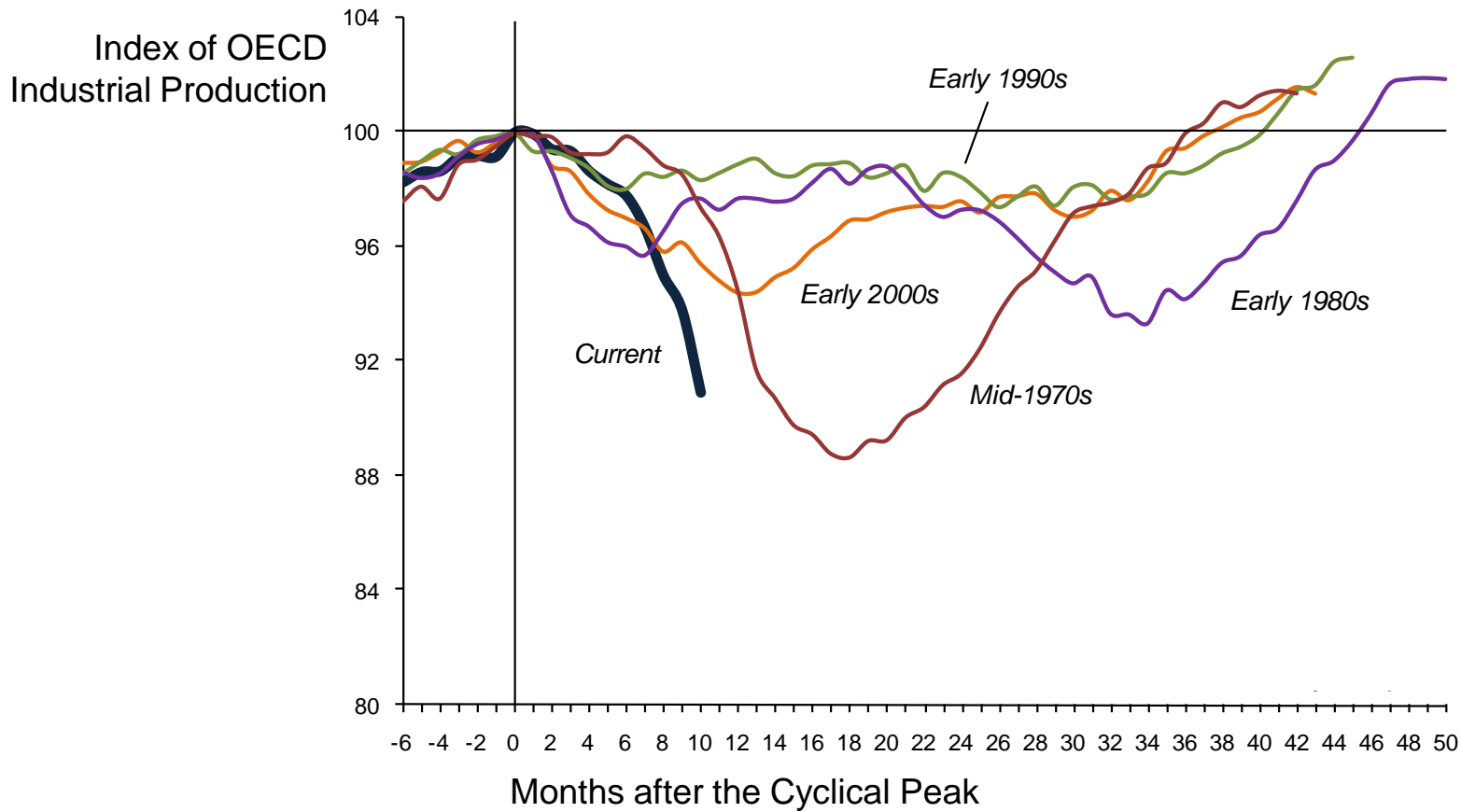
Periodic Table

H ¹																	He ²														
Li ³	Be ⁴											B ⁵	C ⁶	N ⁷	O ⁸	F ⁹	Ne ¹⁰														
Na ¹¹	Mg ¹²											Al ¹³	Si ¹⁴	P ¹⁵	S ¹⁶	Cl ¹⁷	Ar ¹⁸														
K ¹⁹	Ca ²⁰	Sc ²¹	Ti ²²	V ²³	Cr ²⁴	Mn ²⁵	Fe ²⁶	Co ²⁷	Ni ²⁸	Cu ²⁹	Zn ³⁰	Ga ³¹	Ge ³²	As ³³	Se ³⁴	Br ³⁵	Kr ³⁶														
Rb ³⁷	Sr ³⁸	Y ³⁹	Zr ⁴⁰	Nb ⁴¹	Mo ⁴²	Tc ⁴³	Ru ⁴⁴	Rh ⁴⁵	Pd ⁴⁶	Ag ⁴⁷	Cd ⁴⁸	In ⁴⁹	Sn ⁵⁰	Sb ⁵¹	Te ⁵²	I ⁵³	Xe ⁵⁴														
Cs ⁵⁵	Ba ⁵⁶	La ⁵⁷	Hf ⁷²	Ta ⁷³	W ⁷⁴	Re ⁷⁵	Os ⁷⁶	Ir ⁷⁷	Pt ⁷⁸	Au ⁷⁹	Hg ⁸⁰	Tl ⁸¹	Pb ⁸²	Bi ⁸³	Po ⁸⁴	At ⁸⁵	Rn ⁸⁶														
Fr ⁸⁷	Ra ⁸⁸	Ac ⁸⁹	Unq ¹⁰⁴	Unp ¹⁰⁵	Unh ¹⁰⁶	Uns ¹⁰⁷	Uno ¹⁰⁸	Une ¹⁰⁹	Unn ¹¹⁰																						
																		Ce ⁵⁸	Pr ⁵⁹	Nd ⁶⁰	Pm ⁶¹	Sm ⁶²	Eu ⁶³	Gd ⁶⁴	Tb ⁶⁵	Dy ⁶⁶	Ho ⁶⁷	Er ⁶⁸	Tm ⁶⁹	Yb ⁷⁰	Lu ⁷¹
																		Th ⁹⁰	Pa ⁹¹	U ⁹²	Np ⁹³	Pu ⁹⁴	Am ⁹⁵	Cm ⁹⁶	Bk ⁹⁷	Cf ⁹⁸	Es ⁹⁹	Fm ¹⁰⁰	Md ¹⁰¹	No ¹⁰²	Lr ¹⁰³



The Global Financial Crisis compared to previous downturns

In late 2008 and early 2009, the world's economy was in free-fall ...

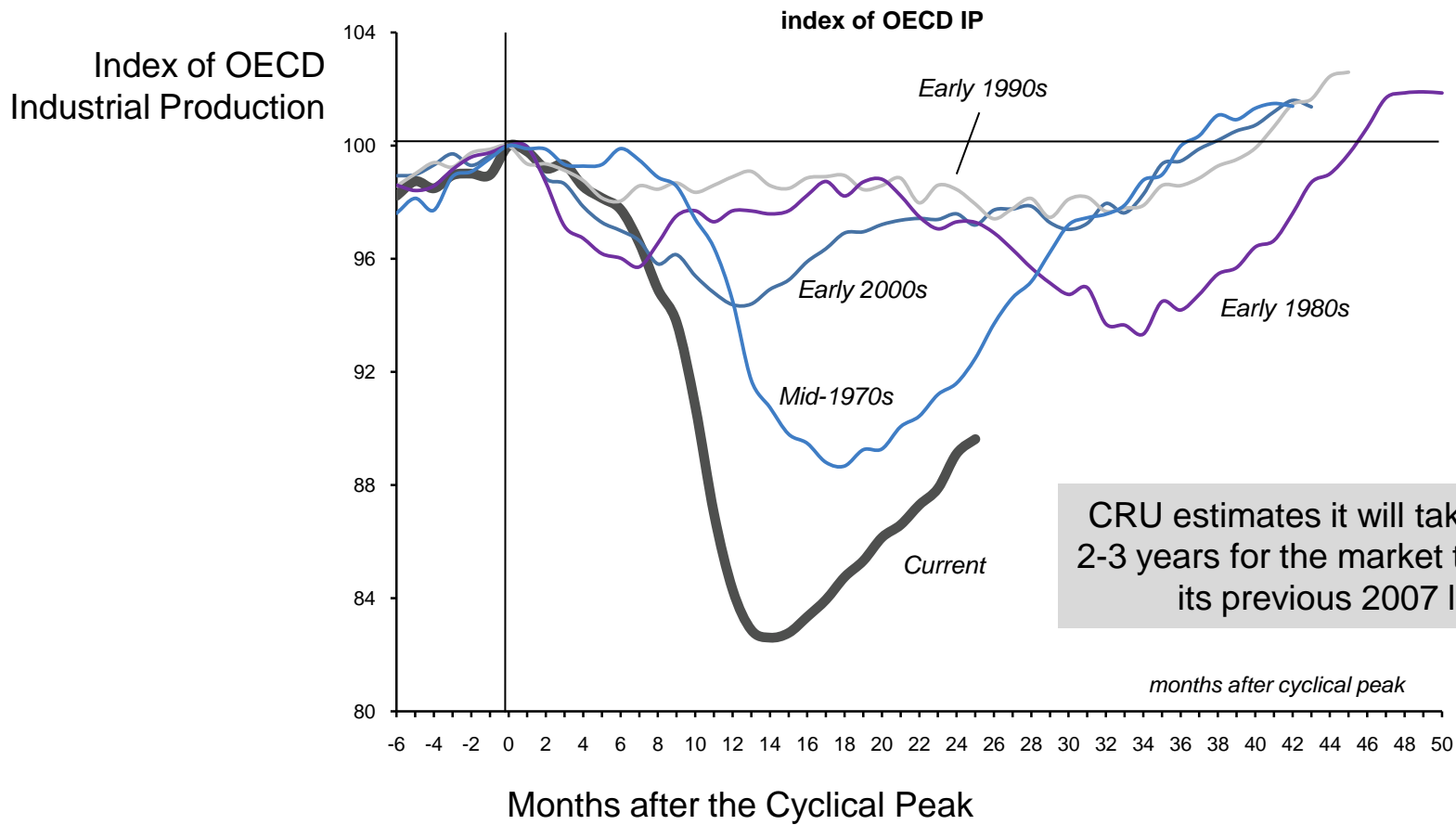


Data: CRU



The Global Financial Crisis compared to previous downturns

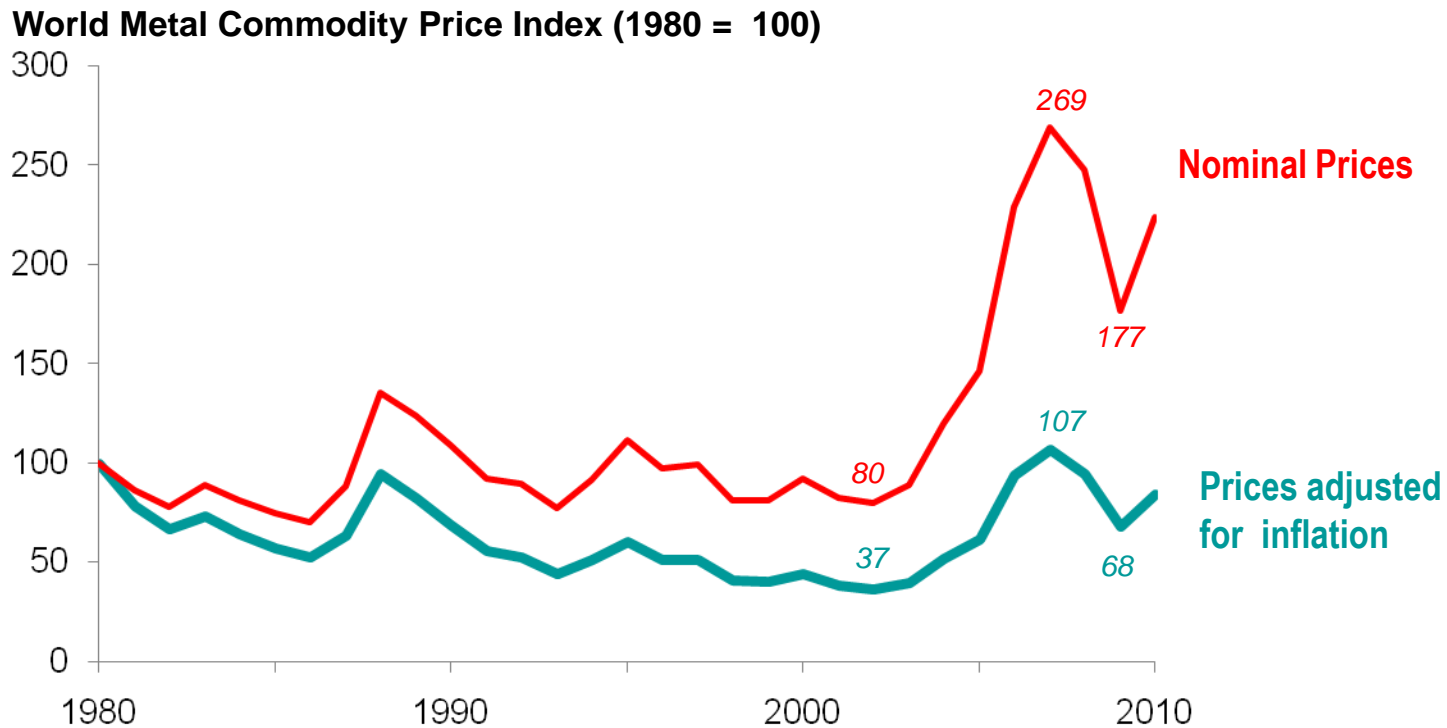
... Then things got worse, but a recovery is now underway





Placing current commodity prices in recent context....

Prices are attractive

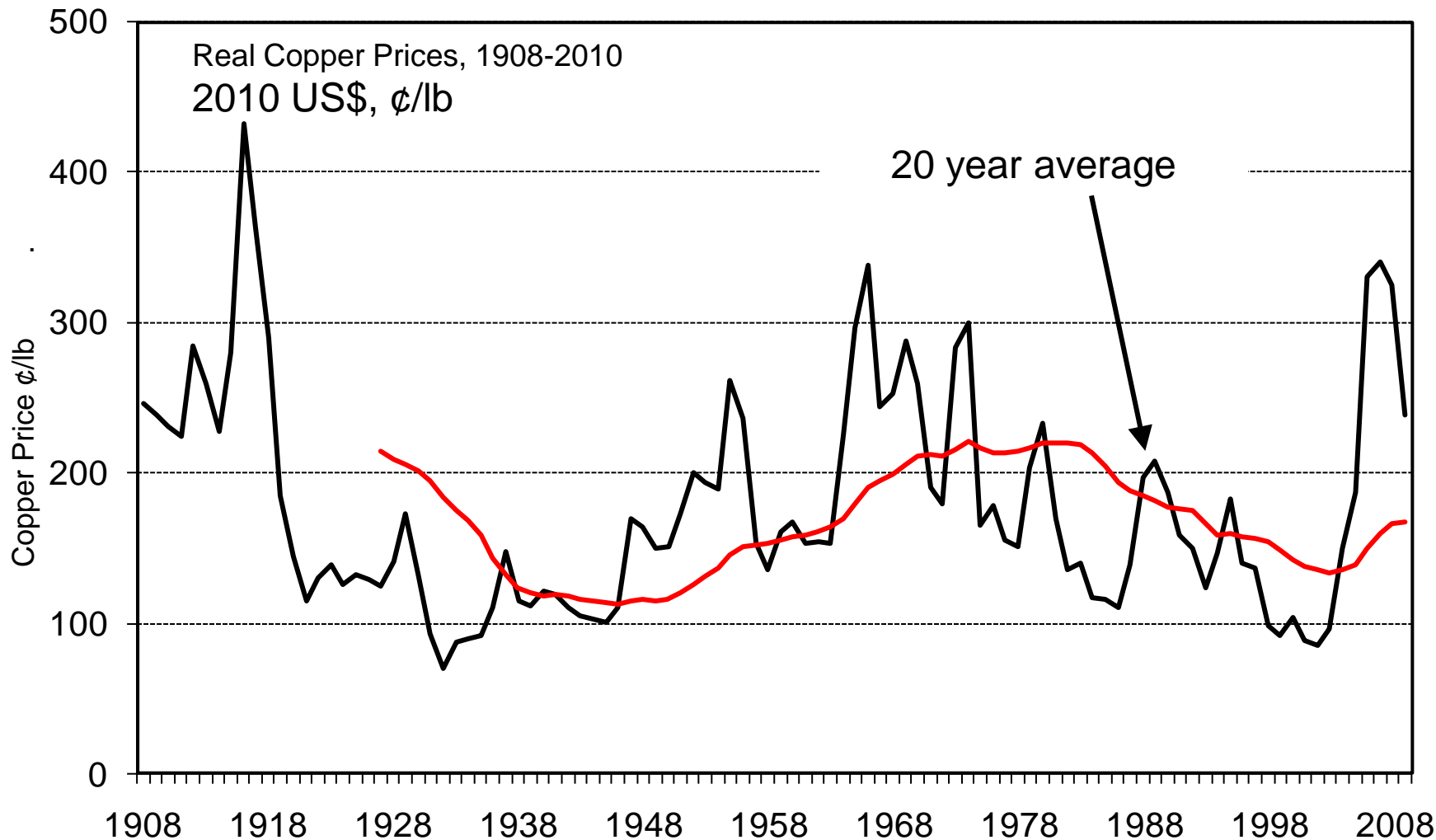


Index is made up of a basket of six commodities - copper, aluminium, iron ore, tin, nickel, zinc, lead, and uranium

Data: IMF CRU



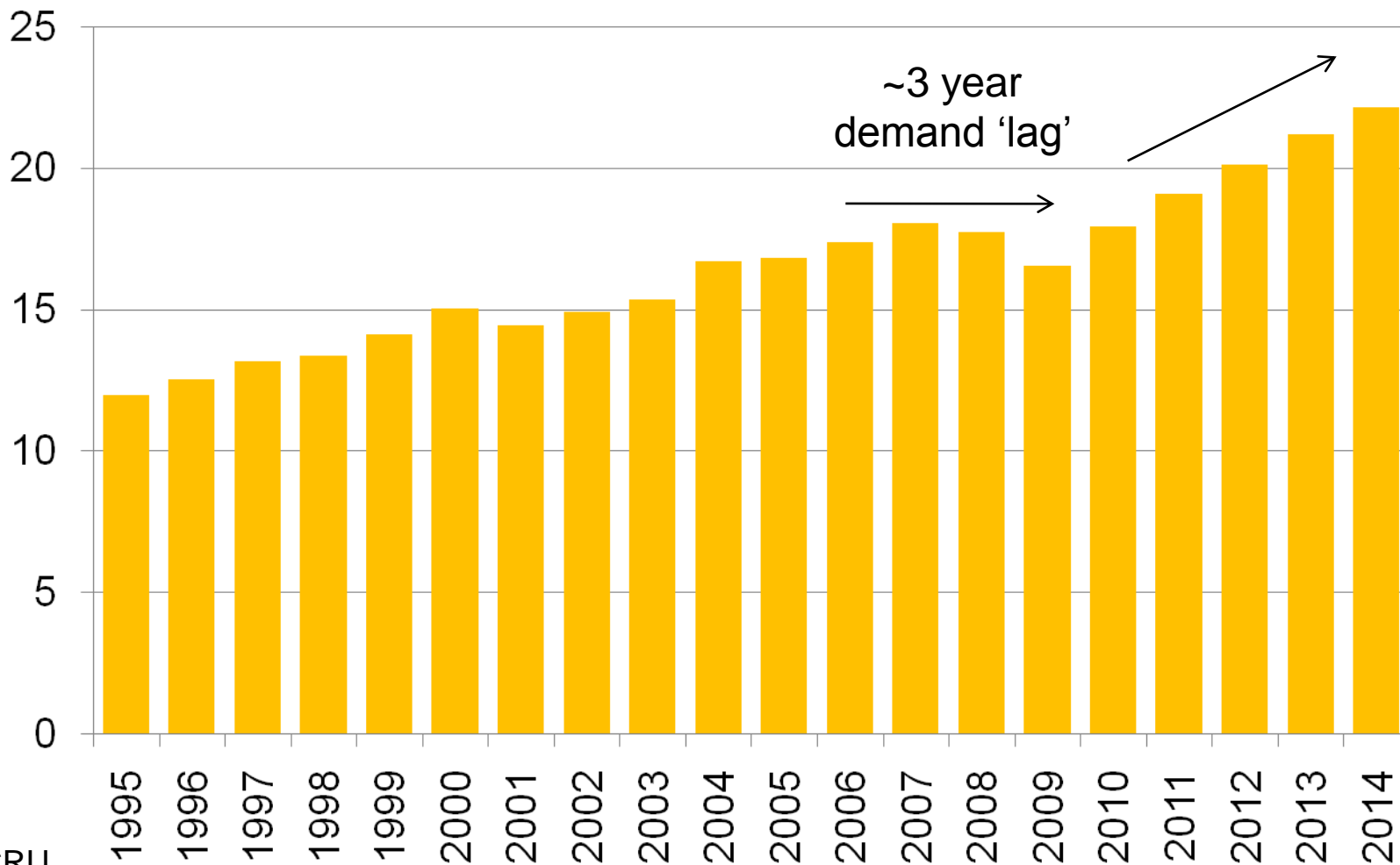
And in long-run context (copper example).... Current prices also rank as attractive





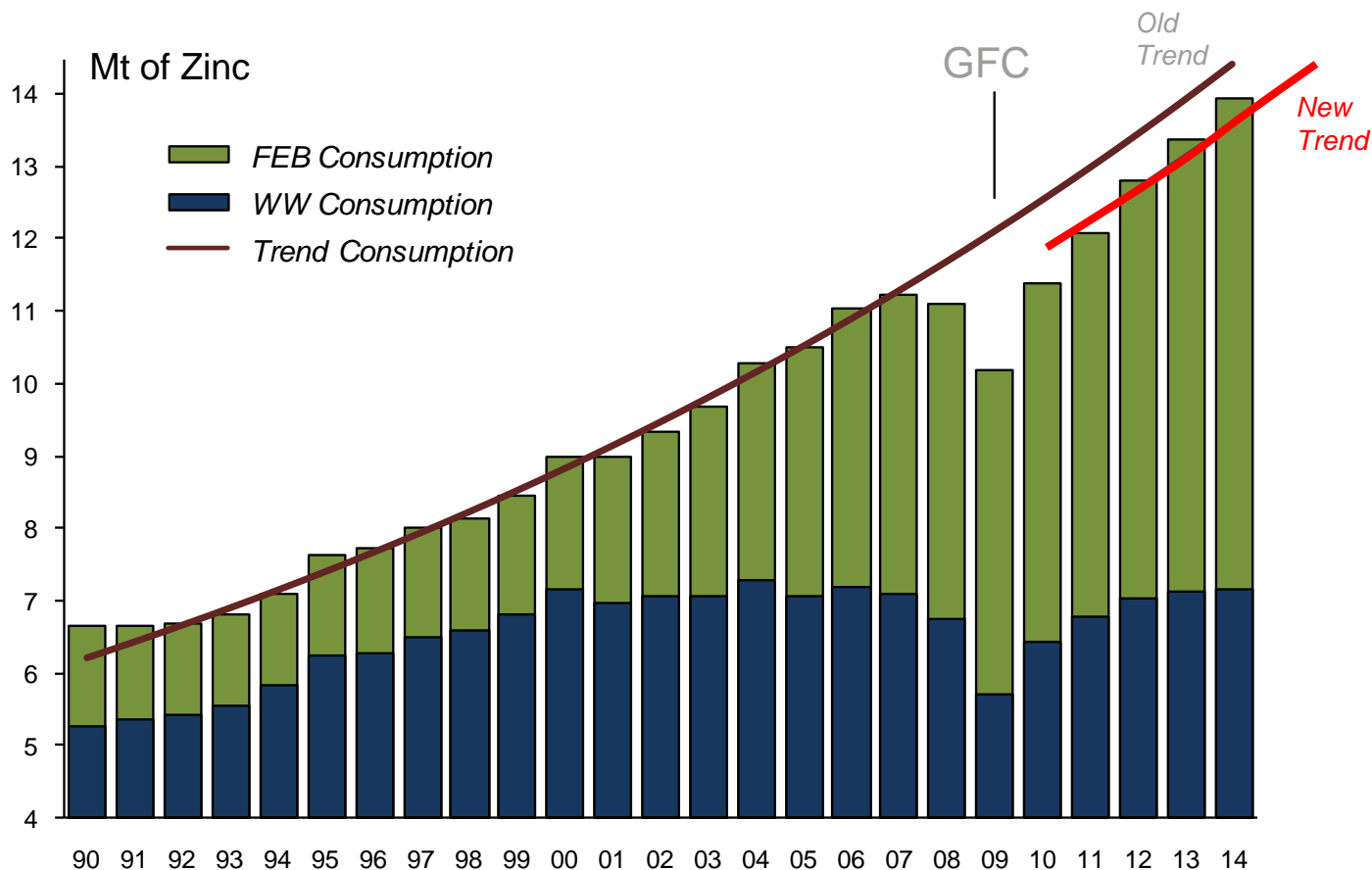
So why are prices good; even when the GFC slowed demand? (Copper)

Copper Global Consumption (Million tonnes)





Partly because of China-related demand expectations (Zn example)

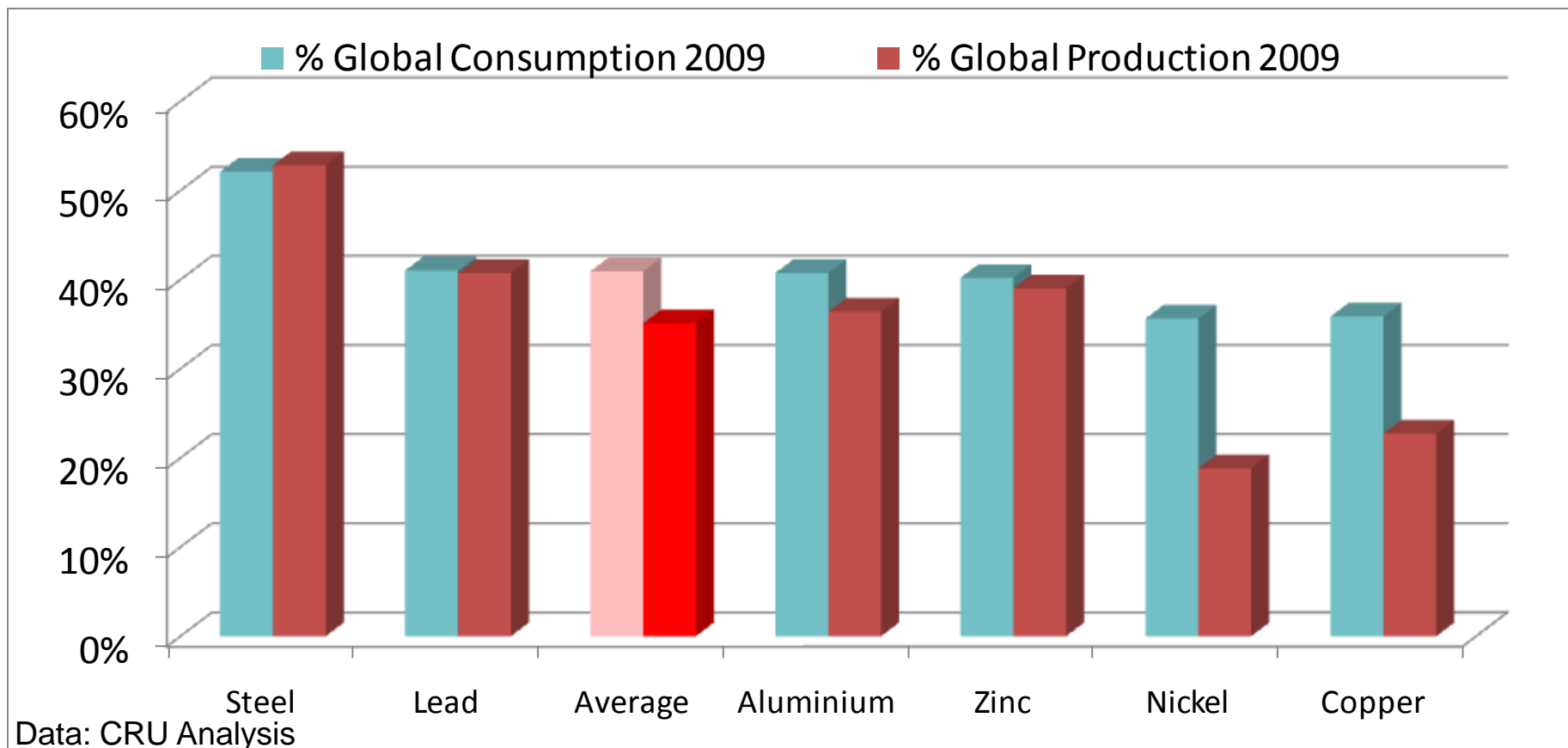


Note: FEB – Former Eastern Block inc China
 WW – Western World

Data: CRU



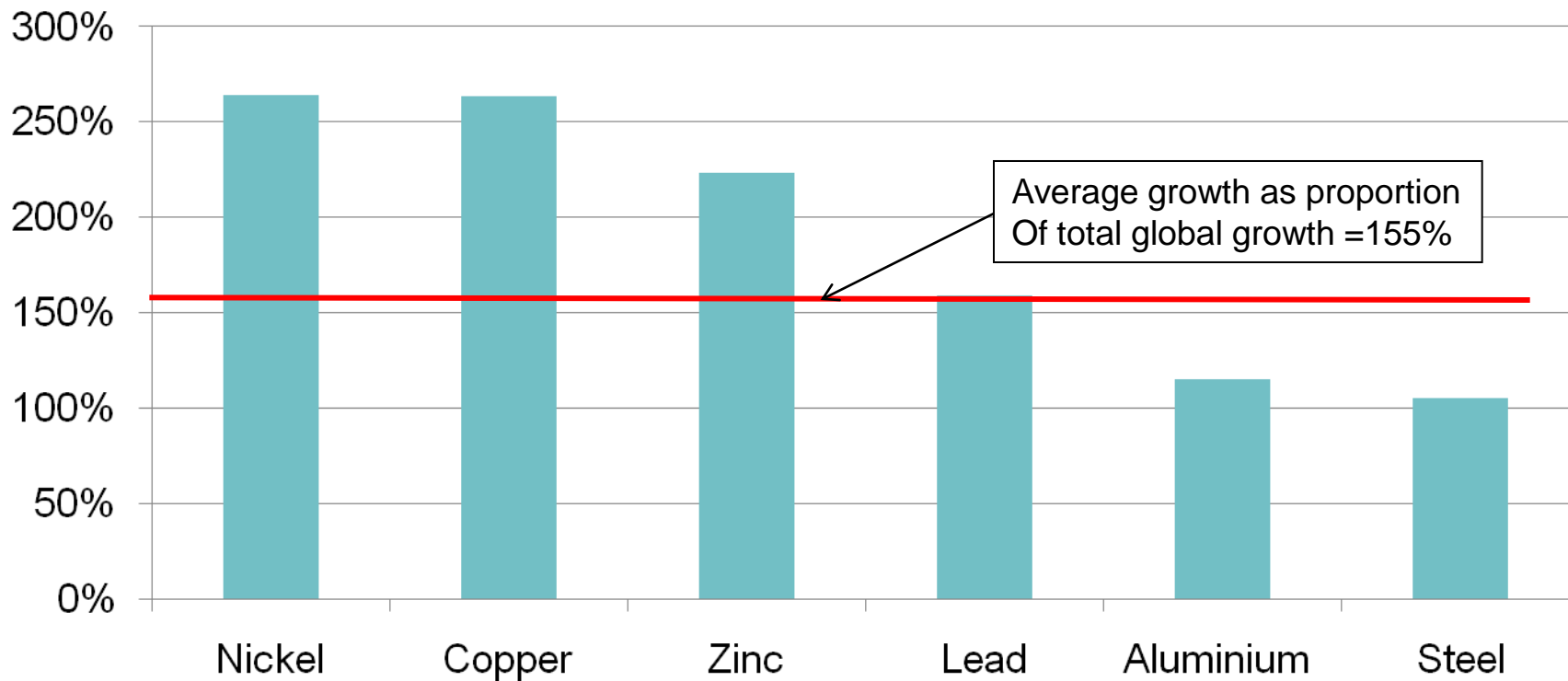
China now accounts for about 40% of consumption and 35% of production of major metals, but you need to look a bit closer





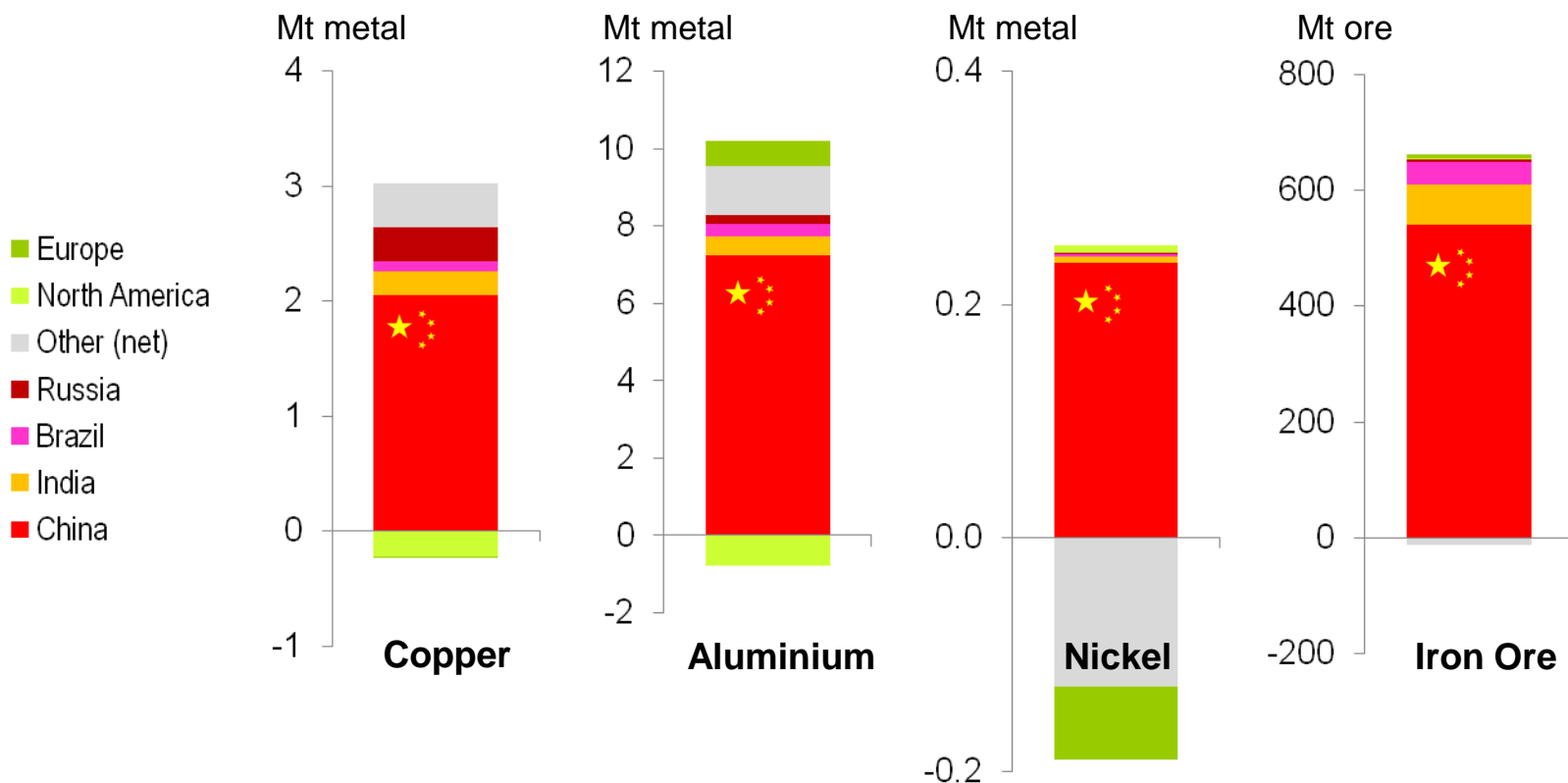
.....China has accounted for more than 100% of global metals demand growth this millennium

Chinese metals consumption growth as a proportion of global metals consumption growth 2000-2009





China now far outweighs the growth contribution to metal consumption of other nations

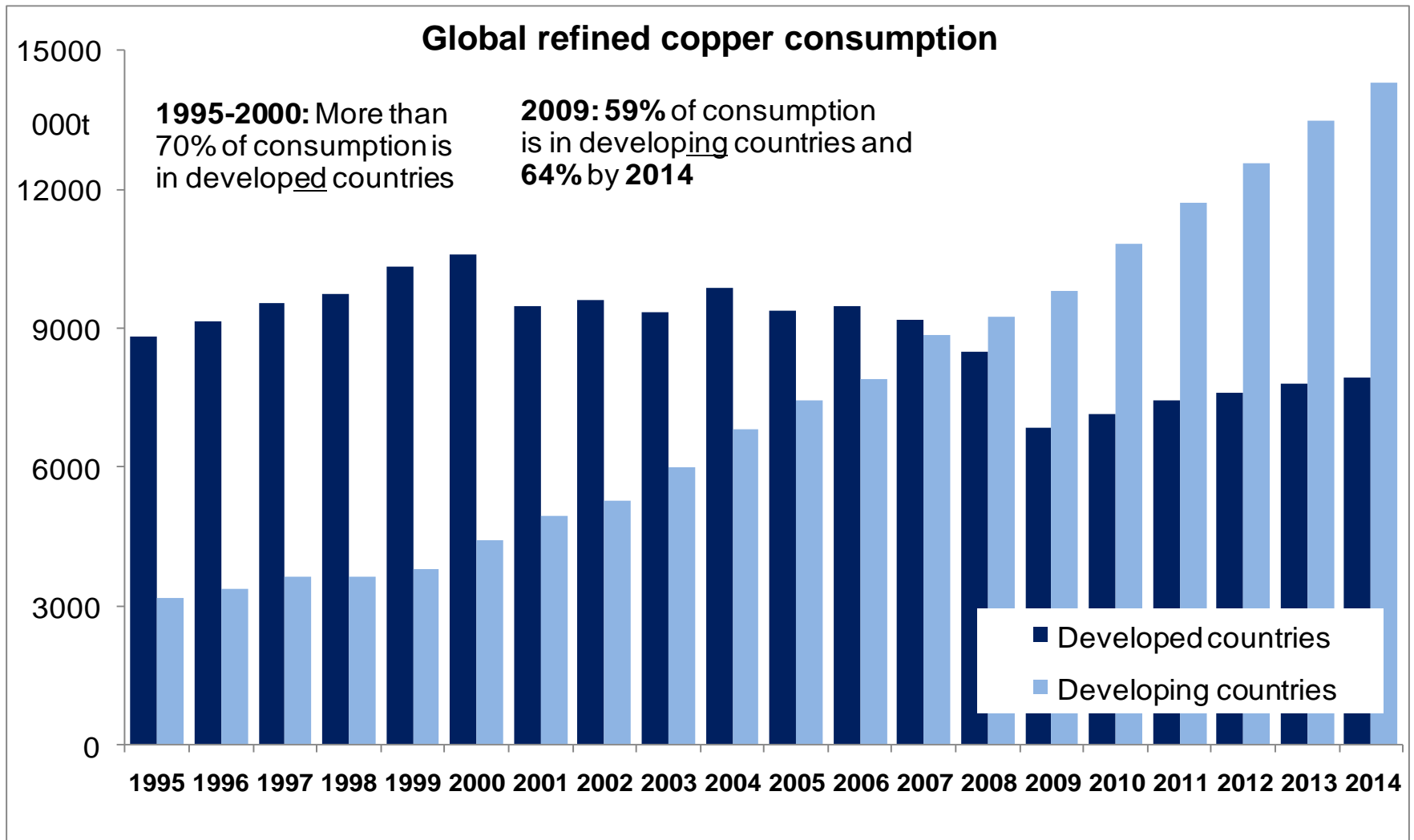


Note: Charts refer to the incremental increase in metal consumption between 2003 and 2008

Data: CRU

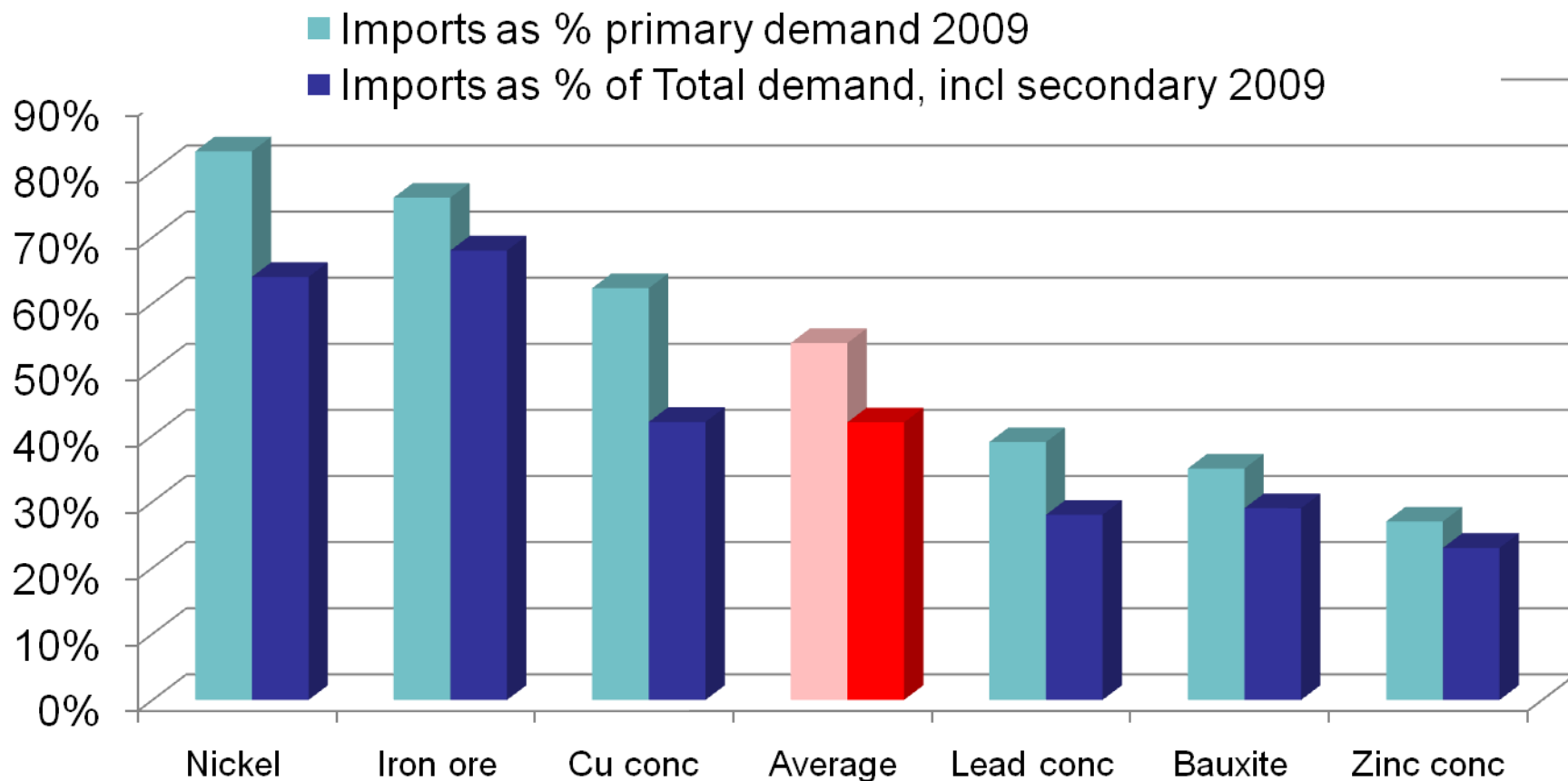


With China metal consumption set to dominate future growth





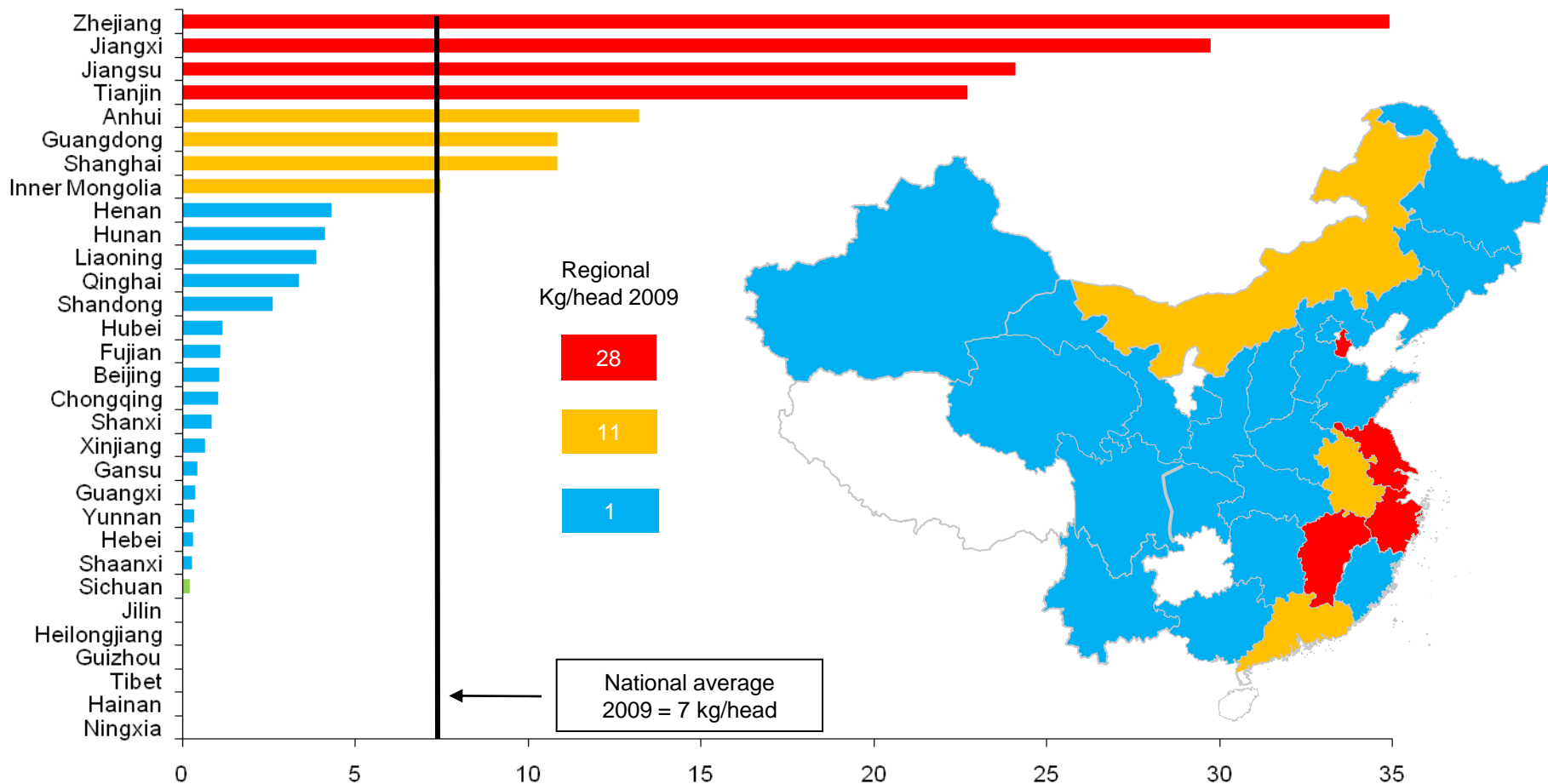
China's dependency ratio on overseas ores is more than 50% of primary demand (40% if secondary included)





With demand greatest close to ports and infrastructure

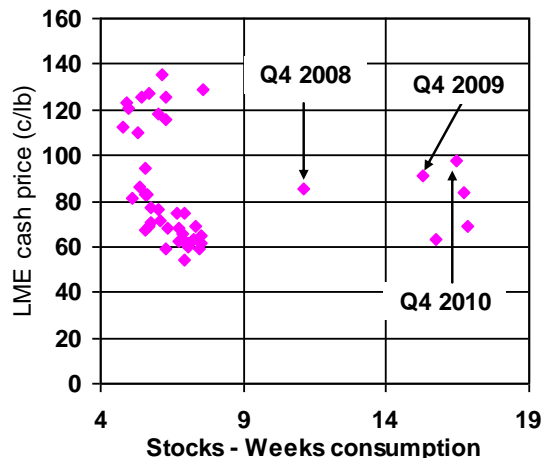
Per capita copper semis gross weight output kg/head in 2009



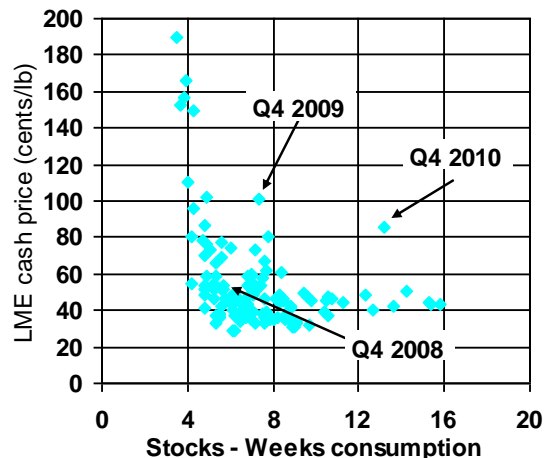


Metal stocks exist to cover near-term demand growth.....

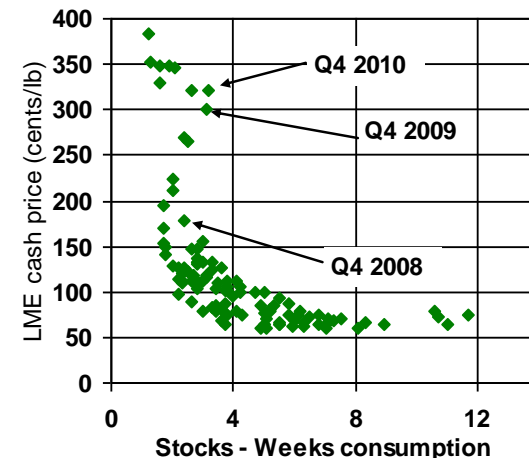
Aluminium



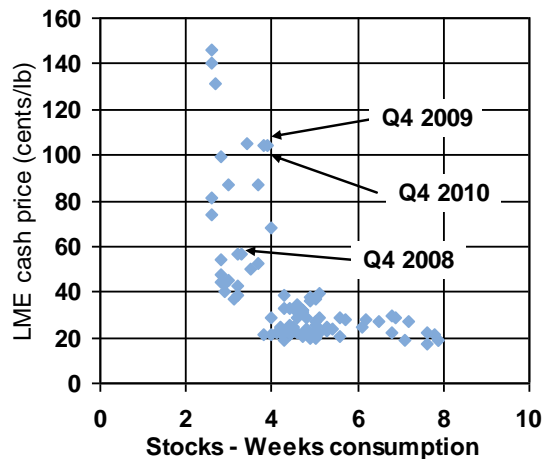
Zinc



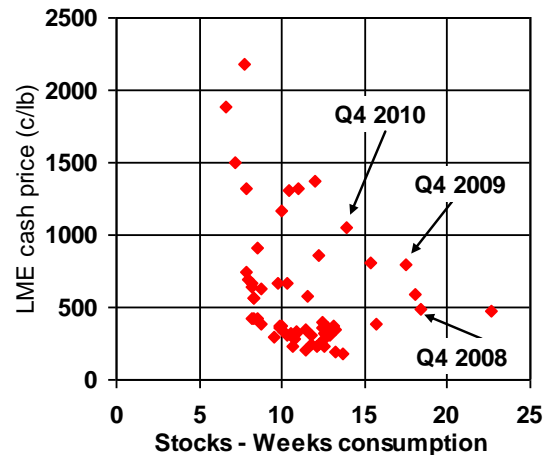
Copper



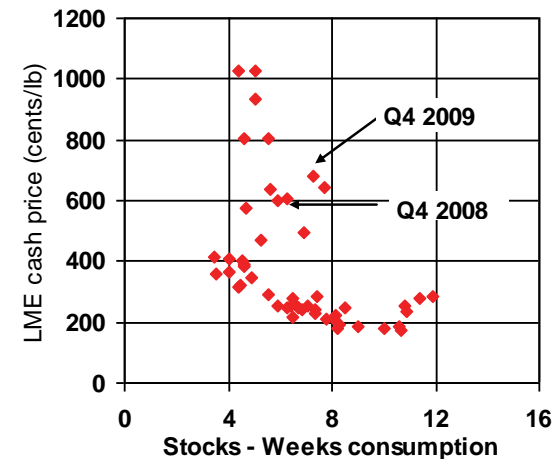
Lead



Nickel

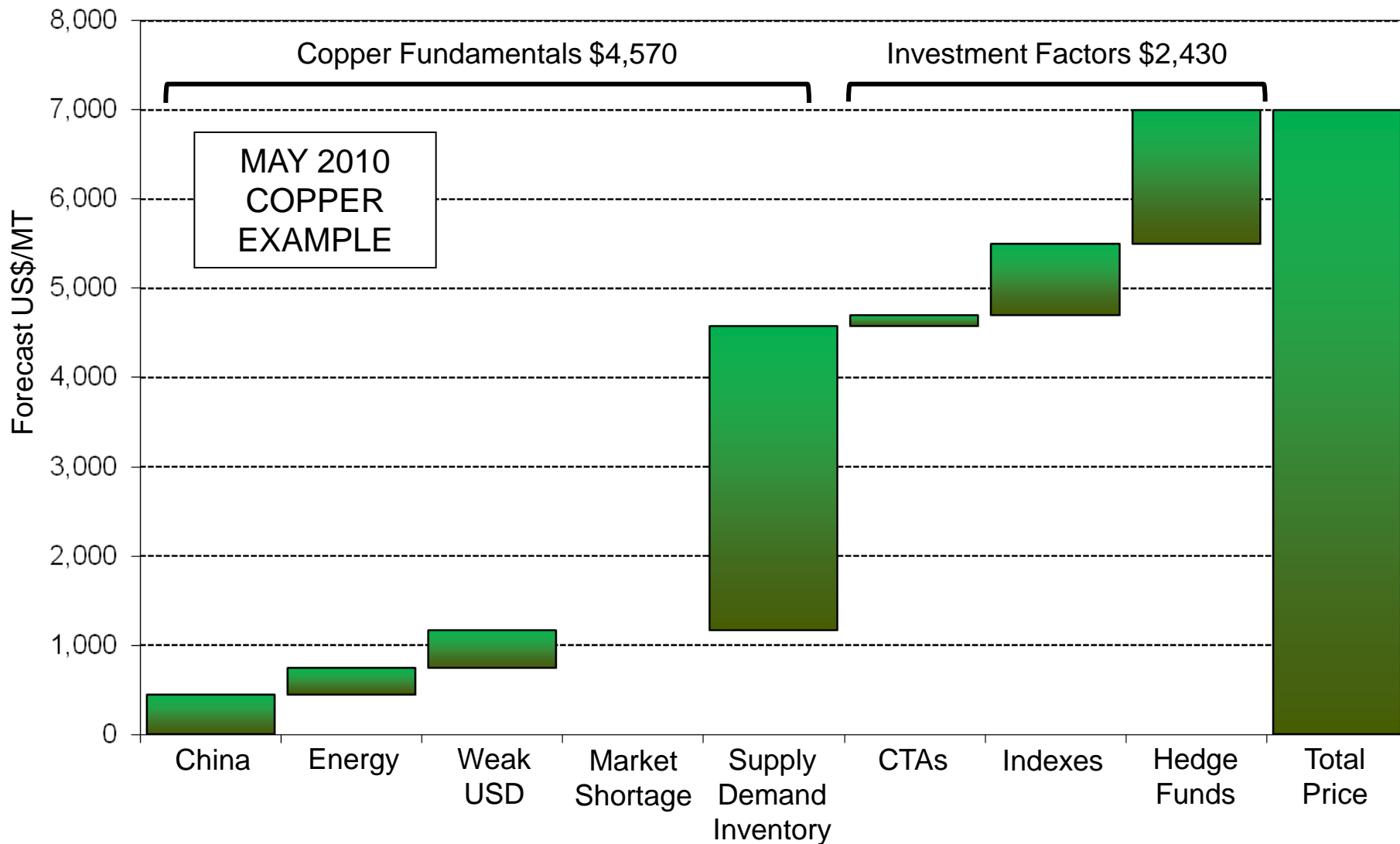


Tin





But demand projections alone do not fully explain prices.....





CRU anticipates an overall ‘warming’ of commodity prices to 2012

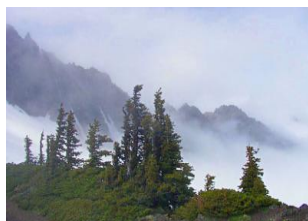
CRU Commodity Price Climatic Zones to 2012



– “Hot”



– “Warm”



– “Cool”



– “Cold”

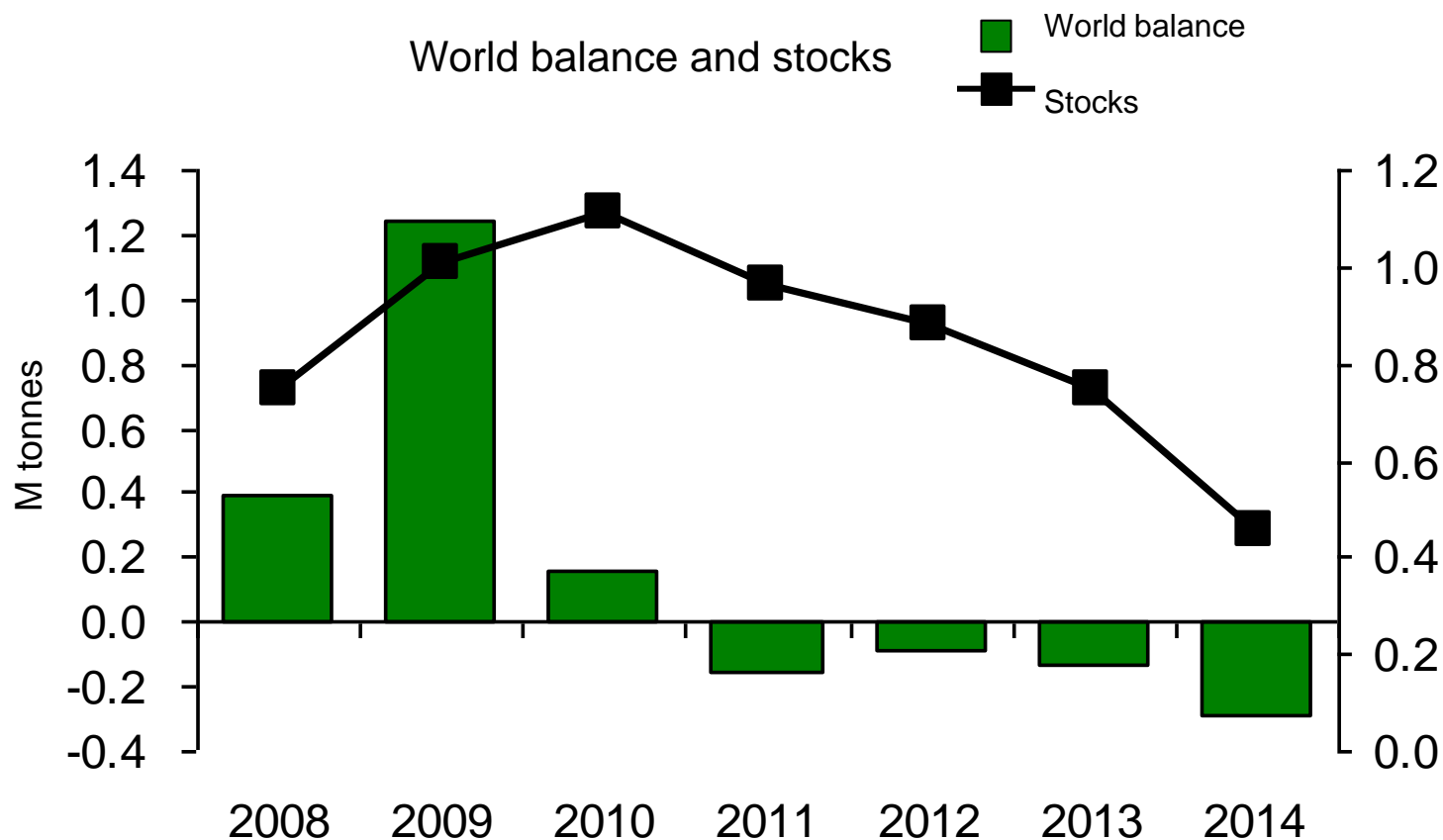
<p><u>Tin</u>, <u>Uranium</u>, <u>Iron Ore</u>, <u>Lead</u>, <u>Bauxite</u>, <u>Met Coke</u></p>
<p><u>Aluminium</u> <u>Sulphuric Acid</u>, <u>Gold</u>, <u>Alumina</u>, <u>Met Coal</u> <u>Copper</u> <u>Molybdenum</u> <u>Nickel</u> <u>Manganese</u></p>
<p><u>Zinc</u> <u>Platinum</u></p>
<p><u>Vanadium</u>, <u>Phosphate</u>, <u>Palladium</u>, <u>Silver</u>, <u>Cobalt</u>, <u>Sulphur</u></p>

* Indicative forecast average 2012 prices versus July 2010 base (nominal prices)



... as continued demand-growth draws down stock levels

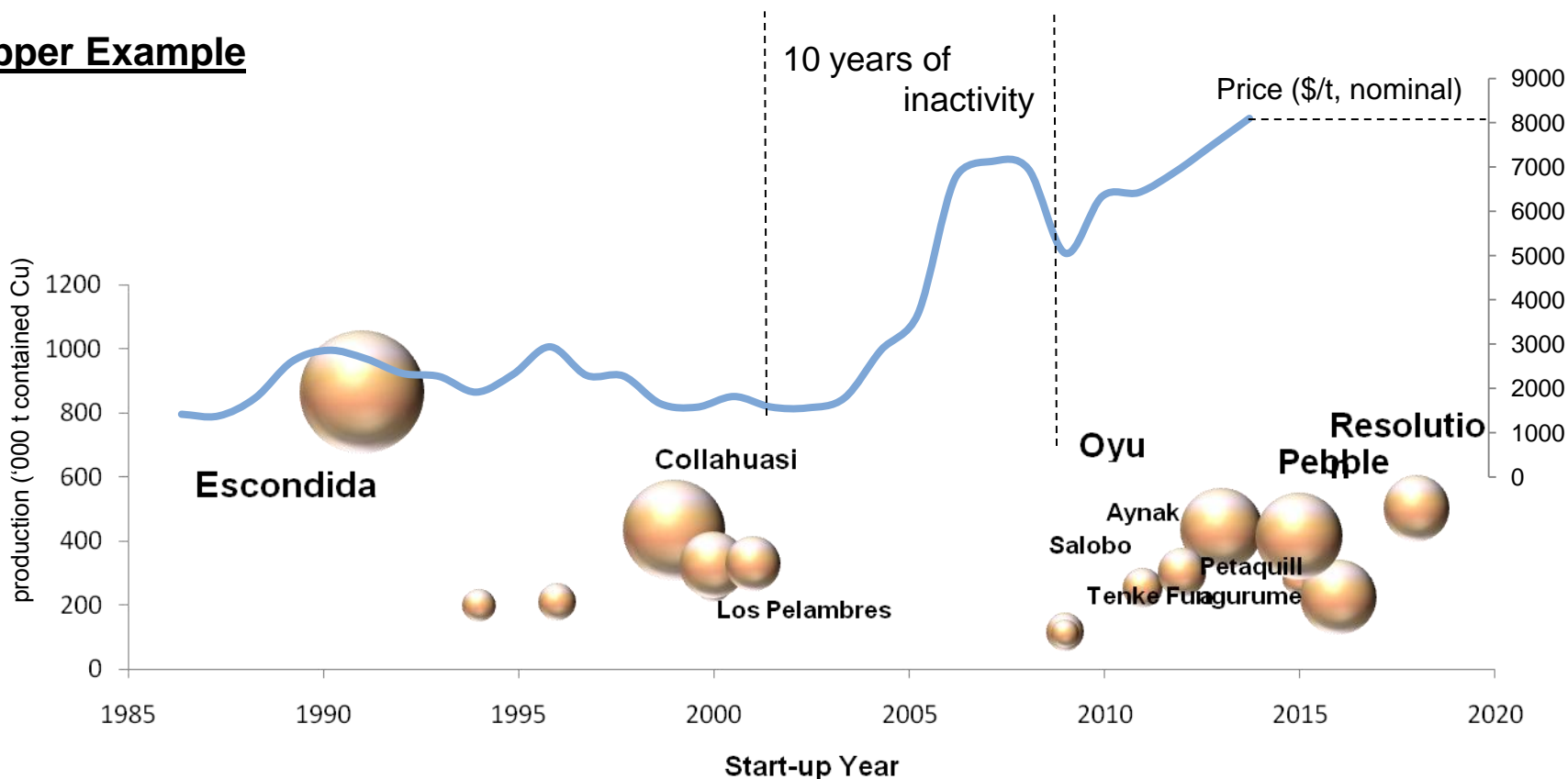
Copper Example





Supply to 2020 requires on-time delivery of new (difficult) projects – else prices will escalate further

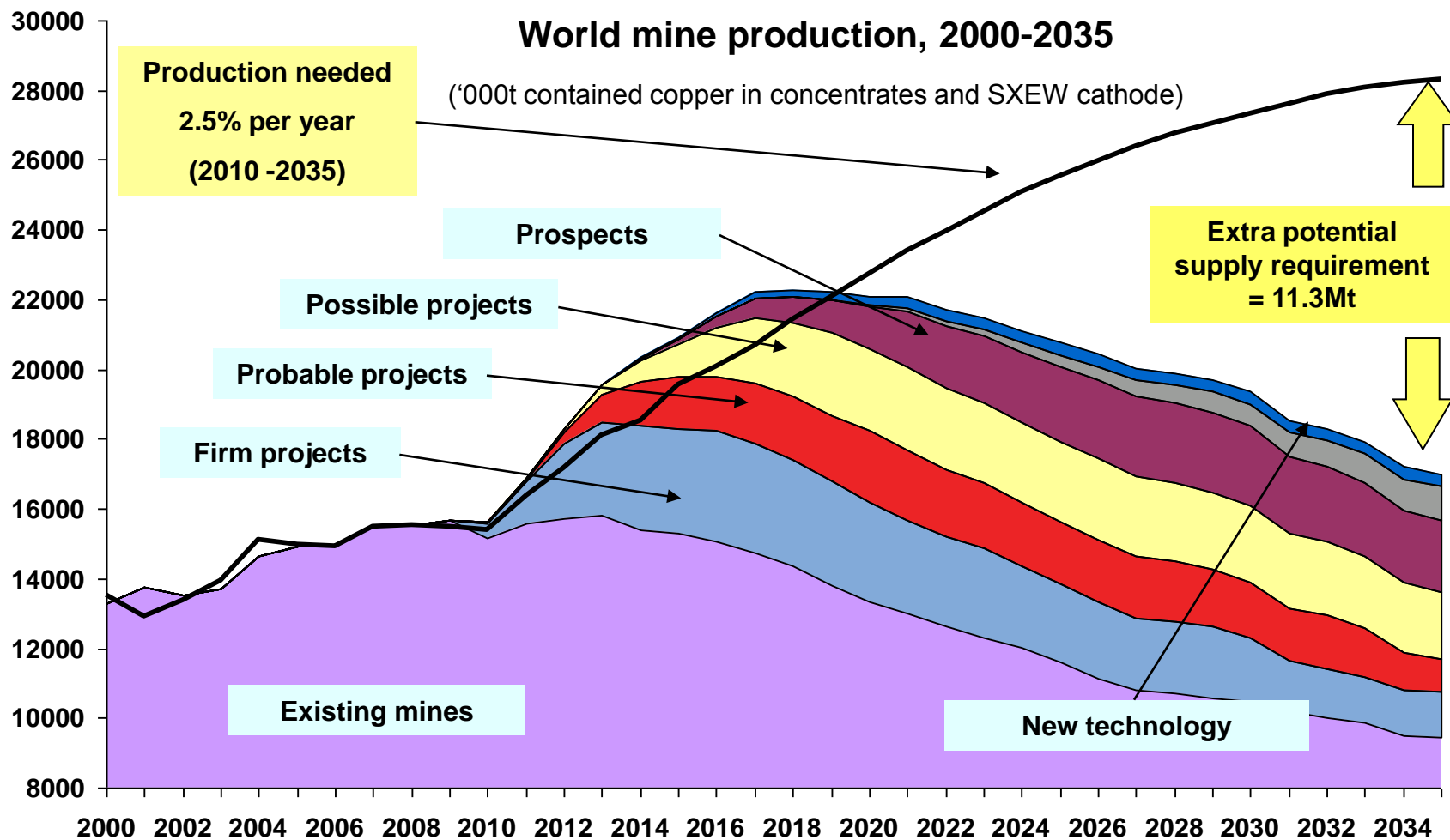
Copper Example



Note: the size of the bubbles is proportional to the resource size in contained Cu at start-up

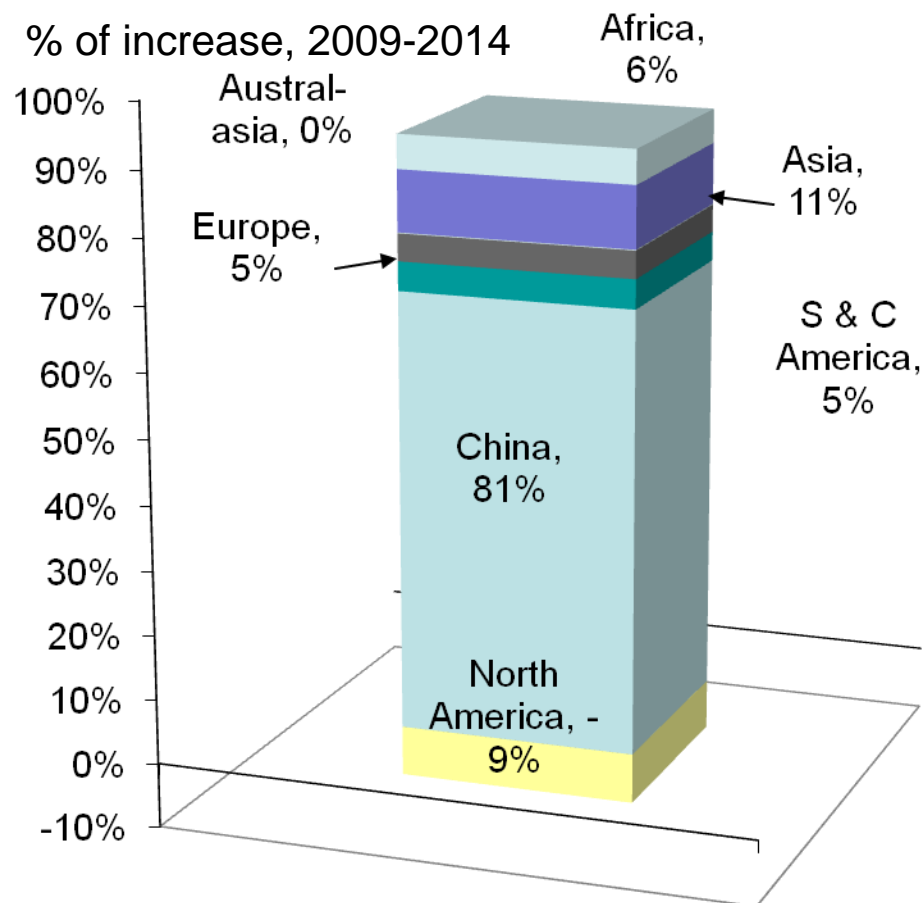
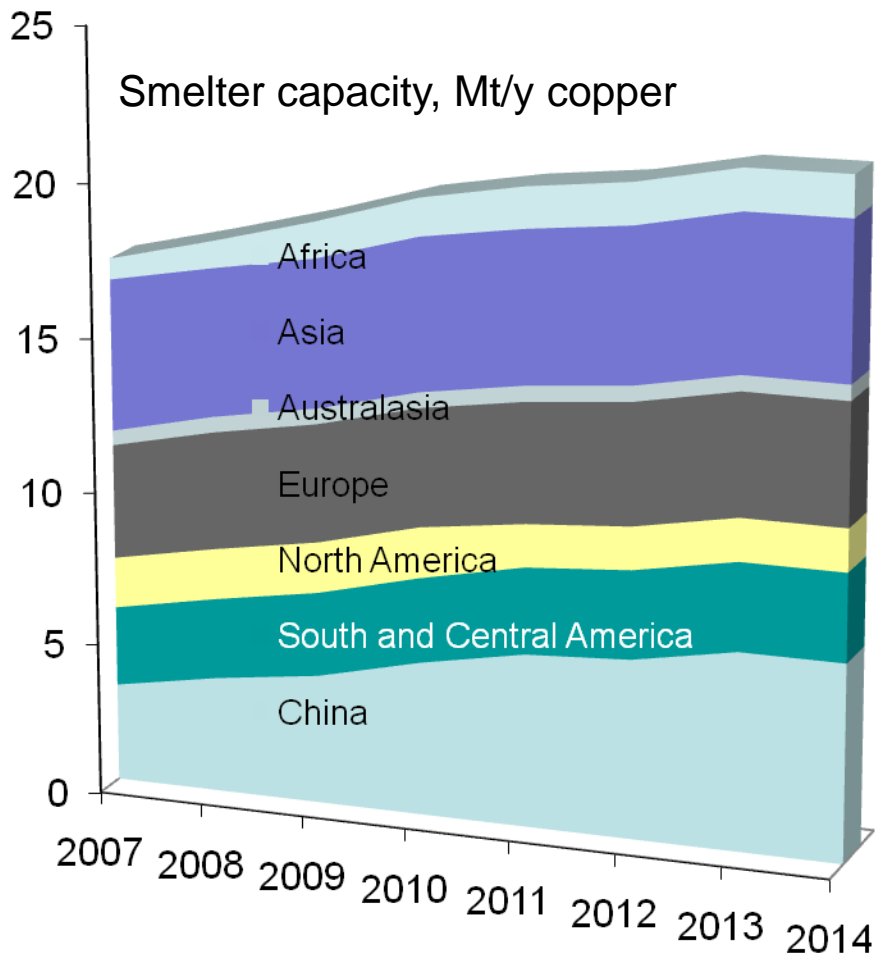


... and long-run supply is a key risk – notably to source concentrate for China’s copper smelters





..as China's smelter build-out is the major contributor to copper processing capacity growth





Conclusions – The China Influence on Commodity Markets

- ✓ Clear impact of the GFC on demand
- ✓ But prices remain high by historical standards
- ✓ CRU forecasts prices to ‘warm’ further to 2012 (& beyond)
- ✓ China’s influence & investment factors are two key drivers
- ✓ The supply-side challenge that lies ahead is another
- ✓ Clear opportunities exist for partnering between Chinese & Australian companies: CRU can tender support



CRU clients typically ask for the following support in China....

- Provision of granular data to asset level across the metals/mining, power, fertiliser and chemicals markets
- Non-Chinese clients require support with Chinese off-take & project investors, from identification to value-driven negotiation
- Chinese-based clients require support to identify then undertake market diligence on targeted projects/customers overseas
- Provide transaction support
- Value-based cost assessments: Ascertain the competitiveness of Chinese (*and global*) producers
- Value-based contractual pricing support (especially with iron ores)





Thank-you

Allan Trench, CRU Strategies
allan.trench@crugroup.com
Tel: +61 437092466

Philip Sewell, CRU Group
philip.sewell@crugroup.com
Tel: +61 418290342

LONDON | BEIJING | SANTIAGO | SEATTLE | SYDNEY | RIO DE JANEIRO | PITTSBURGH | MUMBAI

CRU | THE INDEPENDENT AUTHORITY®

MINING | METALS | POWER | CABLES | FERTILIZERS | CHEMICALS

www.crustrategies.com

31 Mount Pleasant, **London** WC1X 0AD UK
Tel: +44 20 7903 2000 Fax: +44 20 7278 0003

517, Tower 2, Bright China Chang An Building,
7 Jianguomennei Avenue, **Beijing** 100005, China
Tel: +86 10 6510 2206 Fax: +86 10 6510 2207

Augusto Leguía Norte N° 100 of.506,
Las Condes, **Santiago**, Chile
Tel: +56 2 231 3900 Fax: +56 2 231 4314

PO Box 1269, **Langley**, WA 98260 USA
Tel: +1 360 321 4707 Fax: +1 360 3214709

2000 Corporate Drive, Suite 200,
Wexford, PA 15090, USA
Tel: +1 724 940 7100 Fax: +1 724 940 4488

Level 2, Kalpataru Synergy, Opp. Grand Hyatt,
Santa Cruz (East), **Mumbai** 400055, INDIA
Tel: +91 22 3953 7395 Fax: +91 22 3953 7200