UNCERTAINTIES IN THE RESOURCES SECTOR BOARDROOM:

IS THE MINERALS BOOM OVER?

Allan Trench

Department of Mineral & Energy Economics
Curtin Graduate School of Business

Regional Advisor CRU Strategies

allan.trench@crugroup.com





Current Boardroom Debate

Exploration & Mining Companies

- Understanding the economic turmoil?
- The commodity boom over?
- "Markets are weak, our shares are too...so"?
- Metal price volatility An opportunity?
- "We're in crisis mode already"....

Underlined issues (covered in presentation) Other issues for discussion





Current Boardroom Debate



Default response has been to curtail investment





Understanding the Economic Turmoil

 Eurozone: Two scenarios, bad and terrible



 USA: Fiscal cliff likely to be avoided (in part), then back to debt dialogue (again) ...



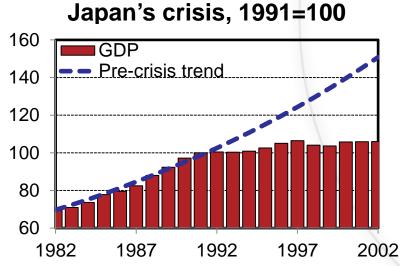
 China: doing OK; will do what's right for China economically...





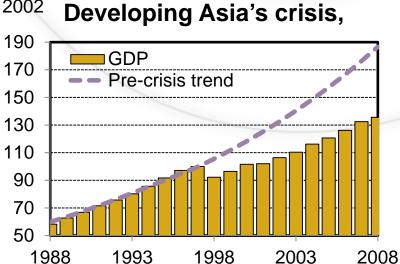


China's slowdown – actually good news!



- China is aiming to diversify economic growth to maintain the up-trend – and avoid long-term stagnation or hard-landing.
- Learning the lessons of the past

 Rebalancing means 7-8%pa GDP growth becomes the new norm

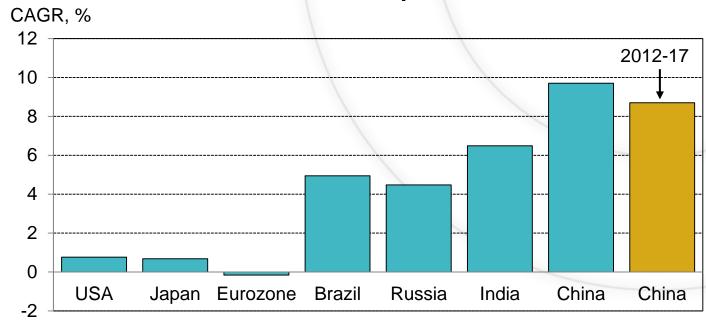






The Chinese consumer is often overlooked

Household consumption, 2007-12





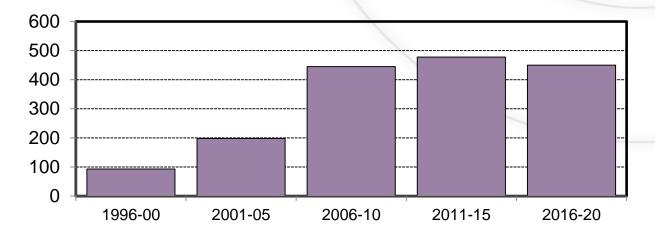
Centre for **EXPLORATION TARGETING**

Infrastructure Investment will rebalance

- Residential and infrastructure investment volumes will be substantial, but growth rates limited
- Upward cost pressures and diminishing labour availability will drive investment in automation

China Infrastructure investment plateau...

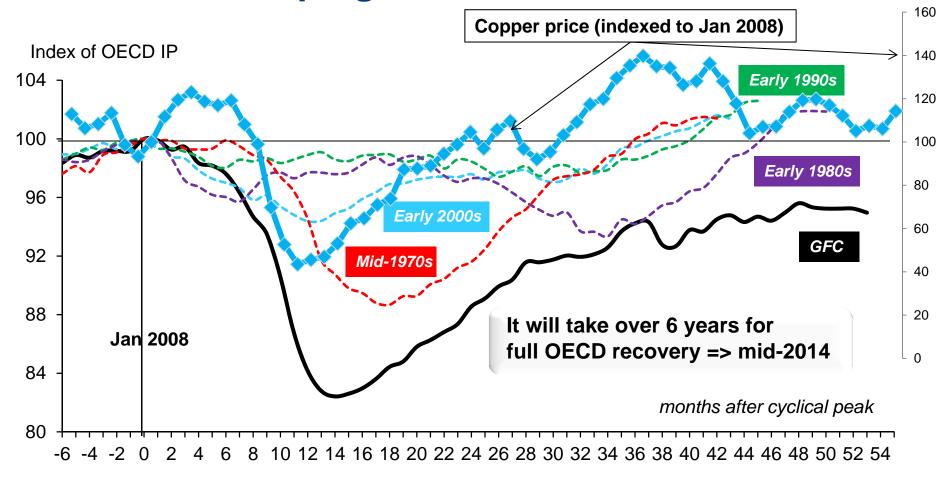
Net additions to power generating capacity, GW





Centre for EXPLORATION
TARGETING

The OECD is limping out of the GFC....



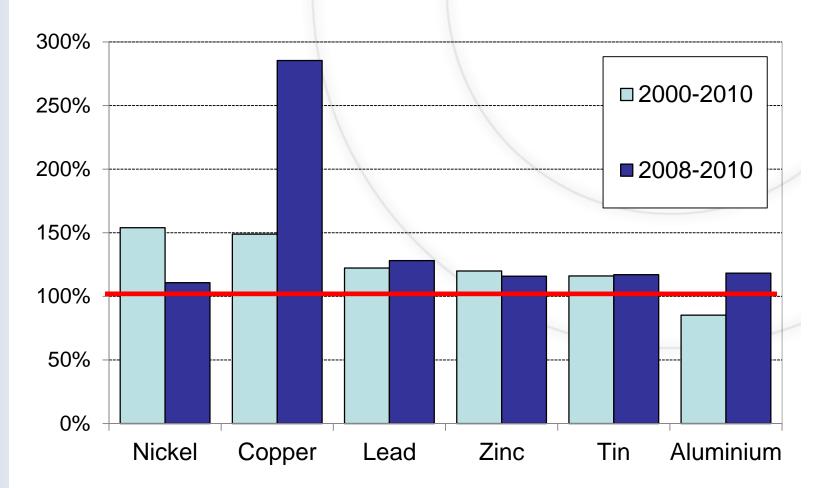


......Metals Prices are reflecting China



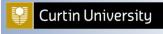
Chinese Metal Consumption is Key

Chinese metal consumption growth as a proportion of all metal growth in 21st Century



Chinese growth as % global growth

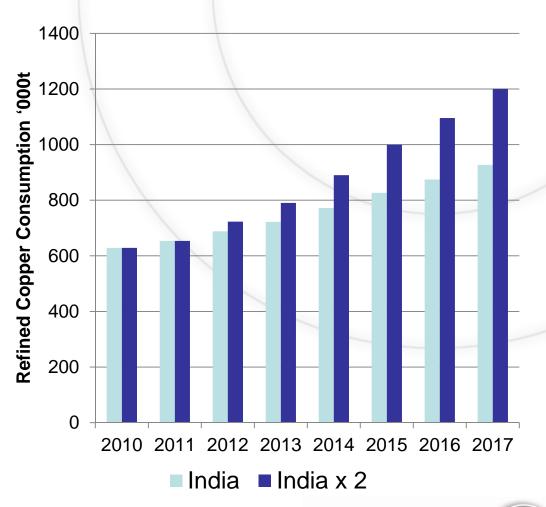






Indian Metals Consumption also on the Rise





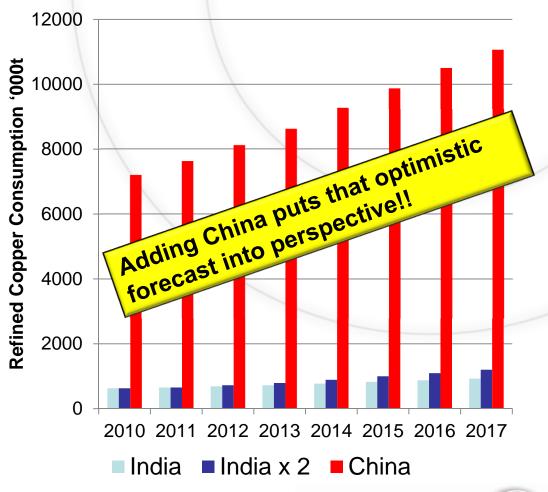






But India is no replacement for China









So Is Economic Uncertainty 'Certain'?

- Europe:
 - Will remain a threat to global recovery
 - A new Japan?
- USA:
 - Uncertainty to be resolved
 - Do not expect a rapid rebound
- China:
 - The new norm is 7-8% growth
 - Rebalancing implies important changes in the mix of metals demanded





Investors and Commodities: Is the Boom Over?





Do people believe the commodity boom is over?

Whether they are right or wrong there has been an impact on sentiment



• "Commodities: Supercycle jitters slow projects"

(Jack Farchy, FT Oct-12)

 "The global boom in commodity prices is over"

(Martin Ferguson, Australian Resource Minister, Sep-12)

- "Mining boom over in two years"
 (Deloitte Access Economics Jul-12)
- "Sun to set on commodities super-cycle"

 (Morgan Stanley May-12)
- "Commodity 'Super Cycle' may be coming to end"

(Citigroup Apr-12)





This question cannot (or should not) be answered with a single statement

The industry needs to be segmented to answer this question

Low cost miners & developers

High cost miners & developers

Mineral extraction support services

Smelters, refineries & steel mills

Metals Semis industry

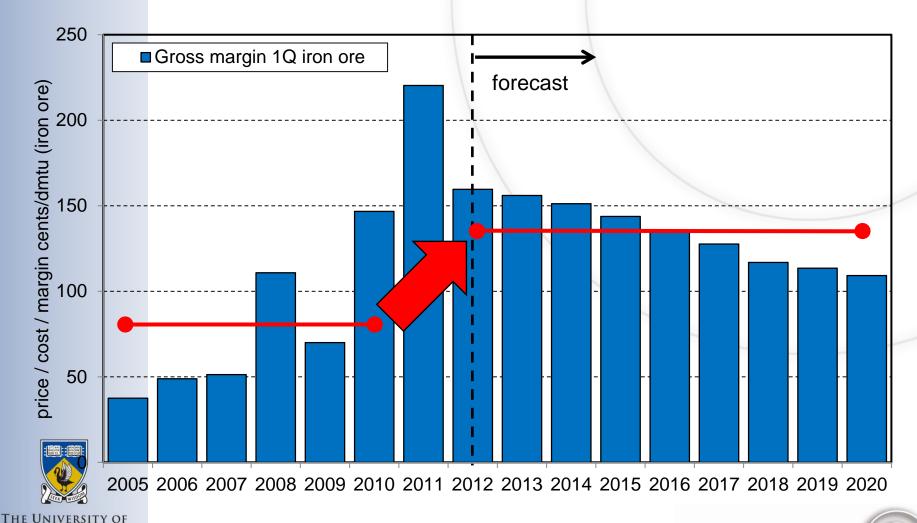
Resource Sector Investors





The commodity boom is not over for low cost miners

1st Quartile mining margins to remain above historical norms



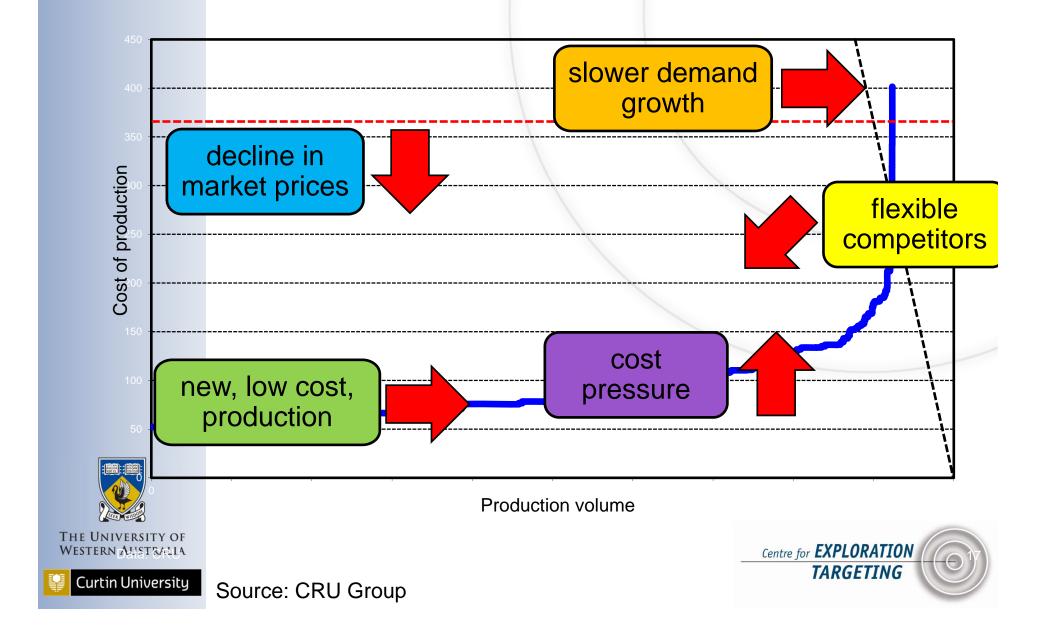


WESTERN AUSTRALIA

Centre for EXPLORATION
TARGETING

The commodity boom is probably over for high cost miners

Some assets in this category will close due to a multitude of threats



Innovative support services will continue to flourish

Resulting in investment, increased competition and innovation

Global mining truck tyre shortage

Capacity investment

Increased competition

Industry innovation

TMS

TIRE MONITOR SYSTEM





















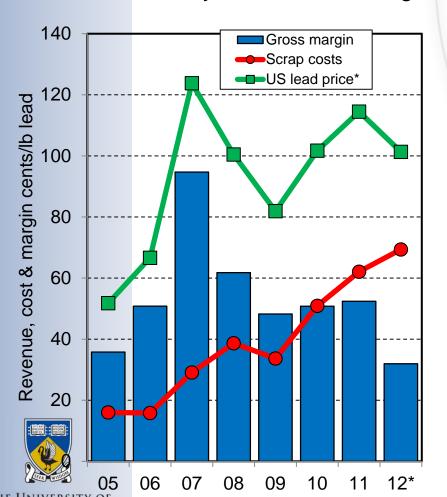




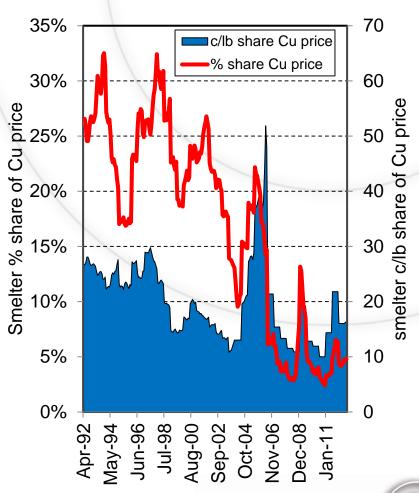


There never was a boom for smelters, refiners and mills

US secondary lead smelter margin



Smelter share of Cu price



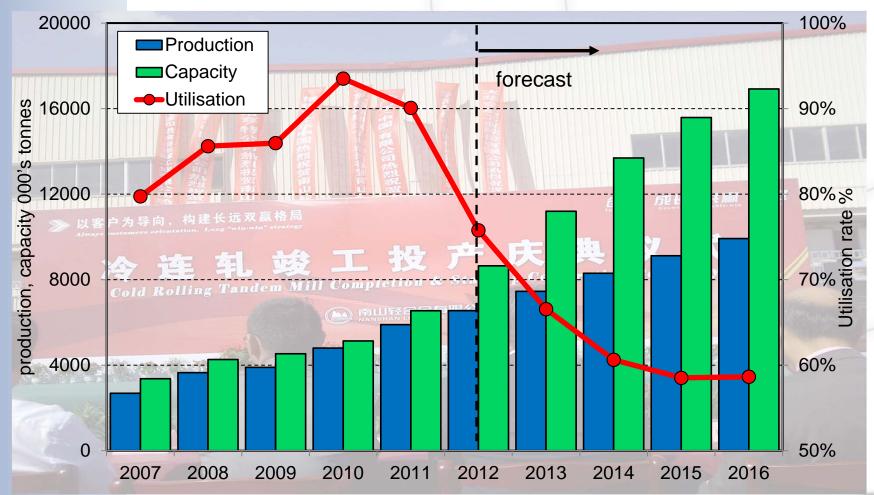
THE UNIVERSITY OF WESTERN AUSTRALINOTE: Copper Smelter share of monthly LME cash price according to annual contract TCRCs





Some, in the semis industry, think the boom will continue

Chinese aluminium rolling mill production, capacity & utilisation forecast







The commodity boom over?...

Low cost miners & developers

...is not over for low cost miners

High cost miners & developers

...is probably over for high cost miners

Mineral extraction support services

...will continue for innovators in this sector

Smelters, refineries & steel mills

...never happened for smelters, refineries, etc

Semis industry

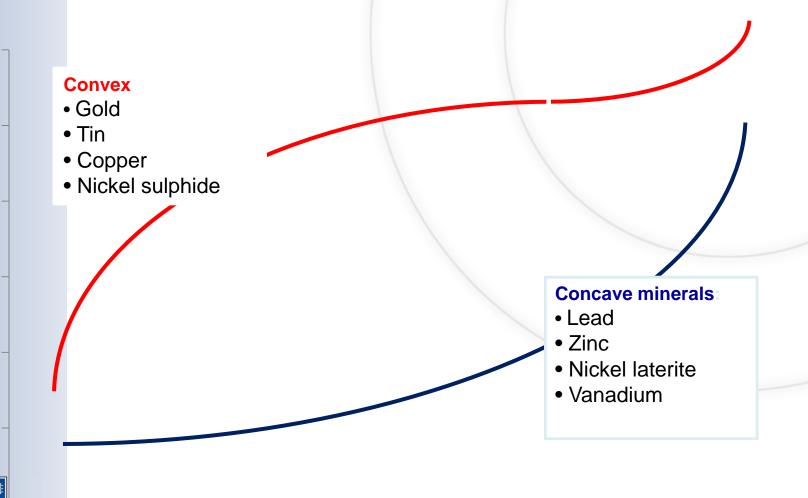
...will continue for some in the semis industry



Resource Sector Investors?



Mineral Discovery is Key for Investors



Exploration

Processing

Refining

Marketing



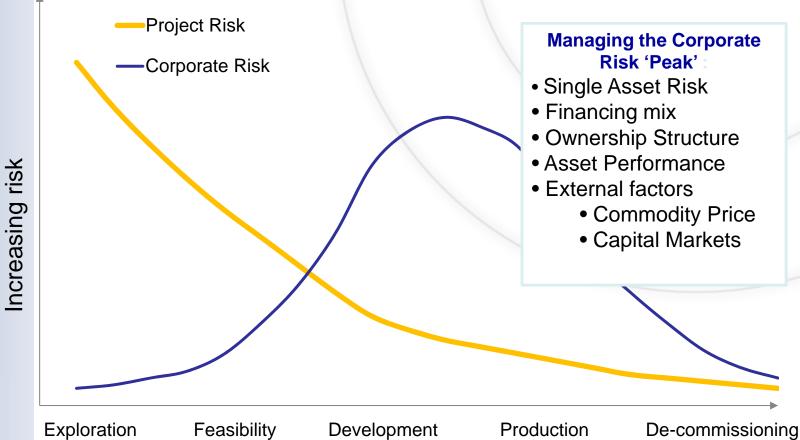
Mining



Value Recognition

....and understanding sector risk types

- Project/Technical risk versus Corporate Risk in the Minerals Sector
 - Important to understand the difference between the two:







Source: Trench & Packey 2012



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..but wait there are more boardroom challenges too of course.....



Ore Grades

gov-ern-inn
power or right
school, college, eh
gov-ern-ance //o
gov-ern-ance //o
gov-ern-ance //o
gov-ern-inn
gov-ern-ess //gov-en
employed to tea
(usu living as
serve as (a) got
gov-ern-ment
power to govern:
government, there
weak, ineffectual,
nethod or syst
vernment gr

Resource Nationalism



Environmental Concerns



Infrastructure



Scrap



Labour Availability & Cost

Energy & Consumables Costs

Governance and Compliance

