



# Iluka Resources Limited

Citi Conference, London

March 2011

# Disclaimer – Forward Looking Statements



This presentation contains information that is based on projected and/or estimated expectations, assumptions and outcomes.

These forward-looking statements are subject to a range of risk factors associated, but not exclusive, with potential changes in:

- exchange rate assumptions
- product pricing assumptions
- mine plans and/or resources
- equipment life or capability
- current or new technical challenges
- market conditions
- management decisions

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All currency referred to is Australian denominated unless otherwise indicated.

# Iluka Resources

## Overview and Investment Proposition



<b>Market capitalisation</b>	~A\$4.2 billion (418.7 million shares on issue)
<b>Industry Sector</b>	Materials (minerals sands exploration, project development, operations and marketing; iron ore royalty deriving from BHP Billiton's Mining Area C, Western Australia)
<b>Objective</b>	To create and deliver shareholder value
<b>Recent Deliverables</b>	Capital efficient transformation of the asset base <ul style="list-style-type: none"><li>- delivery of two new globally significant, high margin production sources</li><li>- Murray Basin (full production mid 2010) and Jacinth-Ambrosia (full production mid 2010)</li></ul> Supply discipline through global economic crisis - especially as market leader in zircon Marketing and pricing outcomes in zircon and high grade titanium dioxide markets
<b>Investment Proposition</b>	Higher production / sales of higher value products (rutile and zircon) Higher EBITDA / revenue margin and return on capital Increased contribution from low risk Mining Area C royalty stream Significantly lower capital expenditure → cash flow generation and balance sheet flexibility

# Zircon: Attributes and Applications



## Opacity (whiteness)

high refractive index (zircon refracts and reflects white light well)

## Resistant

water, chemical and abrasion resistance of glazes due to hardness of zircon



## OPACIFIER IN CERAMICS

floor & wall tiles | sanitary ware  
table ware

## Temperature stable

low thermal expansion coefficient, high thermal conductivity, high melting point

## Non-wetability

against molten metals



## REFRACTORY & FOUNDRY

steel / glass production  
casting of jet turbine engines

## Low thermal neutron absorption

increases nuclear reactor efficiency

## Inert

corrosion resistant



## ZIRCONIUM METAL

nuclear reactor cores / rods  
heat exchangers

## Unique properties

compound derivatives of zircon suitable for diverse industrial and chemical applications



## ZIRCONIA & ZIRCONIUM BASED CHEMICALS

refractories | pigments | abrasives  
electronics | catalysts | fibre optics

# Titanium Dioxide: Attributes and Applications



## Opaque, white and bright

high refractive index (refracts & reflects white light)

## UV protection

absorbs UV light energy (transfers to heat) – prevents fading, peeling, cracking

## Non toxic / inert

safe for use in foods, cosmetics and pharmaceuticals



## PIGMENT

paints & coatings | plastics | paper

## High strength-to-weight ratio

strong as steel but 45 per cent lighter, twice the strength of aluminium  
important fuel efficiency benefit in aerospace applications

## Corrosion resistant

forms an inert protective oxide coating  
self repairs when mechanically damaged



## TITANIUM METAL

aircraft engines & airframes  
military | chemical processing &  
desalination plants | medical  
sporting equipment

## Slag formation

important constituent of welding to shape, hold and protect the weld pool  
from atmospheric conditions



## WELDING FLUX AGENT

ship building | fabrication

## Nanoparticles

significant research into nanotechnology shows promising new applications  
for titanium dioxide



## NANOMATERIALS

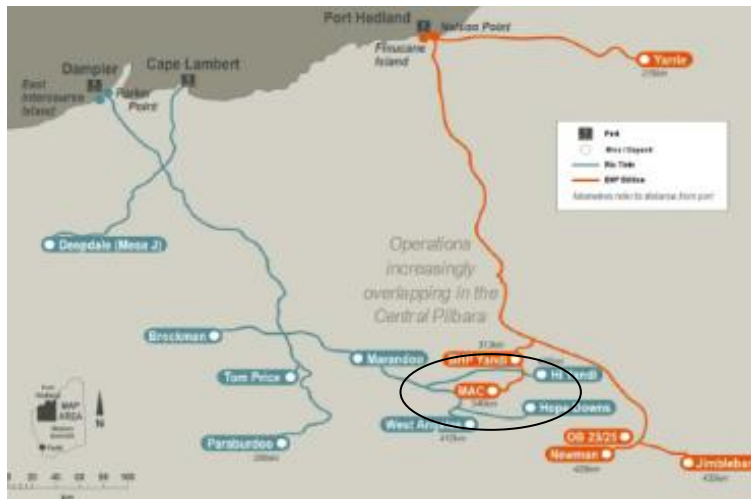
Dye-sensitised solar cells | arsenic  
removal in water treatment | cancer  
treatments | noise absorption

# MAC Iron Ore Royalty

## Background

- Mining Area C (MAC) covers a part of BHP Billiton's iron ore mining operations in WA's Pilbara region, operated by BHP (85%) under a JV with Itochu and Mistui
- In perpetuity royalty stream

## BHP Billiton Pilbara Iron Ore Operations



Source: BHP

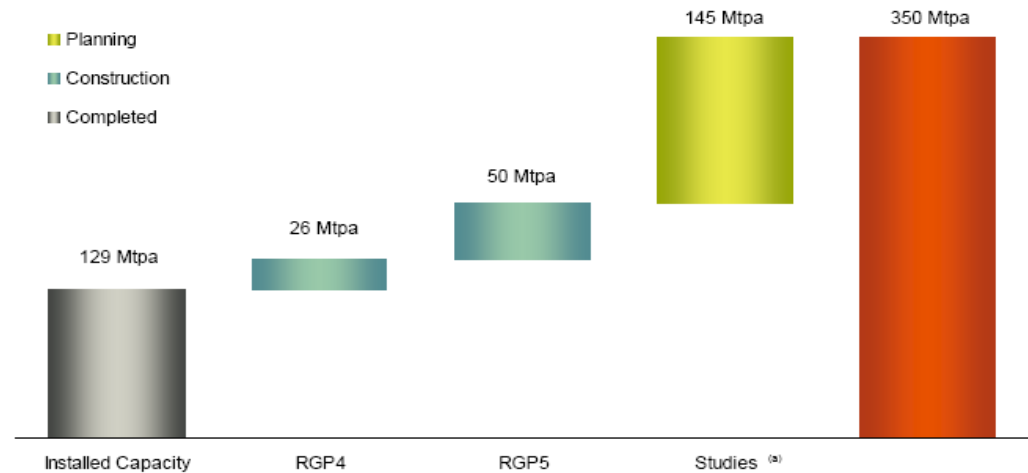
## Outlook

- BHP has stated intentions to increase total iron ore output from WA to 350mtpa past 2015. MAC is expected to be a significant proportion of this total increase

## 2010 EBIT

- \$75.9 million

## Western Australia Iron Ore Growth Path (mtpa, 100% basis)



Source: BHP

- BHP forecasts demand for seaborne iron ore to rise to over 1200mt by 2015 and over 1800mt by 2025

# Iluka Investment Proposition

## Confluence of Positive Factors



1. Transition to new operating areas complete
2. Leverage to zircon and high grade  $\text{TiO}_2$  shortages
3. Positive industry pricing dynamic
4. Growing, low risk Mining Area C (BHP Billiton) iron ore royalty stream
5. Significantly improved financial characteristics

# 2010 Full Year Overview



- Completion and ramp up of two new operations
  - substantial contribution from 2<sup>nd</sup> half of 2010
- Positive pricing dynamics for zircon demonstrated
  - favourable market conditions continuing in 2011
- Last year of price constrained titanium dioxide contracts
  - step change in high grade titanium dioxide prices achieved for 1<sup>st</sup> half 2011
- Markedly stronger EBITDA
- Net debt at year end at \$312.6 million
  - \$260.1 million at 31 January 2011
- Dividends reinstated
  - 8 cents full year dividend unfranked

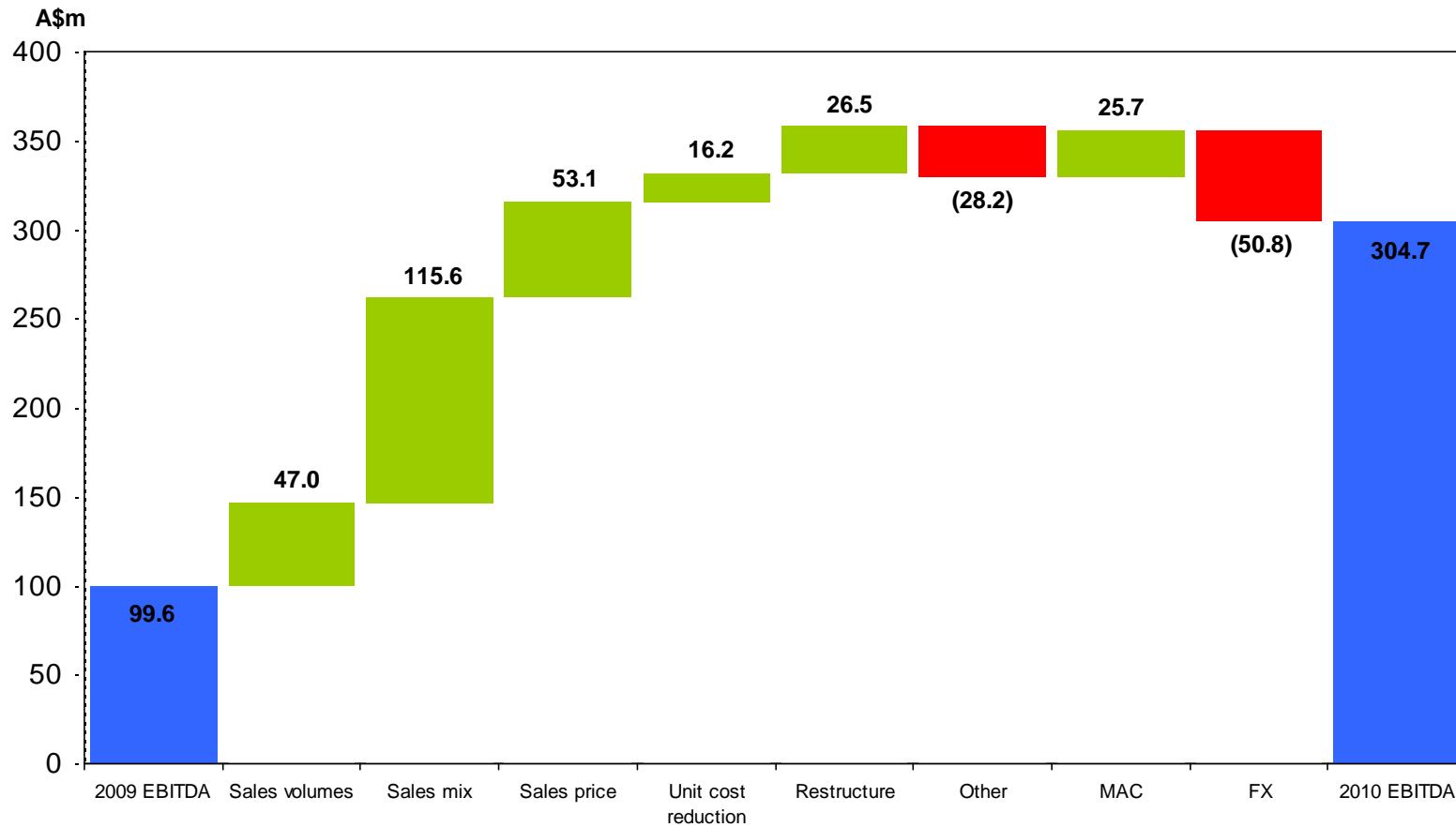


# EBITDA

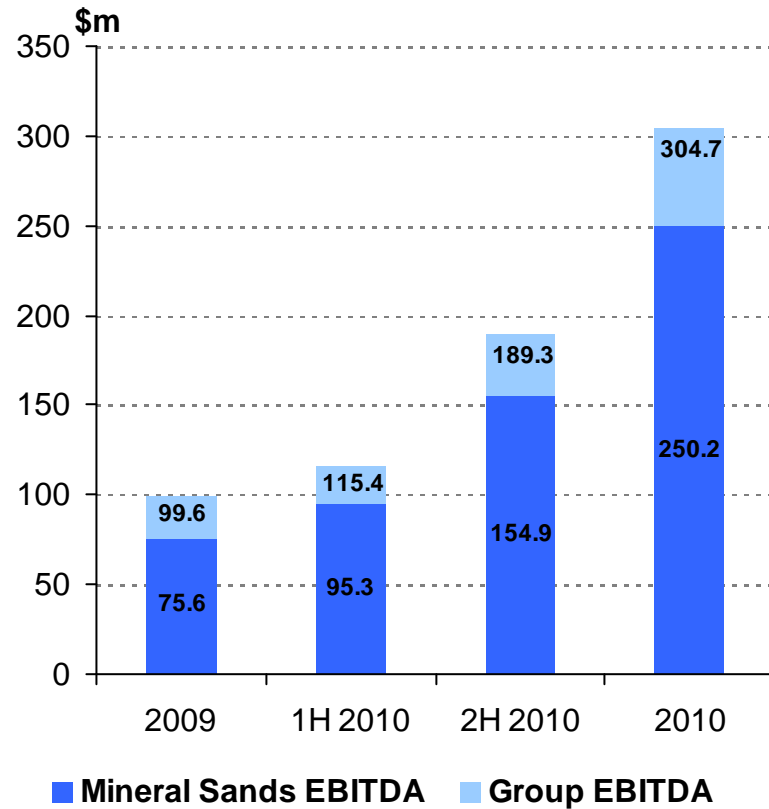
## 2010 versus 2009



ILUKA GROUP EBITDA 2010 vs 2009

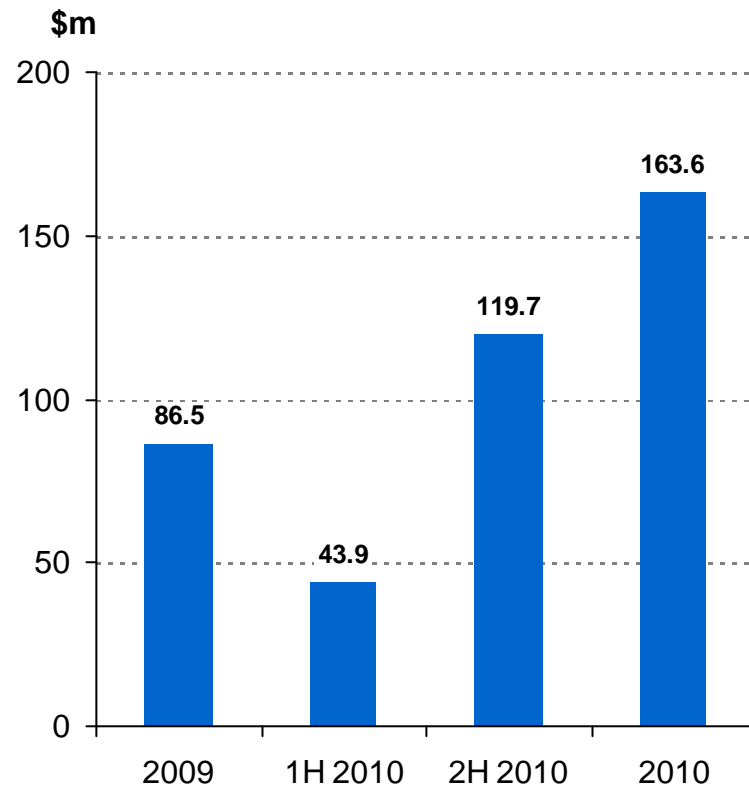


# Mineral Sands and Group EBITDA



- Strong 2<sup>nd</sup> half mineral sands EBITDA
  - up 64%
- Higher margin J-A and MB production
- Higher 2<sup>nd</sup> half zircon sales price

# Mineral Sands Operating Cash Flow

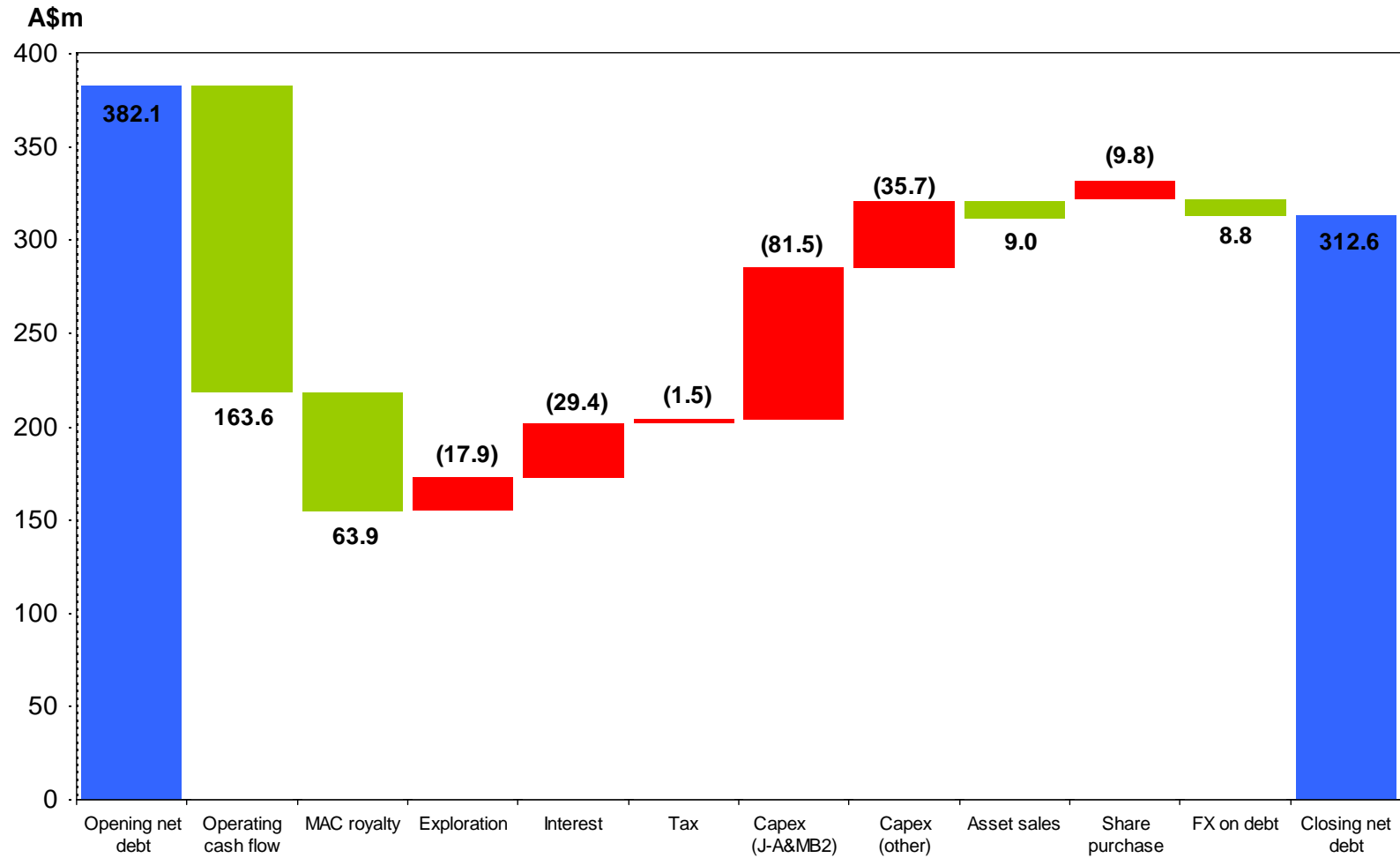


- Stronger operating cash flow
  - up 89.1%
- 1<sup>st</sup> half 2010 operating cash flow reflects:
  - increase in J-A concentrate stocks
  - increased debtors (shipment timing)
- 2<sup>nd</sup> half 2010 operating cash flow reflects:
  - increased Z and R sales volumes
  - further increase in working capital

# Net Debt Movement



ILUKA GROUP NET DEBT - 2010

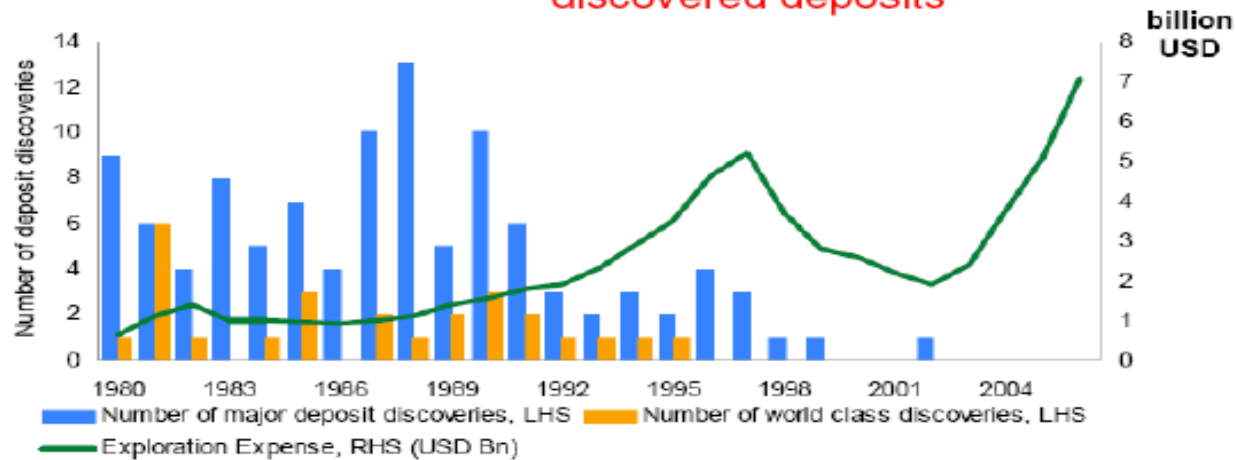


# Resource Scarcity

Metal minerals reserves

## Discovery rate of major mineral deposits

low expectations of yet to be discovered deposits

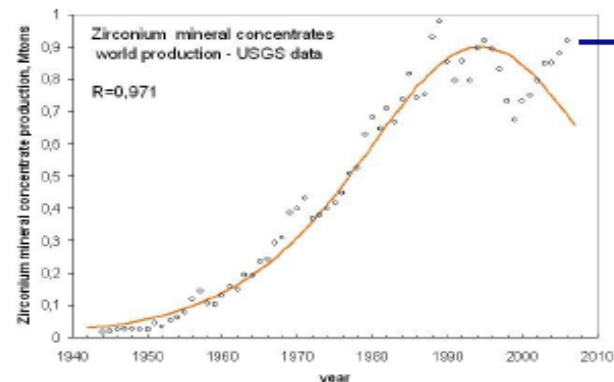


Sources: BHP Billiton, MEG, UBS WMR. , Raw Materials Group

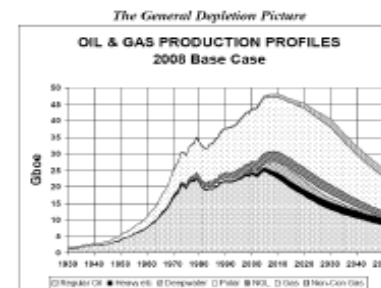
# Mineral Scarcity: Parallels with “Peak Oil”

Energy scarcity means materials scarcity

## Materials scarcity: parallels with “peak oil”



source: Bardi en Pagani, 2007

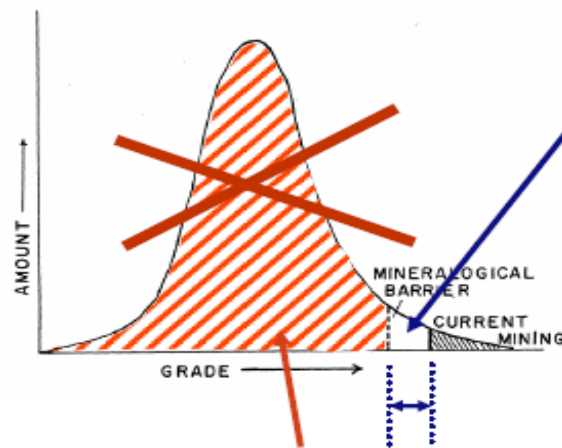


- The time-production profile of large individual mines and of the summation hereof resembles a bell-shaped curve comparable with oil
- The right part of the bell-shaped curve is more difficult to realize because the “low-hanging fruit” has already been harvested
- It takes increasingly more energy to “harvest” the remaining energy and the remaining minerals

# Mineralogical and Energy Intensity Barriers

Energy scarcity means materials scarcity

Mineralogical barrier for elements  $\geq 0.1\%$   
(mass) earth's crust



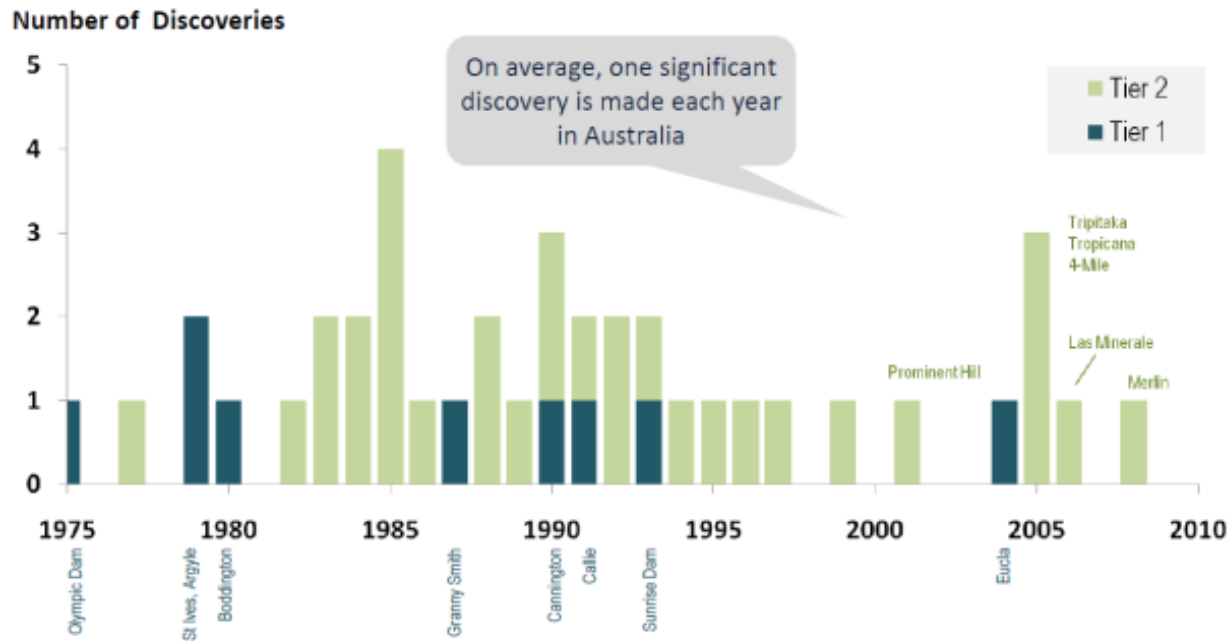
Remaining relevant resources of  
**aluminum, iron, silicon,  
magnesium, titanium, .....**

**Extremely energy-intensive to extract**

Source: "Exploring the resource base" by Brian J. Skinner, Yale University, 2001

# Tier 1 & 2 Discoveries: Australia

## Tier 1&2 Discoveries : Australia

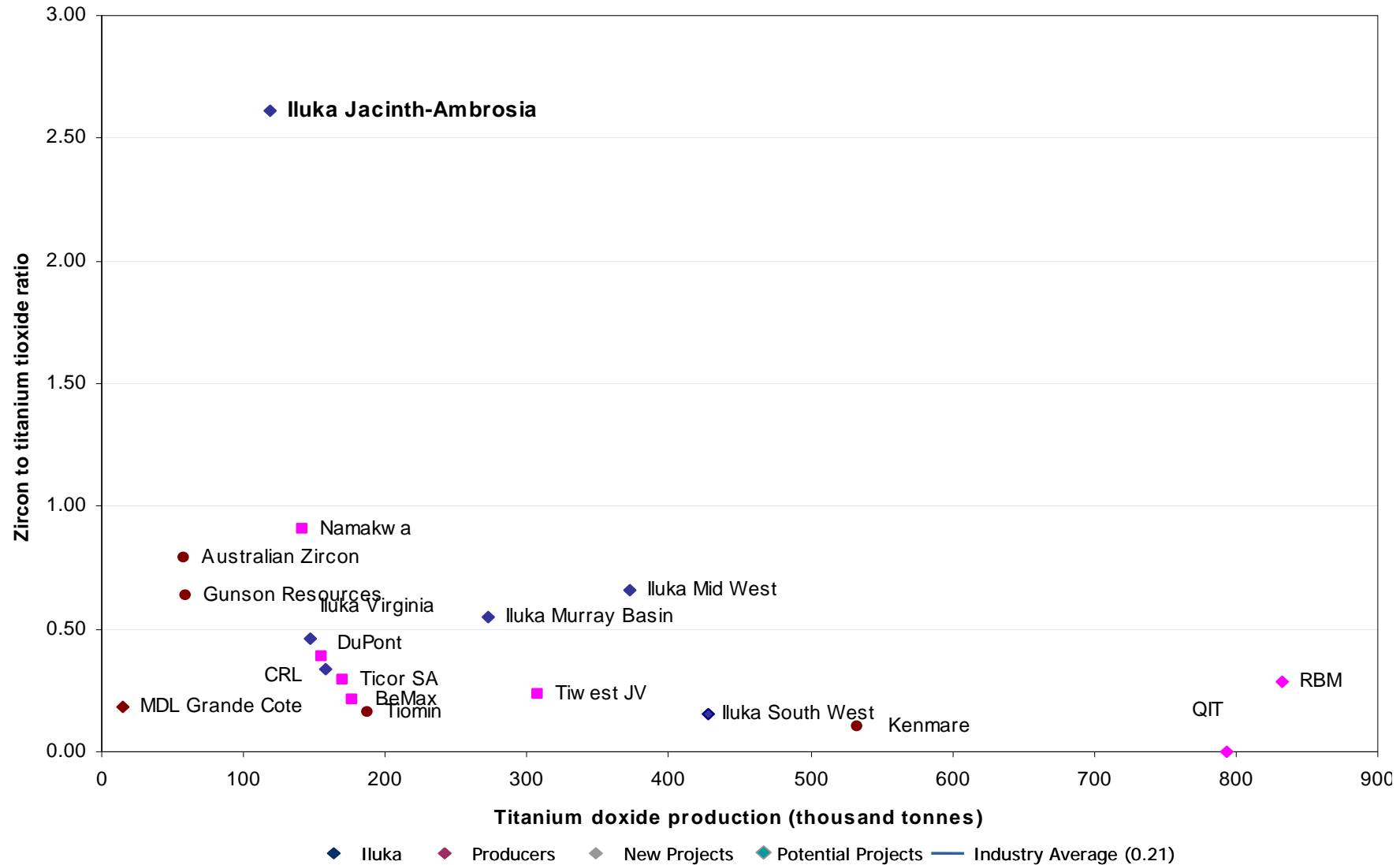


Tier 1 = "Company Making" Mines. They are large, long life and low cost  
 Tier 2 = "Significant" Deposits. Has some, but not all, of the characteristics of a Tier 1

Source: MinEx Consulting May 2010



# Jacinth-Ambrosia: A Mineral Sands Outlier

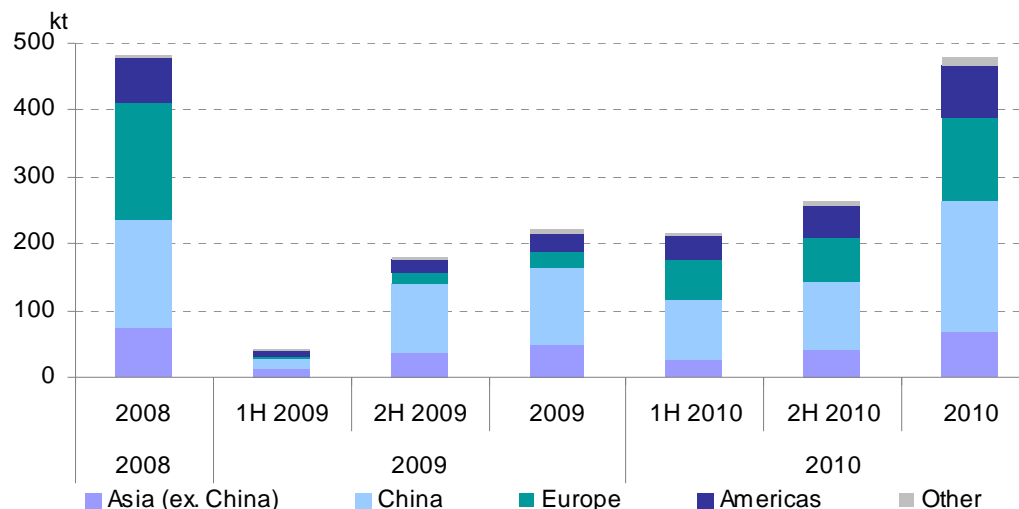


# Iluka Sales – Zircon



**Zircon Sales**

- Sales back to 2008 levels
- China above 2008 levels  
- 47% of Iluka's 2010 sales
- Recovery in Europe and North America
- Customer requirements exceed supply



Sales Volumes kt	2008	1H 2009	2H 2009	2009	1H 2010	2H 2010	2010
Asia (ex. China)	73	11	36	47	27	41	68
China	163	15	104	119	91	103	194
Europe	173	5	17	21	60	66	126
Americas	71	9	20	29	34	47	80
Other	1	2	4	6	5	6	10
<b>Total</b>	<b>481</b>	<b>42</b>	<b>181</b>	<b>223</b>	<b>216</b>	<b>263</b>	<b>479</b>

# Zircon

## Market Conditions



- Strong recovery in demand in all main markets
- Global consumption estimated at 1.3 million tonnes
  - unmet demand
- China imports running at above pre GEC levels
  - estimated 2010 imports of ~595k tonnes
- Since Q2, Iluka unable to satisfy customers' full demand
  - allocating volumes
- Global ceramics and zirconium chemicals capacity not fully utilised
- Industry inventories through the supply chain at historically low levels

# Zircon

## Constrained Market Supply

- Inner Mongolia zirconia chemical plant which could not commission due to lack of zircon
- Similar examples elsewhere in China
- New milling capacity unable to be fully utilised



# Zircon

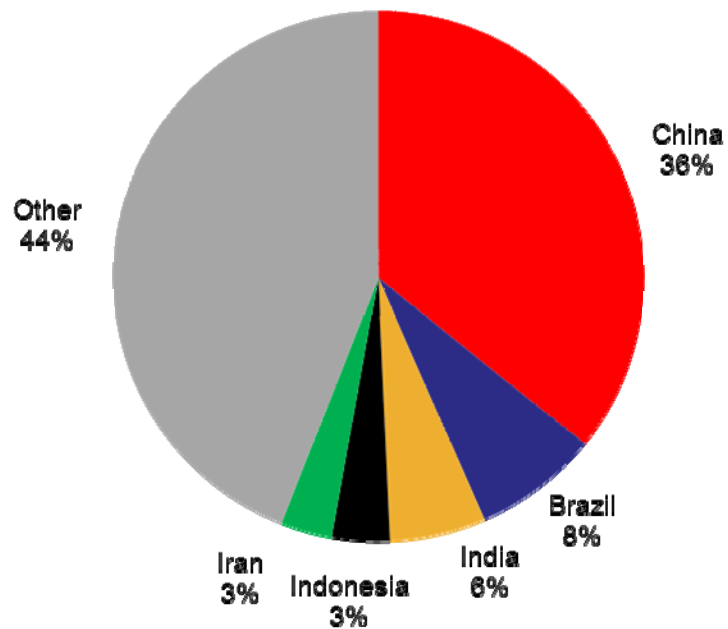
## Price and Supply Trends



- Iluka actions:
  - 3 price increases in 2010 – year end exit price above US\$1,000/tonne (FOB)
  - 1 January price increase of ~20%
- Iluka working with customers in tight supply situation:
  - supply point and logistics flexibility
  - semi-processed material made available
  - debottlenecking and tailings retreatment opportunities
- Market deficit will moderate but tight conditions expected to persist for some years
- 2011 likely to be impacted by low raw material inventories despite some higher production
- Market conditions support further price increases

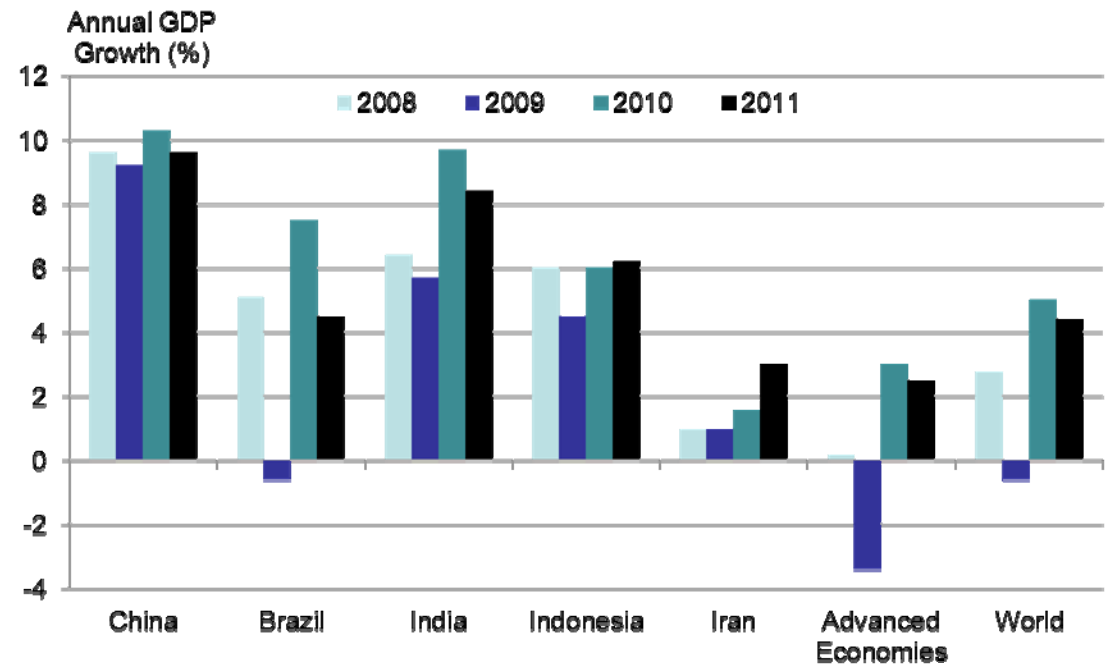
# Tile Consumption

**Top Tile Consumers**  
2009 Total = 8.5 billion sqm tiles



Source: Ceramic World Review

**Tile Consumers GDP Growth**

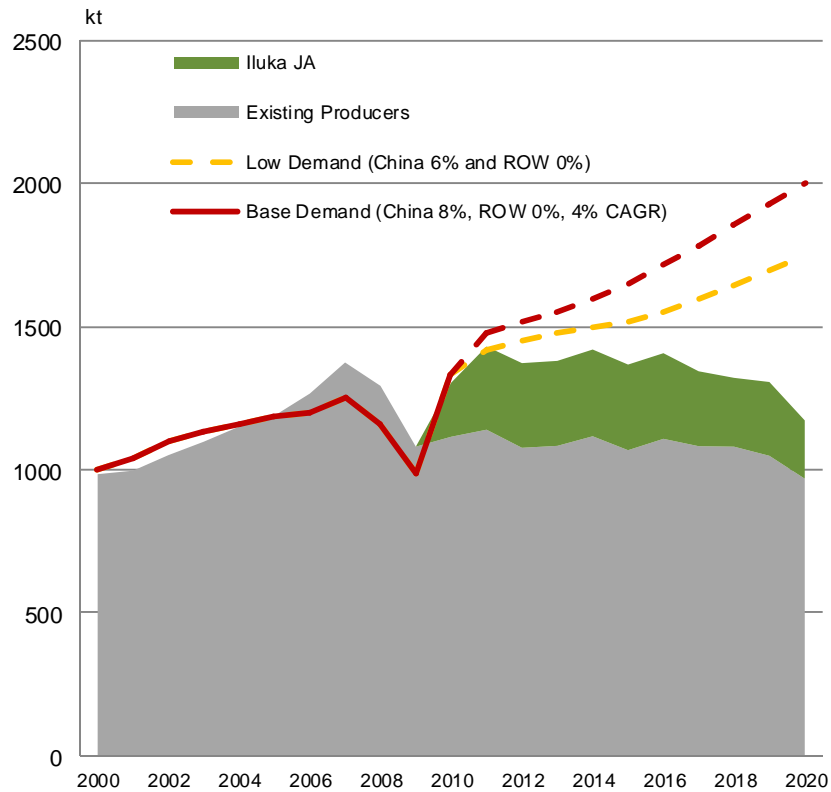


Source: IMF

- China, Brazil, India, Iran and Indonesia consume over half of the world's tiles
- Zircon intensity of use in these economies remains well below developed economies
- These economies were relatively immune from 2009 GEC impacts
- Resilient demand indicated even if further global economic slowdown

# Zircon

## Demand Risk?



- Assuming China demand growth of 8% & RoW 0%, results in a 2010-2020 CAGR of 4%
  - Should this demand scenario occur an additional 50-60kt of new supply is required to meet the annual demand increase
  - Since 1990 Chinese zircon demand has grown at 18% pa (off a low base)
- Even in the Low Demand (6% China, RoW 0%) scenario a considerable deficit is forecast

Source: Iluka

# Zircon

## Substitution Risk?



### Overview

- Zircon typically = represents a **low percentage of final products' pricing**
- **Few substitutes** provide equivalent value in use
- **Lack of availability** a potential cause of reduction in some lower value applications of zircon

### Ceramics

- **Glazed and Porcellanato tiles** (80% of global production), zircon = 5-10% of final product cost depending on tile type, quality and colour)
- TZMI study - low iron clays and feldspar cannot provide equivalent value in use

### Foundries & Refractories

- Some evidence of substitution from chromite sand, cerabeads and kerphalite

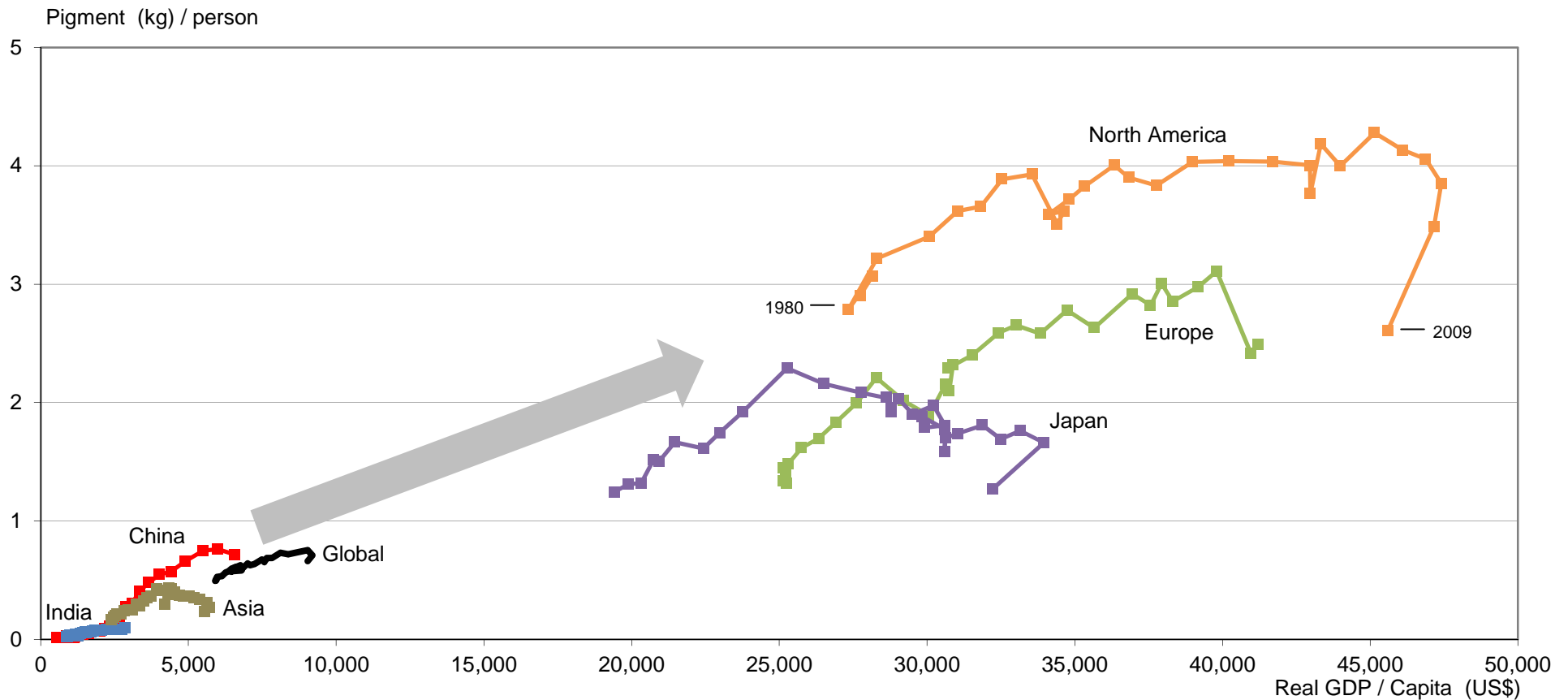
### Specialty Chemicals

- **Fused zirconia:** zircon increased from 25% to 60% costs ('03-'07) yet **no substitution**
- **Chemical zirconia:** zircon increased from 25% to 50% costs (since late '90s) = **switch to lower quality zircon**



# Pigment Demand by Region, 1980 to 2009

Developing countries pigment use growing with GDP



- Developing countries intensity of pigment use (pigment per person) expected to grow with living standards (rising GDP / capita).
- Developed countries show an intensity of pigment use ~2 - 4 kg per person. This level of pigment use in China would be a significant increase from current levels.

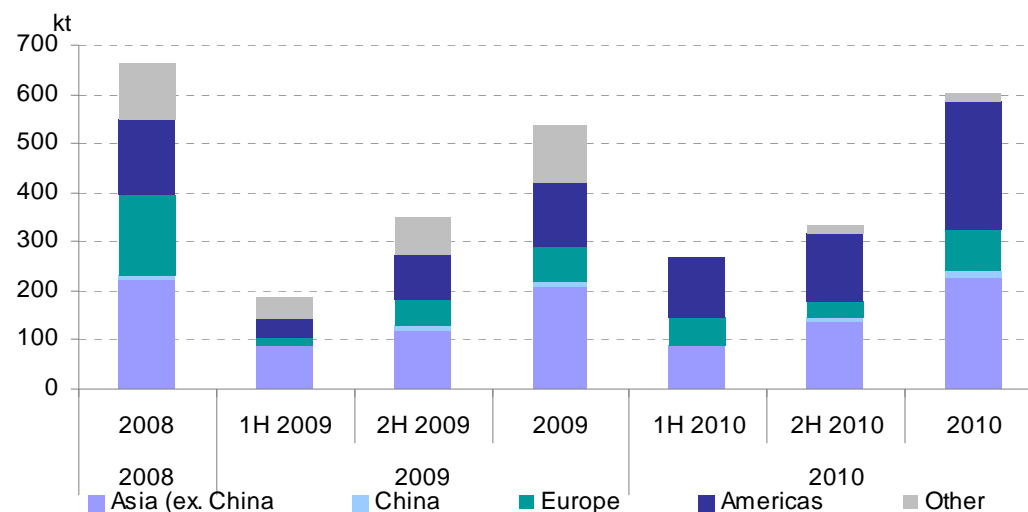
Note: Conversion factor for US\$ based on Purchasing Power Parity (PPP). Real 2008 Australian dollars.  
Source: TZMI and IMF

# Iluka Sales – Rutile and Synthetic Rutile



**Rutile and Synthetic Rutile Sales**

- Strong recovery in North American pigment demand
- Minimal sales of high grade titanium dioxide to China, given sulphate-orientated nature of pigment market



Sales Volumes kt	2008	1H 2009	2H 2009	2009	1H 2010	2H 2010	2010
Asia (ex. China)	223	89	118	207	89	138	228
China	11	1	12	14	2	9	11
Europe	159	16	54	70	56	33	88
Americas	158	38	89	127	121	138	259
Other	112	42	76	118	0	17	17
<b>Total</b>	<b>663</b>	<b>186</b>	<b>349</b>	<b>535</b>	<b>268</b>	<b>335</b>	<b>603</b>

# High Grade Titanium Dioxide

## Market Dynamics



- Demand recovery for high grade titanium dioxide feedstocks
- Most chloride pigment producers restored operations to full or near full capacity
  - demand for high grade feedstocks as replacement for lower grade feedstocks
  - hence increased demand for rutile and synthetic rutile
- Evidence of industry insufficient high quality supply
- Major pigment producers increased their pricing by an average of 10% in 2010
  - one indication this month of a further ~10% price increase (~ US\$200/t)
- Iluka ended 2010 with minimal rutile and SR inventories

# Recent TiO<sub>2</sub> Industry Comments



*“...provided global demand for TiO<sub>2</sub> products remains strong, we expect the low level of worldwide TiO<sub>2</sub> inventories to continue for several years and anticipate further implementation of TiO<sub>2</sub> selling price increases.”*

Top 5 Pigment producer, February 2011

*“...we do have pricing momentum in this industry. We’ve also got raw material pressures in this industry as well.”*

Top 5 Pigment producer, February 2011

*“TiO<sub>2</sub> pricing actions announced in the past few days include a \$300/m.t., or 10%, price increase in Asia, effective April 1 (DuPont), and a EUR175/m.t., or 8%, increase in Europe, also effective April 1 (Huntsman). TiO<sub>2</sub> buyers are becoming less resistant to sharp price increases as they are increasingly concerned about product availability amid sold-out conditions, particularly for high quality TiO<sub>2</sub> grades.”*

North America Equity Research, February 2011

*Robust TiO<sub>2</sub> demand....Tight markets....Raw material costs trending up offset with price*

Top 5 Pigment producer, January 2011

# High Grade Titanium Dioxide

## Trends

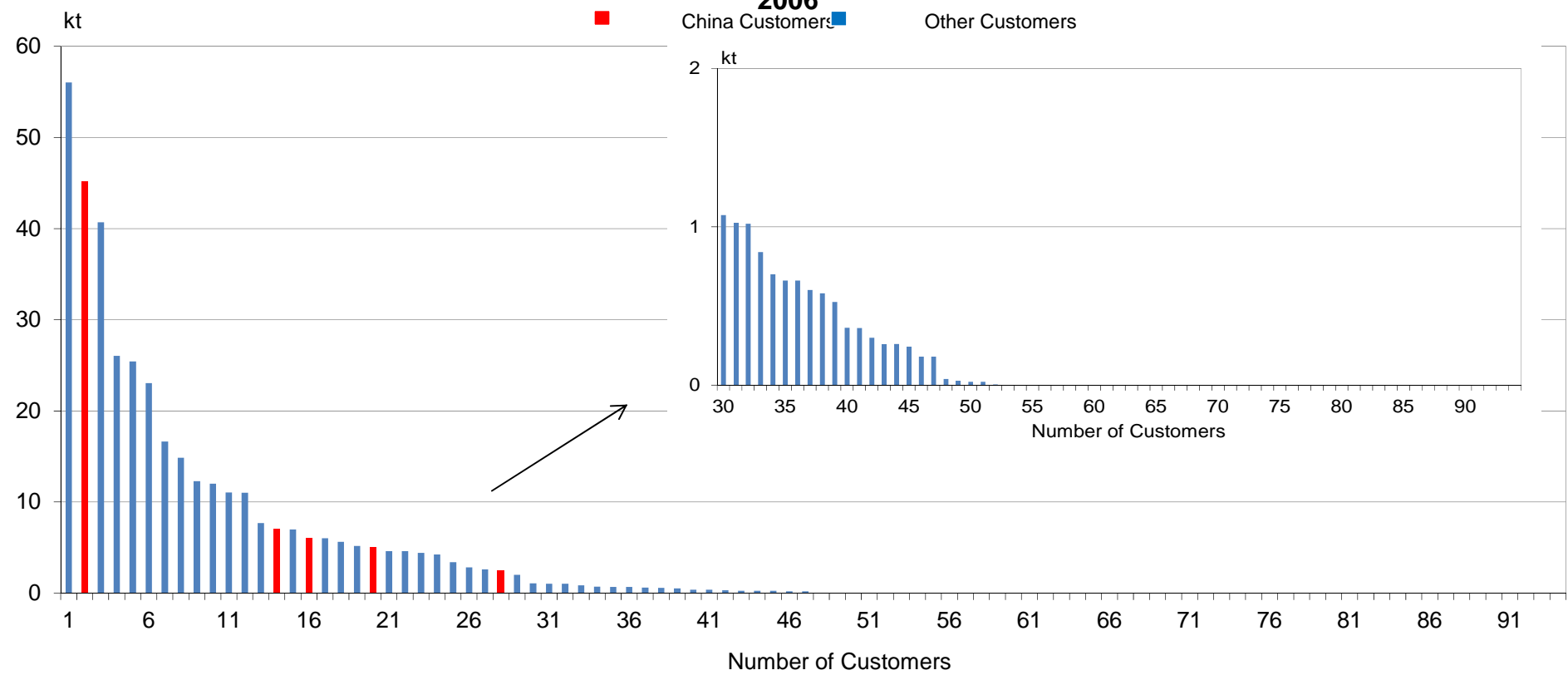


- 2011 1<sup>st</sup> year of unconstrained contract price negotiations
  - small proportion of SR volume still affected by residual “cap and collar” contract
  - unable to fully meet all customer requirements
  - rutile and SR pricing set for 6 months period only
  - volume arrangements for 12 months, subject to 2H price agreement
  - rutile and SR pricing up ~30% to ~40% in 1<sup>st</sup> half (versus 2010)
- Iluka working with customers in constrained market conditions
  - supply point and product quality flexibility
- Expectations of improved profitability for raw material suppliers and customers downstream
- Potential to reactivate idled capacity (SR)
  - requires confidence of sustained higher pricing environment to do so
  - 2011 assumes SR2 kiln operating for full year and SR3 for part year
  - kiln feedstock strategy key

# Iluka Zircon Customers - 2006

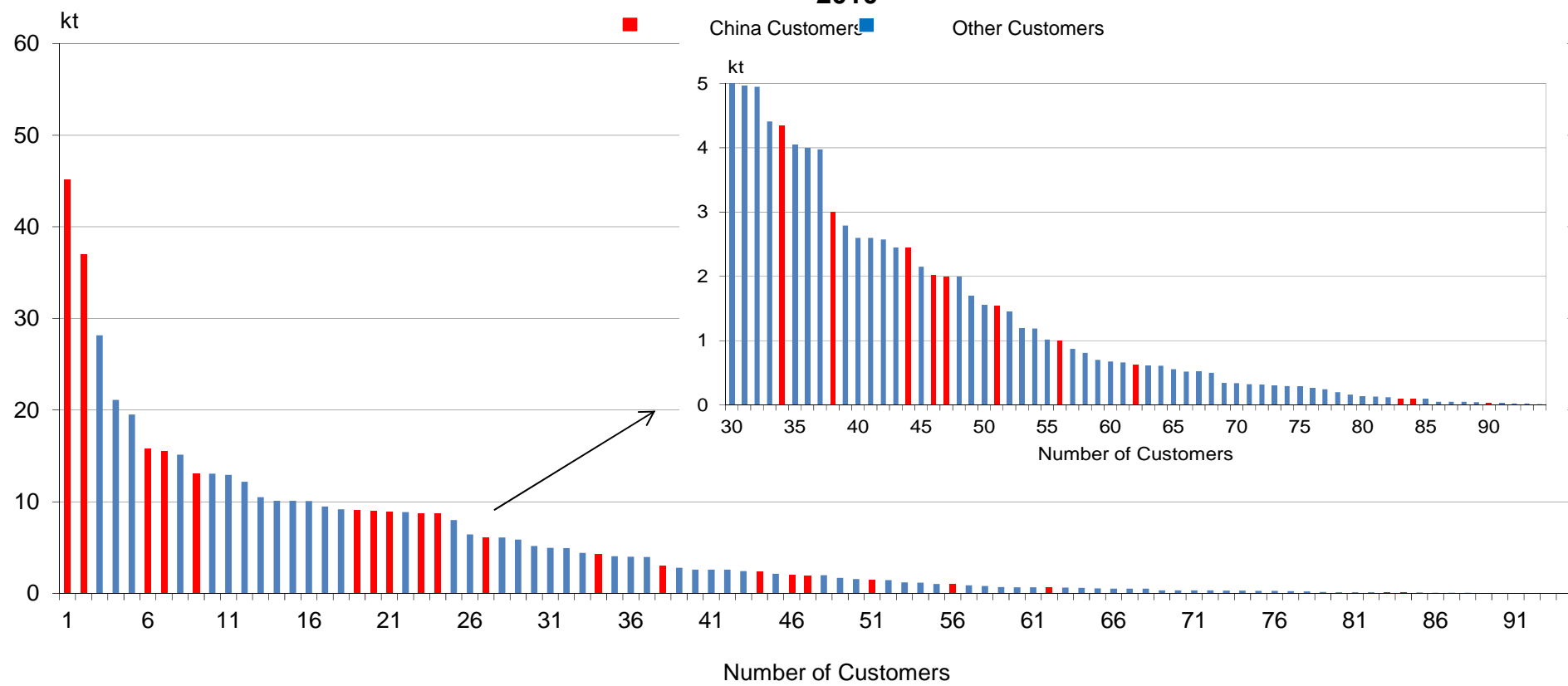
**Iluka Global Customer Profile**

**2006**



# Iluka Zircon Customers - 2010

**Iluka Global Customer Profile  
2010**



# Internet Sales and Auction Site



## Key Terms

- Purchase or auction site as required
- Minimum purchase 26mt, a full container load
- Product bagged in 2mt Bulk Bags
- Payment terms are L/C or T/T
- No requirement to accept any offer

## Easily adapted to other products

- Now offering both zircon and rutile
- Ilmenite

[www.ios.iluka.com](http://www.ios.iluka.com)

**iluka Online Sales**

Welcome to iluka's Online Sales (IOS) portal. iluka is the world's No.1 producer of high quality zircon and titanium minerals with major mining operations in Australia and the United States.

IOS is open to all businesses worldwide. Products are offered on a limited basis and all sales are conducted via this web portal. Products offered may include:

- Zircon

To enquire about other products please contact one of the Sales & Marketing Managers listed on the Contact us page.

How To **make an offer** for an online purchase:

1. Review the tonnage and quality on offer.
2. Click 'Place Order', review details and fill in the order.
3. You will then receive an email confirming the details of your offer.

Offers are limited to a **maximum order of 500mt** and iluka reserves the right to accept or refuse any offer.

Please note that all products are delivered on a CF or CFR basis to Main Sea Ports and payment terms are T/T or LC only.

**Eucla Basin Premium, 2mt bags** [View Details / Place Bid](#)

500 Metric Tonnes **Available till:** Mon, 15 November 2010

>65.5% ZrO<sub>2</sub>, >0.08%Fe<sub>2</sub>O<sub>3</sub>, <0.15% TiO<sub>2</sub>, <0.5% Al<sub>2</sub>O<sub>3</sub>, AFS 140-150 [More Details](#)

**Murray Basin Rutile 92, 2mt bags** [View Details / Place Bid](#)

200 Metric Tonnes **Available till:** Mon, 15 November 2010

>92.0% TiO<sub>2</sub>, <3.0%Fe<sub>2</sub>O<sub>3</sub>, <0.03% S, <0.03 P, <800ppm Sn, AFS 90-110 [More Details](#)

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# 2011 Areas of Focus



- Operate the business safely and in a sustainable manner
- Maximise high margin production from existing operations
- Determine best means to cost-effectively increase production
- Support pricing momentum as market conditions allow
- Invest in product and technical development
- Increase investment in exploration in existing and new provinces
- Continue market and business development opportunities
- Balance sheet
  - debt expected to reduce rapidly
  - capital management
  - flexibility to pursue opportunities



Iluka Resources Limited

# Mining Area C Royalty

## 2010 vs 2009



	2010	2009	% change
Annual Production to 30 Jun MDMT	42.5	37.8	12.4
Sales Volume to 31 Dec MDMT	43.2	40.3	7.2
Royalty Income \$m	71.3	42.6	67.4
Capacity Payments \$m	5.0	8.0	(37.5)
<b>Iluka EBIT \$m</b>	<b>75.9</b>	<b>50.2</b>	<b>51.2</b>

- Higher iron ore sales volumes
- Average AUD realised price increased by 56% from pcp
  - 60 per cent higher Q2 2010 versus Q1 2010
  - reflects greater proportion of spot sales
- Royalty income: 1<sup>st</sup> half - \$30.7 million; 2<sup>nd</sup> half \$40.6 million
- \$5.0 million of annual capacity payments to 30 June 2010 (2009: \$8.0 million)