

BHP Billiton Base Metals

India on the global map?

International Copper Symposium – ICDC

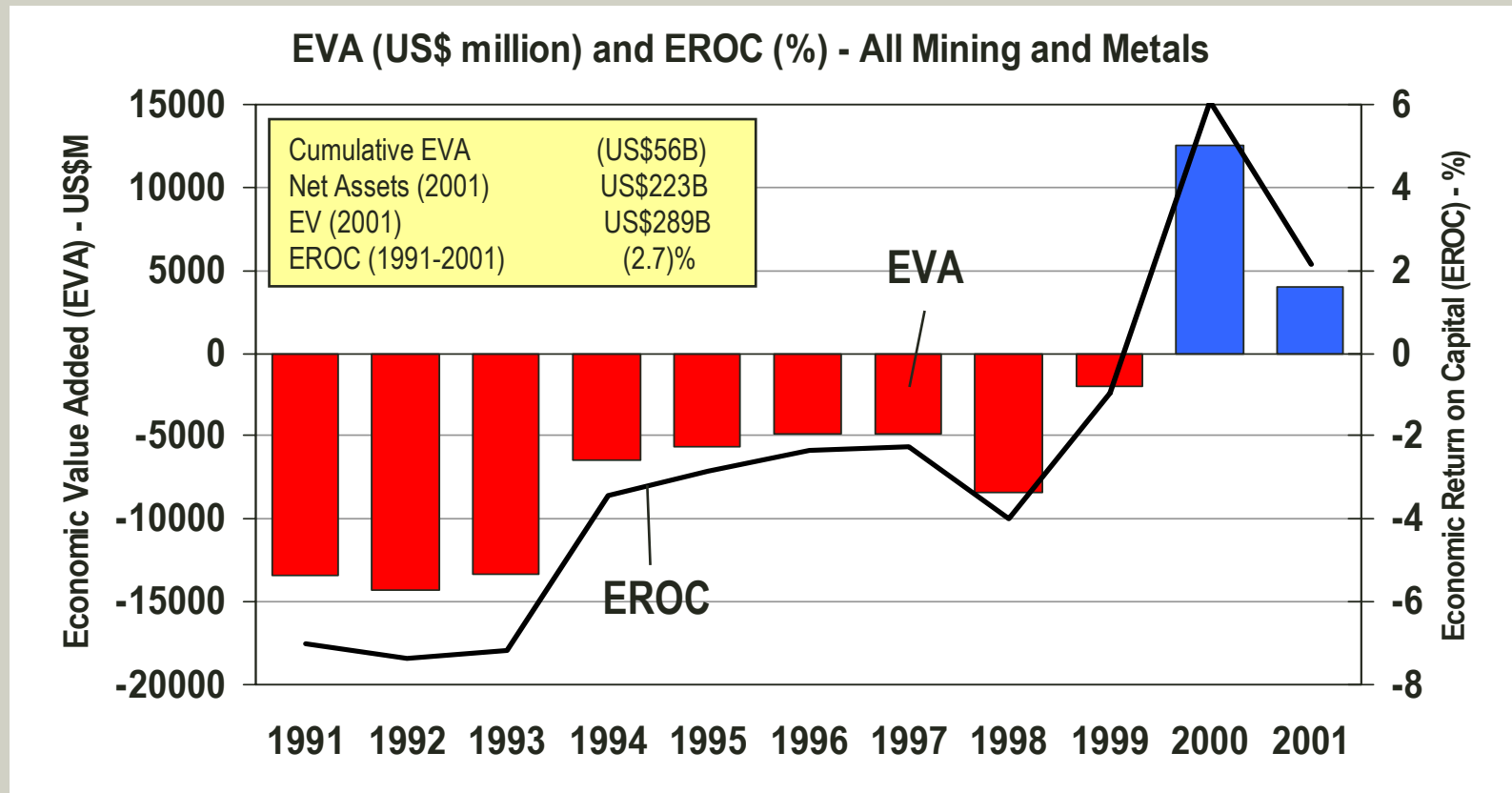
The Emergence of India on the Global Map

11th March 2004



bhpbilliton

Mining & metals companies have traditionally destroyed value



EROC (%) = ROIC – WACC
 EVA (\$) = Net Assets x (ROIC – WACC)

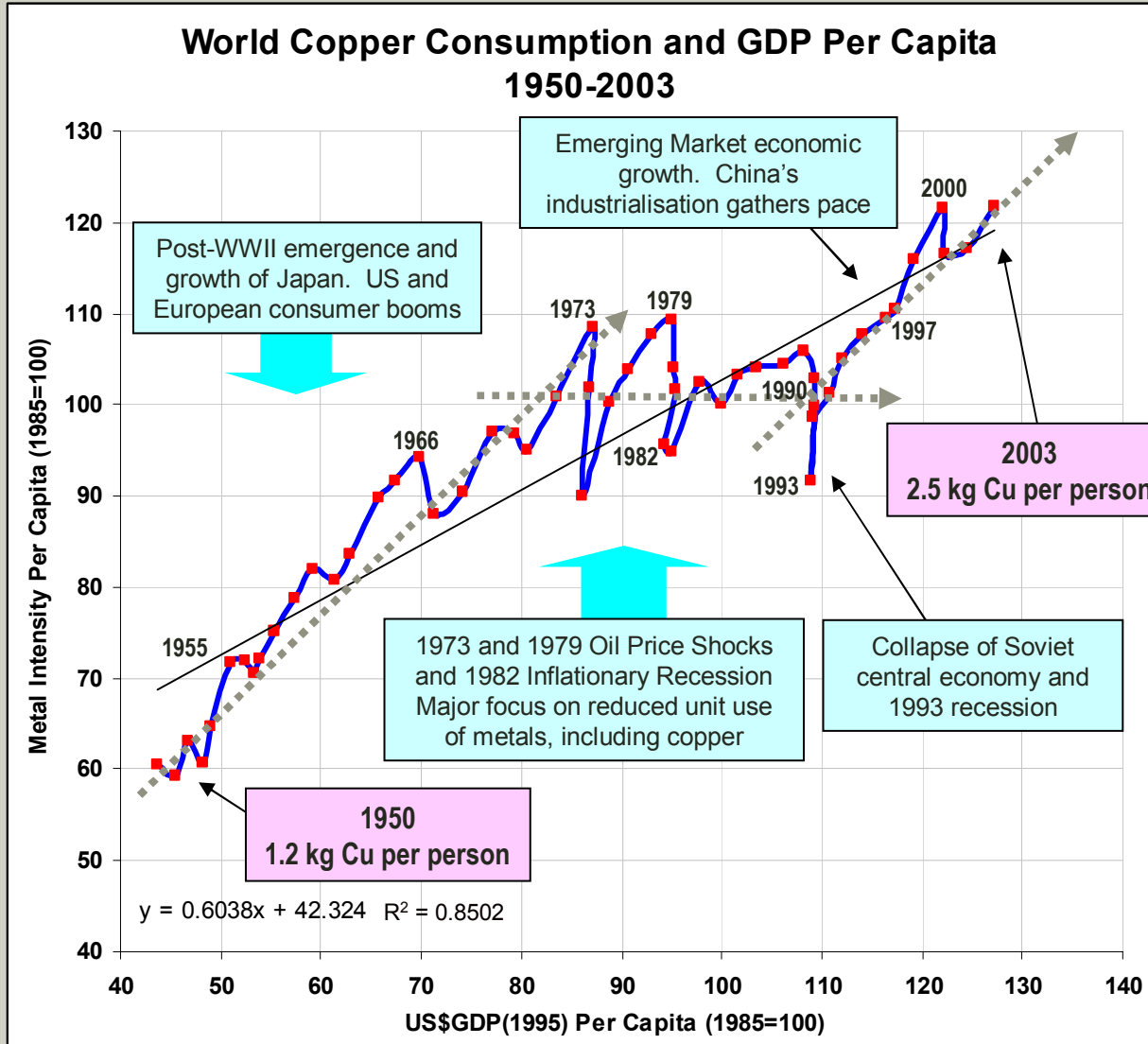
Aggregate data for >200 mining and metals companies (excludes former East Bloc)

Source: CRU

This presentation addresses two high level aspects of copper demand...

1. Intensity of use
2. India's growth path compared to China

Copper intensity of global GDP has increased again since the 1980s



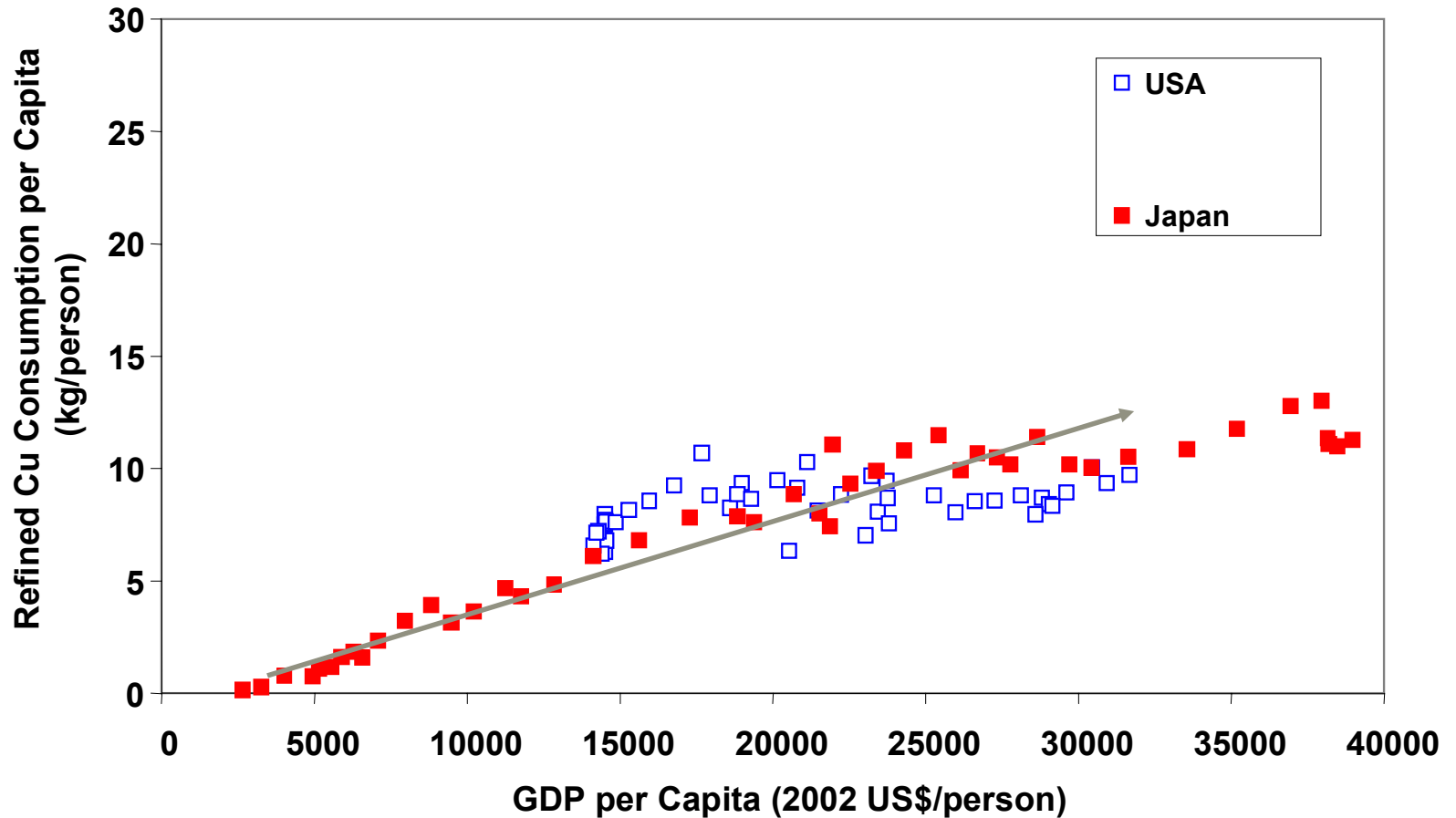
Despite unpredictable major global economic shocks, copper intensity of GDP shows a strong, persistent upward trend

Note: A steeper slope represents a stronger rise in use of copper in relation to economic activity – a gentle slope indicates lower 'intensity of use'

Source: BHP Billiton, Macquarie Research

Industrialising countries have followed two distinctive intensity paths...which path are they following today?

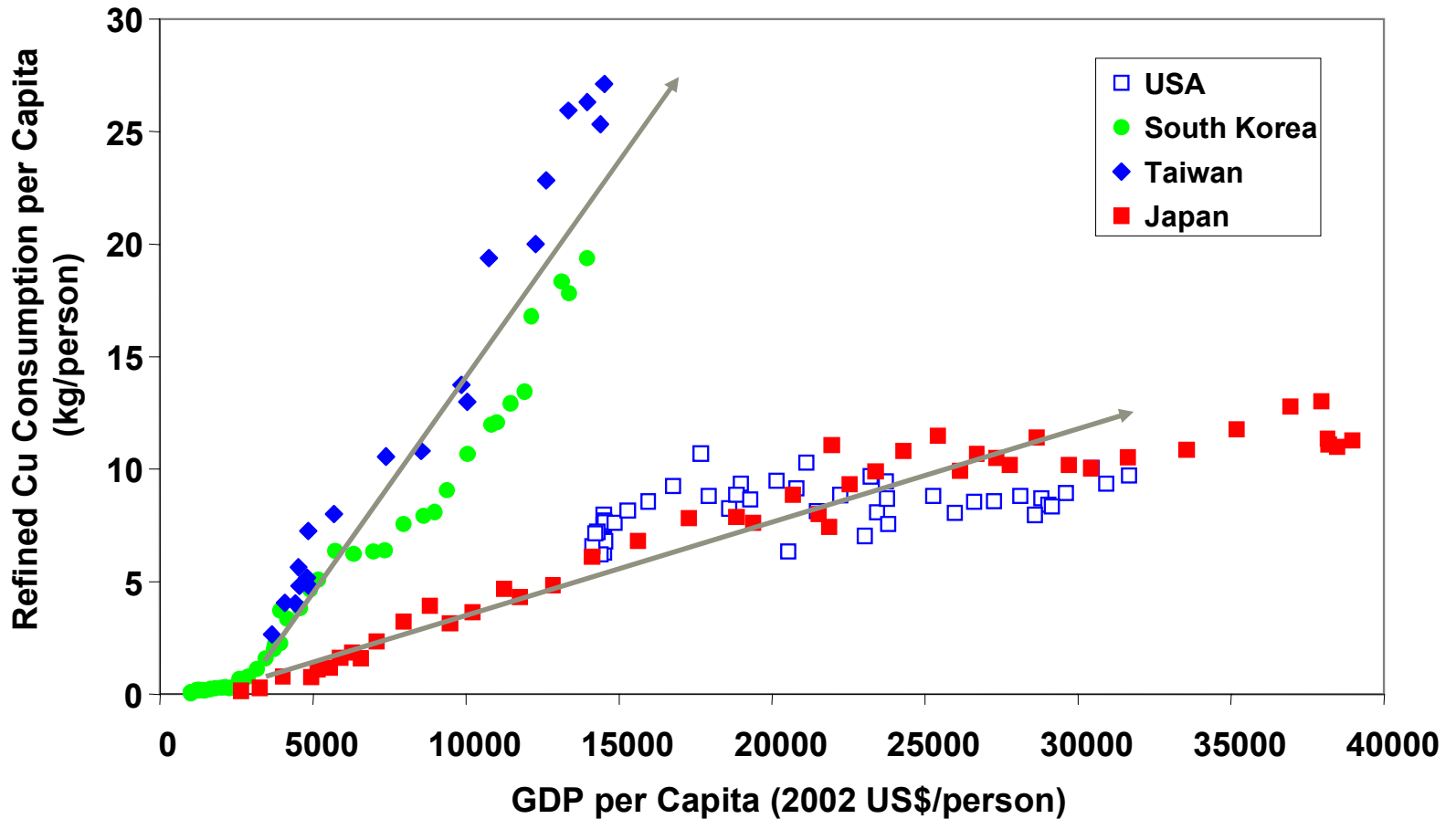
Copper Demand Intensity of GDP (1950-2002)



Source: BHP Billiton

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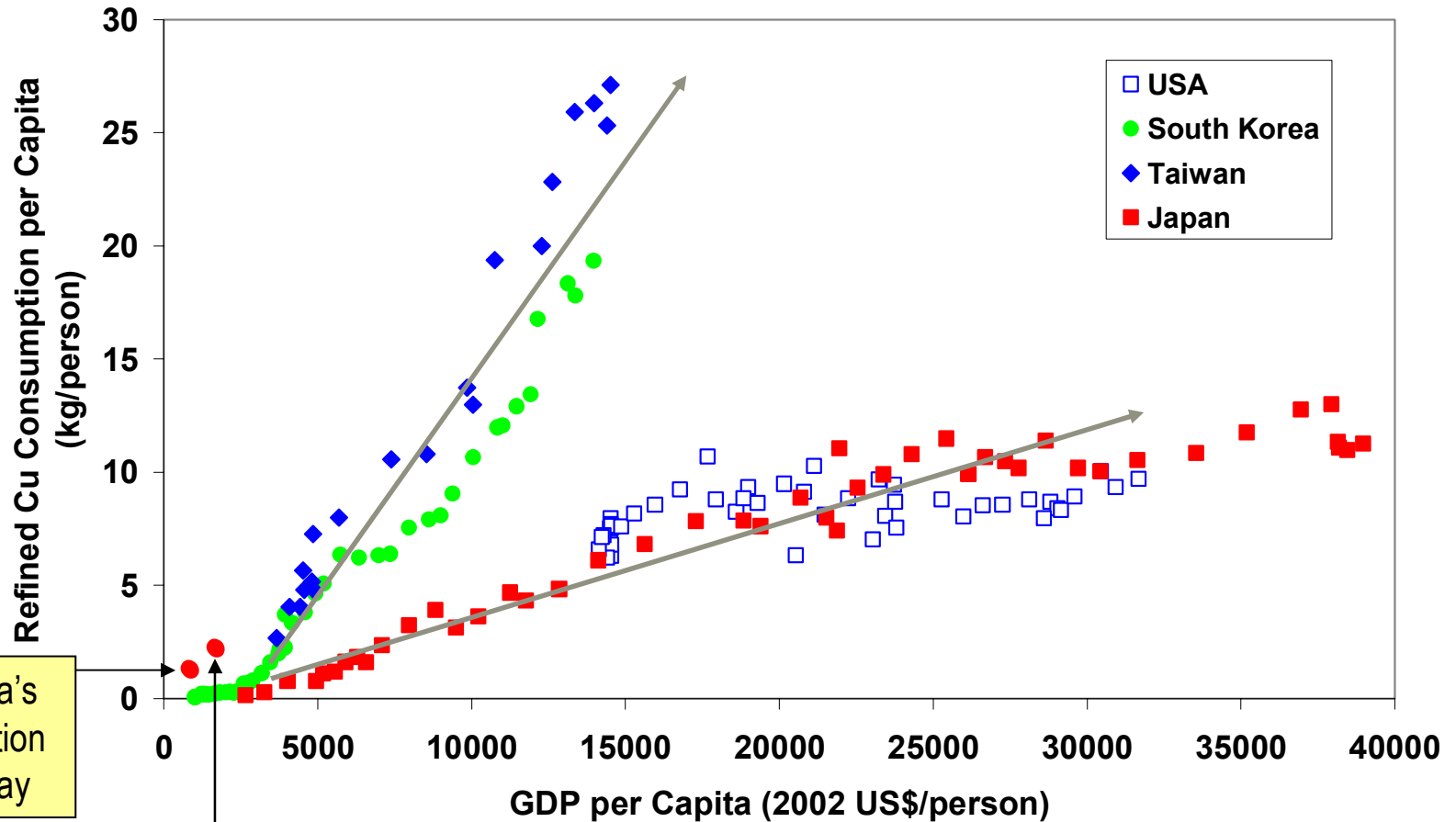
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Copper Demand Intensity of GDP (1950-2002)

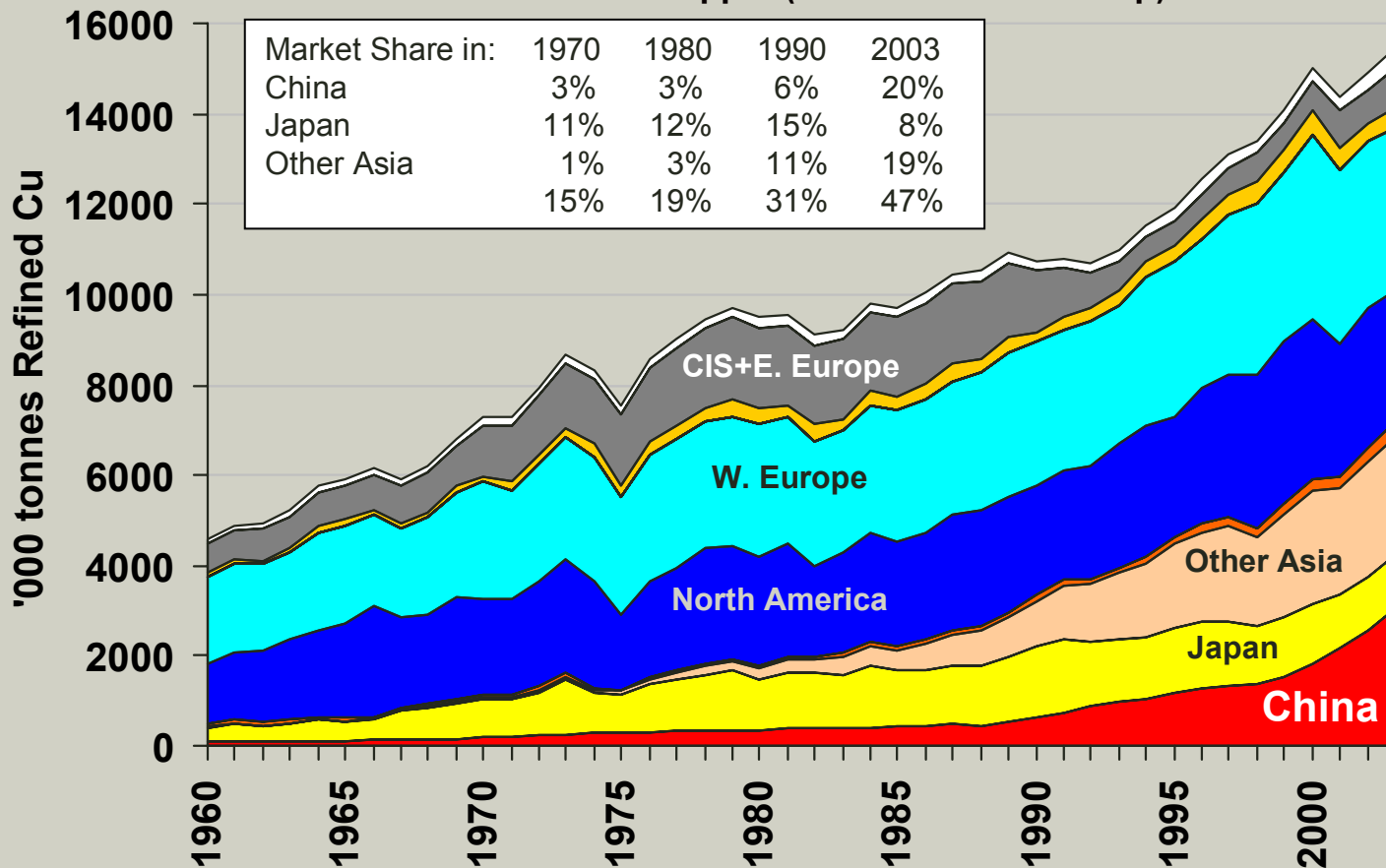


Source: BHP Billiton

Although India's copper consumption has grown strongly in recent years, it has not matched China

Asia, excluding Japan, is responsible for virtually all of the growth in world refined copper consumption ('first use' of copper) in the past 20 years, driven by Korea and Taiwan...and more recently China

Demand for Refined Copper (excl. direct melt scrap)*



* Note: Does not accurately reflect the 'final' consumption of copper in copper containing products. Data unavailable for 'final consumption' before 1990

Asia now accounts for almost half world copper consumption but India claims less than 2% of this share

Source: CRU

Is India another China waiting in the wings?

Similar land area and population...but India's economy not yet at 'lift off' and dominated by Agriculture and Services...

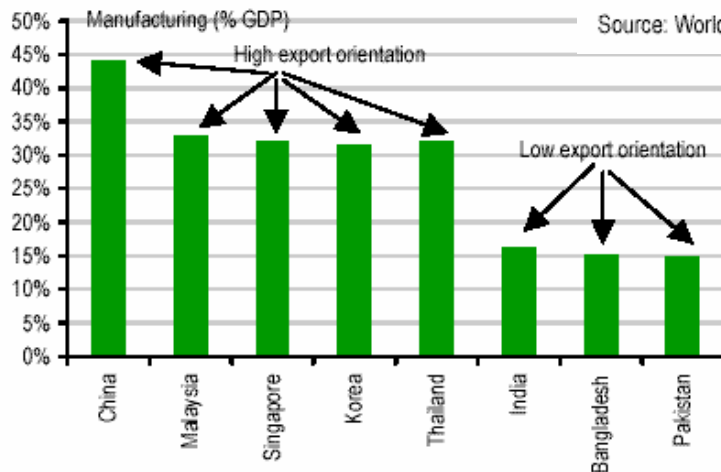
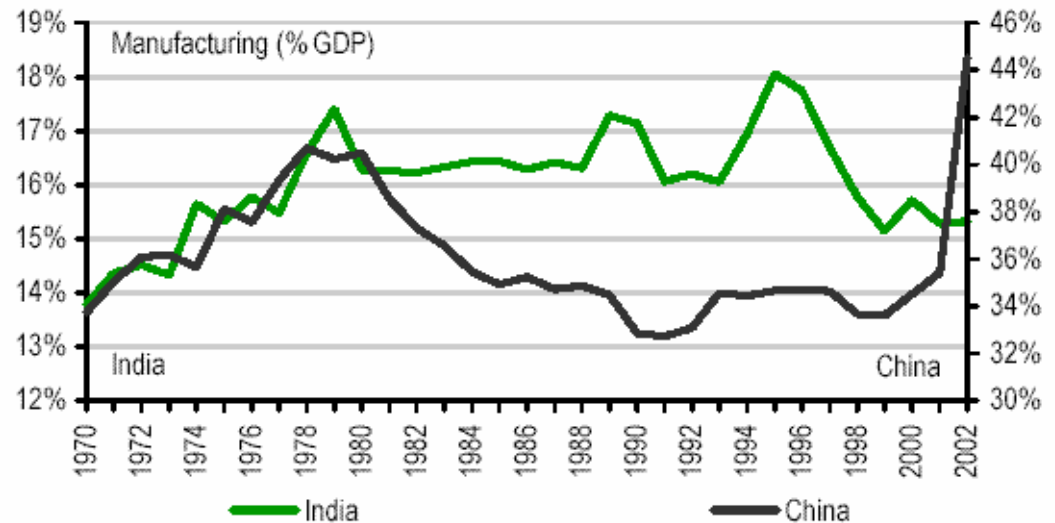
	India	China
Population (mill.)	1,031	1,283
GDP (US\$B)	515	1,281
GDP Per Capita (US\$)	500	1,000
Average % p.a. GDP Growth (10 Years)	6	9
GDP Components (%)		
- Agriculture	23	14
- Industry	27	59
- Services	50	27
Private Consumption (US\$B)	329	588
Private Cons'n Per Capita (US\$)	320	460
National Savings Ratio	18	40
Net FDI (US\$B)	4	46
External Debt (% of GDP)	19	11

Source: UBS

How does India compare?

Export focus and manufacturing

India's manufacturing sector contributing less than 16% of GDP – little change in 20 years...



Source: World Development Indicators, CEIC

Source: UBS Asian Economic Perspectives

...and with a relatively low export orientation compared to China and the Asian Tigers.

High levels of protection (import tariffs) have created a stronger focus on the domestic market (but demand is also weakened)

Source: World Development Indicators

How does India compare? Barriers to manufacturing market development...

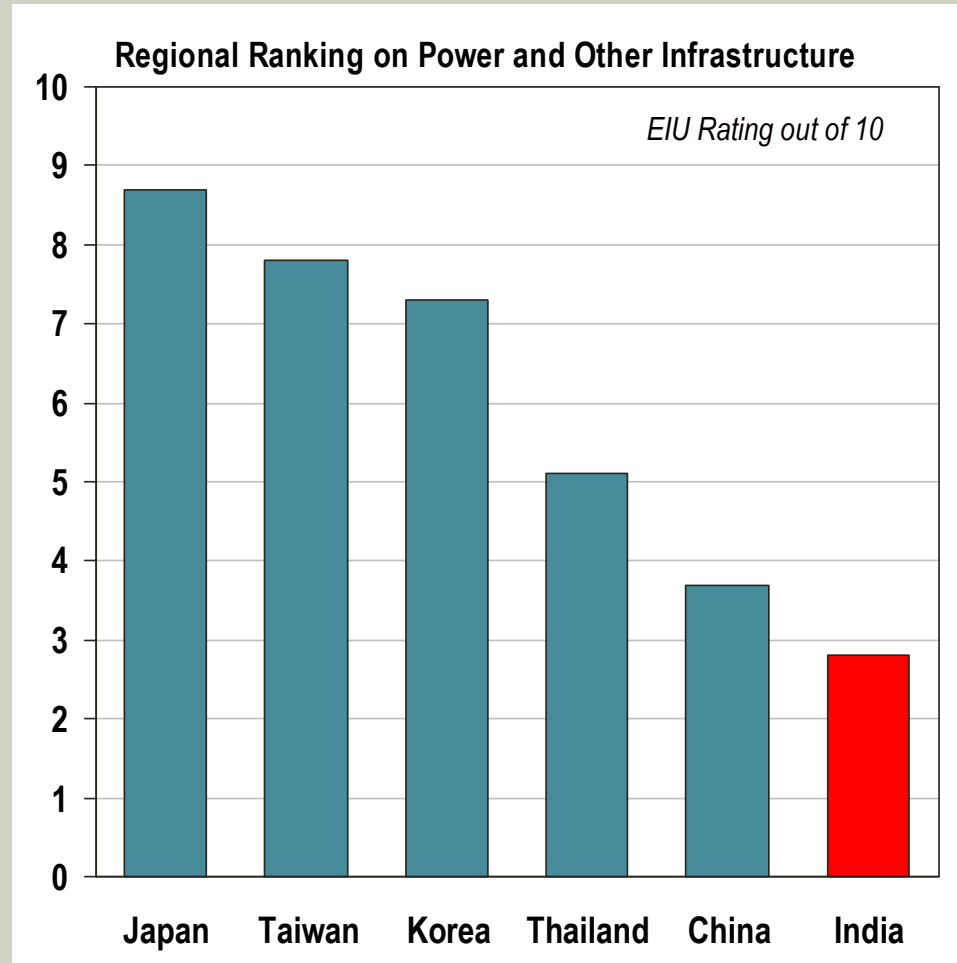
Poor Infrastructure...

India lags China in power, transport, and other key infrastructure required to support industrial development. Telecom sector has been deregulated, but other sectors characterised by inefficiency, high costs and rigid regulation.

China has much ground to make up in this area too, but is spending heavily on improving infrastructure

...But pending improvement?

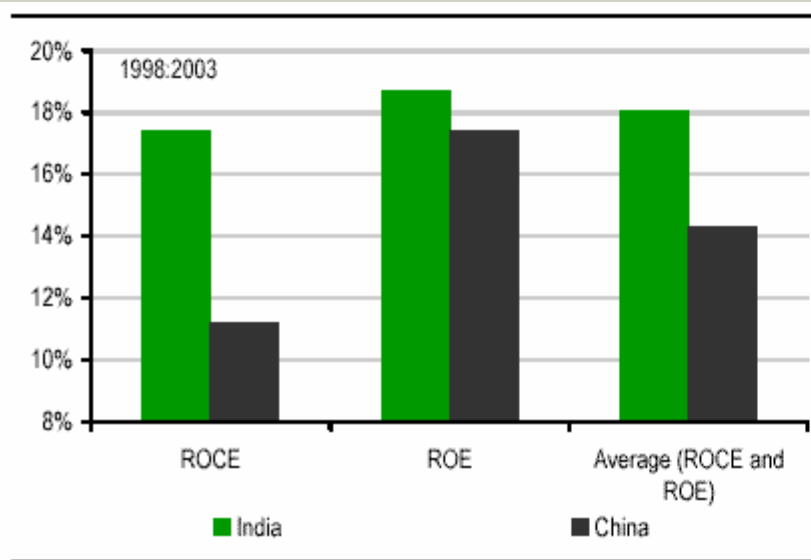
Plans under way in India for major road improvements, port deregulation and potential easing of impediments to more efficient power generation and transmission



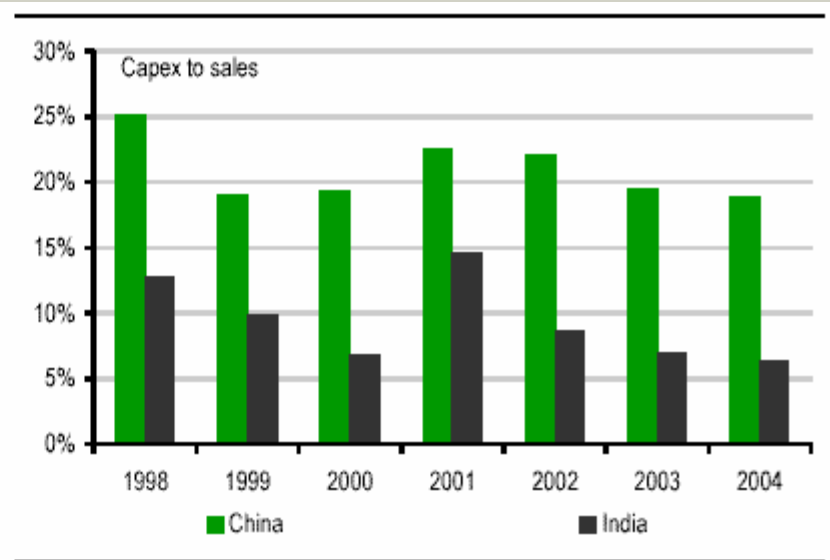
Source: Economist Intelligence Unit

How does India compare? Management...pros and cons

More prudent capital management?



Source: UBS estimates



Source: UBS estimates

Source: UBS – Asian Economic Perspectives

But further reform needed...

Cutting of import duties slowly under way...simplifying and cutting indirect taxes...opening up reserved industries to benefit from economies of scale, more flexible work practices

This presentation addresses two high level aspects of copper demand...

1. Intensity of use

- Continued growth depends on China and India
- It is still unclear how these markets will develop

2. India's growth path compared to China

- X India's manufacturing is less export orientated than China's
- X Infrastructure of both countries is poor, but China improving
- ✓ Management and technical strength
- ✓ Recent trends: Tariffs, roads, ports

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But, things never look better than from the top of a cycle
Demand shocks? Irrational supply? Technology?