

# THE ASIAN CENTURY, MINERALS & ENERGY AND THE AUSTRALIAN ECONOMY

PRESENTATION TO THE  
INTERNATIONAL MINING AND RESOURCES CONFERENCE

MELBOURNE EXHIBITION CENTRE – 10<sup>TH</sup> NOVEMBER 2015

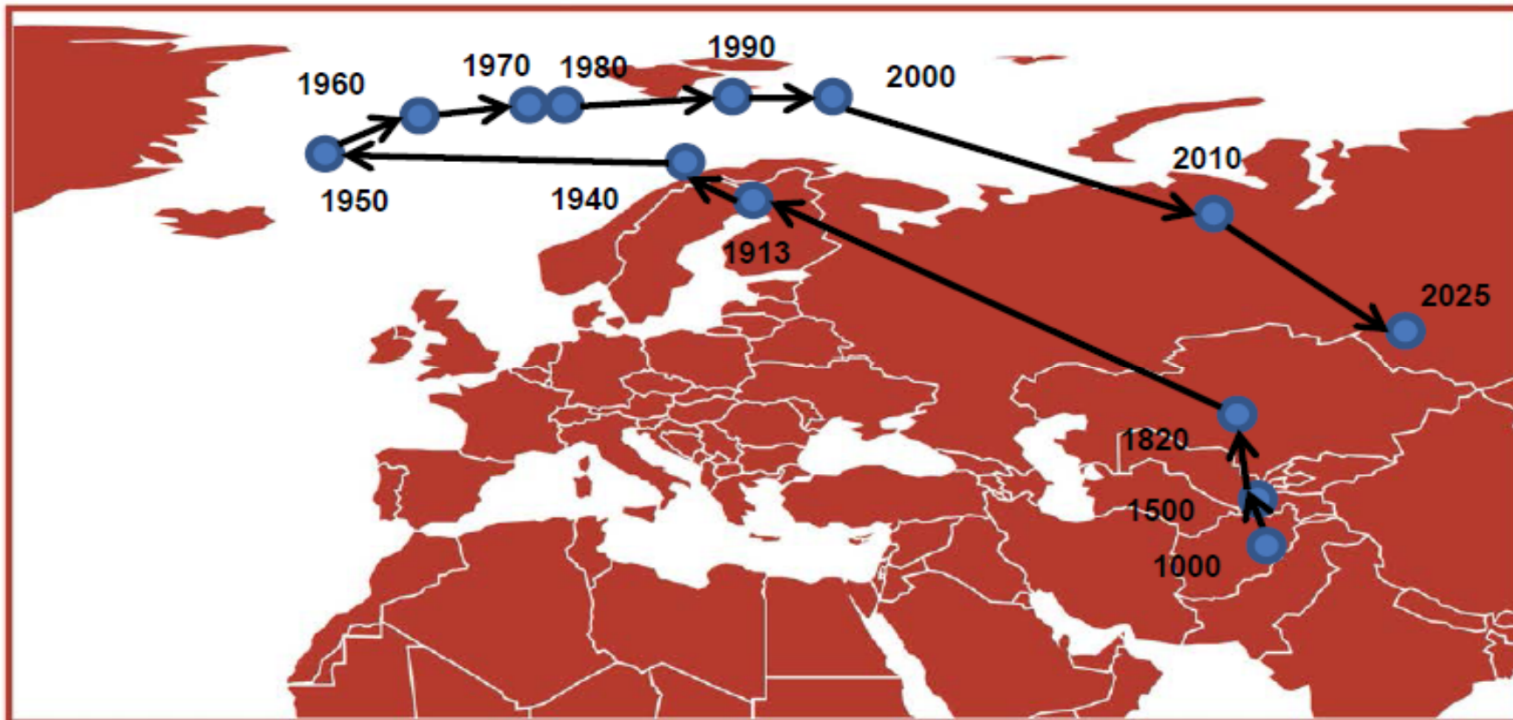
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You will have seen many charts like this ....

## THE 'GLOBAL CENTRE OF ECONOMIC GRAVITY'



At each point in time the 'centre of world economic gravity' is calculated by weighting the GDP for each region or country and measuring its relative importance against the known world economic capacity at that point.

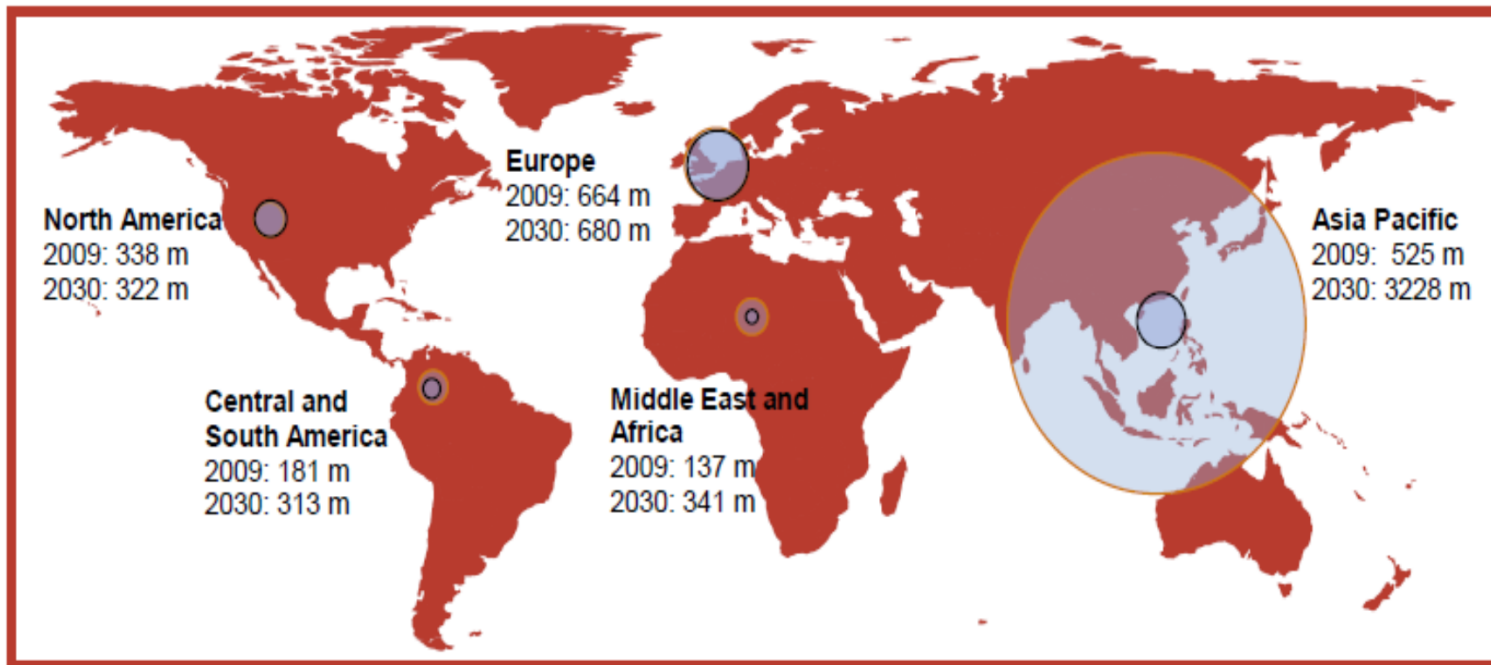
The centre of economic gravity slowly shifted from East Asia to Europe, then more quickly to the Atlantic, and in more recent decades has shifted quickly back towards Asia

Sources: McKinsey Global Institute, *Urban World: Cities and the Rise of the Consuming Class*, 2012; Australian Government, *Australia in the Asian Century* White Paper, October 2012.

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... and this ...

## 'MIDDLE CLASS CONSUMERS' NOW AND IN 2030



'Middle class' is defined as those households with daily expenditures of between US\$10 and US\$100 per person.

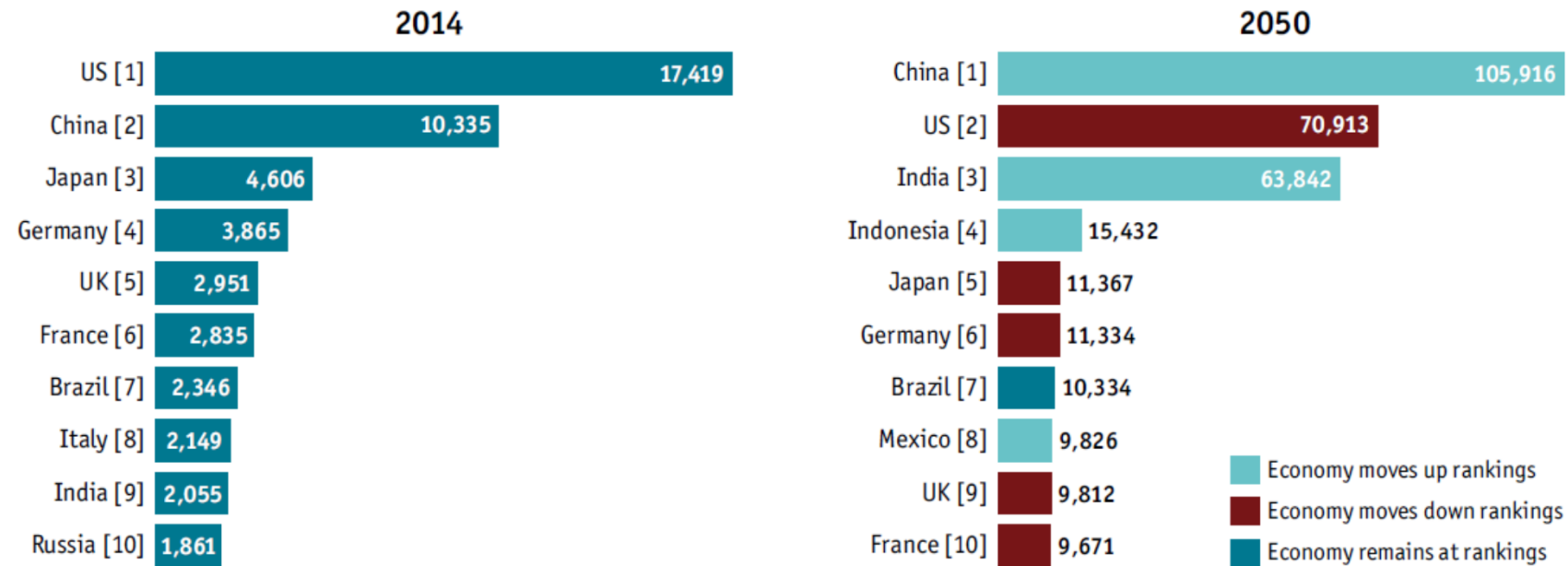
The circles depict the size of the middle class population in 2009 and 2030

Sources: Homi Kharas and Geoffrey Gertz, *The New Global Middle Class: A Cross-Over from West to East*, Wolfensohn Centre for Development, The Brookings Institution, Washington DC., 2010; Australian Government, *Australia in the Asian Century White Paper*, October 2012.

...based on forecasts like this ...

## TEN LARGEST ECONOMIES NOW AND IN 2050 AT MARKET EXCHANGE RATES

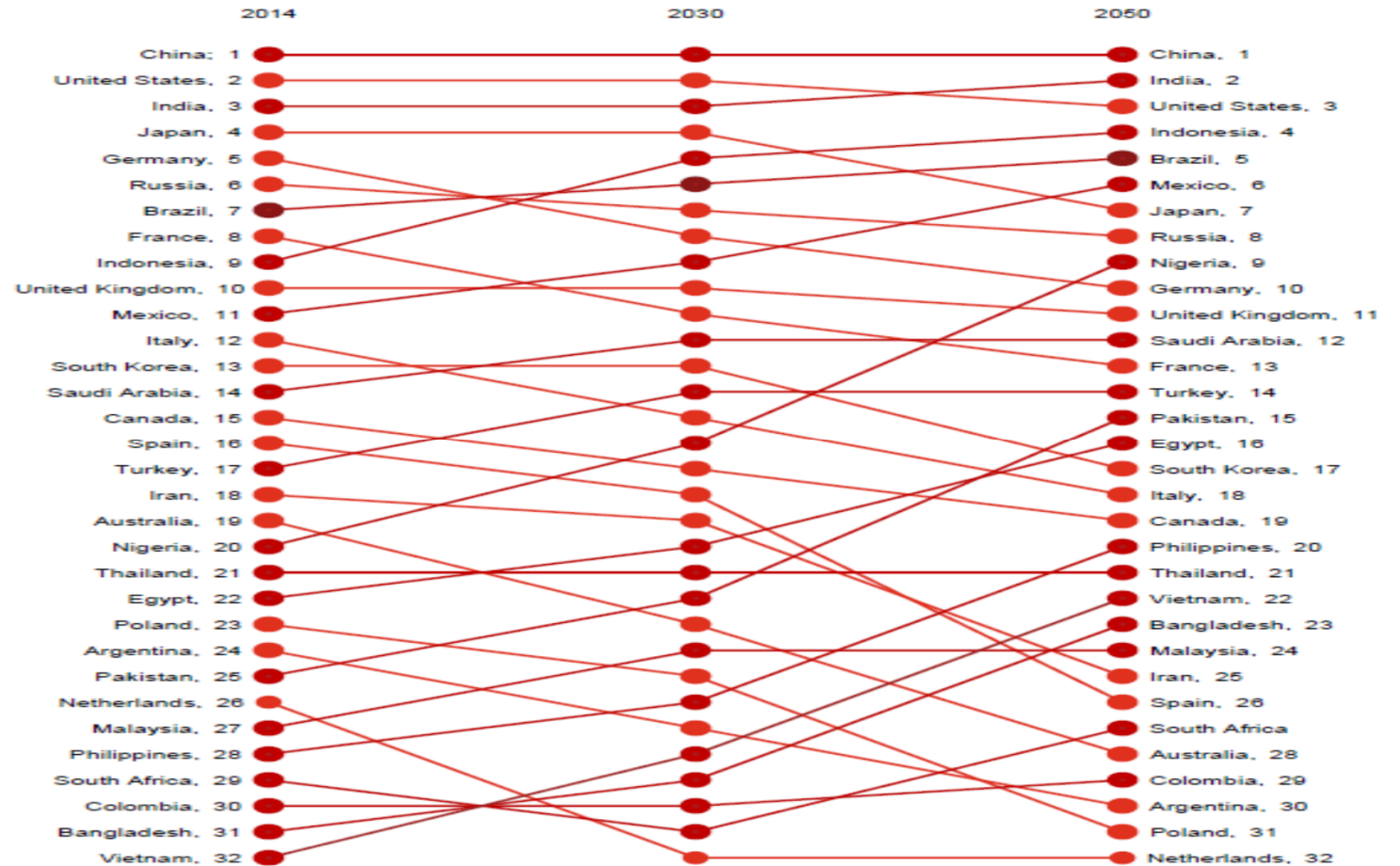
**Nominal GDP**  
(US\$ bn)



Source: Economist Intelligence Unit, *Long term macro economic forecasts – Key trends to 2050*, 2015.

... or this

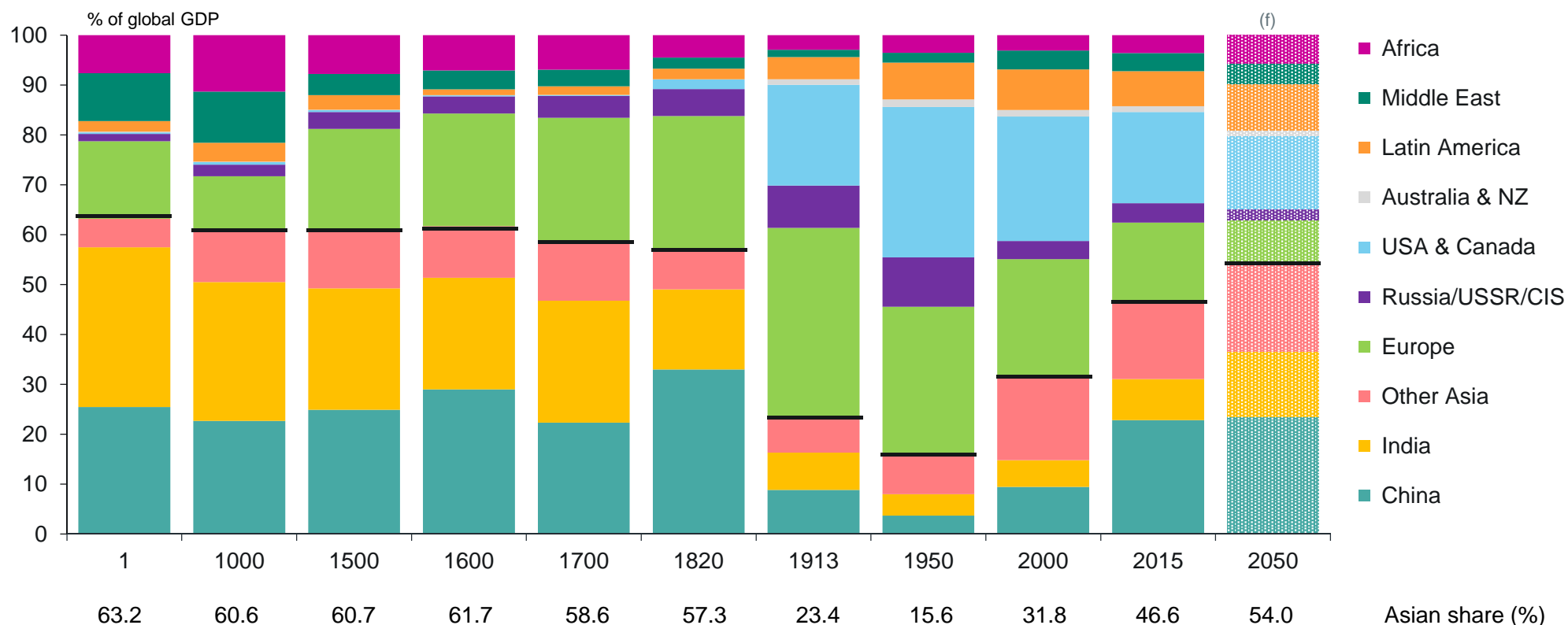
## 32 LARGEST ECONOMIES NOW, IN 2030 AND IN 2050 AT PPP EXCHANGE RATES



Source: PricewaterhouseCoopers, *The World in 2050: will the shift in global economic power continue?*, February 2015.

# Actually, Asia is returning to the shares of global GDP it has held throughout most of recorded human history – and most of that has already happened

## SHARES OF GLOBAL GDP BETWEEN 1AD AND TODAY, AND IN 2050

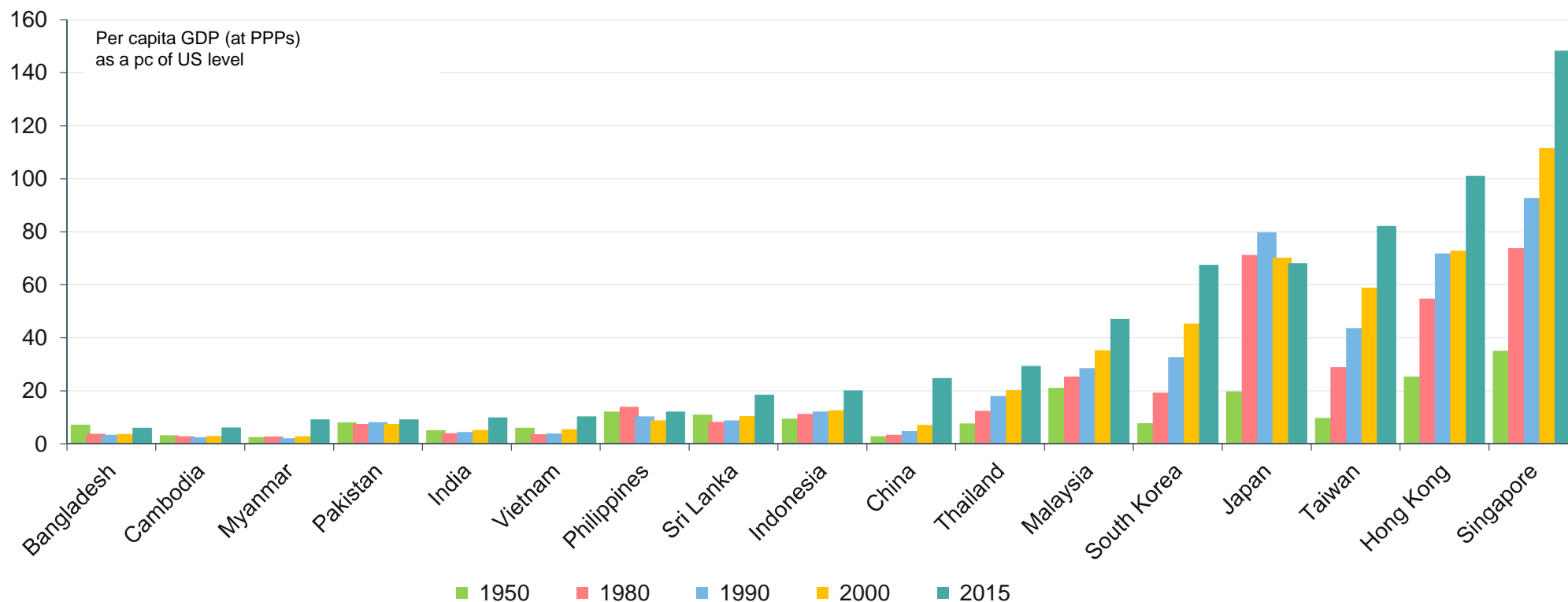


Note: Country or regional GDPs are in 1990 US\$ at Geary-Khamis purchasing power parities (PPPs).

Sources: Groningen Growth & Development Centre, *The Maddison Project*; The Conference Board, *Total Economy Database*, May 2015; author's calculations & estimates.

# Most East Asian countries aren't as desperately poor as they were six, or even three, decades ago

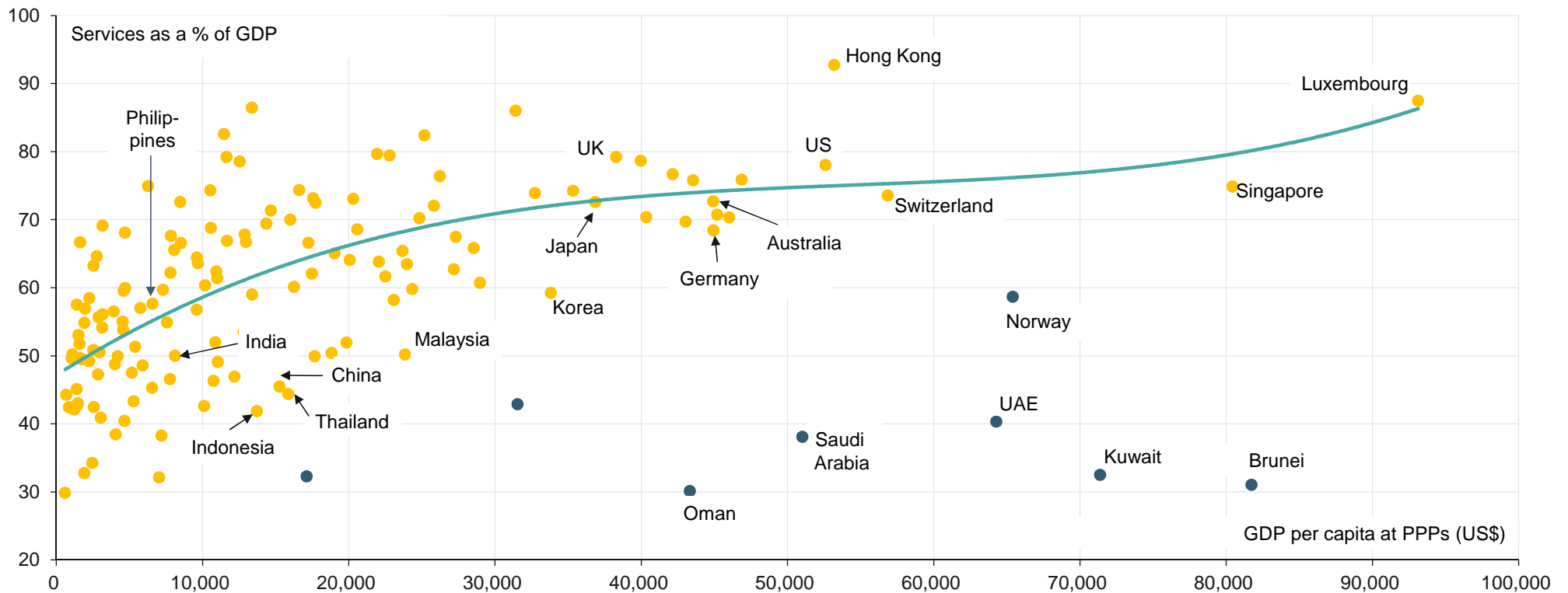
## ASIAN LIVING STANDARDS RELATIVE TO THOSE OF THE UNITED STATES



Sources: The Conference Board, *Total Economy Database*, May 2015; author's calculations.

# As countries become richer, services typically account for a larger share of economic activity (except in oil-producing countries)

## PER CAPITA GDP AND THE RELATIVE IMPORTANCE OF THE SERVICES SECTOR , 2013

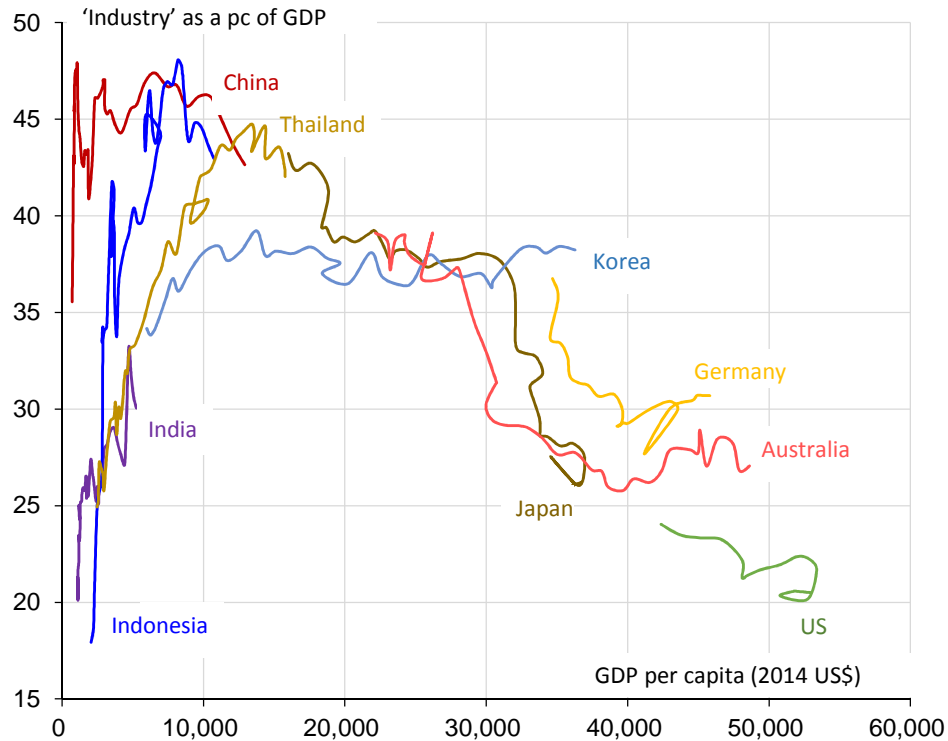


Note: Trend line shown is a 3<sup>rd</sup> order polynomial regression excluding the countries shown in dark blue,  $R^2 = 0.45$   
Sources: The World Bank database; IMF, *World Economic Outlook* October 2015 database

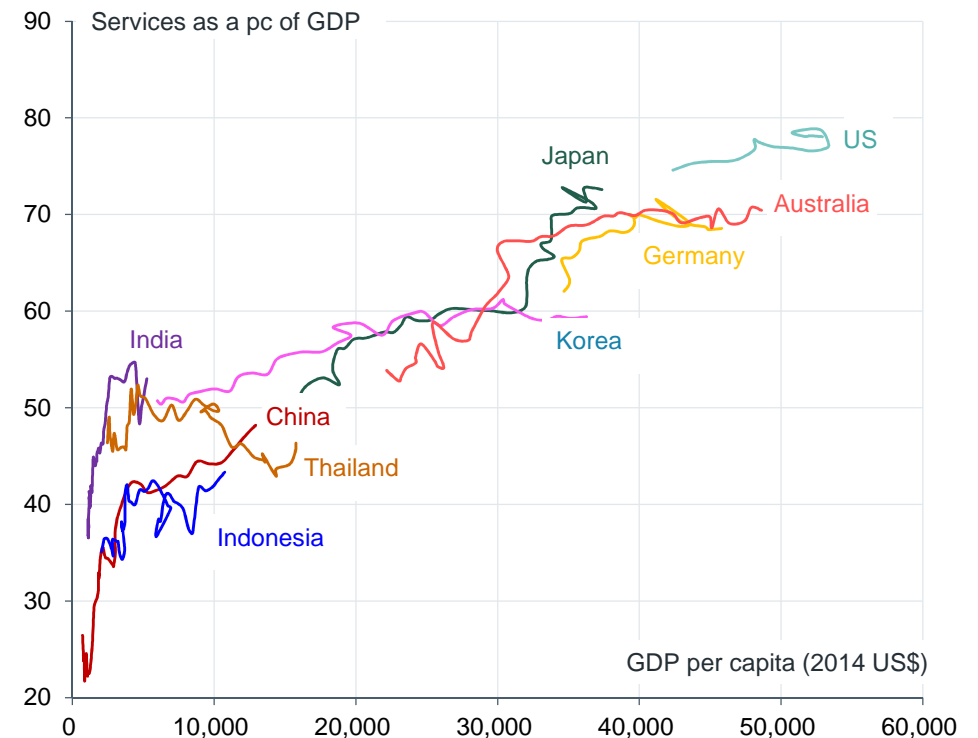


# Most Asian countries seem to have already passed the point where manufacturing starts to decline, and services begin to rise, as shares of GDP

## 'INDUSTRY' AS A PC OF GDP vs LEVEL OF PER CAPITA GDP, 1969-2014



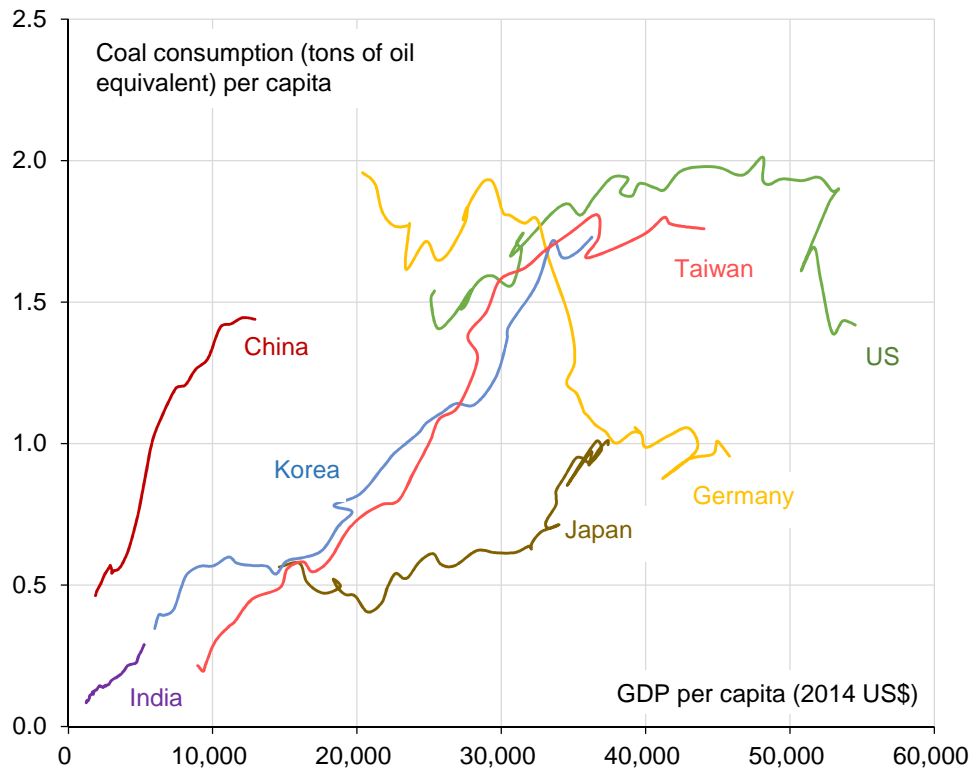
## SERVICES AS A PC OF GDP vs LEVEL OF PER CAPITA GDP, 1969-2014



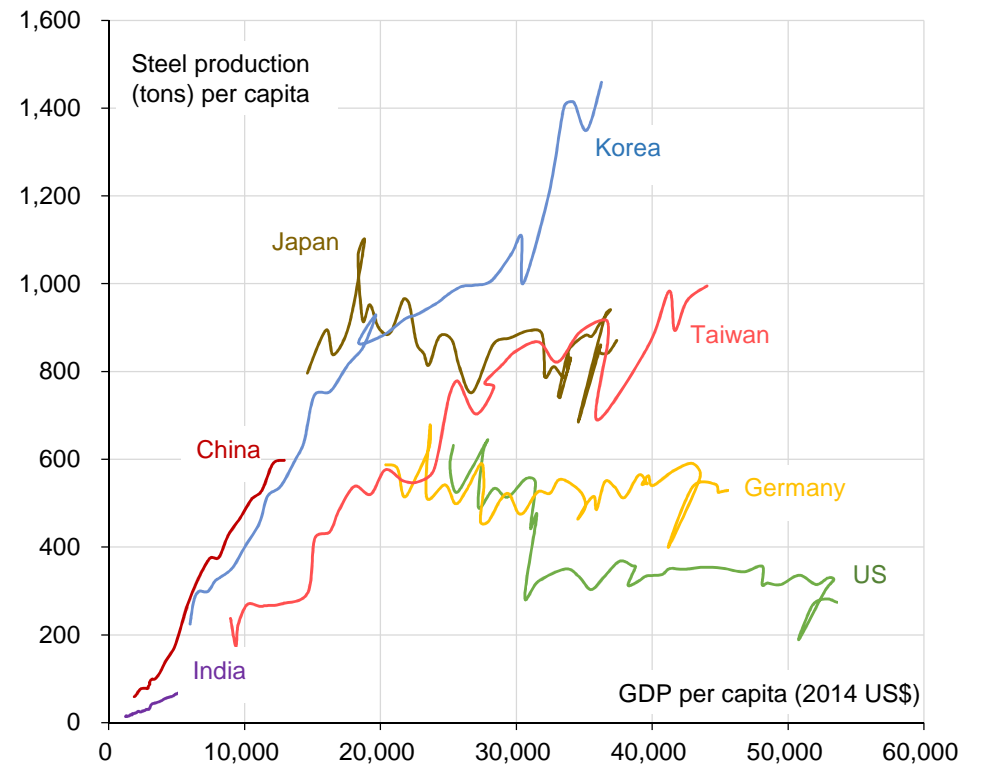
Note: 'Industry' includes mining, utilities and construction, as well as manufacturing. Data for industry shares of US GDP only available (from same source) for 1997-2014, and for Germany from 1991-2014. Sources: The World Bank; The Conference Board *Total Economy Database* May 2015.

# 'Coal intensity' appears to have peaked in all major Asian economies except India: and the peak in Chinese 'steel intensity' may not be far away, if not already at hand

## COAL INTENSITY OF ECONOMIC ACTIVITY, 1969-2014



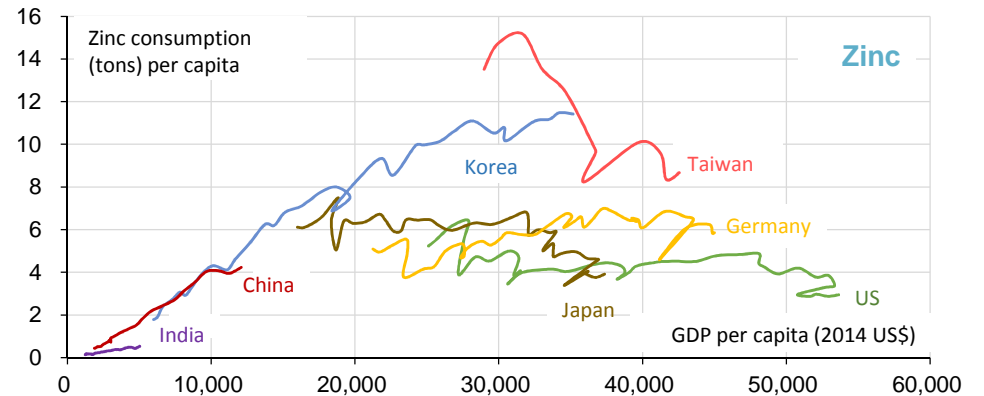
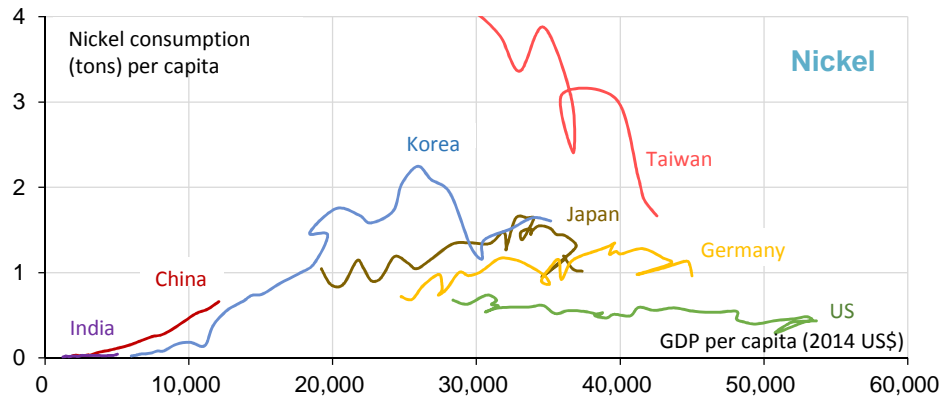
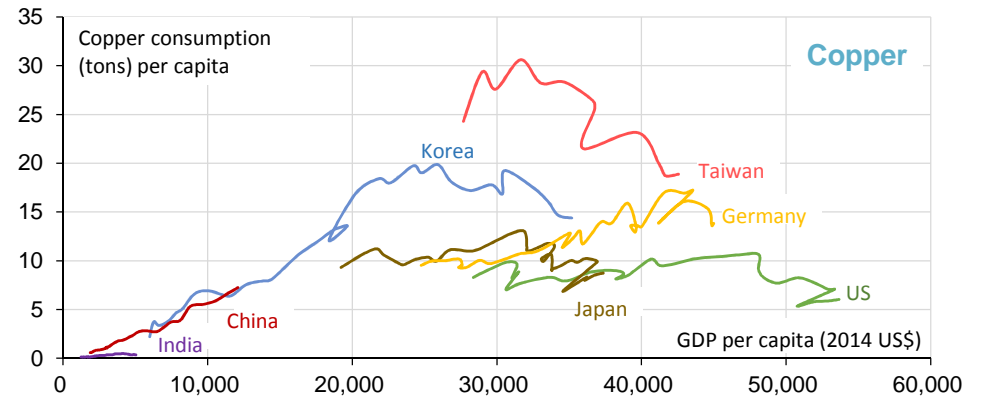
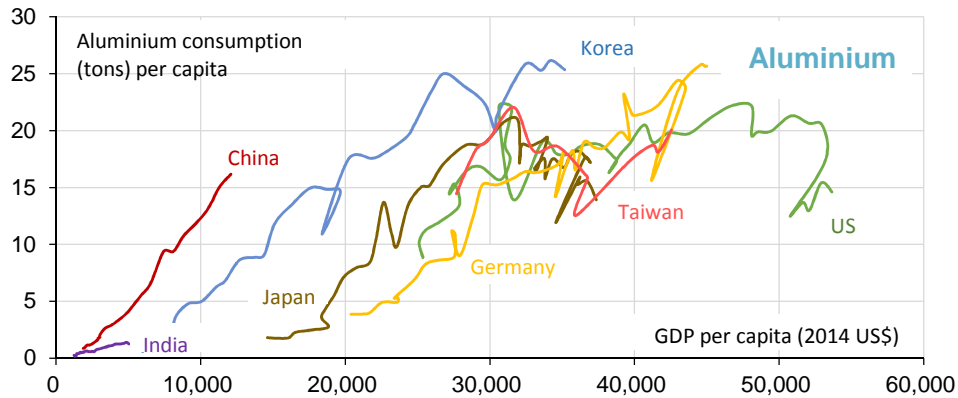
## STEEL INTENSITY OF ECONOMIC ACTIVITY, 1969-2014



Sources: World Steel Institute, *Steel Statistical Yearbook*; BP, *Statistical Review of World Energy*, June 2015; The Conference Board *Total Economy Database* May 2015.

# There appears to be some scope for further increases in China's base metal intensity (apart from aluminium) – and substantial potential in India

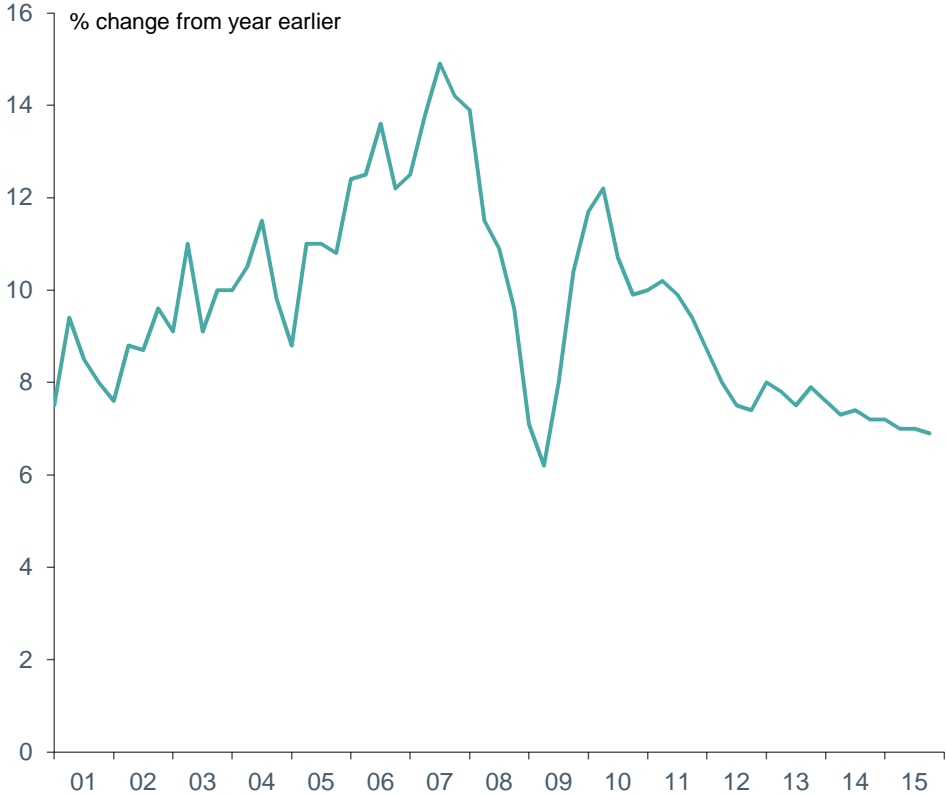
## BASE METAL INTENSITY OF ECONOMIC ACTIVITY, 1969-2014



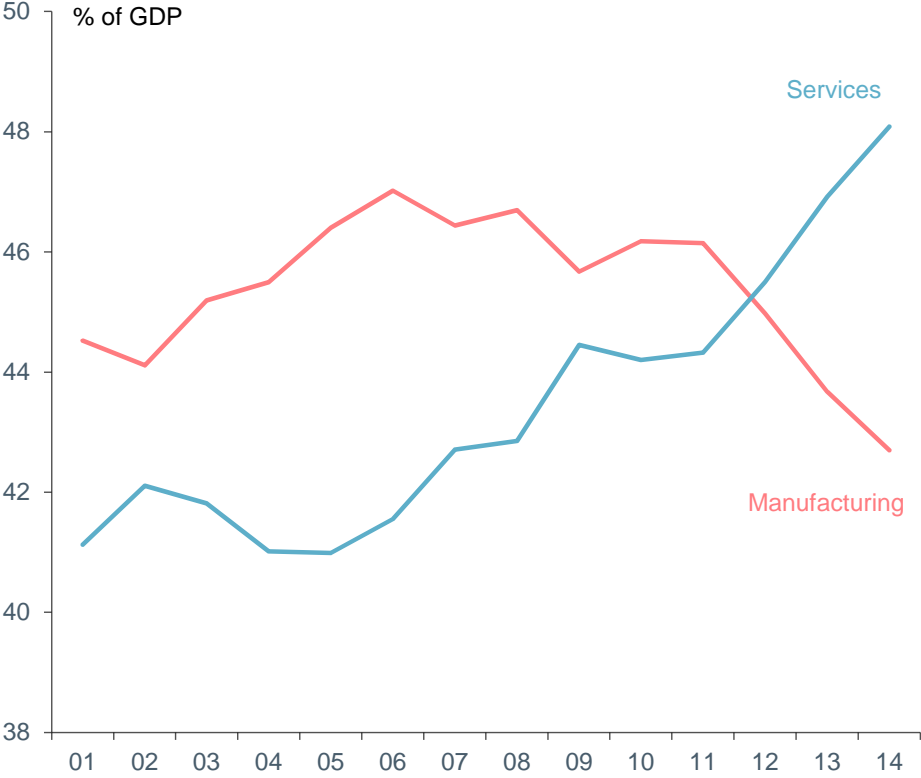
Sources: Wood McKenzie; The Conference Board *Total Economy Database* May 2015.

# China's economic growth rate is slowing – and the 'mix' of Chinese growth is changing

## CHINESE REAL GDP



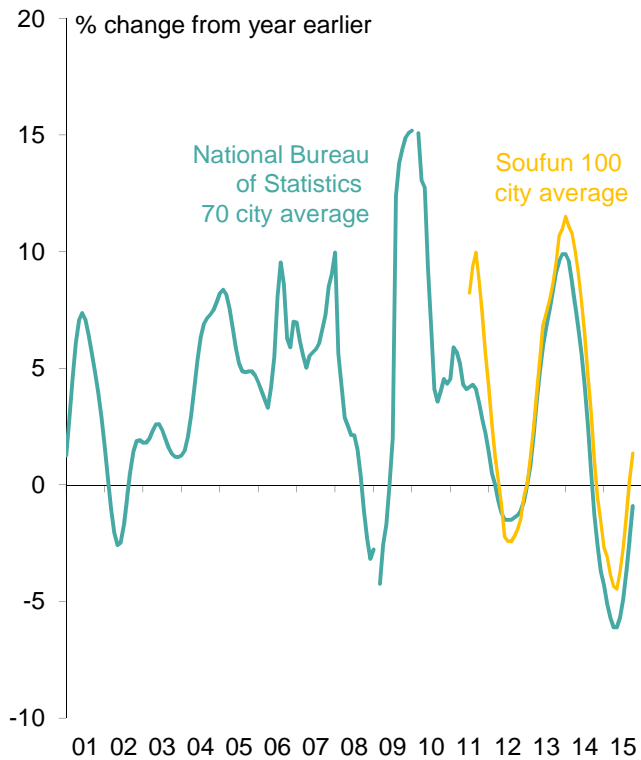
## SECTOR COMPOSITION OF CHINESE GDP



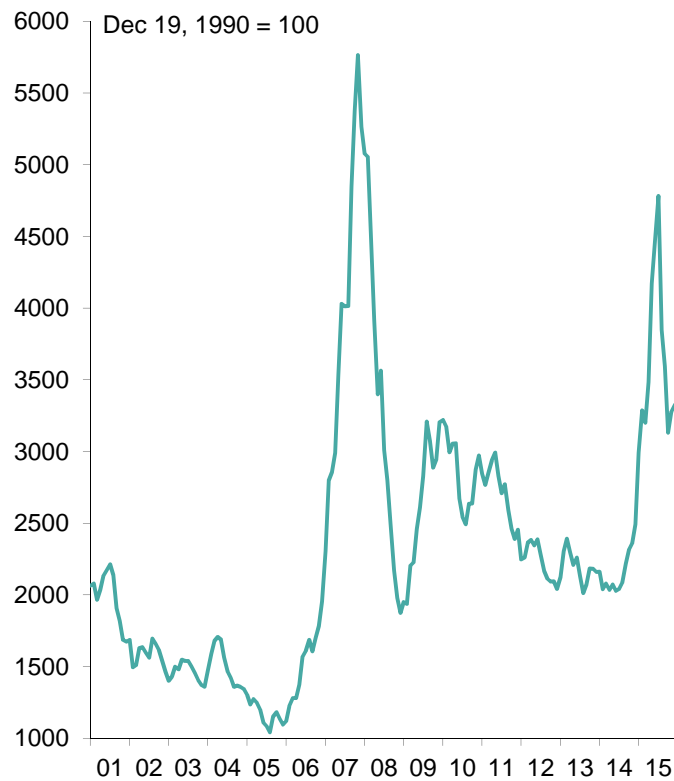
Source: China National Bureau of Statistics.

# Markets have lost some of their confidence in the Chinese authorities' ability to 'engineer' pre-determined outcomes

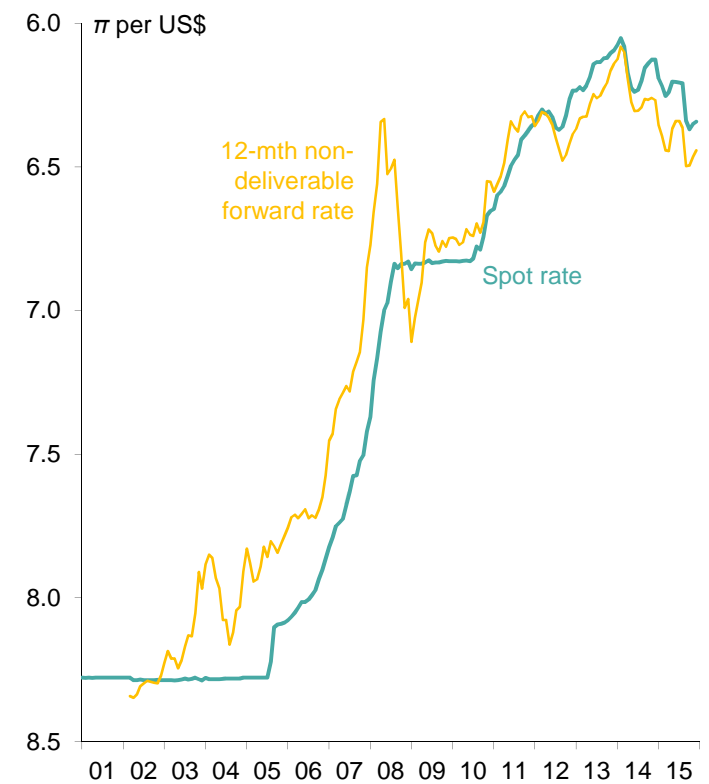
## CHINESE URBAN RESIDENTIAL PROPERTY PRICES



## CHINESE SHARE PRICES (SHANGHAI COMPOSITE)



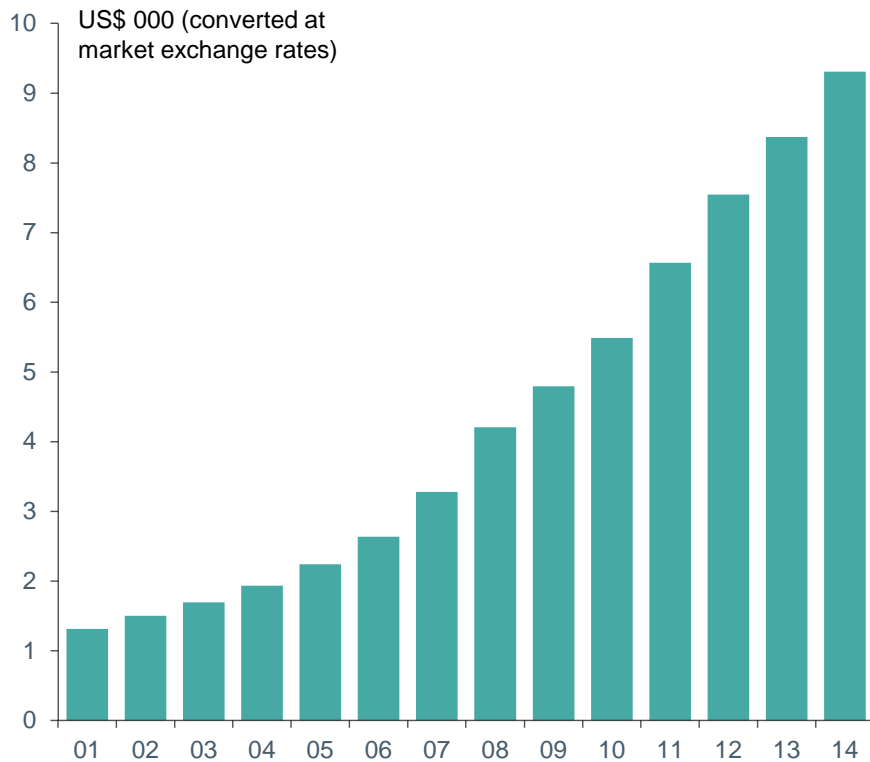
## CHINESE YUAN vs US DOLLAR



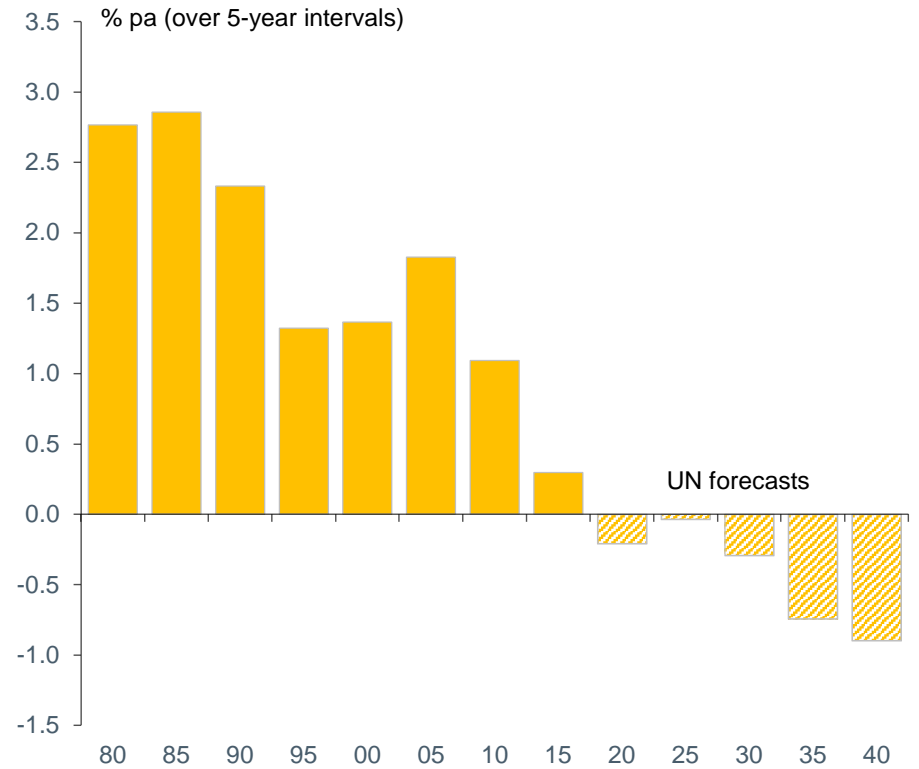
Sources: China National Bureau of Statistics; Soufun; Thomson Reuters.

# Chinese workers aren't so cheap any more: and there will be fewer of them from now on

## AVERAGE WAGES OF URBAN CHINESE WORKERS IN US\$



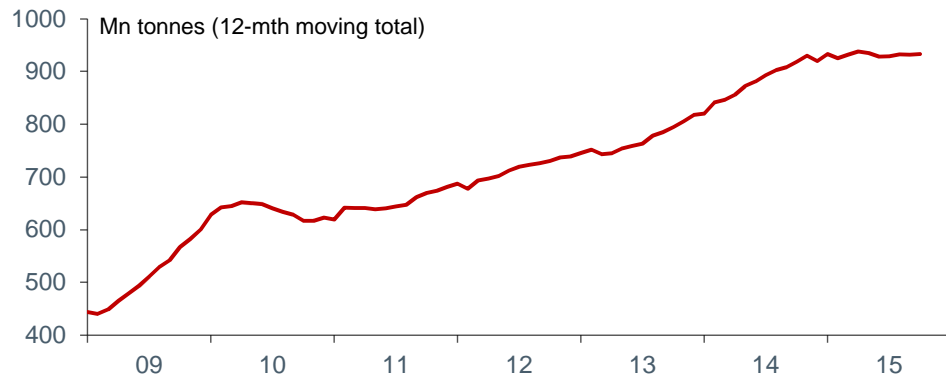
## GROWTH RATE OF CHINA'S WORKING-AGE POPULATION



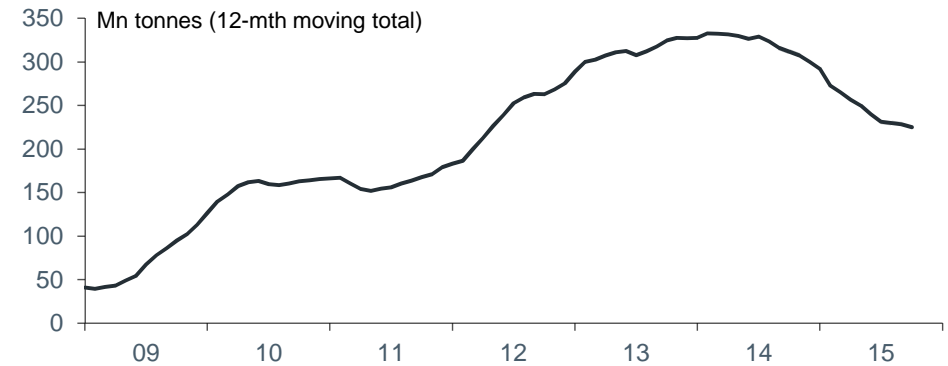
Sources: China National Bureau of Statistics; United Nations Economic & Social Affairs Division, *Population Prospects*; author's calculations.

# China's imports of mineral and energy commodities will grow more slowly, or fall, at a time when Australian exports are rising – with obvious implications for prices

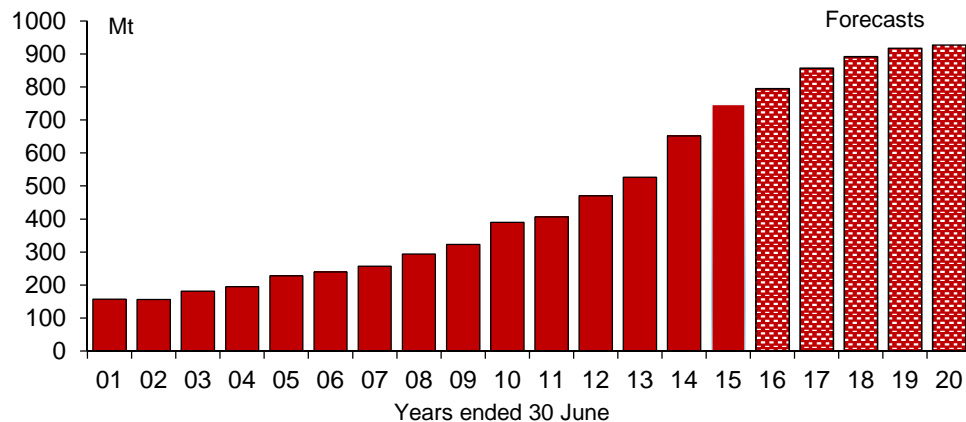
## CHINESE IRON ORE IMPORTS



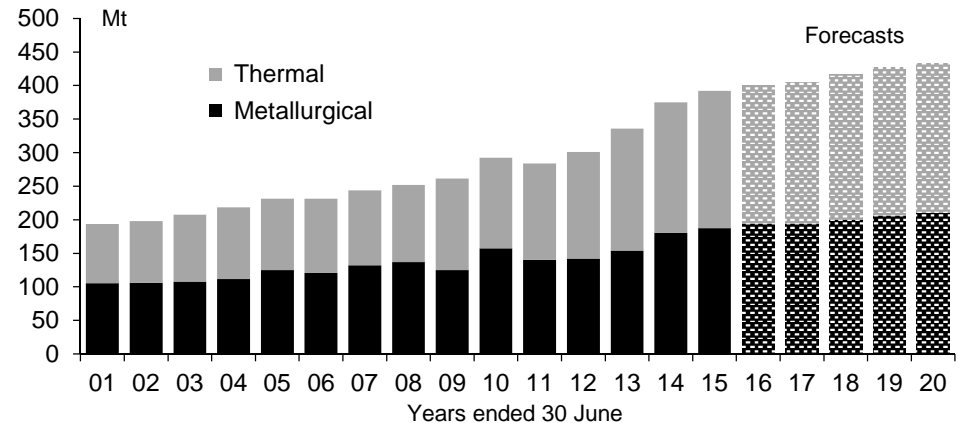
## CHINESE COAL IMPORTS



## AUSTRALIAN IRON ORE EXPORTS



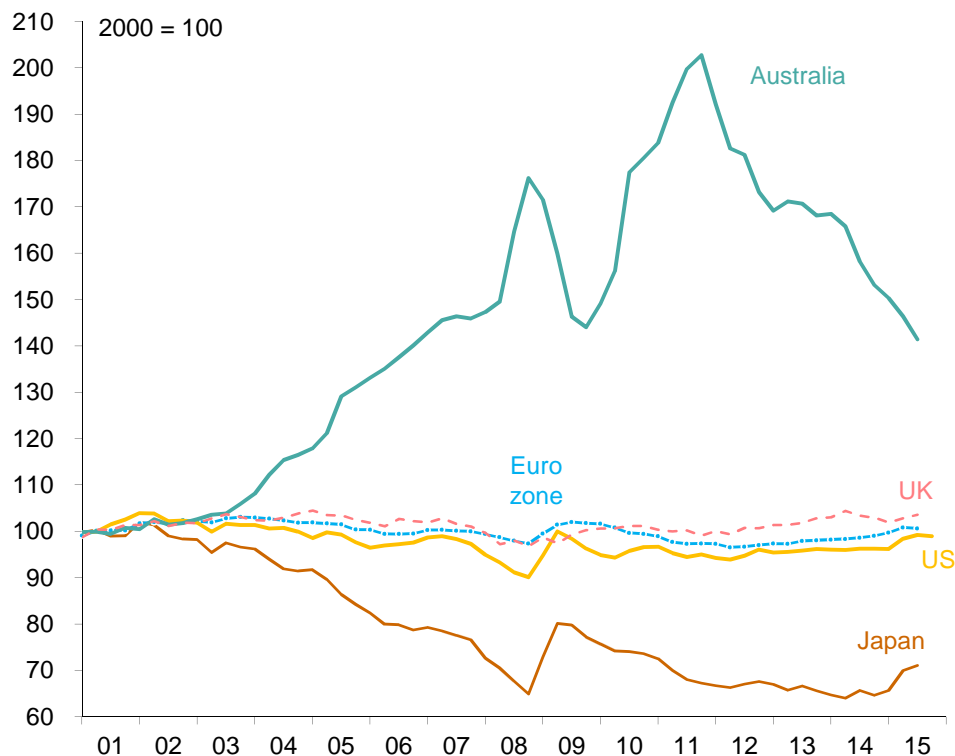
## AUSTRALIAN COAL EXPORTS



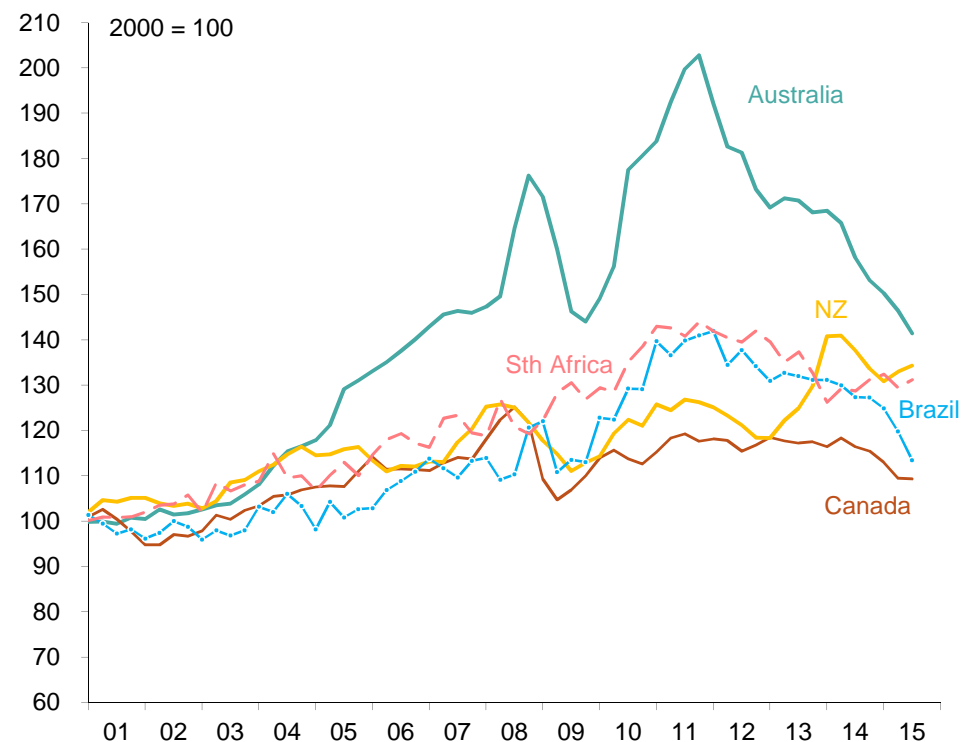
Sources: China Customs Information Center; Office of the Chief Economist, Australian Department of Industry, Innovation & Science.

# Australia probably derived more benefit from Chinese growth and industrialization than any other nation on earth

## TERMS OF TRADE – AUSTRALIA vs OTHER 'ADVANCED' ECONOMIES



## TERMS OF TRADE – AUSTRALIA vs OTHER COMMODITY-EXPORTING ECONOMIES



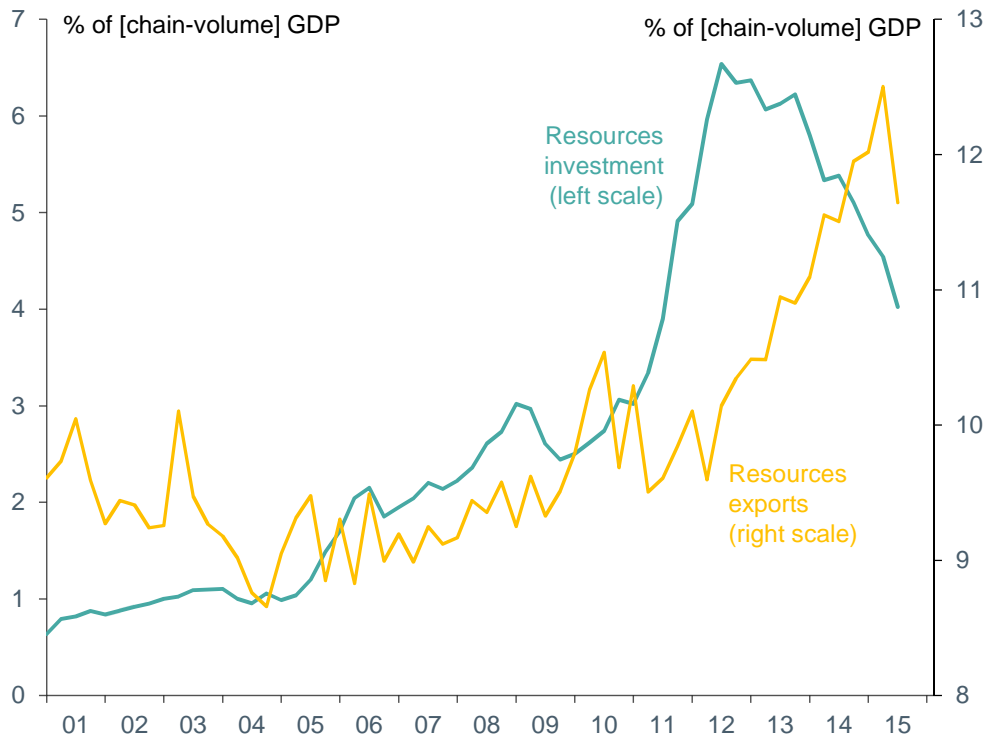
Note: The 'terms of trade' is the ratio of the implicit price deflator of exports of goods and services to the implicit price deflator of imports of goods and services.

Sources: ABS; US Bureau of Economic Analysis; Eurostat; UK Office for National Statistics; Japan Economic & Social Research Institute; Statistics NZ; Statistics Canada; Statistics South Africa; Instituto Brasileiro de Geografia e Estatística; author's calculations.

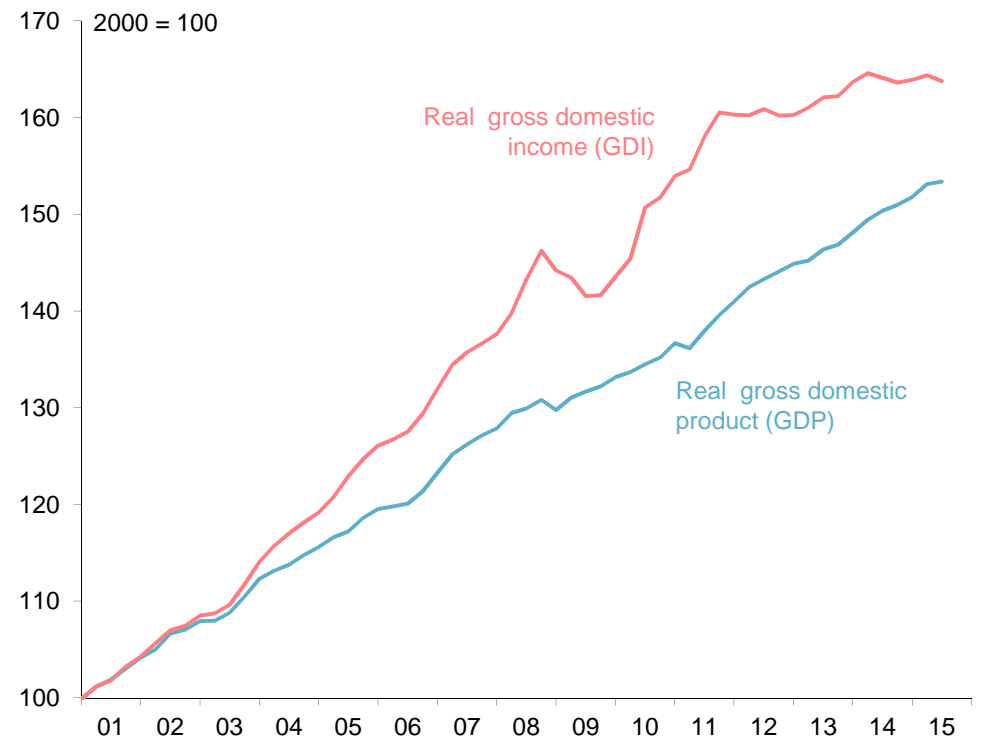


# China's demand for Australian resources substantially boosted Australia's output and income

## AUSTRALIA'S RESOURCES INVESTMENT AND EXPORTS



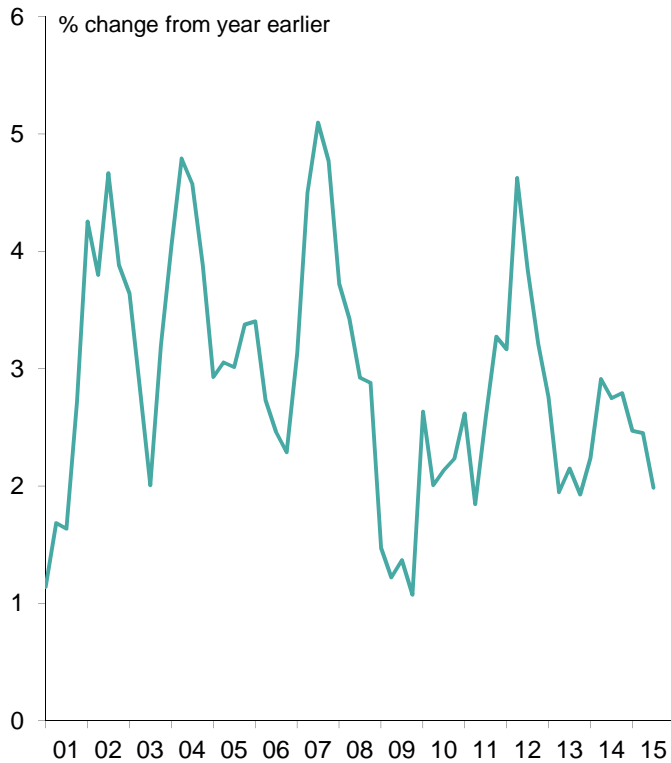
## AUSTRALIA'S REAL GROSS DOMESTIC PRODUCT AND INCOME



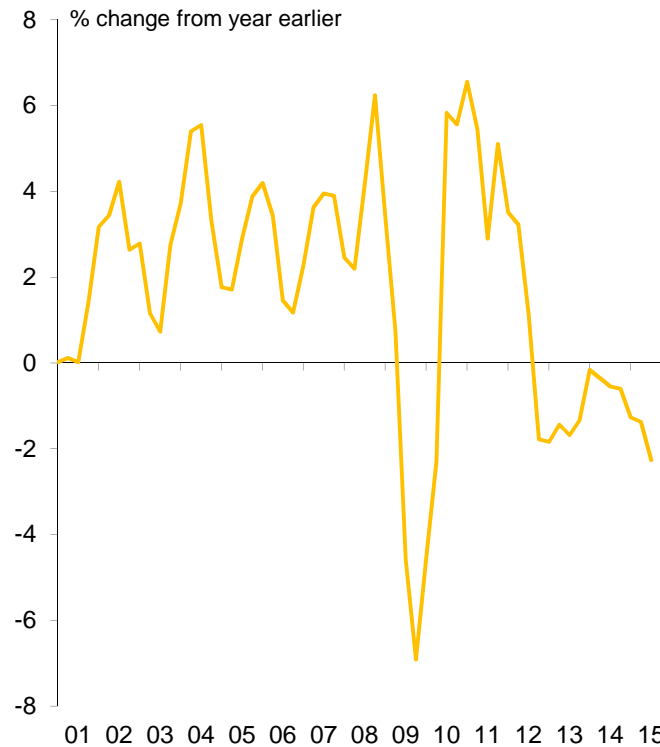
Note: Resources investment includes exploration expenditure. Real gross domestic income (GDI) is real GDP adjusted for changes in the terms of trade.  
Source: ABS.

# Australia has experienced sub-trend growth, declining real per capita incomes and rising unemployment since commodity prices peaked in 2011

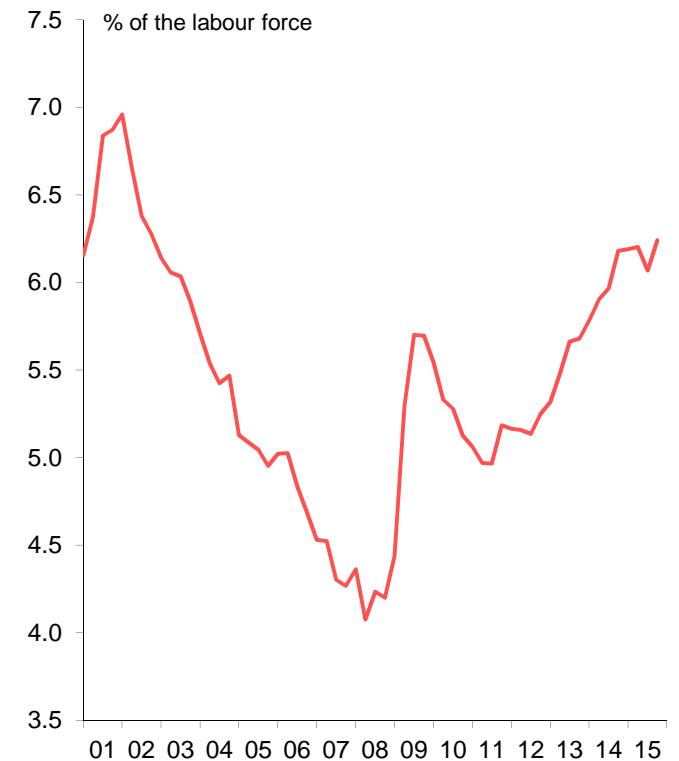
## AUSTRALIA – REAL GDP GROWTH



## GROWTH IN REAL NET NATIONAL DISPOSABLE INCOME PER HEAD



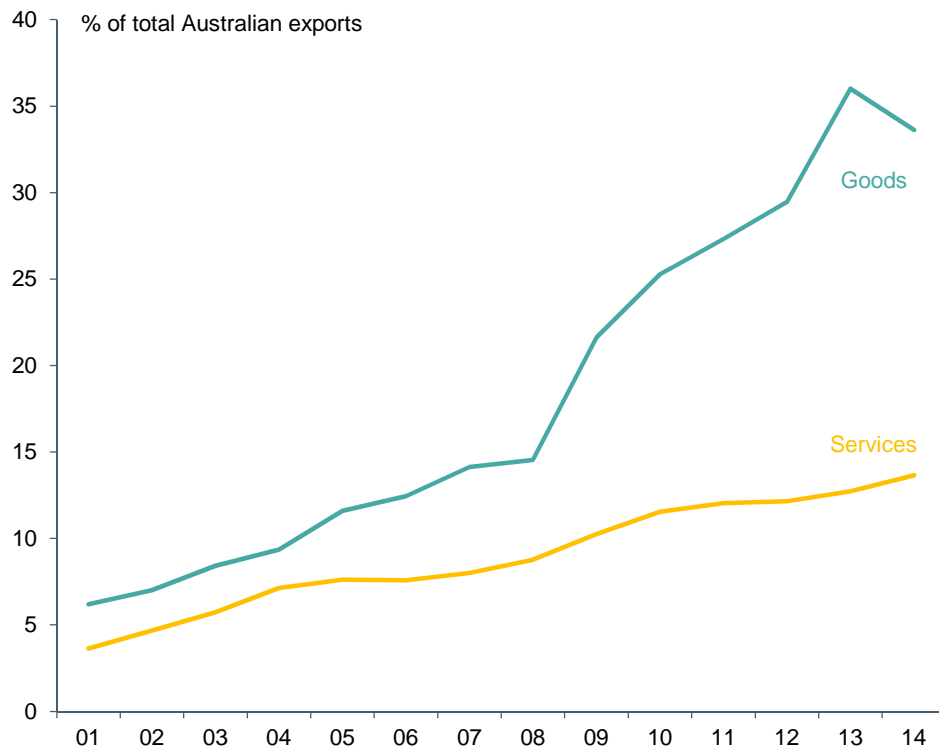
## UNEMPLOYMENT RATE



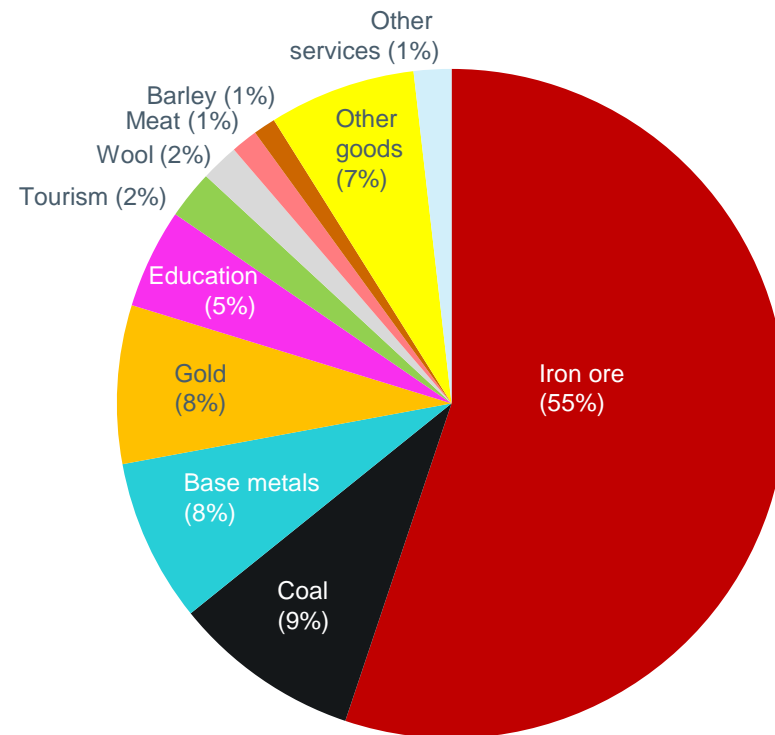
Note: Real net national disposable income (NNDI) is real GDP adjusted for changes in the terms of trade, minus net factor income and transfers overseas, minus depreciation. Source: ABS.

# Australia is more dependent on trade with China than we have been on any other single country since the 1950s – and our China trade is fairly narrowly based

## AUSTRALIA'S EXPORTS TO CHINA AS A PC OF TOTAL EXPORTS



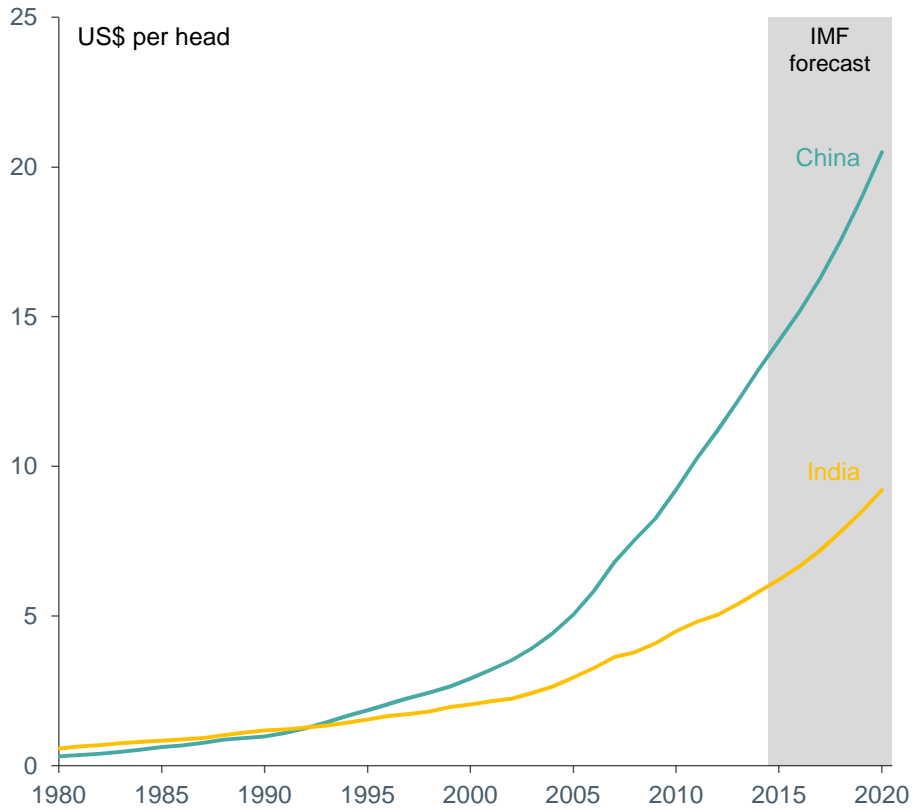
## COMPOSITION OF AUSTRALIA'S EXPORTS TO CHINA, 2014



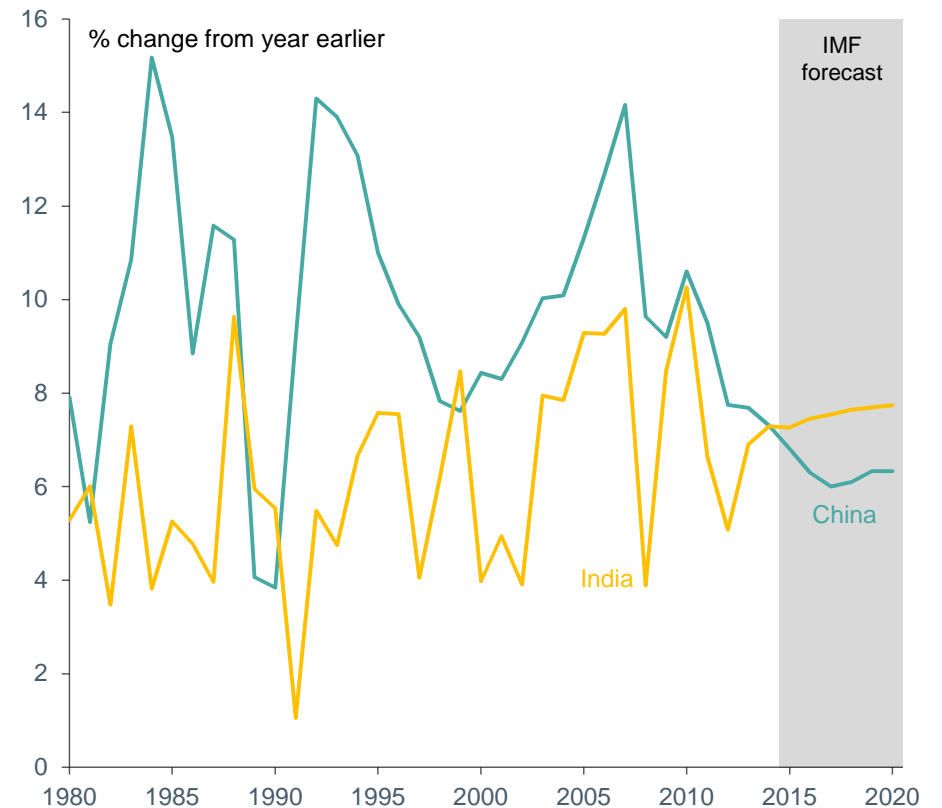
Sources: ABS; Department of Foreign Affairs & Trade.

# India has the potential for faster economic growth than China over the long term

## INDIA & CHINA PER CAPITA GDP COMPARED



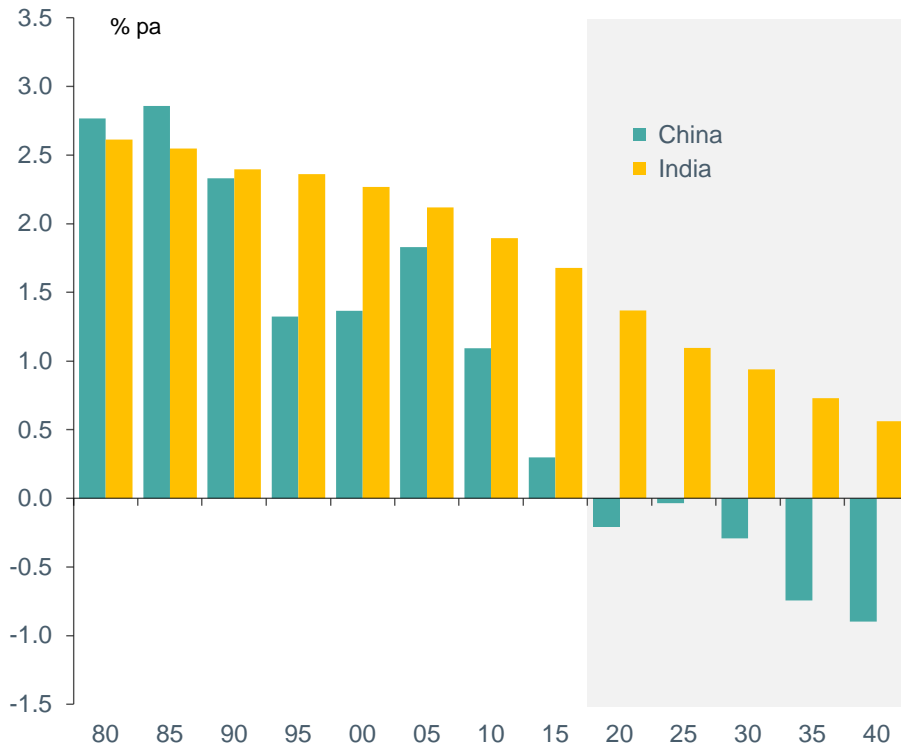
## INDIA & CHINA ECONOMIC GROWTH



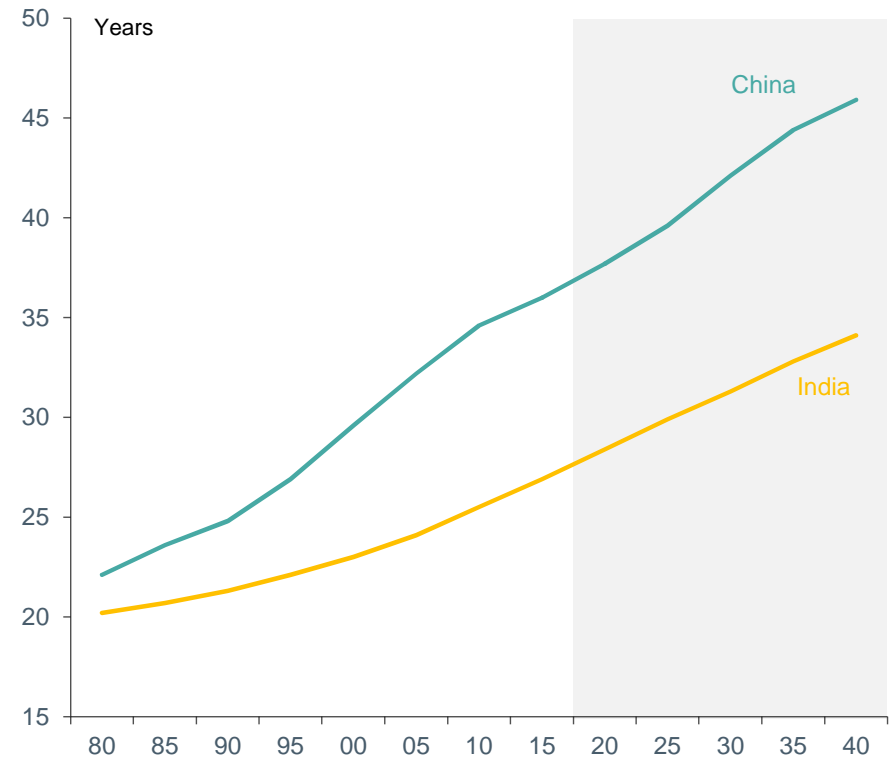
Source: International Monetary Fund *World Economic Outlook* October 2015.

# India's demographic profile is much more conducive to rapid economic growth than China's

## GROWTH RATE OF THE WORKING AGE POPULATION



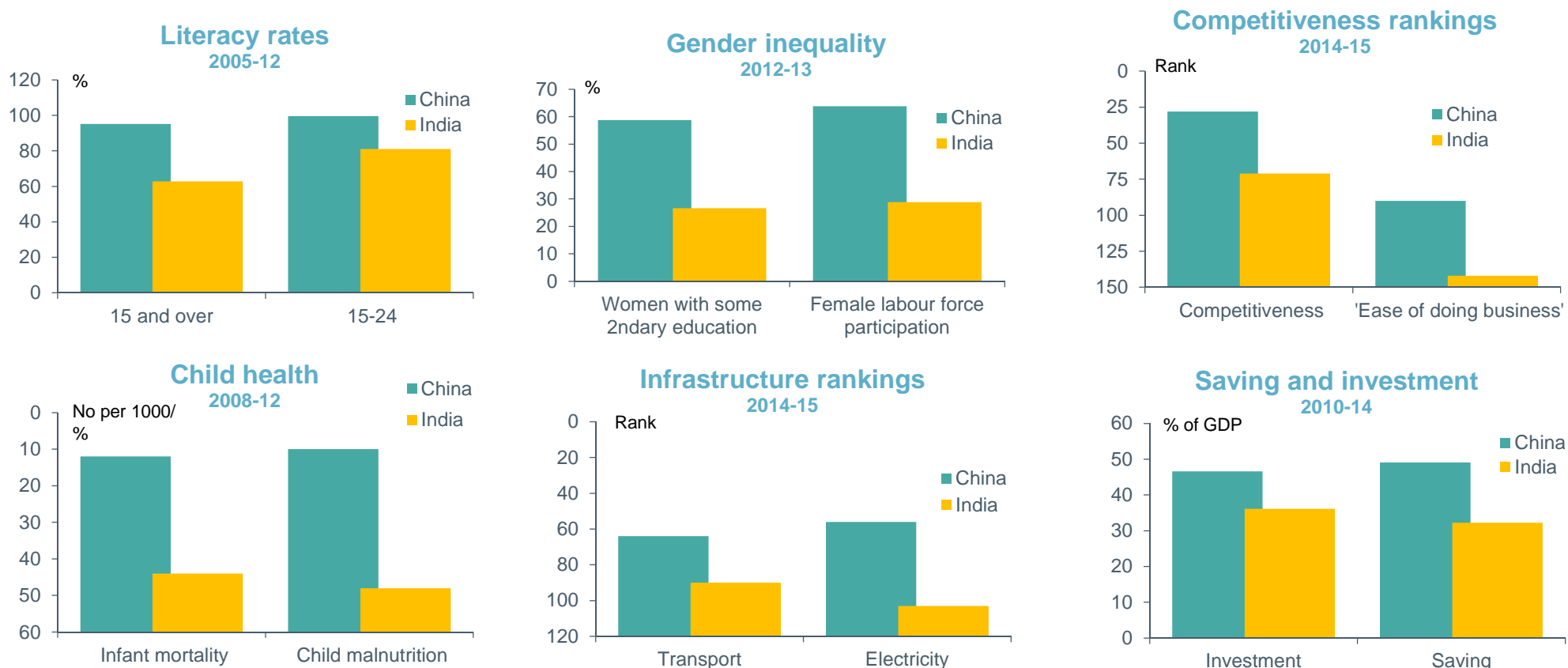
## MEDIAN AGE



Source: United Nations Economic & Social Affairs Division, *Population Prospects*.

# But on most other 'fundamental' indicators of development prospects, India is less well placed than China

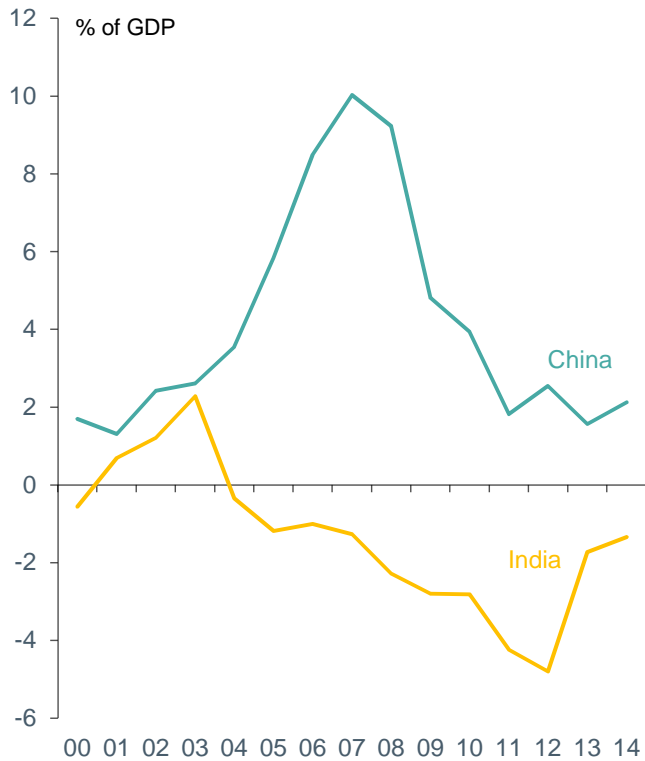
## DEVELOPMENT INDICATORS – CHINA AND INDIA COMPARED



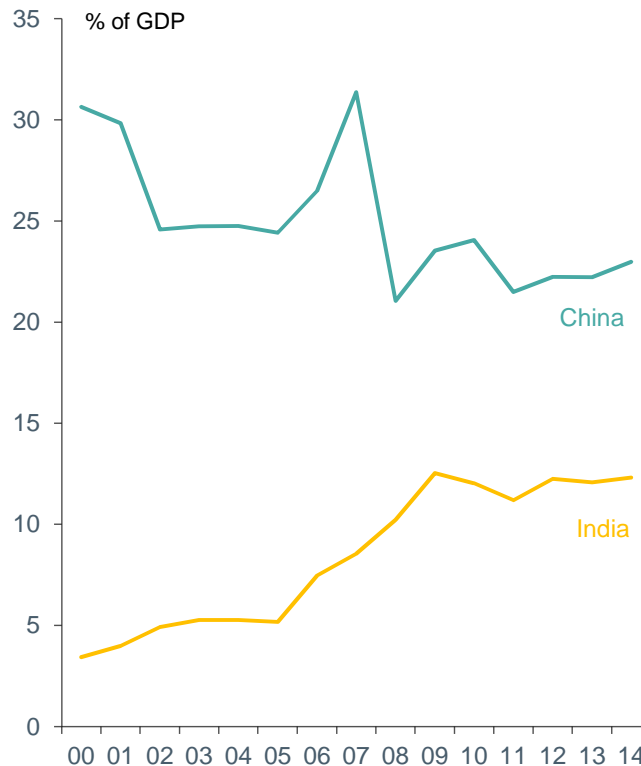
Sources: United Nations Human Development Program, *Human Development Report 2014*; World Economic Forum, *The Global Competitiveness Report 2014-15*; The World Bank, *Doing Business 2015*; International Monetary Fund, *World Economic Outlook October 2015*.

# Because India runs current account deficits and is less open to foreign direct investment, it is more vulnerable to external shocks than China

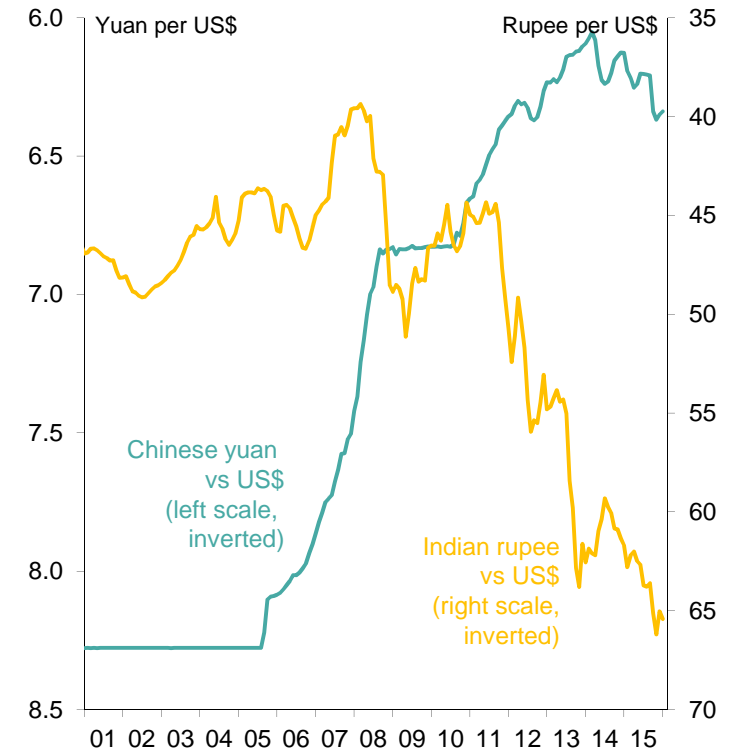
## INDIA AND CHINA – CURRENT ACCOUNT BALANCES



## INDIA AND CHINA – FOREIGN DIRECT INVESTMENT STOCK



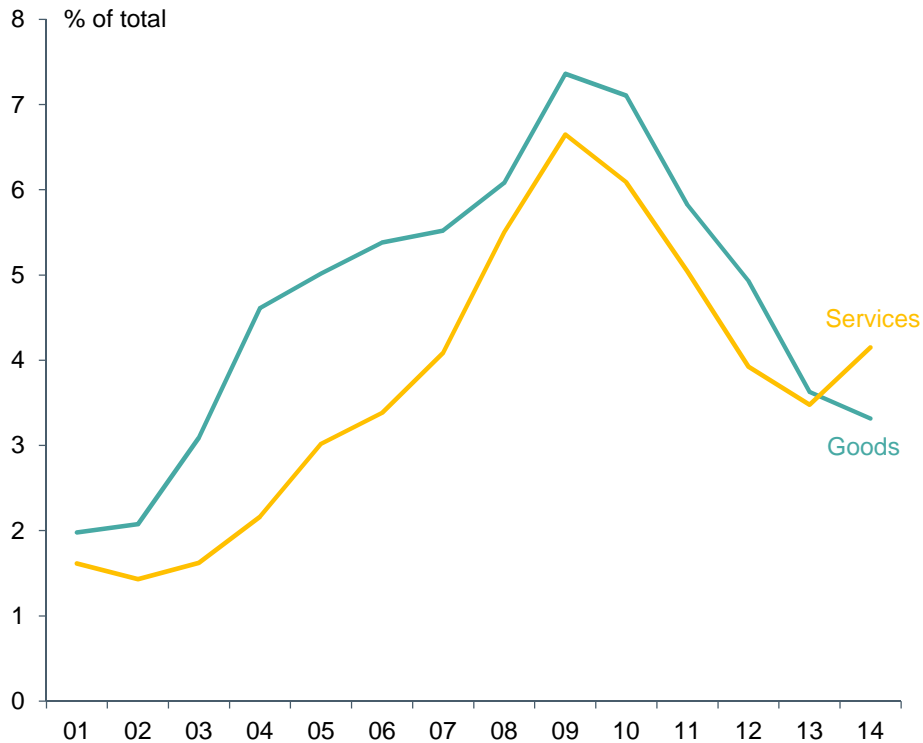
## INDIA AND CHINA – EXCHANGE RATES vs US DOLLAR



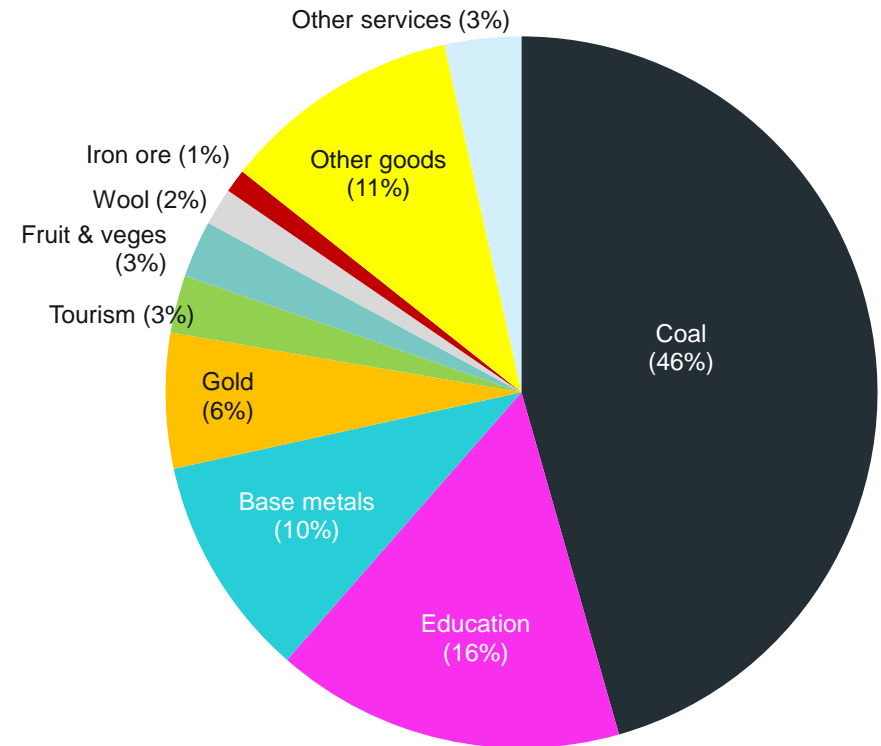
Source: International Monetary Fund, *World Economic Outlook* October 2015; UN Conference on Trade and Development, *World Investment Report* 2015; Thomson Reuters Datastream.

# Australia's trade with India has been shrinking in recent years, and it too is narrowly based

## AUSTRALIA'S EXPORTS TO INDIA AS A PC OF TOTAL EXPORTS



## COMPOSITION OF AUSTRALIA'S EXPORTS TO INDIA, 2014

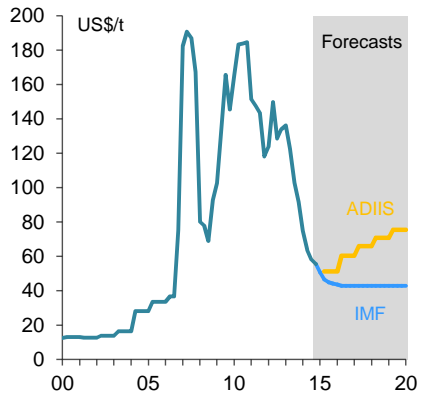


Sources: ABS; Department of Foreign Affairs & Trade.

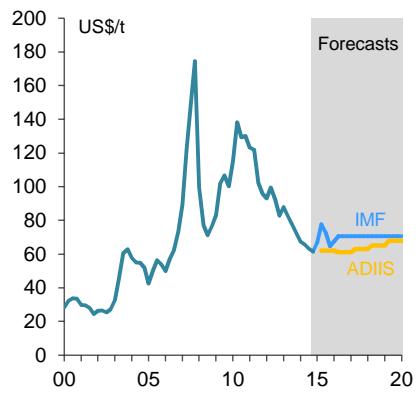


# 'Official' forecasts suggest that commodity prices have bottomed: that may be premature

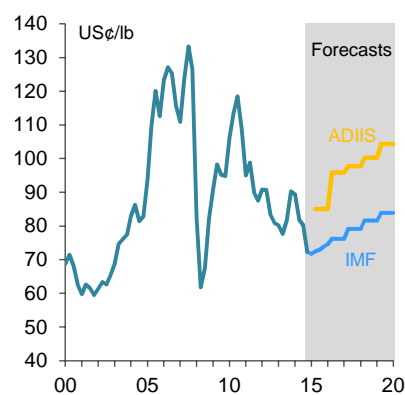
## IRON ORE



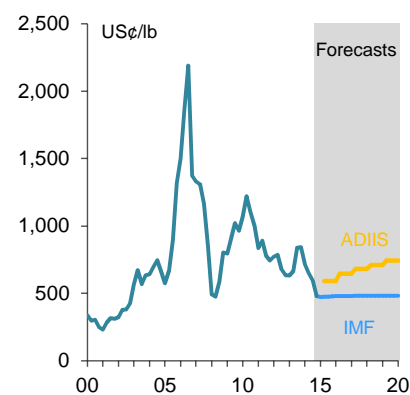
## THERMAL COAL



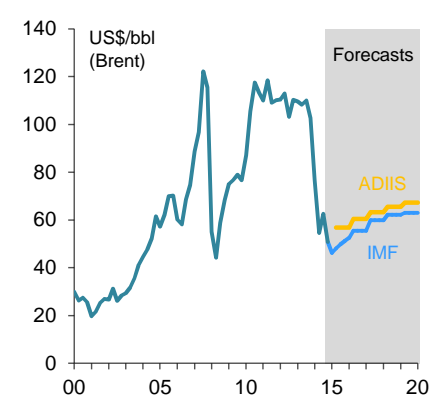
## ALUMINIUM



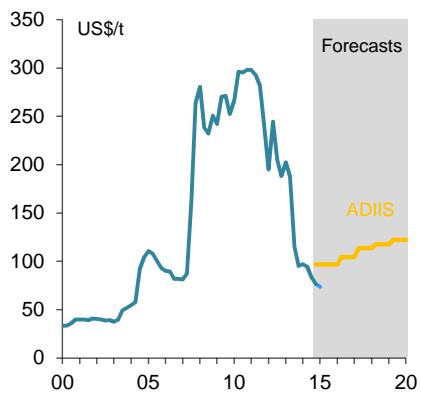
## NICKEL



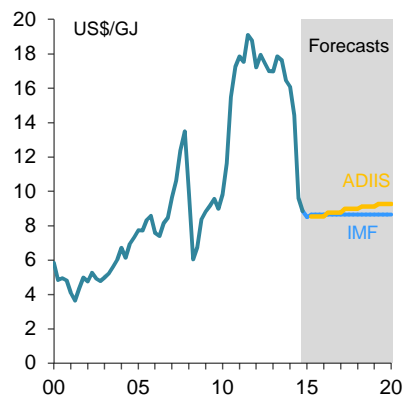
## CRUDE OIL



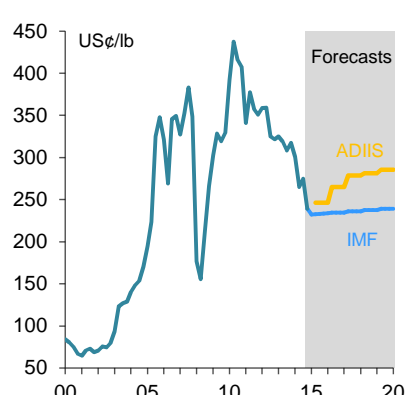
## METALLURGICAL COAL



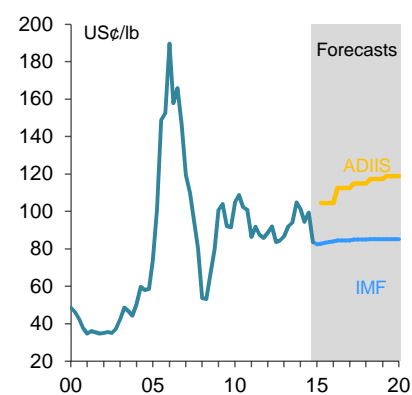
## LNG



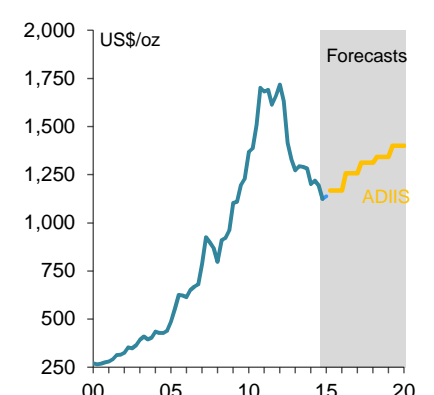
## COPPER



## ZINC



## GOLD

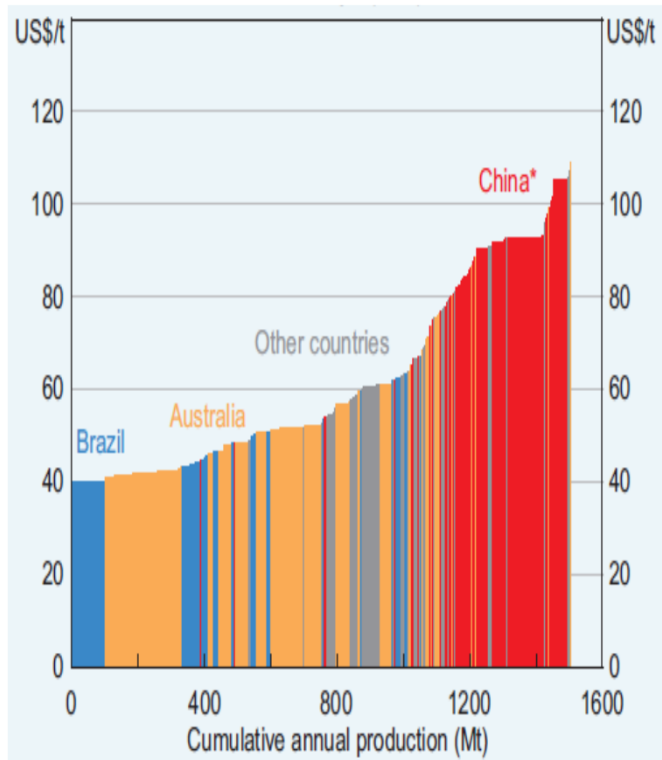


Sources: IMF; Office of the Chief Economist, Australian Department of Industry, Innovation & Science (ADIIS) (formerly Bureau of Resources & Energy Economics), *Resources & Energy Quarterly*, September 2015.

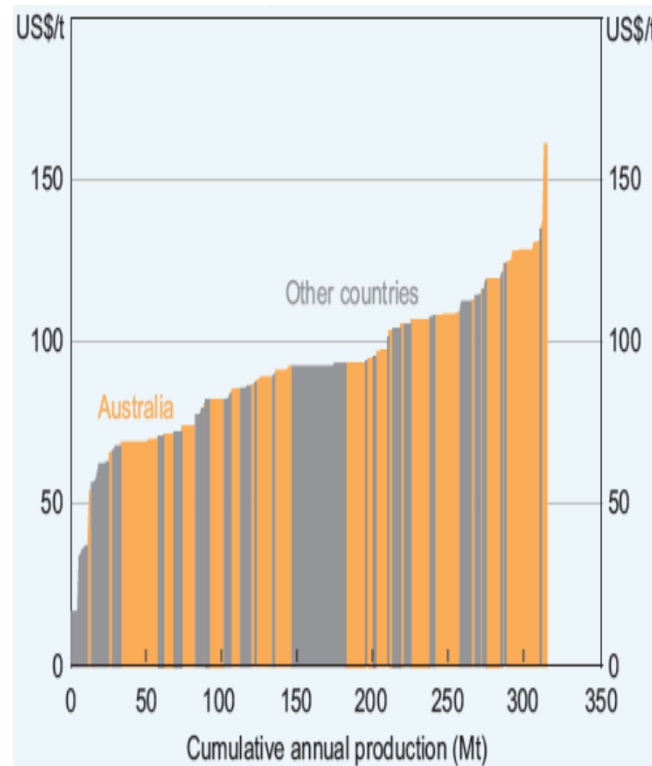
# Australian resources producers need to be in the bottom two quartiles of the cost curve in order to ensure financial sustainability

## GLOBAL IRON ORE AND COAL PRODUCTION COST CURVES, 2014

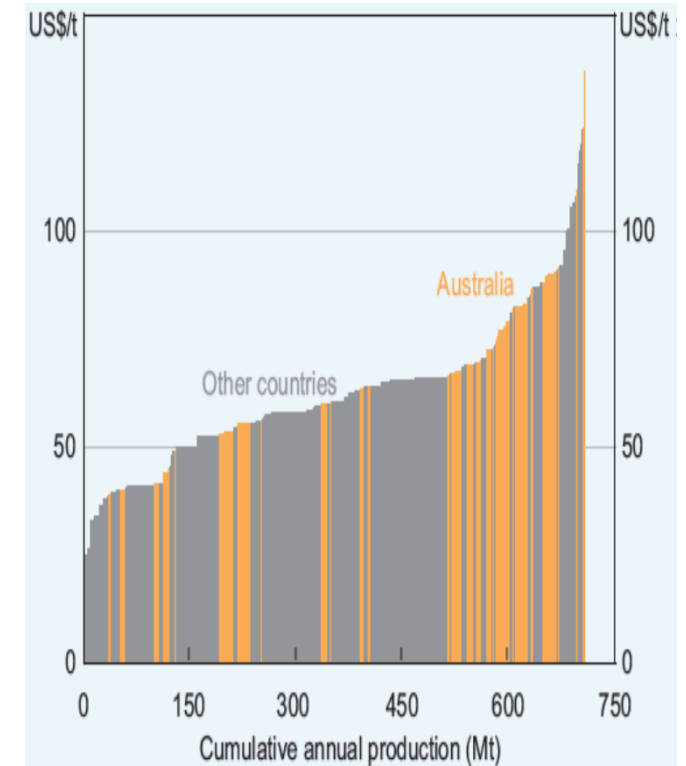
### IRON ORE



### METALLURGICAL COAL



### THERMAL COAL



Note: Iron ore production costs include freight to or in China (CFR); coal costs are free on board (FOB).  
Source: Reserve Bank of Australia, *Statement on Monetary Policy*, August 2014.

## Some key messages for Australia

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- Asia will account for more than half the world economy during the 21<sup>st</sup> century – for the first time since the 18<sup>th</sup> century – but most of the increase in Asia’s share from the mid-20<sup>th</sup> century nadir has already occurred
  - Asian economic growth will be slower, on average, over the next 40 years than it has been over the past 40 years – for much the same reasons as it will be in North America and Europe
  - With the (partial) exception of India, there’s not a lot of further upside for commodity intensity in Asian economies
- India isn’t going to be the answer to any difficulties that developments in China may pose for Australia
  - India will almost certainly not be able to match China’s growth performance of the last three decades
  - and India’s growth trajectory is likely to be much less commodity-intensive than China’s
- There are no more Chinas or Indias after China and India
  - those countries which are yet to experience anything like the sustained rapid economic growth and industrialization which China has undergone over the last thirty years are a lot smaller than China or India – and most of them aren’t starting from as far behind as China was in 1978 or India in 1991
  - and most of them are more self-sufficient in commodities than China or India
- Australia needs to broaden and deepen its economic relationships with Asia
  - in particular by increasing its exports of agricultural commodities, and personal & business services
  - recognizing that we will face much more competition in these areas than we have in iron ore or coal
  - preferential trade agreements will certainly help but they are not a ‘magic bullet’
- Australian resources companies need to remain at the bottom end of the cost curve

For more details...

[bettercallsaul.com.au](http://bettercallsaul.com.au)

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