

Open partnerships
Open possibilities

China and India in the world economy: implications for Australia

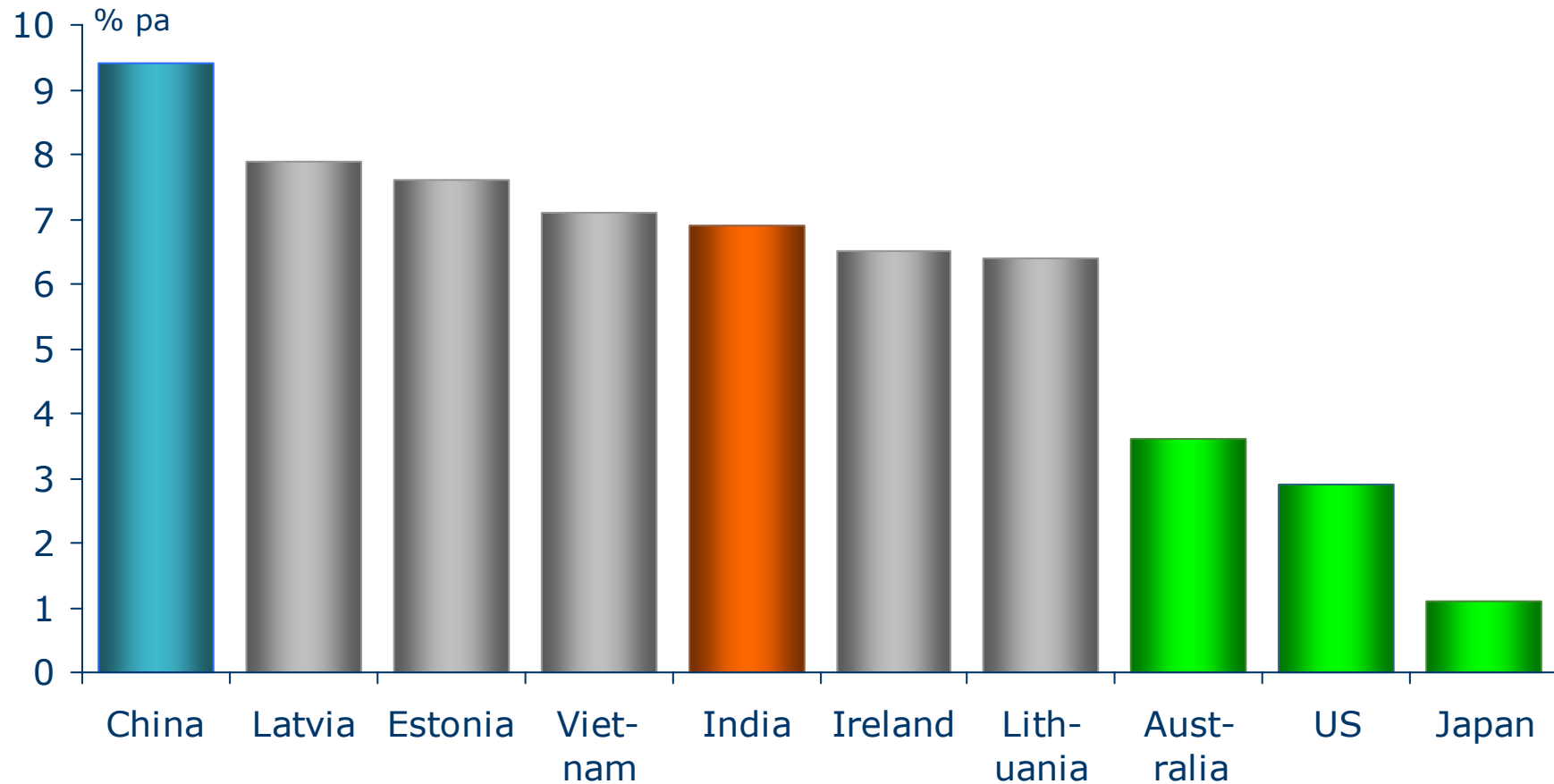
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5th February 2008

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Chief Economist

China's and India's economies have grown extremely rapidly over the past decade

Real GDP growth, 1997-2007



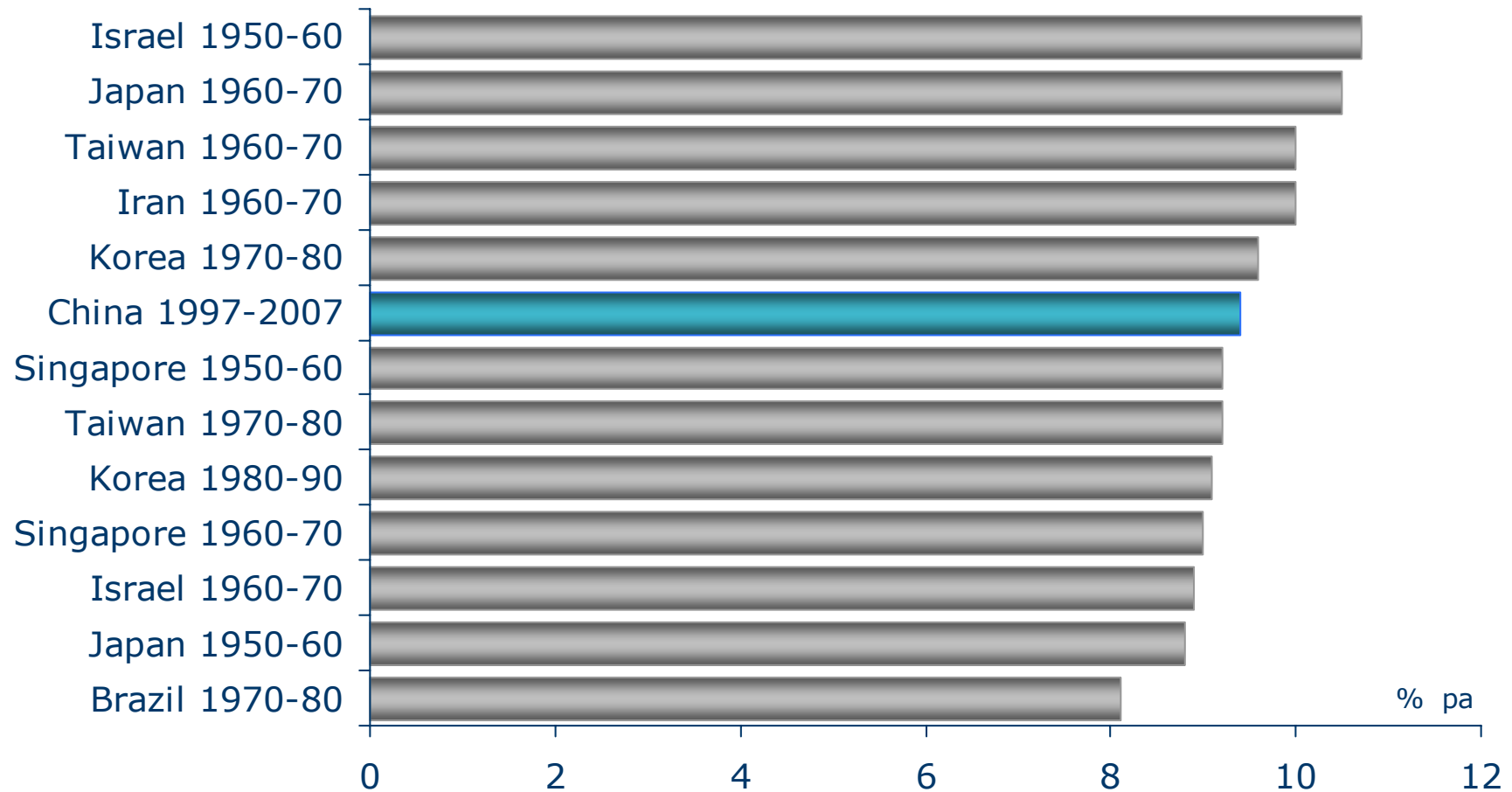
Excludes some countries with rapid growth propelled by new oil discoveries, or recovering from wars.

Source: IMF World Economic Outlook database, September 2007.



However China's and India's rapid growth is by no means unprecedented

Real GDP growth, selected countries and decades

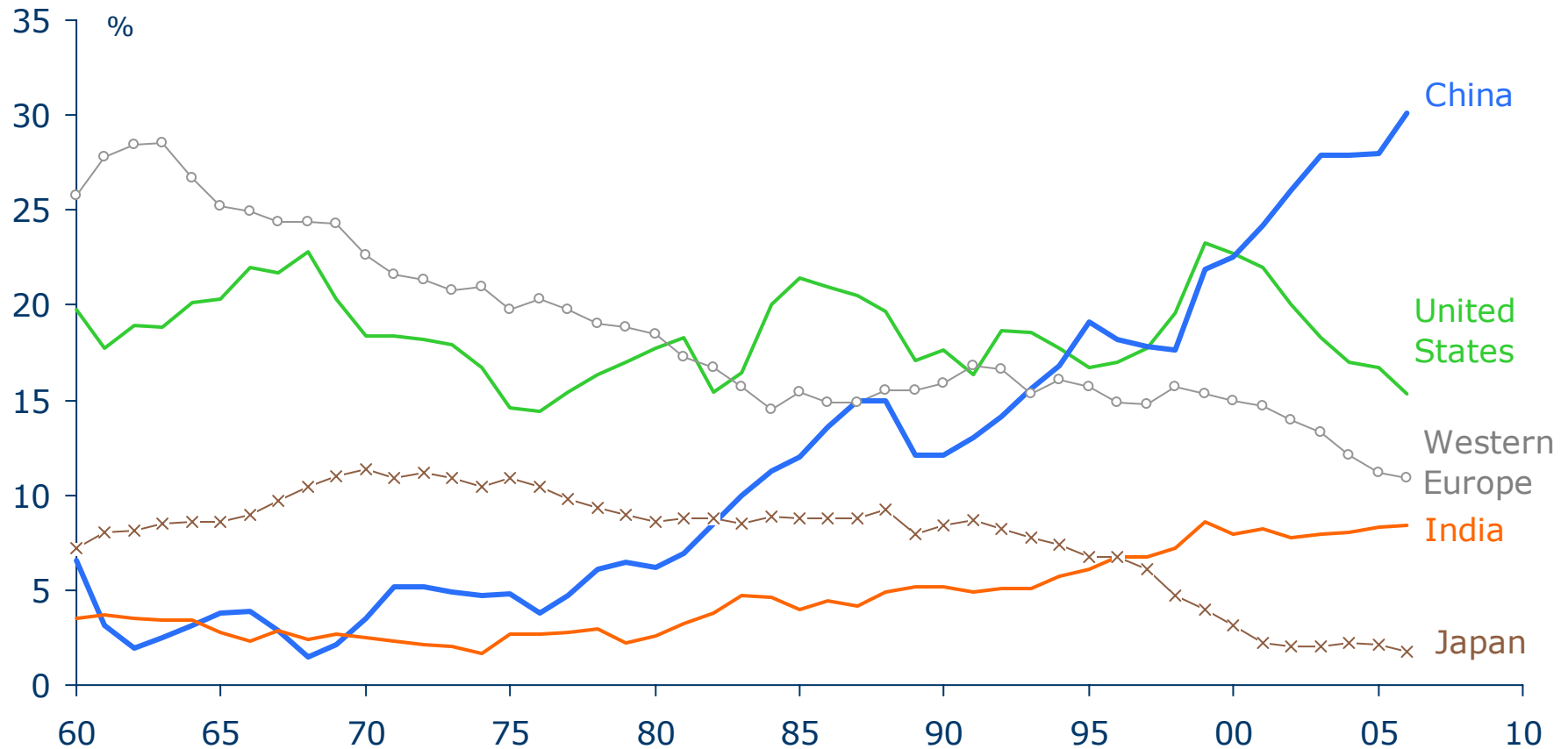


Source: The Conference Board and Groningen Growth and Development Centre, Total Economy Database, January 2008



Over the past decade China and India have together accounted for a larger share of global GDP growth than OECD countries

Shares of world GDP growth (at purchasing power parities, over rolling 10-year intervals)

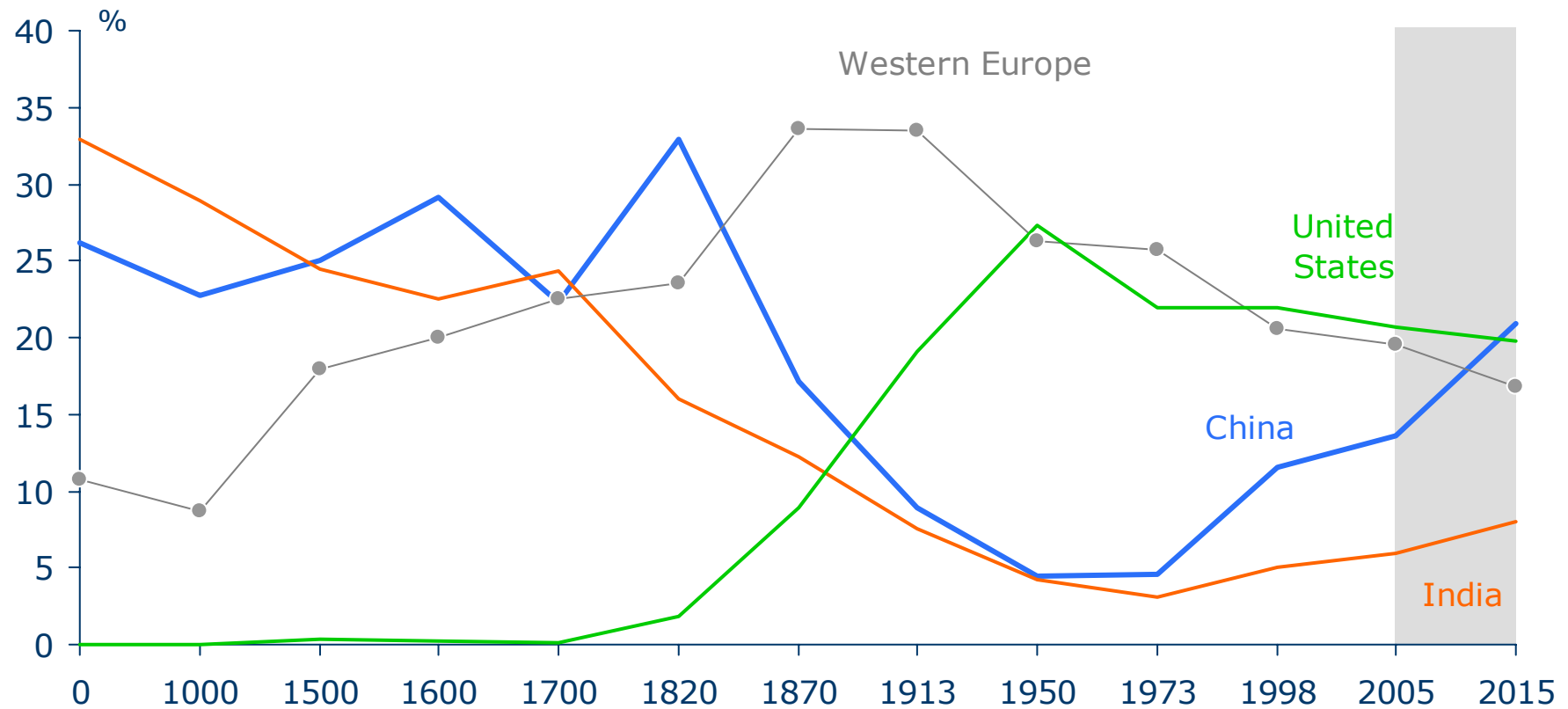


Source: The Conference Board and Groningen Growth and Development Centre, Total Economy Database, January 2008; ANZ calculations.



China and India are reclaiming their historical position as the world's largest economies

Shares of world GDP, 0 – 2015 AD



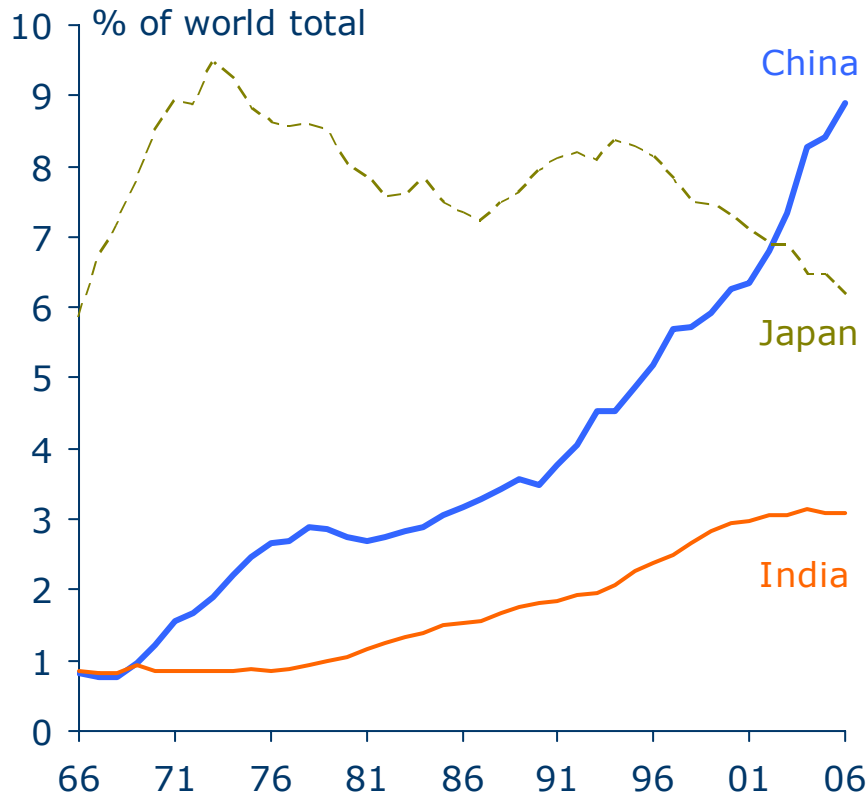
Source: Angus Maddison, *The World Economy: A Millennial Perspective*, OECD Development Centre, 2001; IMF, *World Economic Outlook Database*, September 2007; Consensus Economics, *Consensus Forecasts*, October 2007; Economics@ANZ.



China and to a lesser extent India have become globally significant sources of energy demand

Shares of global energy consumption

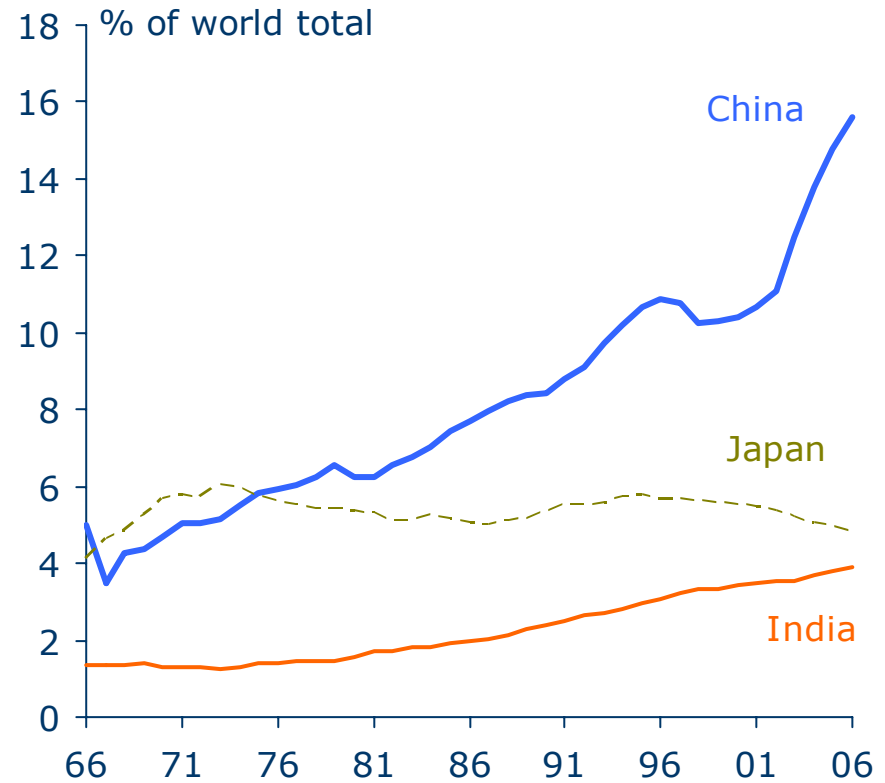
Oil



- China has accounted for 37% of the increase in world oil consumption since 2001, India 4% (US 14%)

Source: BP Statistical Review of World Energy 2007.

Total primary energy



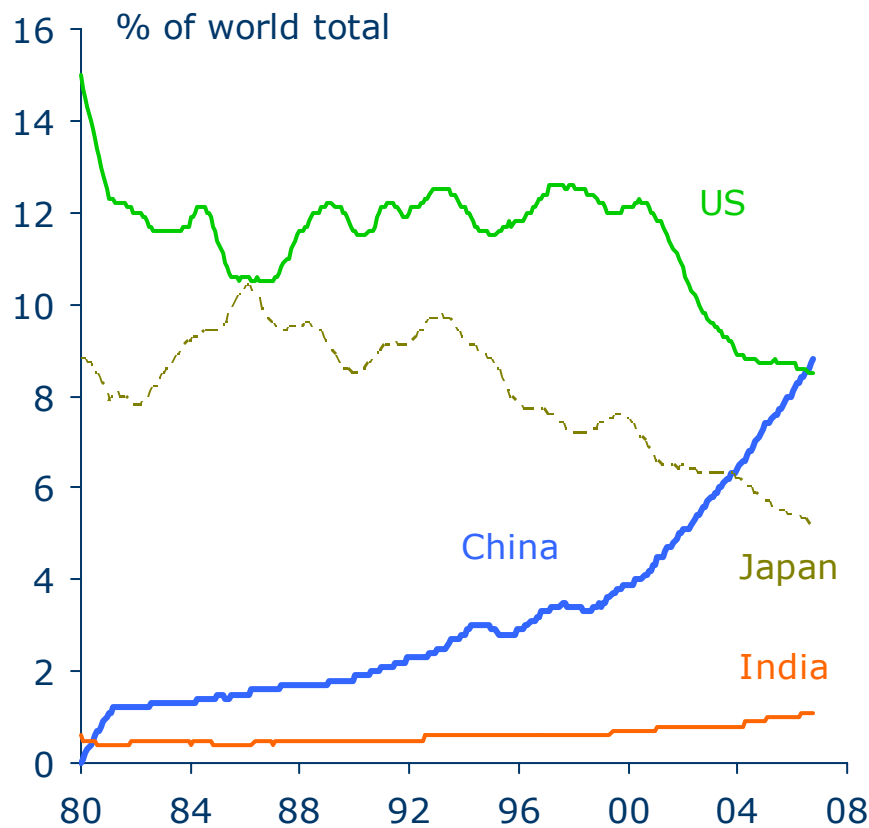
- China has accounted for 46% of the increase in world primary energy consumption since 2001, India 6½% (US 4½%)



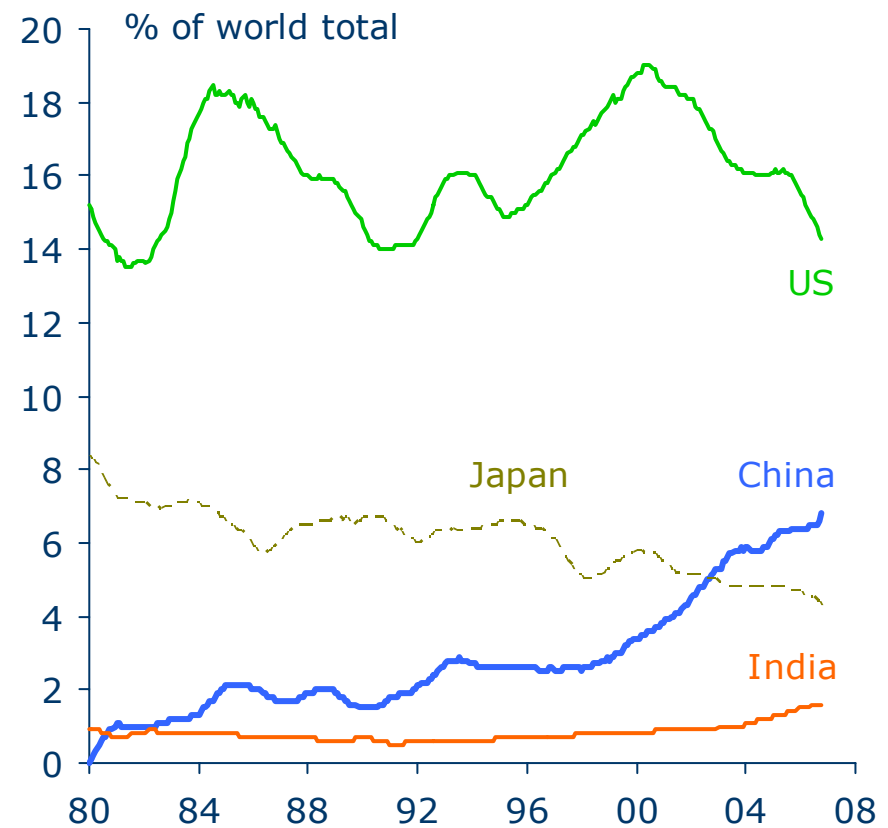
China's share of world trade is growing rapidly – India's is also rising but more slowly and from a much smaller base

Shares of world merchandise trade

Merchandise exports



Merchandise imports



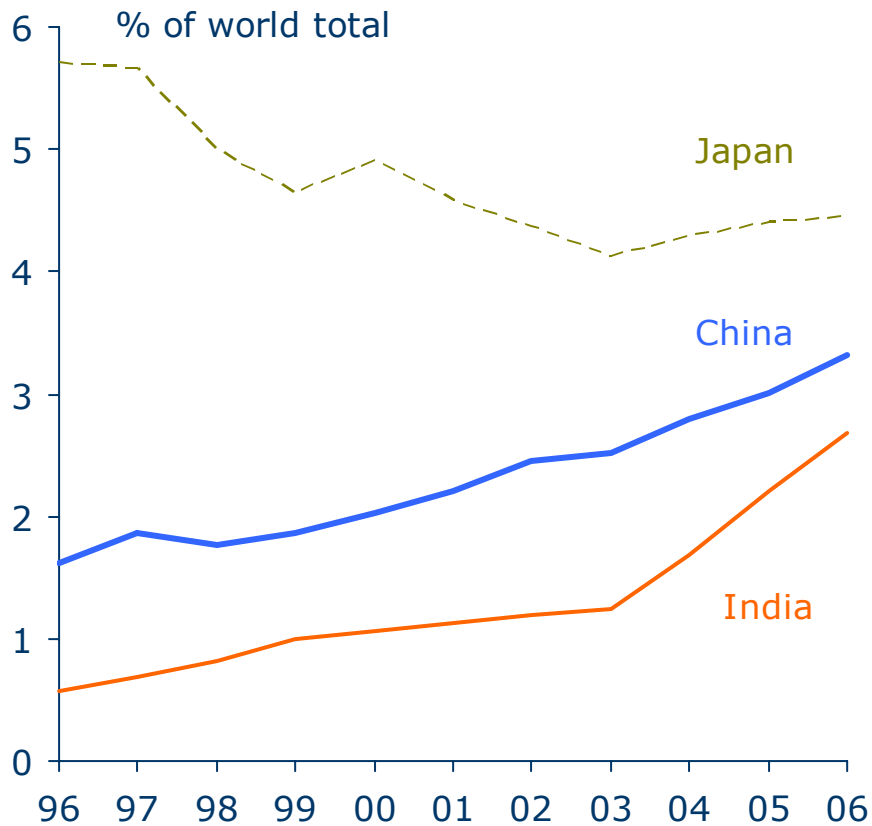
Source: IMF Direction of World Trade Statistics.



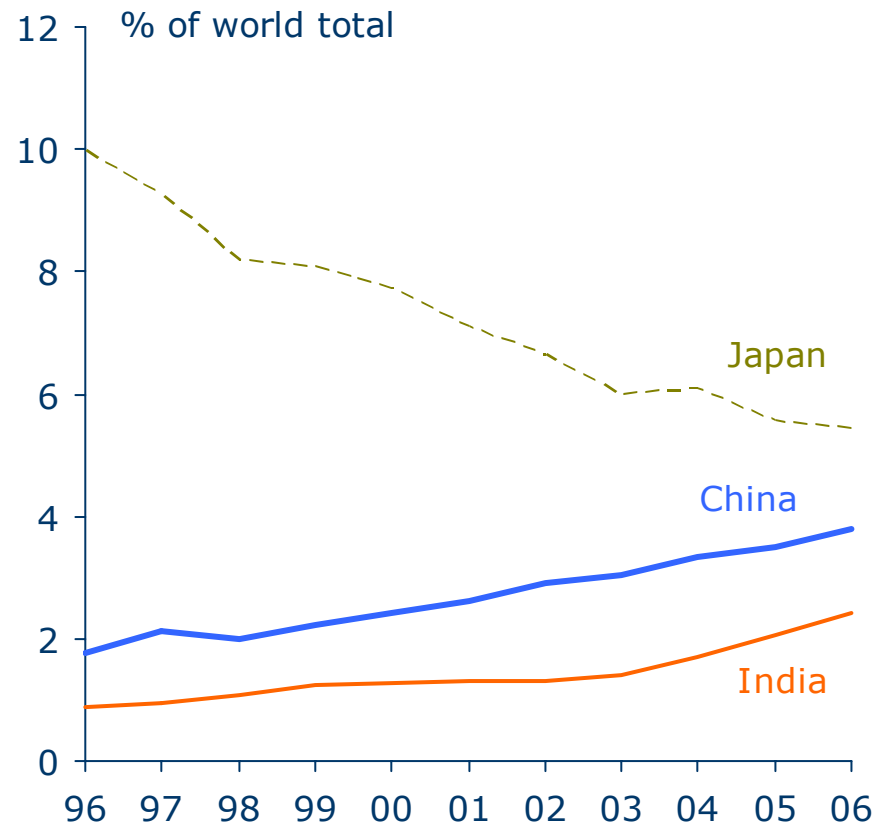
China and India are both becoming more significant players in global commercial services trade

Shares of world trade in commercial services

Exports of commercial services



Exports of commercial services

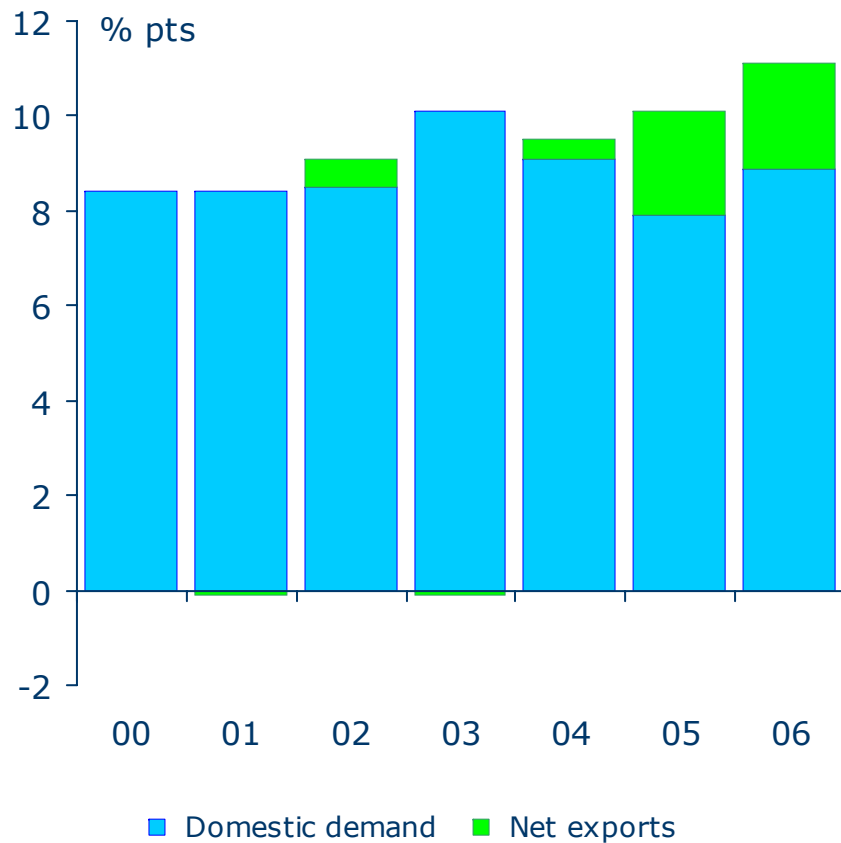


Source: World Trade Organization *International Trade Statistics 2007*.

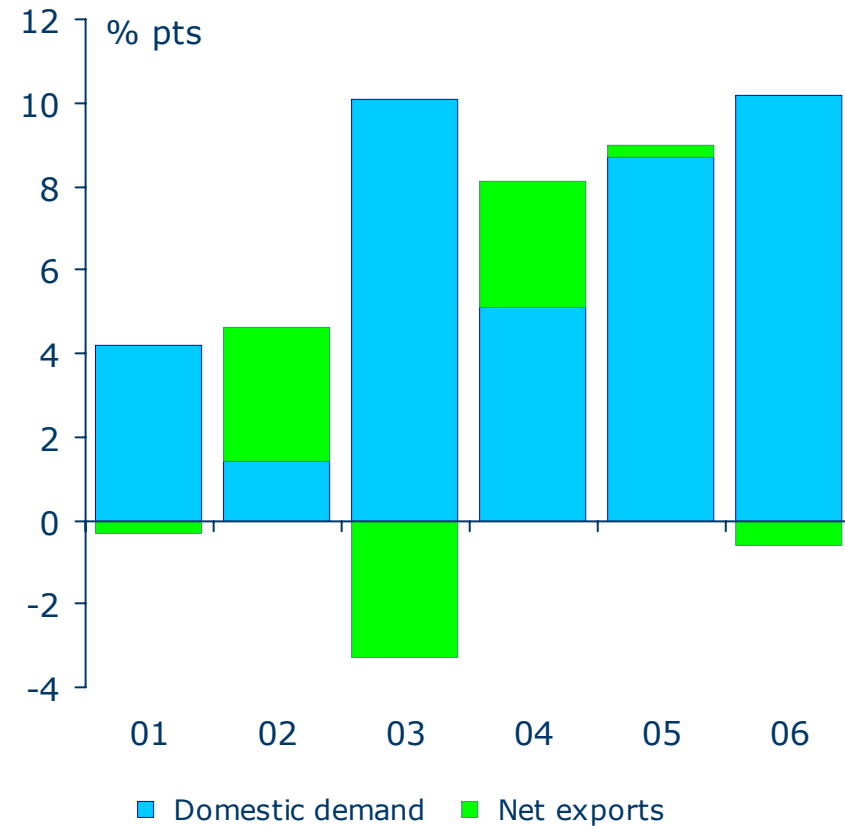


China's economic growth is overwhelmingly driven by domestic demand, not by exports (in particular, not by exports to the US)

Contributions to China's real GDP growth



Contributions to India's real GDP growth

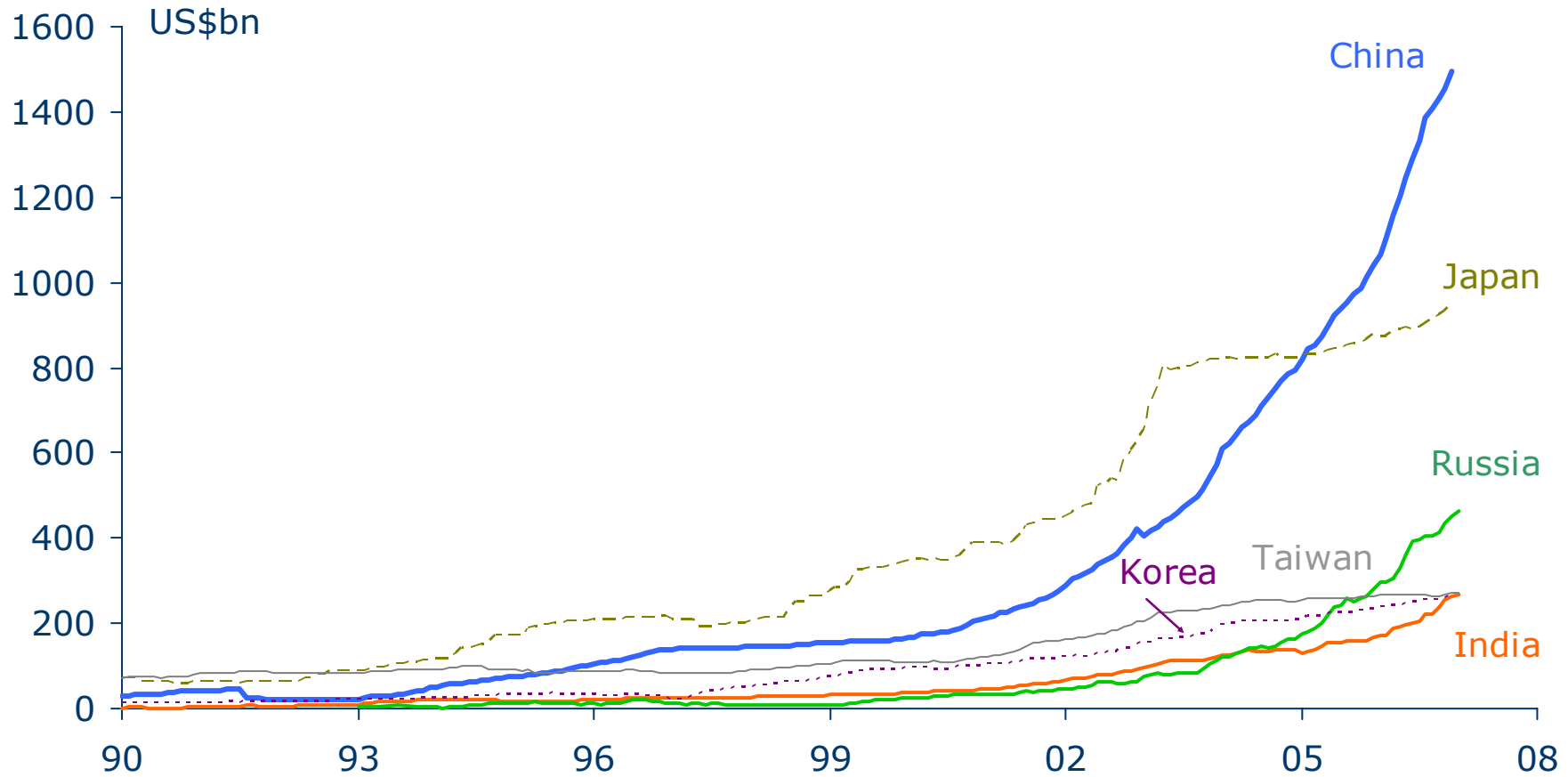


Source: China National Bureau of Statistics, CEIC.



China's and (to a lesser but growing extent) India's FX reserves given them greater clout in global capital markets

Foreign exchange reserves

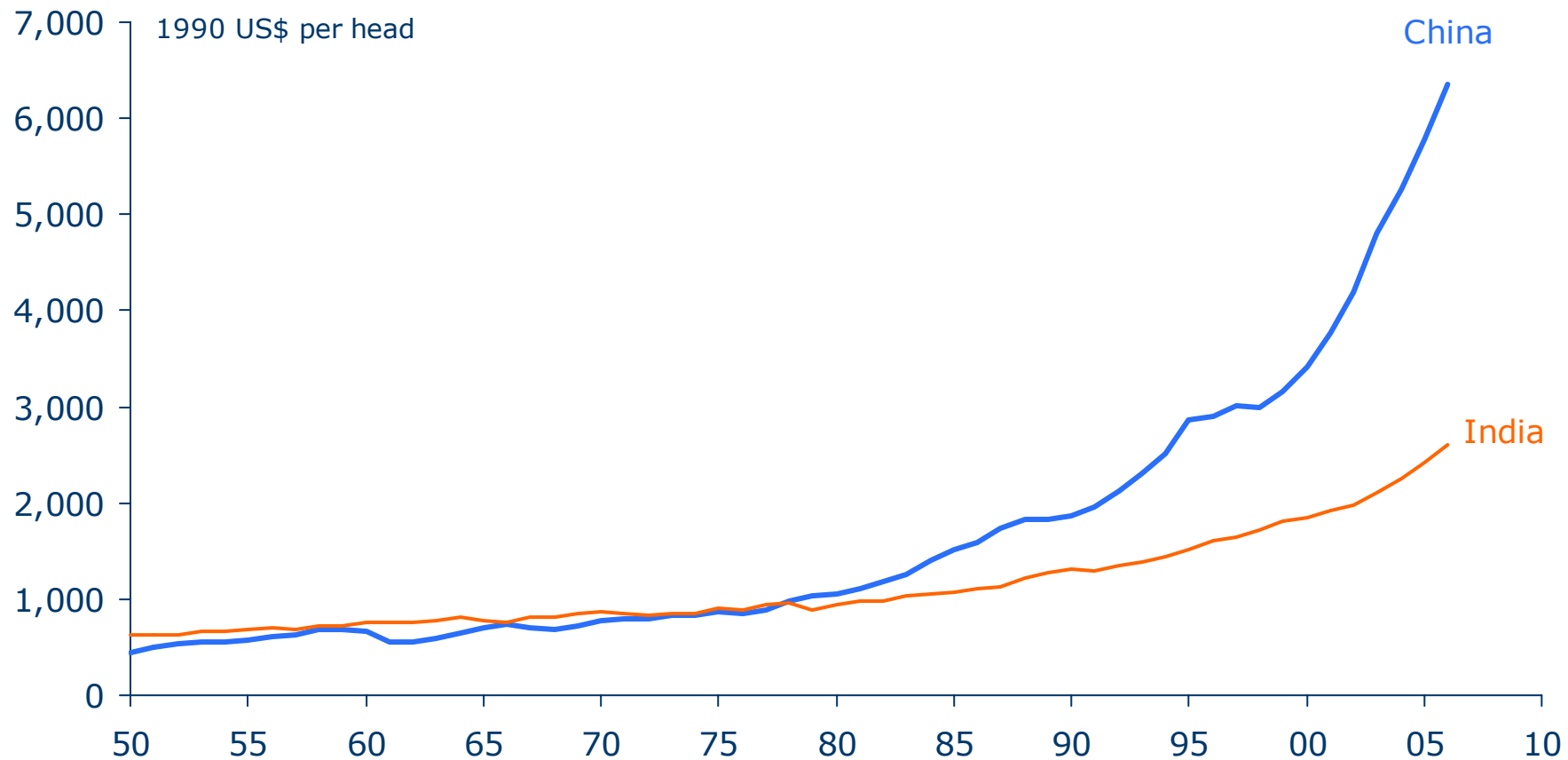


Source: IMF International Financial Statistics.



Fifty years ago, India's per capita GDP was higher than China's
– now, China's is more than double India's

Per capita GDP

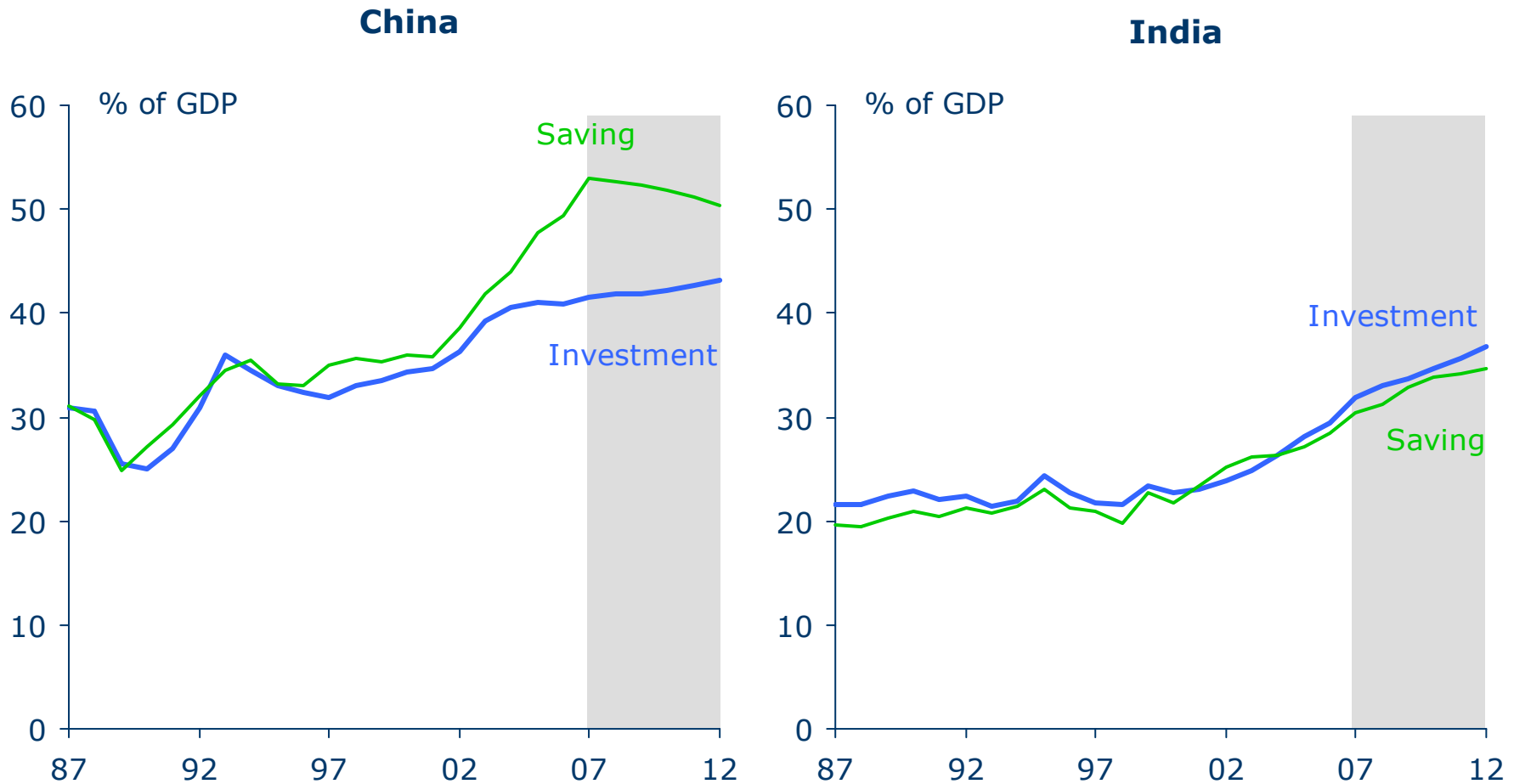


Source: The Conference Board and Groningen Growth and Development Centre, Total Economy Database, January 2008



China's rapid growth has been facilitated by very high rates of saving and investment, India's less so

Gross saving and investment as a proportion of GDP



Sources: EIU; ANZ.



China's better long-term growth performance reflects its greater success in boosting labour participation and productivity ¹³

Growth accounting for China and India 1950-2005

Period	Average annual rate of change (%)					Employment rate [†] (%)
	Population	Change in employment rate	Productivity [#]	GDP	Per capita GDP	
	China					
1950-1960	2.0	1.0*	1.6*	6.1	4.0	45.5
1961-1979	2.0	0.4	2.0	4.4	2.4	48.9
1979-1991	1.4	1.2	4.2	7.0	5.5	56.7
1991-2006	0.9	0.2	7.9	9.1	8.1	58.1
	India					
1950-1960	1.9	na	na	3.9	2.0	37.7
1961-1979	2.3	-0.3	1.3	3.2	0.9	35.3
1979-1991	2.1	0.4	2.7	5.3	3.1	37.2
1991-2006	1.7	0.4	4.4	6.5	4.8	39.5

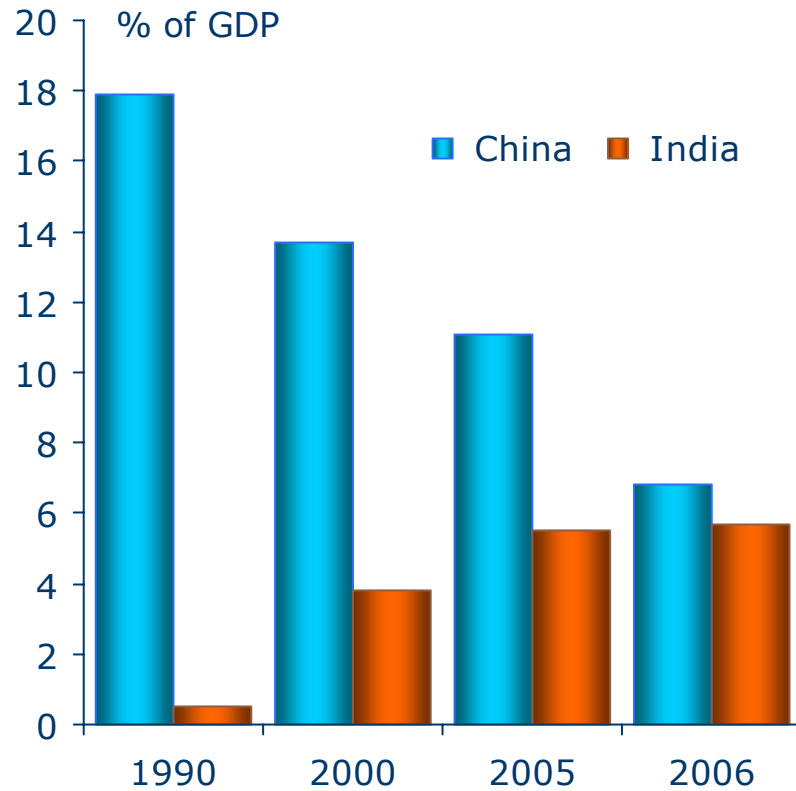
GDP per person employed. † Employment as a p.c. of population at end of period. * 1952-1960.
 Source: The Conference Board and Groningen Growth and Development Centre, Total Economy Database, January 2008 and ANZ calculations.



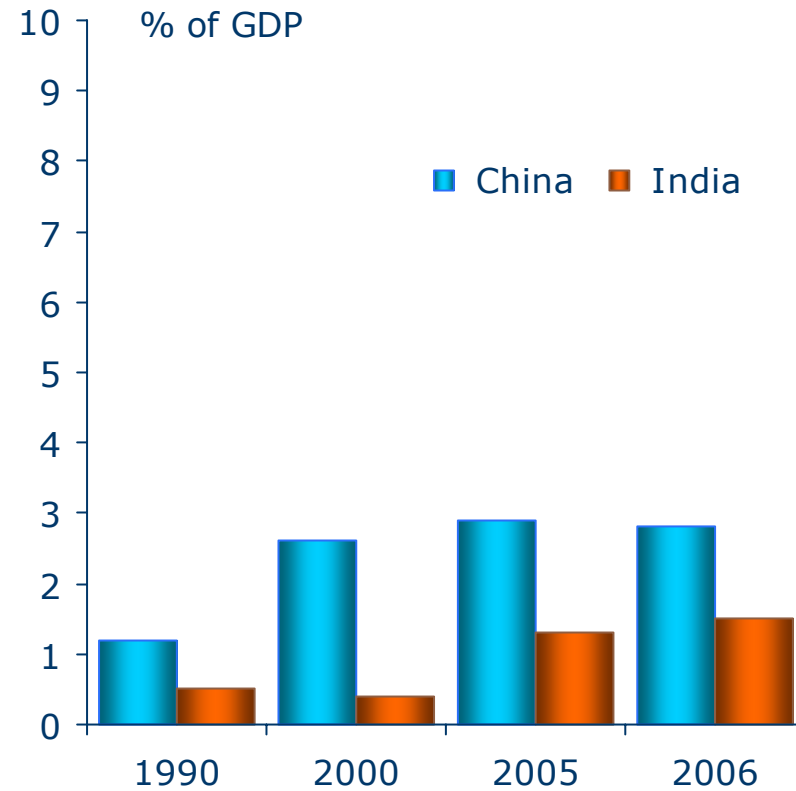
China has been more accommodating of foreign direct investment than India, though this seems to be changing

Stocks of foreign direct investment

Inward



Outward



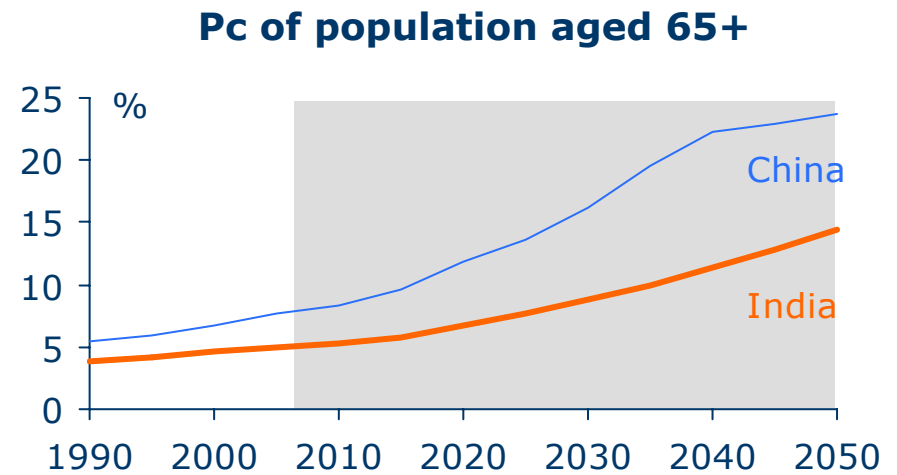
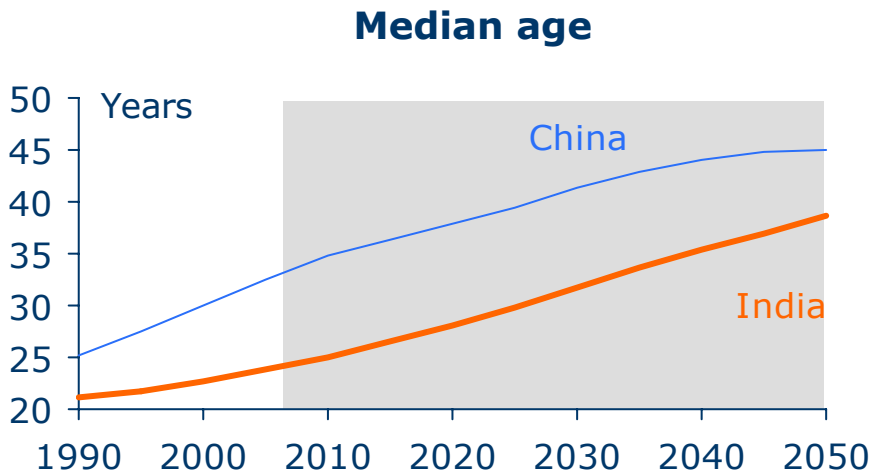
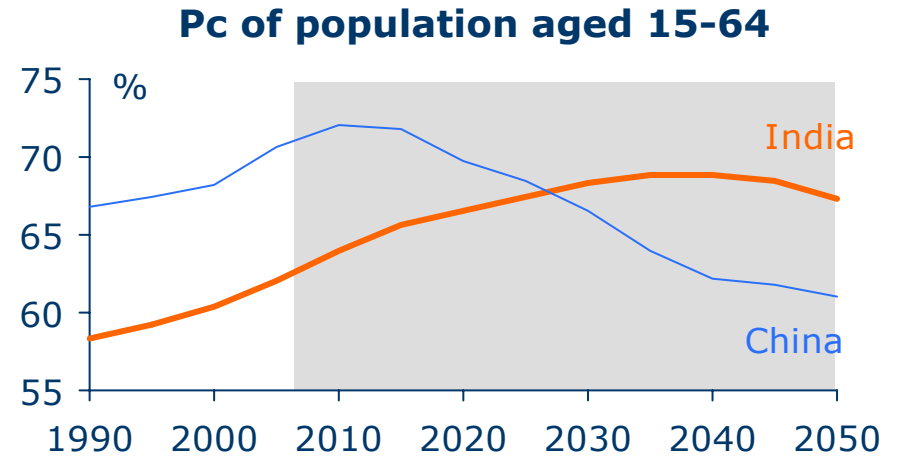
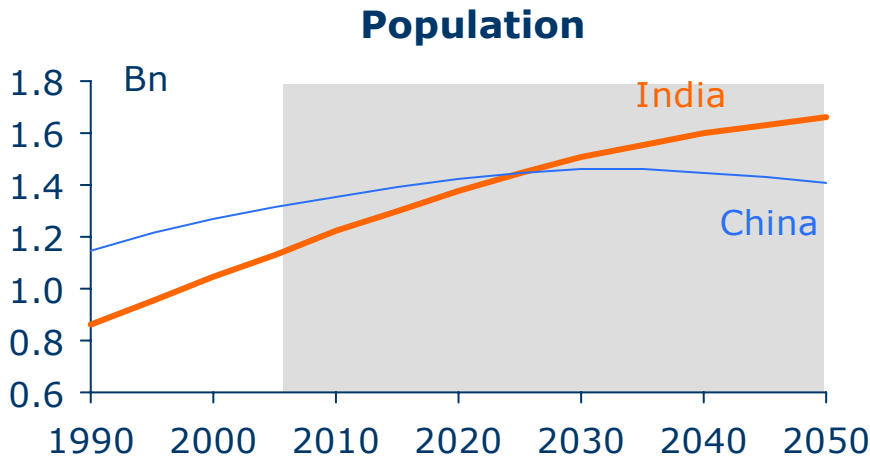
Source: United Nations Conference on Trade and Development *World Investment Report 2007*.



Over the next two-three decades India may have four advantages relative to China

- India is less inefficient in its use of energy and capital than China
 - India uses about 40% less primary energy per dollar of GDP than China
 - China has needed to invest 0.5 pc pt of GDP more than India in order to lift real GDP growth by 1 pc pt per annum
- India may be less disadvantaged by climate change and other environmental problems than China
- India seems better-placed than China to handle the common desire of people to have a say in how they are governed, and by whom, once a range of basic material needs have been satisfied
 - this typically emerges when average incomes reach a range of US\$8-12,000 per head (in today's dollars)
- India has a more favourable demographic profile than China
 - China's median age is 33, compared with India's 24
 - China's working-age population will peak in 2015, and fall by 156mn over the following 35 years
 - India's working-age population will surpass China's in 2030, and will still be growing in 2050

India's demographic profile is potentially a major advantage over China ...



Source: UNESCO, World Population Prospects: The 2006 Revision.



... but to capitalize on that advantage, India needs to develop its ¹⁷ 'human capital' more effectively

Selected 'human development' and other indicators

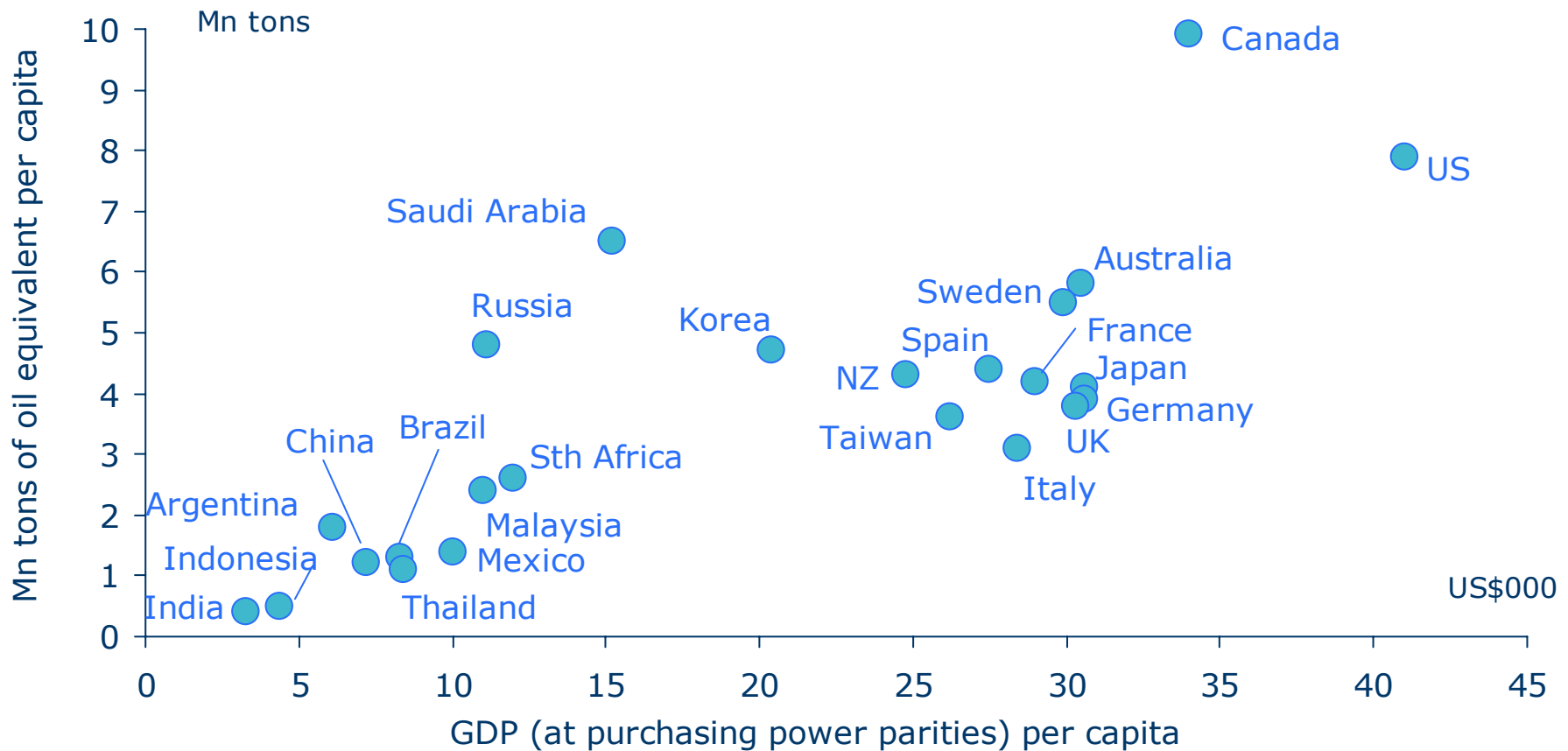
	China	India
Infant mortality (per 1000 live births, 2005)	23	56
Probability at birth of surviving to 65 (%) -		
Males born 2000-05	73.8	57.4
Females born 2000-05	80.9	66.1
1 yr olds immunized against TB (% , 2005)	86	75
Population with access to -		
Improved sanitation (2004)	44	33
Improved drinking water (2004)	77	86
Adult literacy (% , 2005)	90.9	61.0
Cell phones per 1000 population (2005)	302	82
Internet users per 1000 population (2005)	85	55
No of procedures to start a business (2008)	13	13
Rigidity of employment index (2008)	24	30
No of days to enforce a debt (2008)	406	1,420

Sources: UNDP Human Development Report 2007-08; World Bank Doing Business 2008 database



Developing country energy consumption will rise faster than incomes for the next few decades

Primary energy consumption and GDP per capita, 2005

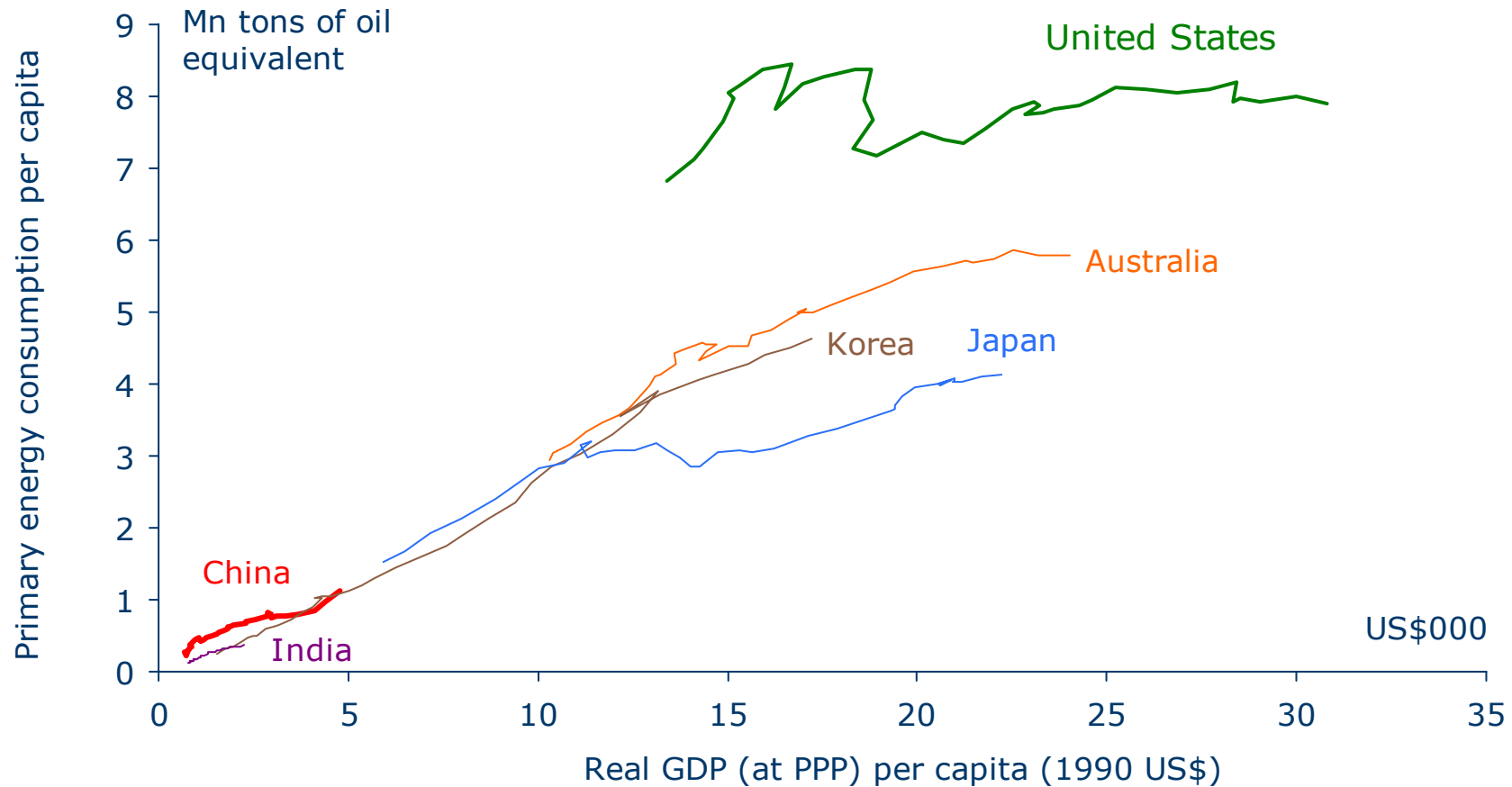


Sources: BP Statistical Review of World Energy 2005; IMF World Economic Outlook September 2006; Economics@ANZ.



Primary energy consumption in China, India etc will rise substantially

Primary energy consumption and GDP per capita, 1965-2005

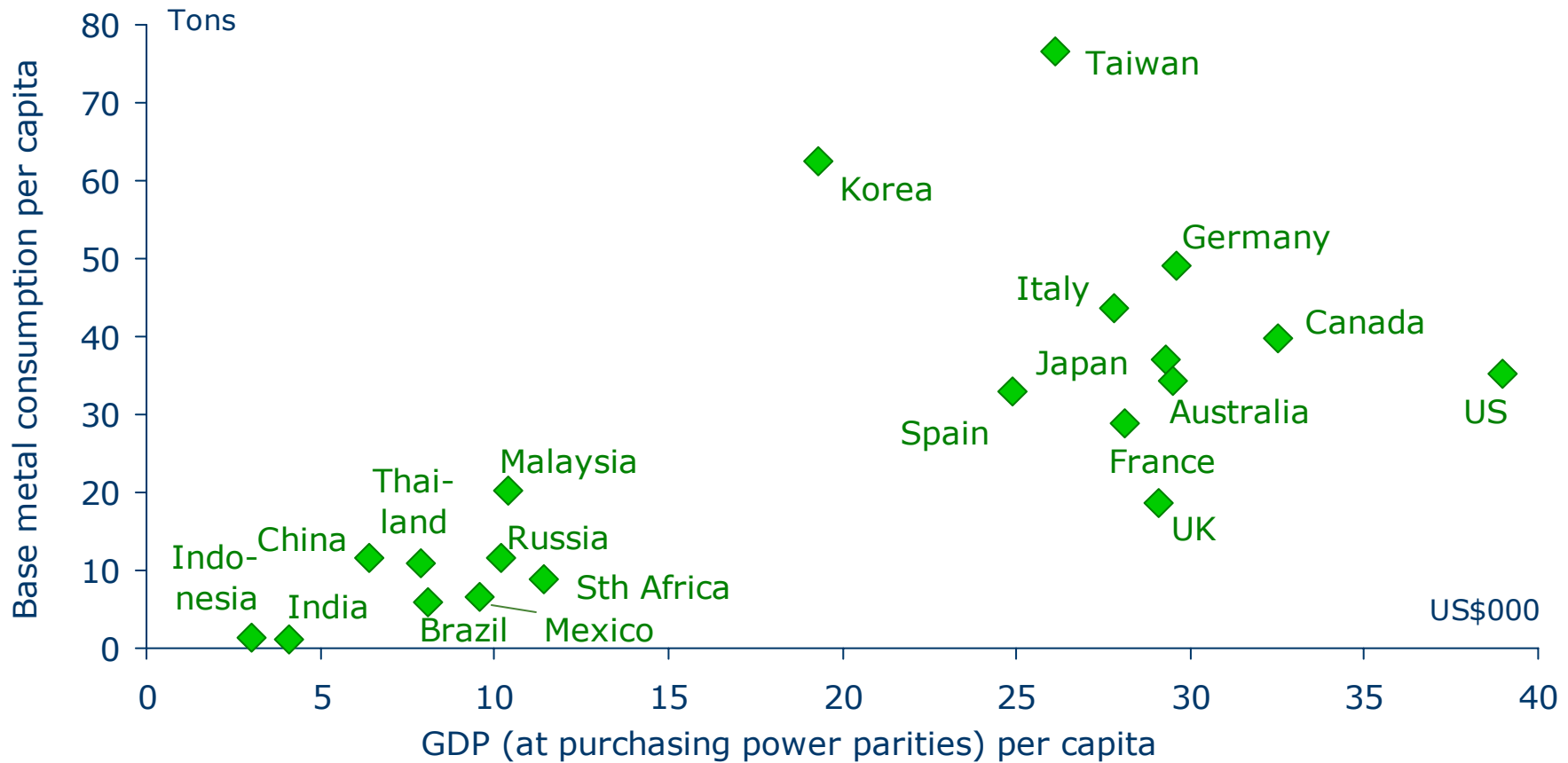


Sources: Groningen Growth and Development Centre *Total Economy Database*; BP *Statistical Review of World Energy* (2006); Economics@ANZ.



The 'metal intensity' of developing country growth is likely to rise sharply

Base metal consumption and GDP per capita, 2004

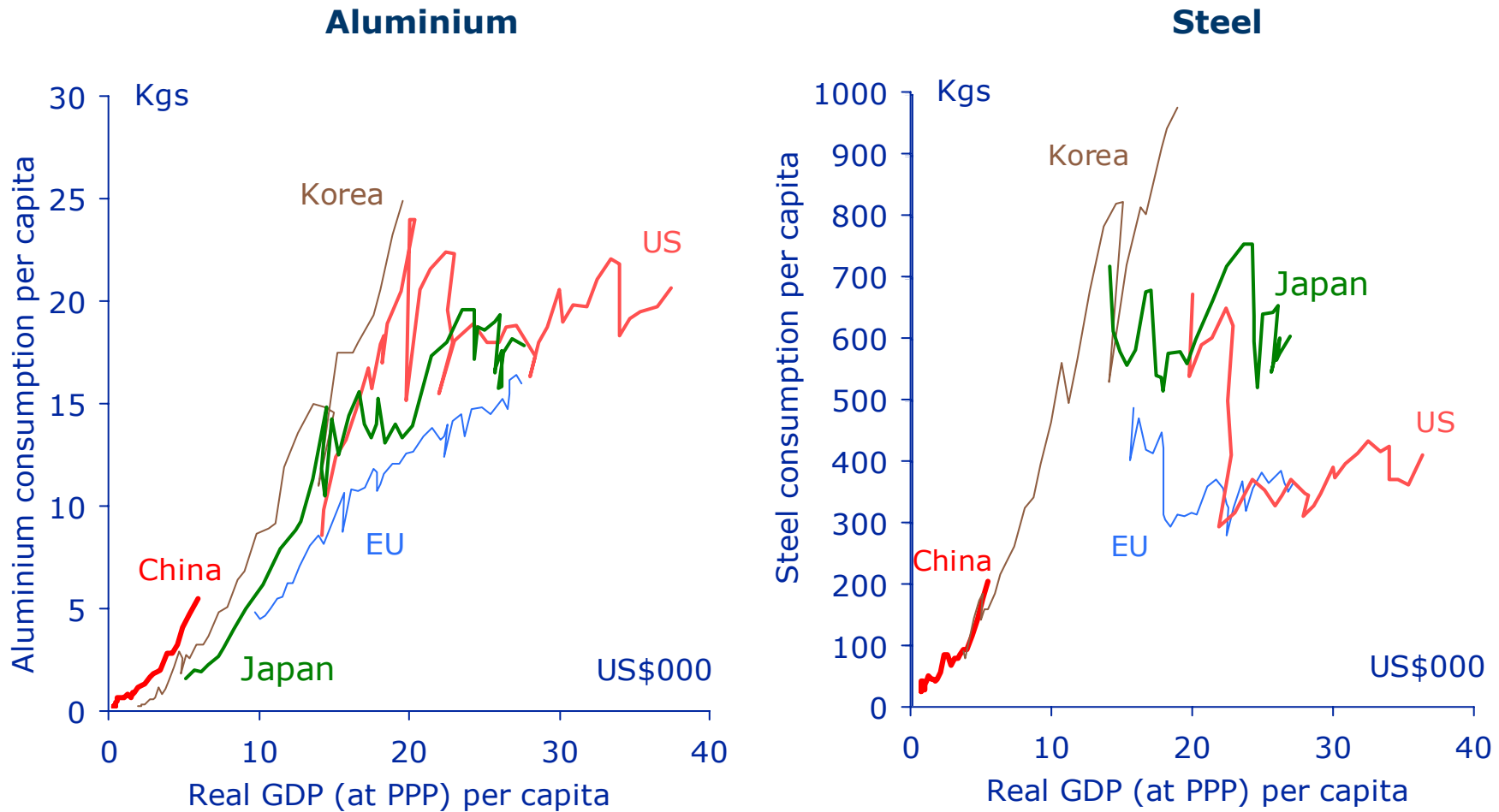


Sources: IMF World Economic Outlook September 2006; Economics@ANZ.



Metal demand from China (and other emerging markets) is likely²¹ to continue to grow rapidly

Metal consumption and GDP per capita, 1965-2005

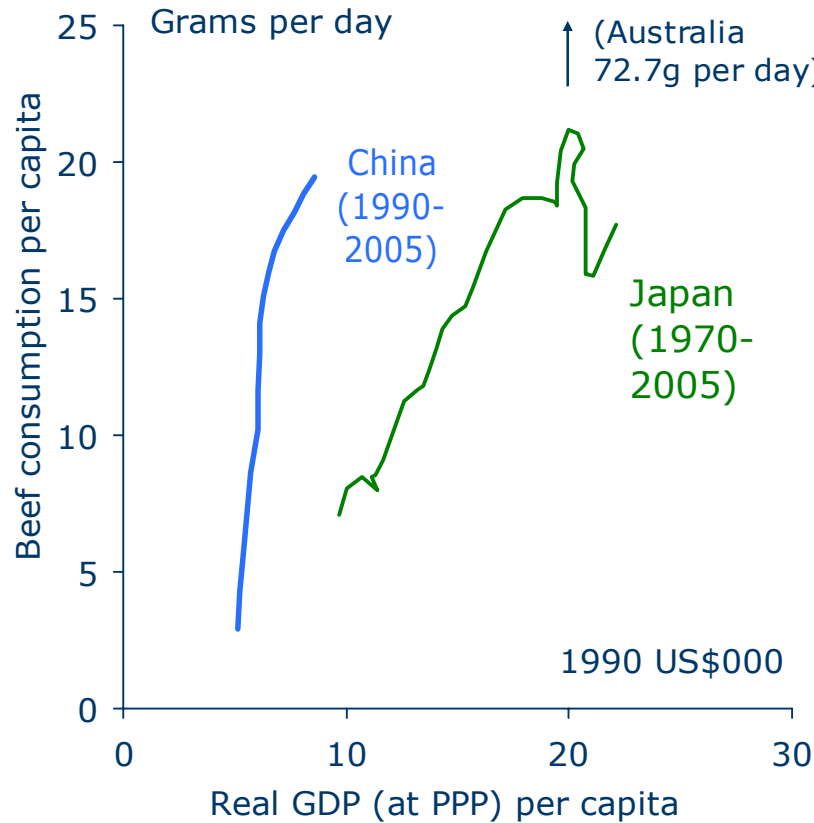


Sources: IMF World Economic Outlook September 2006; (Figure 5.7); Economics@ANZ.

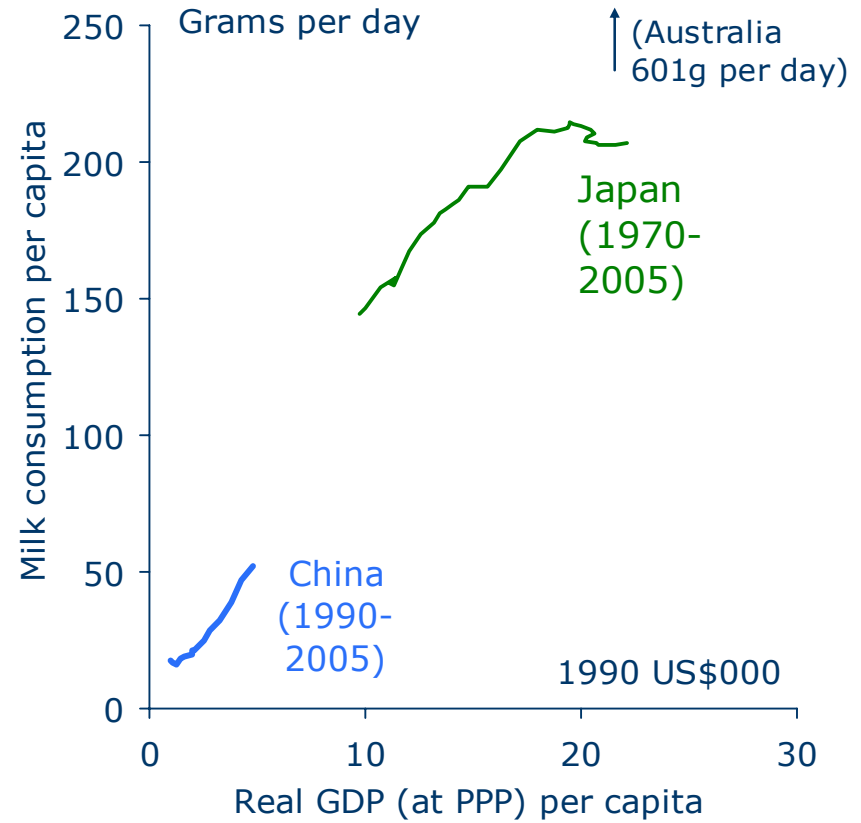


Chinese already eating as much beef per head as Japanese, and milk consumption is also rising ²²

Beef consumption and GDP per capita



Milk consumption and GDP per capita



Sources: UN Food & Agricultural Organization; Groningen Growth and Development Centre; Economics@ANZ.



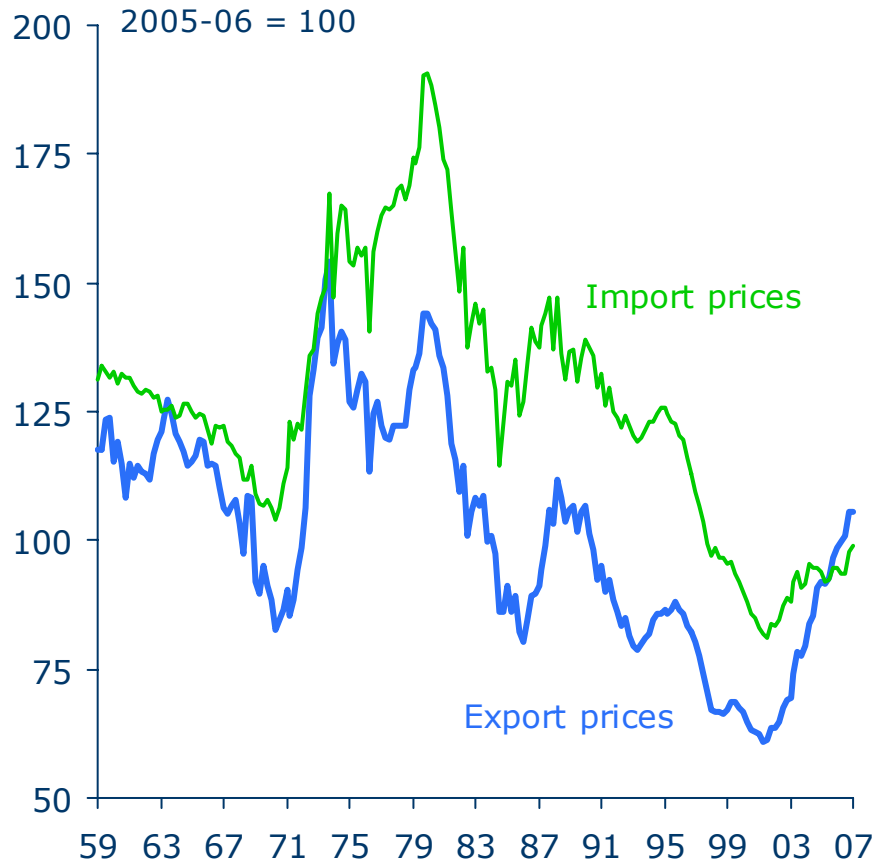
Australia is almost uniquely placed, among Western nations, to benefit from the rapid growth of China and India

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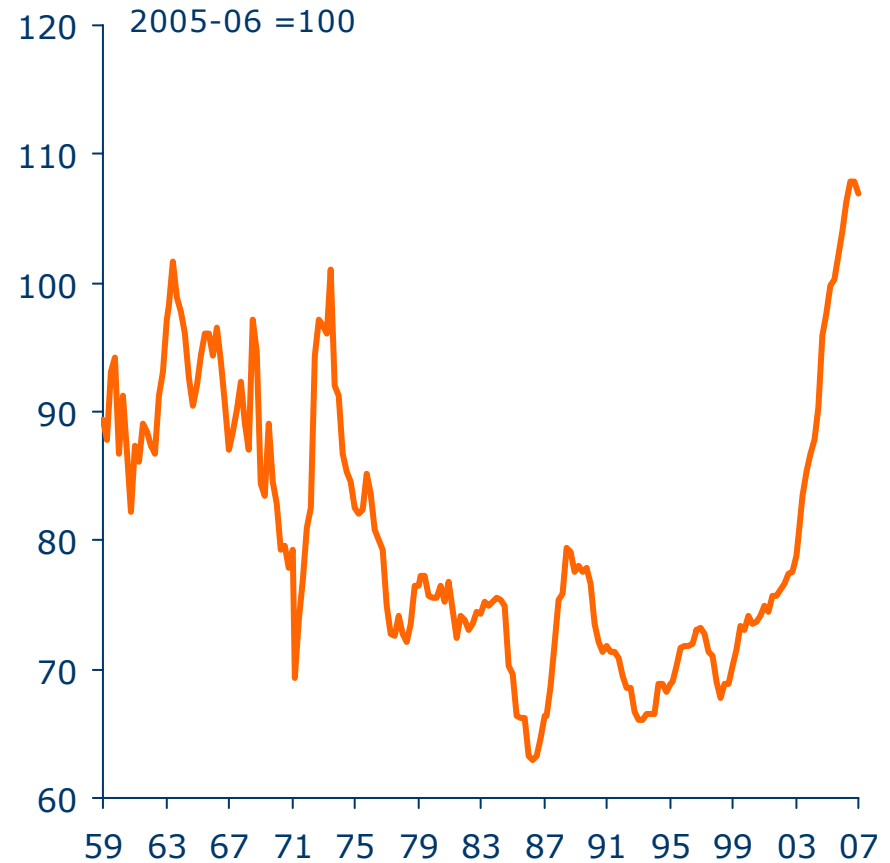
- China is a net importer of commodities and a net exporter of manufactured goods
 - and it's now large enough to be having a significant impact on the global prices of the commodities and goods in which it trades
- Australia (unusually for an 'advanced' economy) is a net exporter of commodities and a net importer of manufactured goods
 - Australia has many of the things which China needs but can't produce for itself
 - and (thanks to our own program of unilateral trade liberalization) we have relatively few of the industries which are 'threatened' by China's growing dominance
- For only the third time in the last 100 years, the prices of Australia's exports are rising relative to the prices of our imports
 - 'terms of trade gains' are now adding to growth in Australia's national income rather than subtracting from it (as they did for most of the twentieth century)

The commodity boom has dramatically reversed the long-term decline in Australia's terms of trade

Australian export and import prices in real US\$ terms



Australia's 'terms of trade'

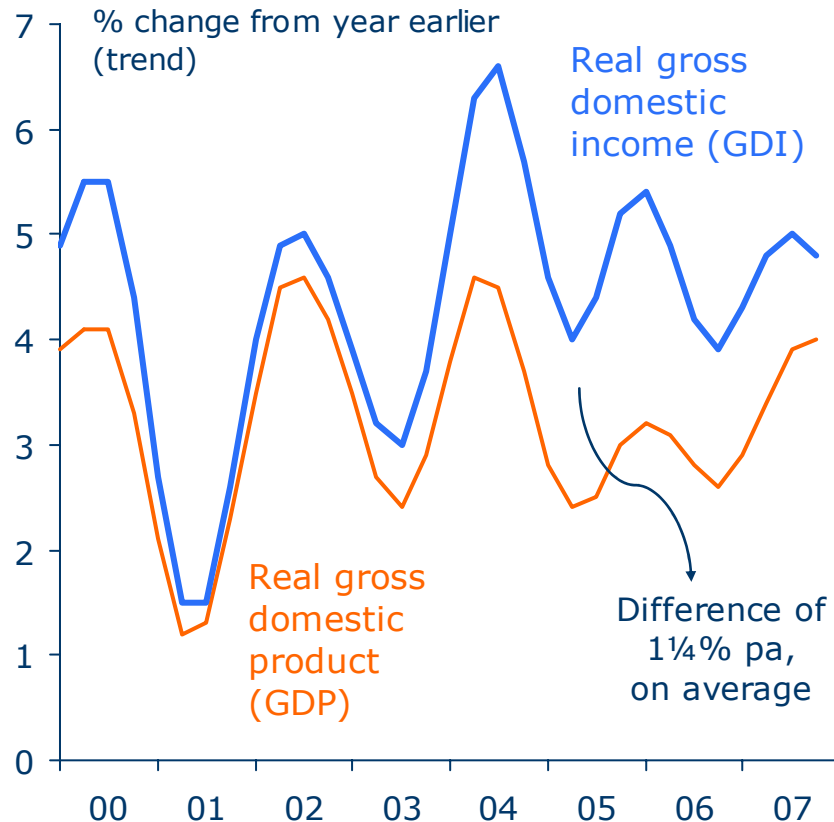


Sources: Australian Bureau of Statistics; US Bureau of Economic Analysis; Economics@ANZ.

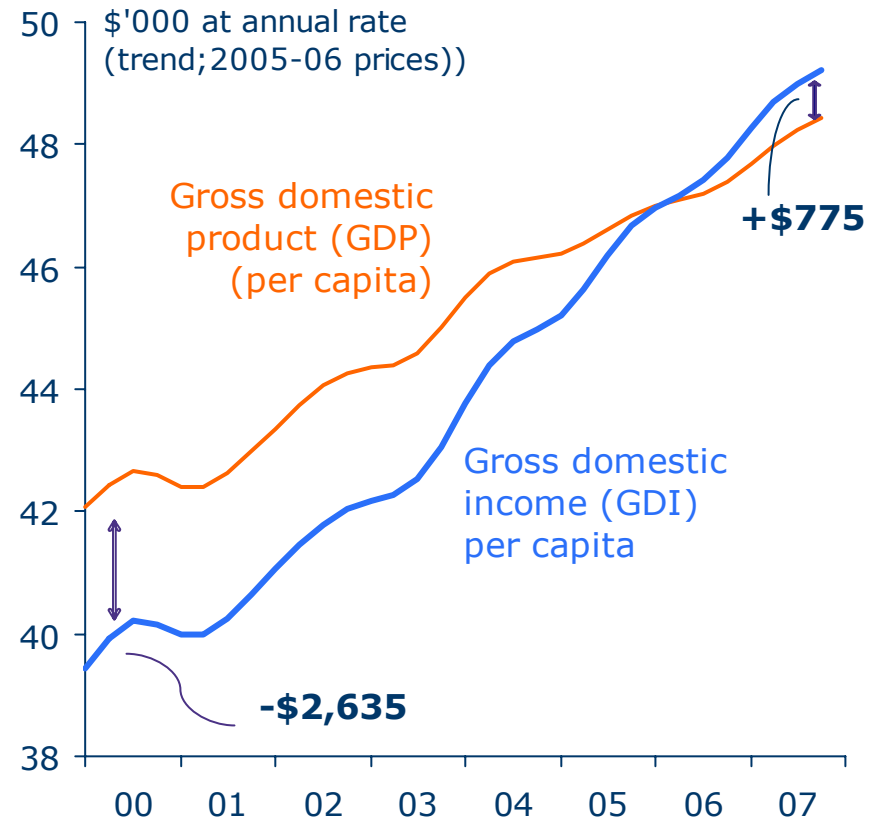


'Terms of trade' gains since 1999 have been worth \$3,400 pa to each Australian, on average

Real gross domestic product and income



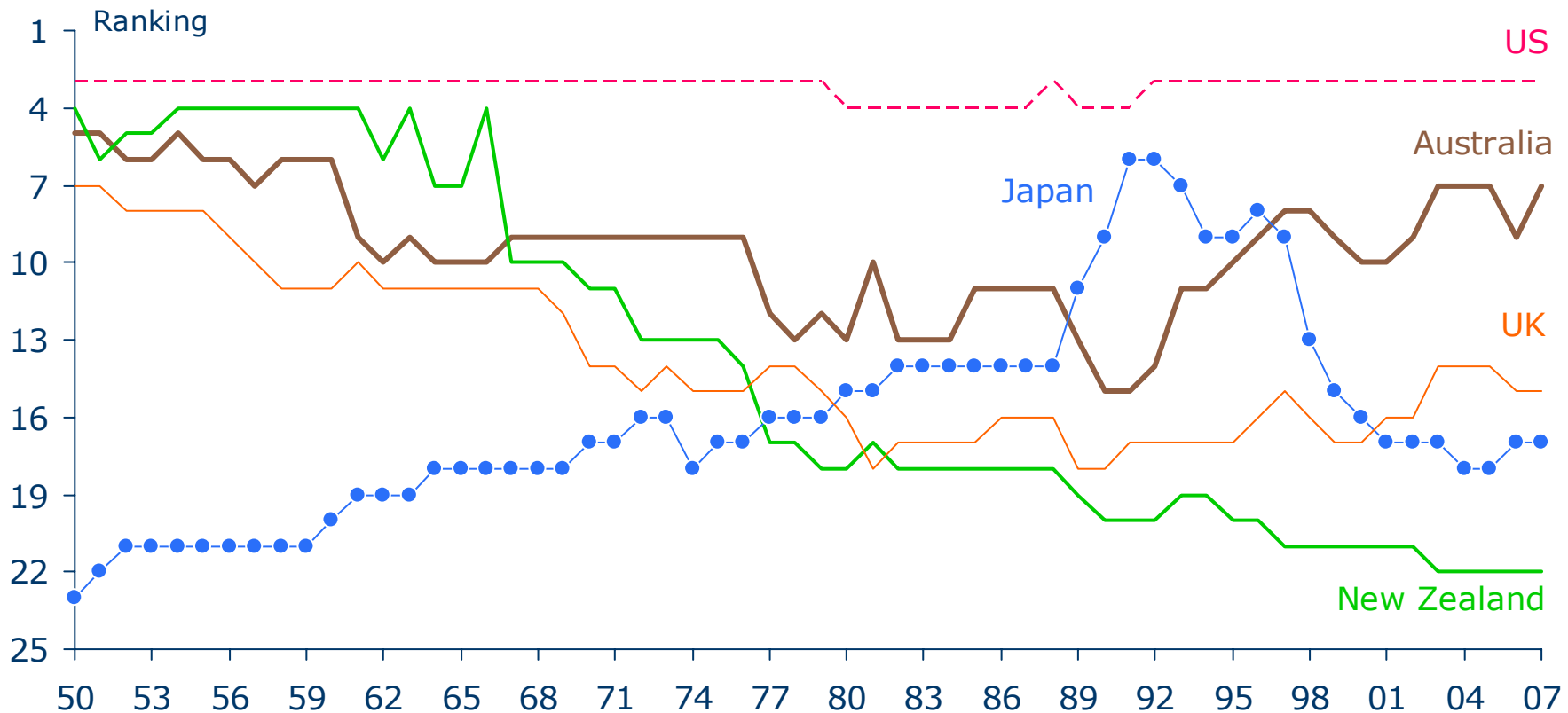
Real gross domestic product and income per capita



Note: Gross domestic income (GDI) is GDP adjusted for changes in the terms of trade (ratio of export to import prices). Sources: ABS; Economics@ANZ.

The reversal in Australia's terms of trade has played a major role in lifting Australia's relative standard of living

Australia's ranking among OECD countries in terms of GDP per capita

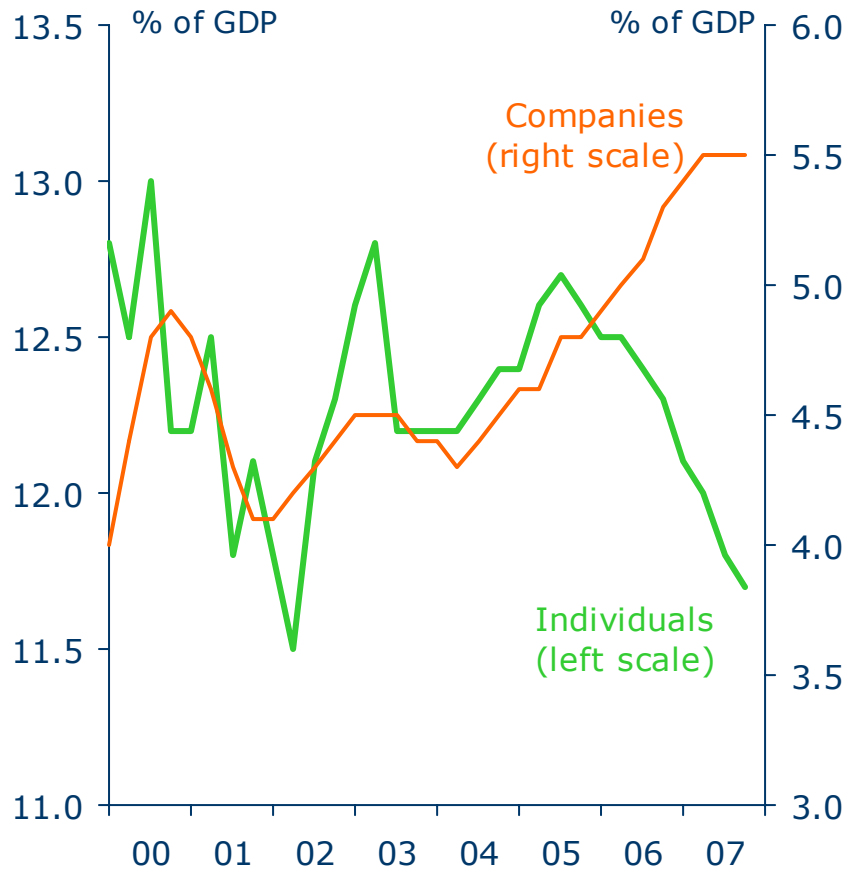


Source: The Conference Board and Groningen Growth and Development Centre, Total Economy Database, January 2008

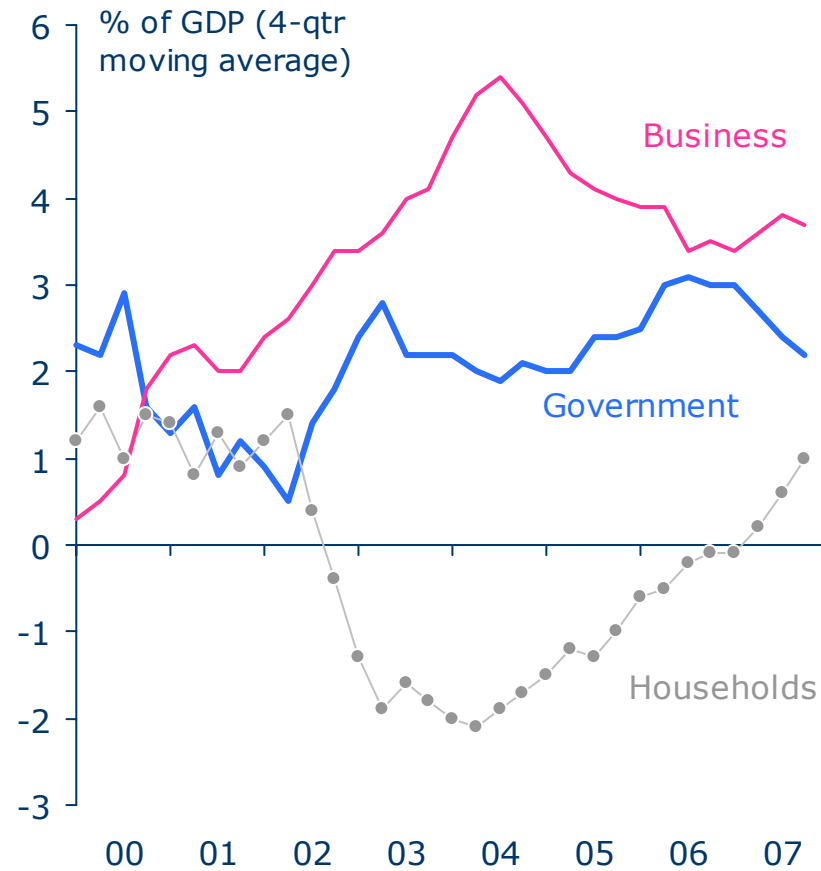


Personal tax cuts financed by windfall business tax revenues have boosted overall spending in Australia

Australian income tax collections



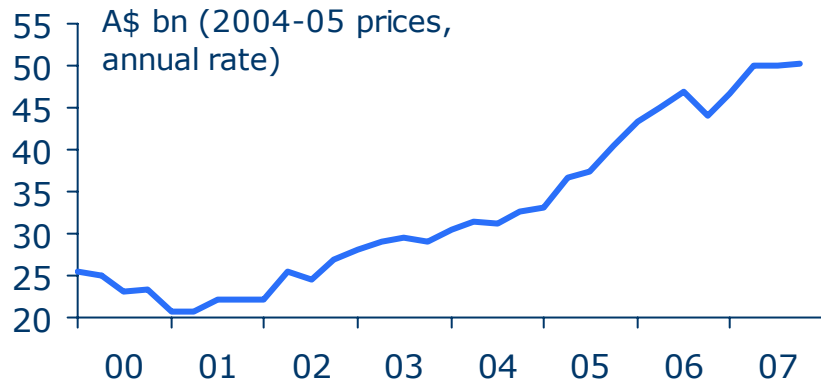
Net saving by sectors of the Australian economy



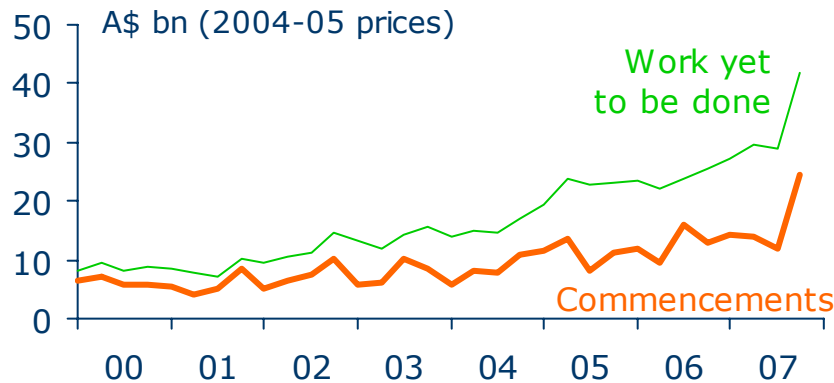
The mining boom and efforts to alleviate infrastructure bottlenecks have prompted a surge in non-residential construction

Engineering construction

Real value of work done

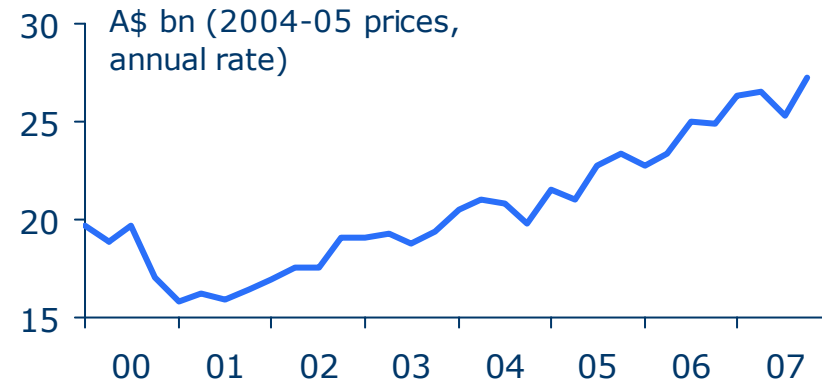


Commencements and backlog of work yet to be done

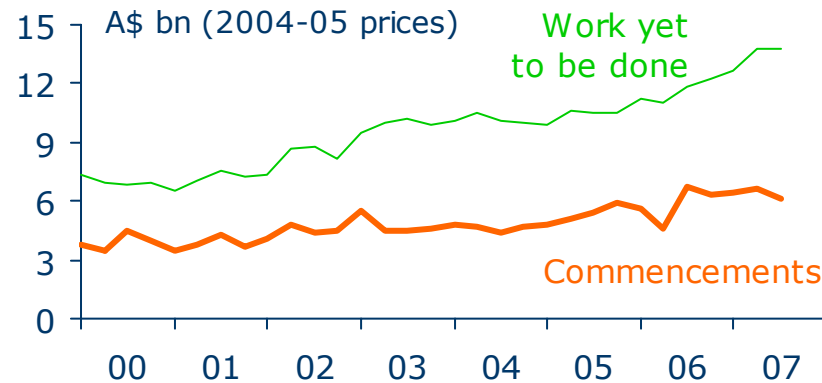


Non-residential building

Real value of work done

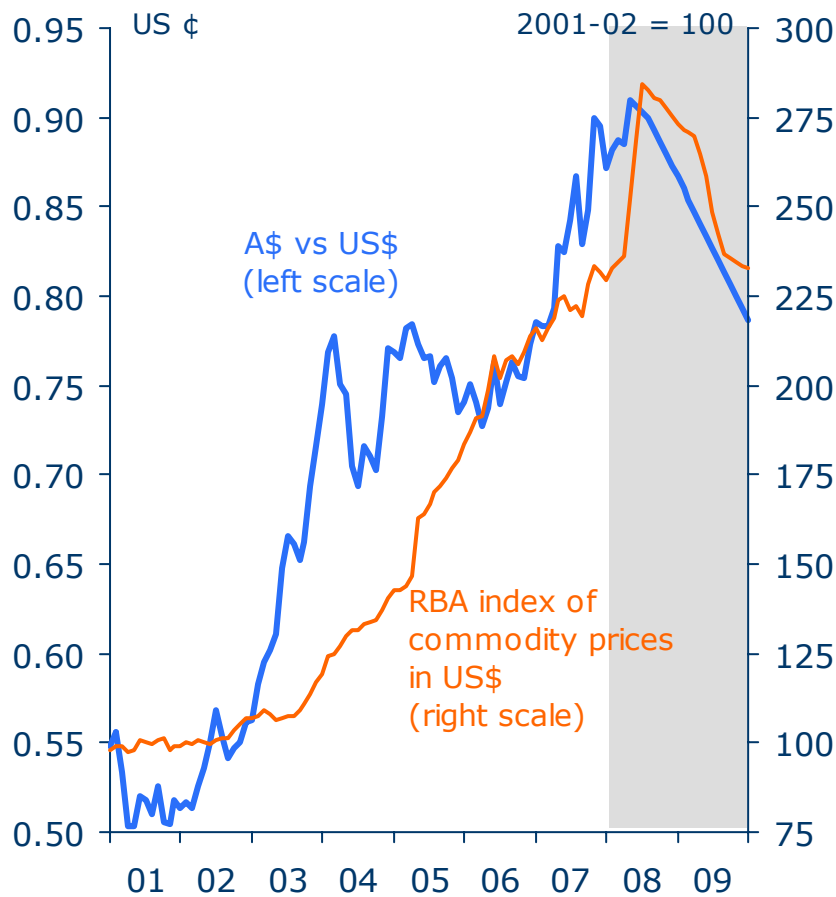


Commencements and backlog of work yet to be done

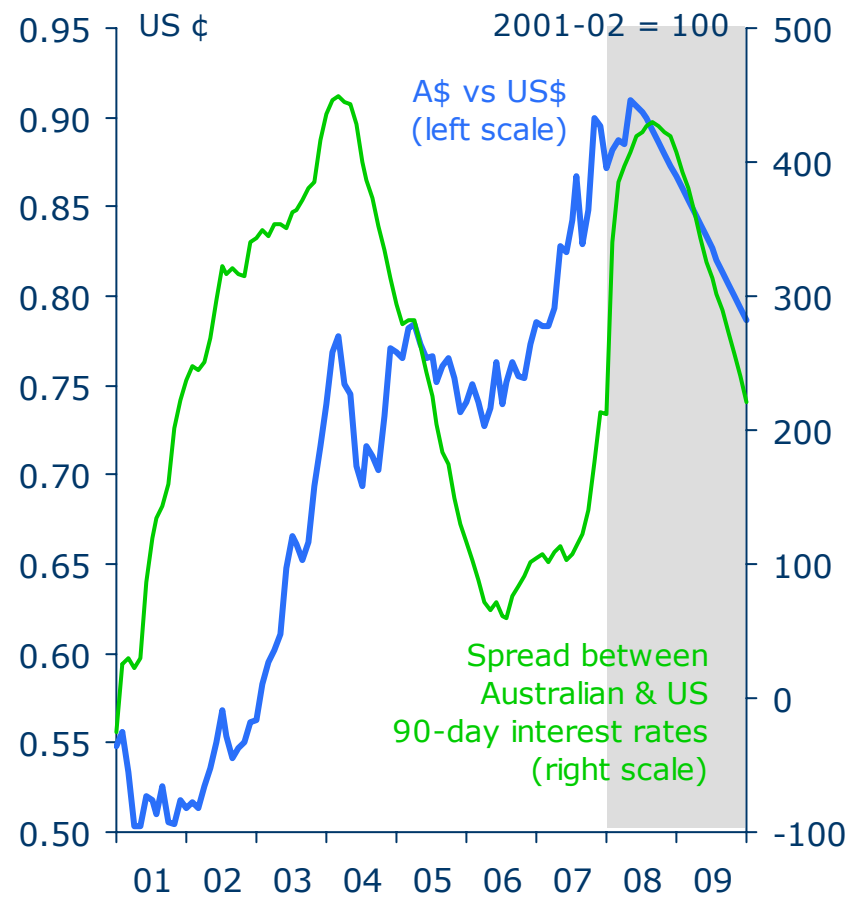


Rising export commodity prices (along with swings in relative interest rates) have had a major impact on the A\$

A\$ and commodity prices



A\$ and interest rate spreads



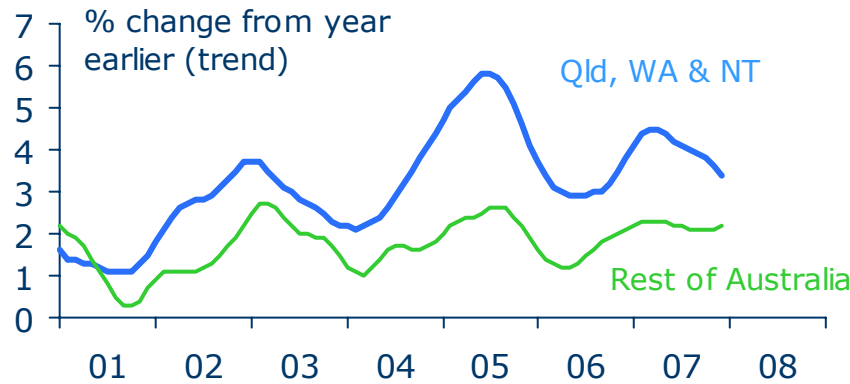
Sources: Thomson Financial; Reserve Bank of Australia; ANZ.



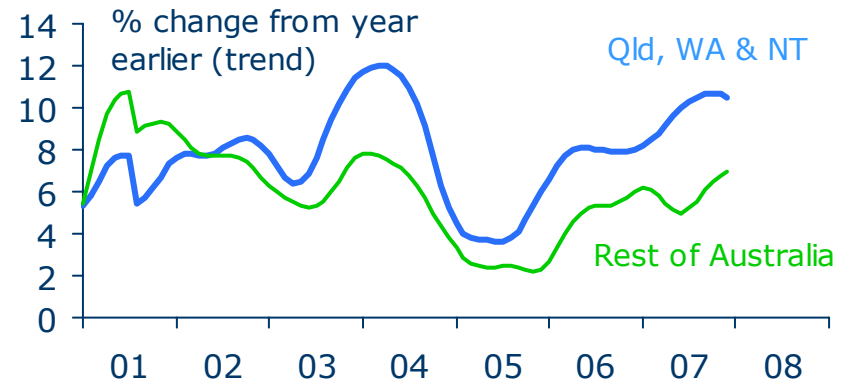
The commodities boom is the major (though not the only) reason for the emergence of a so-called 'two-speed economy'

Resource-rich vs other States and Territories

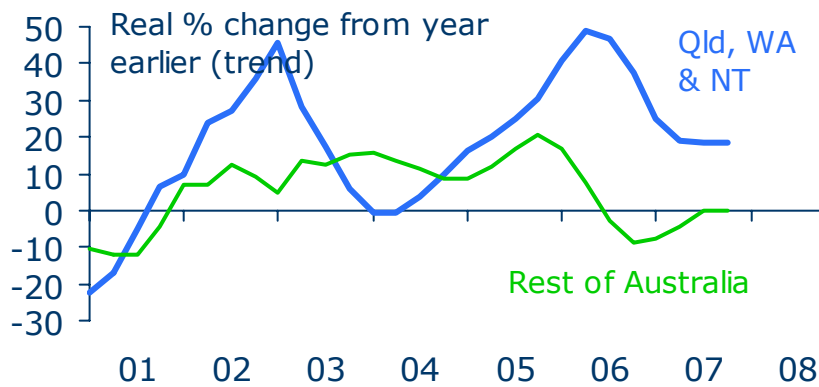
Employment



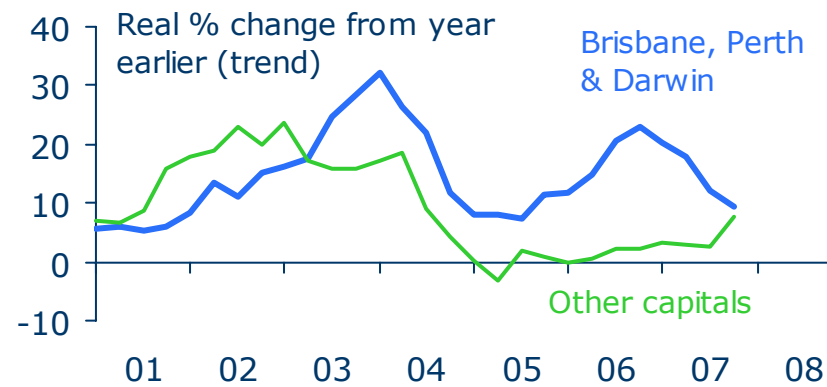
Retail sales



Engineering construction work

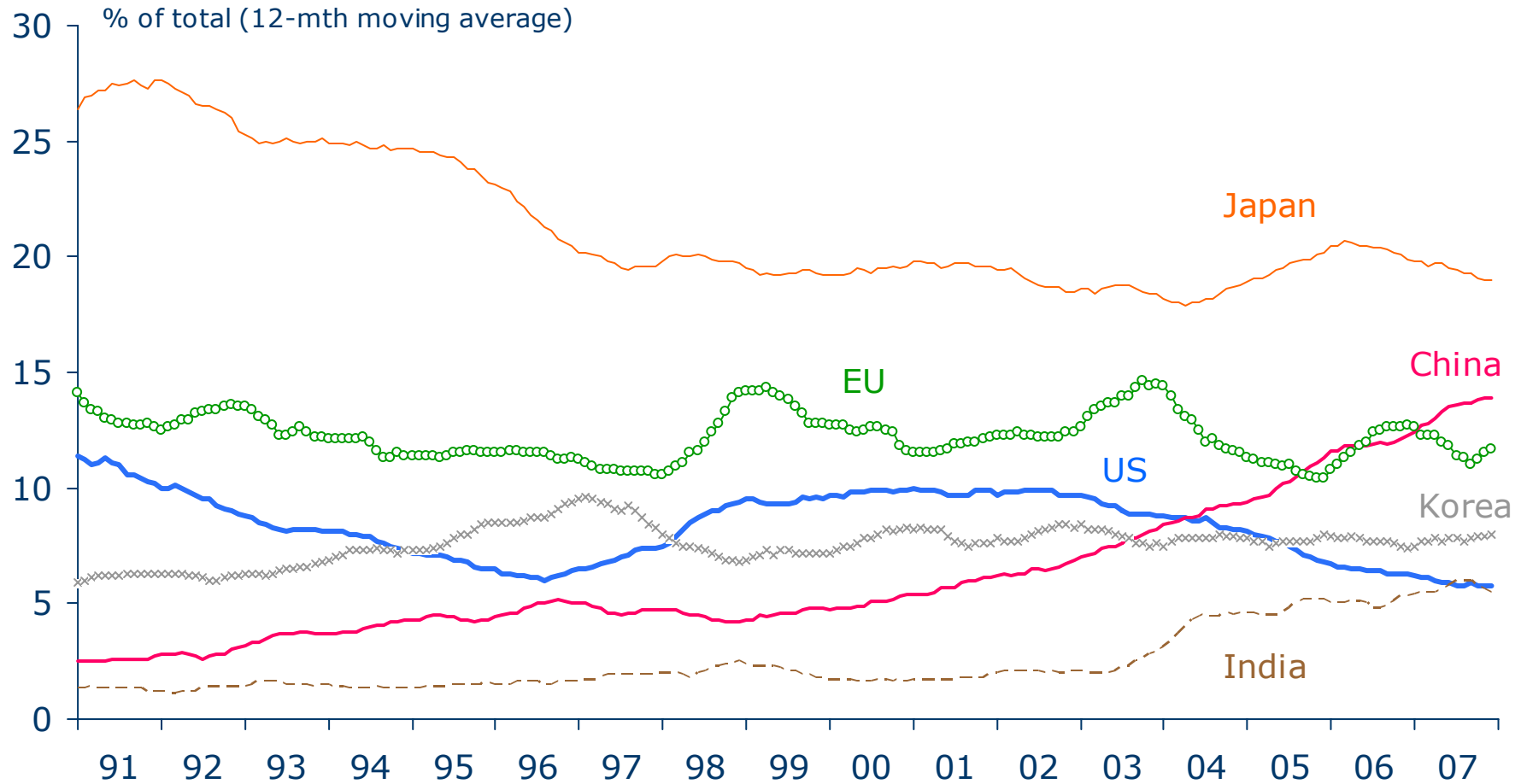


House prices



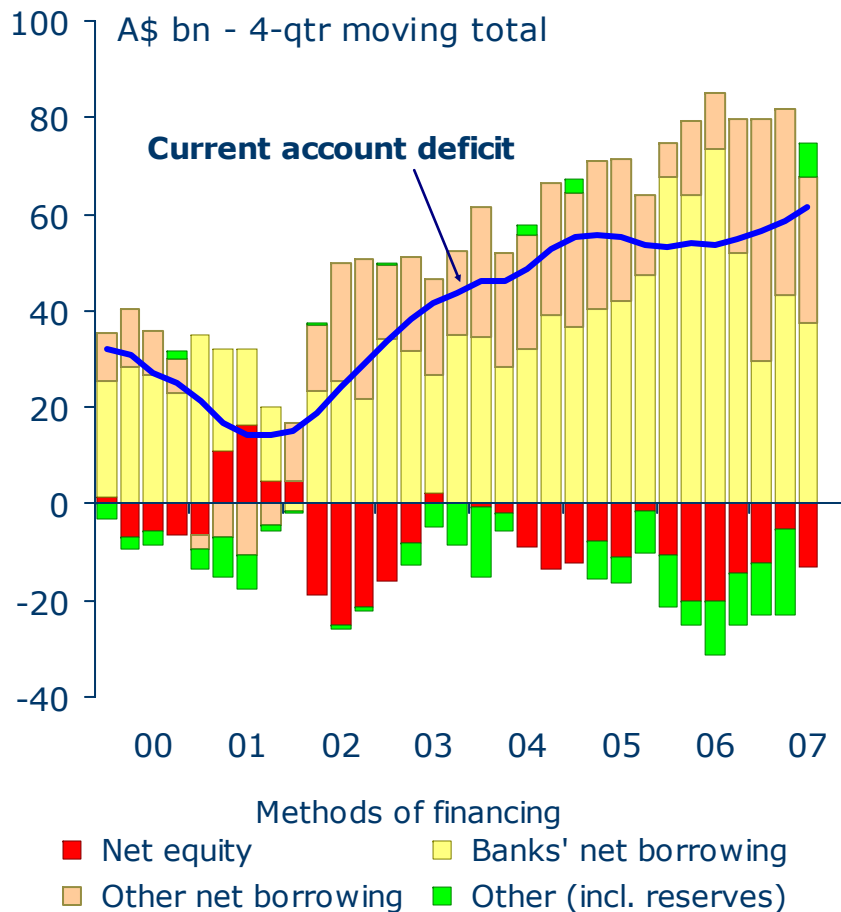
The US now accounts for less than 6% of Australia's exports – less than China, Korea or even India

Australia's major export markets

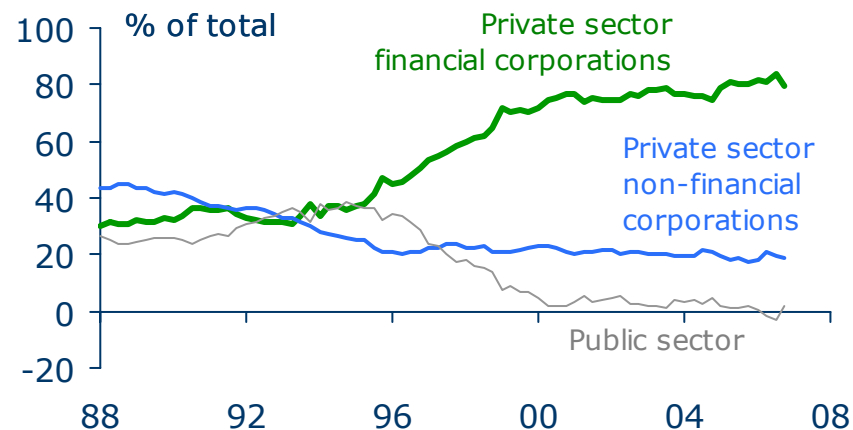


Reliance on banks' overseas borrowings to finance the deficit leaves Australia exposed to abrupt shifts in global markets

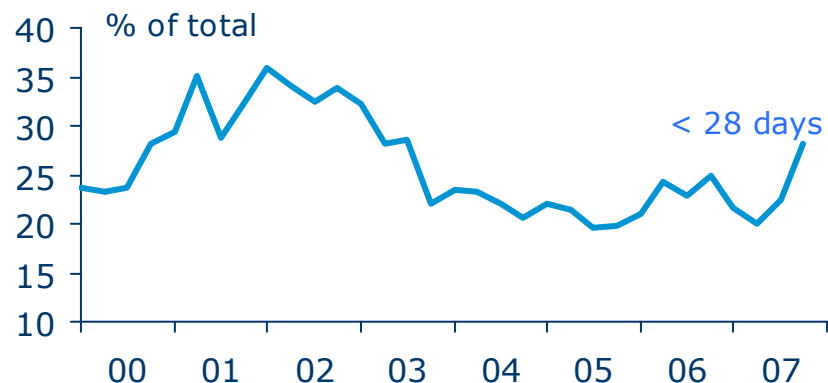
Financing Australia's current account deficit



Net foreign debt, by borrower



Maturity structure of net foreign debt



Sources: Australian Bureau of Statistics; ANZ.



The rise of China and India will challenge the way Australia thinks about the world

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- Historically, the world has rarely adapted to the emergence of new global powers without major conflict
 - will the world's existing major powers mis-handle the rise of China and India the way the world mis-handled the emergence of Germany and Japan between the 1860s and 1930s?
 - 'conflict' need not be only military – trade wars can also inflict significant damage
- China and India will probably seek to reshape the international system rather than simply to join it
 - just as the United States sought to do after the end of both of the 20th century's world wars
- Australia may on occasion face difficult trade-offs between its economic interests and its traditional political & security interests
 - foreign investment in 'sensitive' or 'strategic' sectors
 - responses to climate change
 - regional disputes and conflicts (eg Taiwan)