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China's impact on commodities

Structural shift (to "super-cycle") or cyclical peak?

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Jim Lennon
Macquarie Bank Limited
+44 20 7065 2014
Jim.Lennon@macquarie.com

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Background

- Many commodity prices have surged in the past two years, some to all-time highs.
- Market inventories have been run down to extremely low levels – lowest since we have records
- Physical availability of many commodities remains extremely tight despite a severe demand slowdwon in Europe and the USA in 2005
- The question now:
  - **Are we at/close to a cyclical peak?**

  Or

  - **Are there structural changes in place which mean prices can hold at higher levels for a longer period and indeed improve industry margins ,on average, for a sustained period?**

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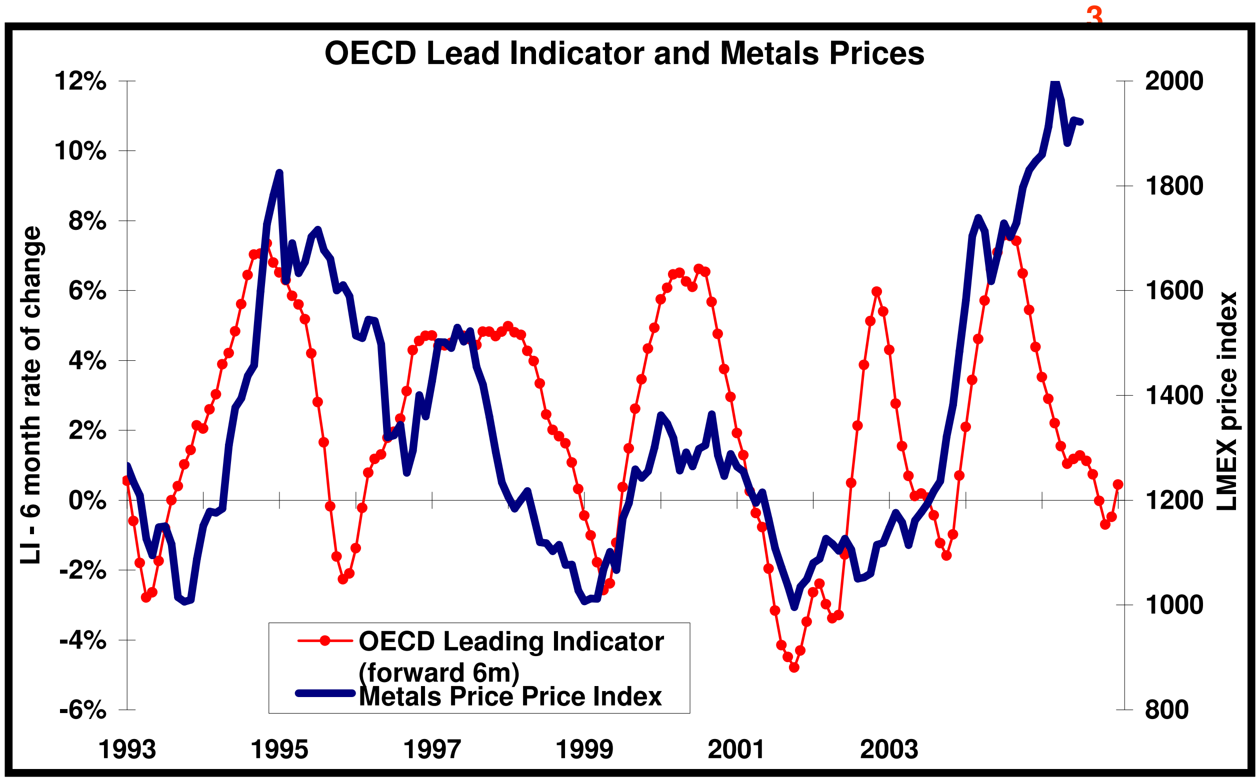
The relationship between prices and OECD growth has broken down



Source: OECD, LME, Macquarie Research, October 2005

➔ **Through the 1990s the OECD leading indicator was THE indicator of price direction – but the relationship is breaking down**

1. Prices failed to rally in 2002 due to inventory overhang
2. Prices did not drop in 2003 due to emergence of Chinese buying
3. Prices moving higher despite signs of slower growth in Western World
4. Signs that economic growth will be accelerating in late 2005

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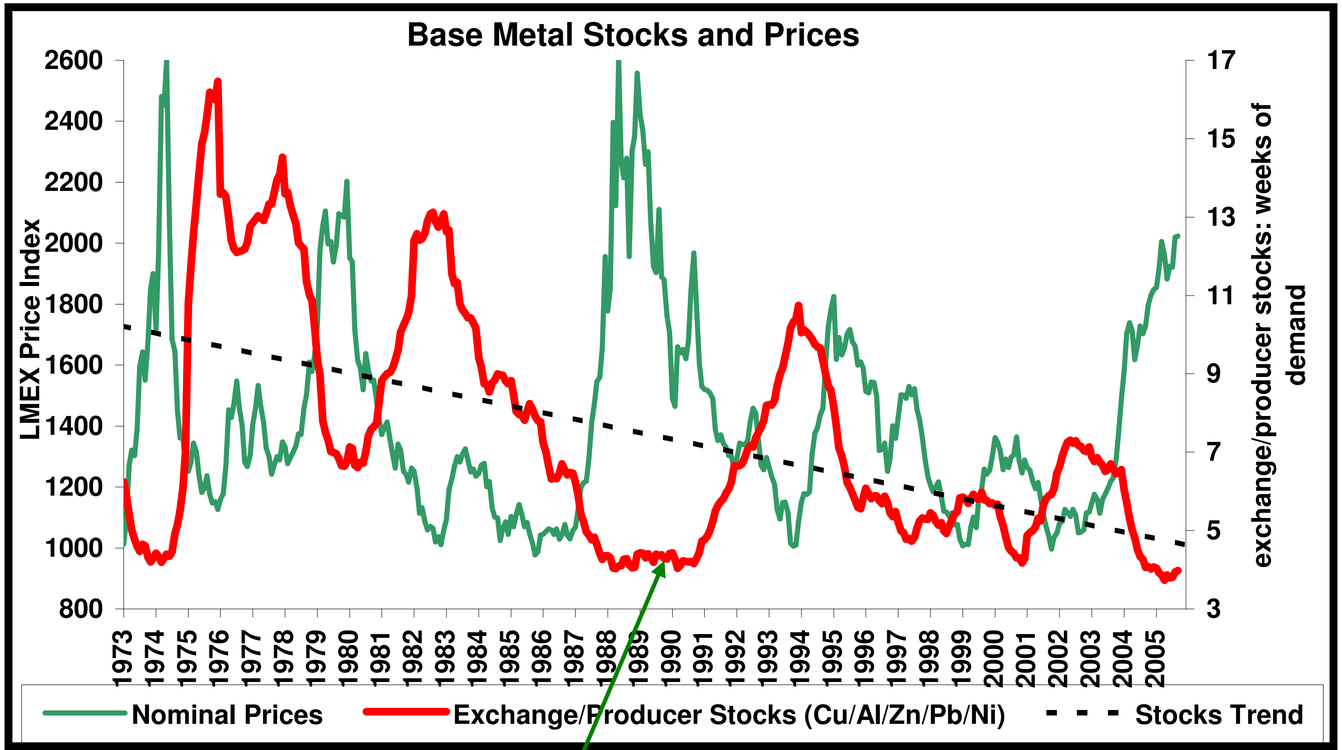
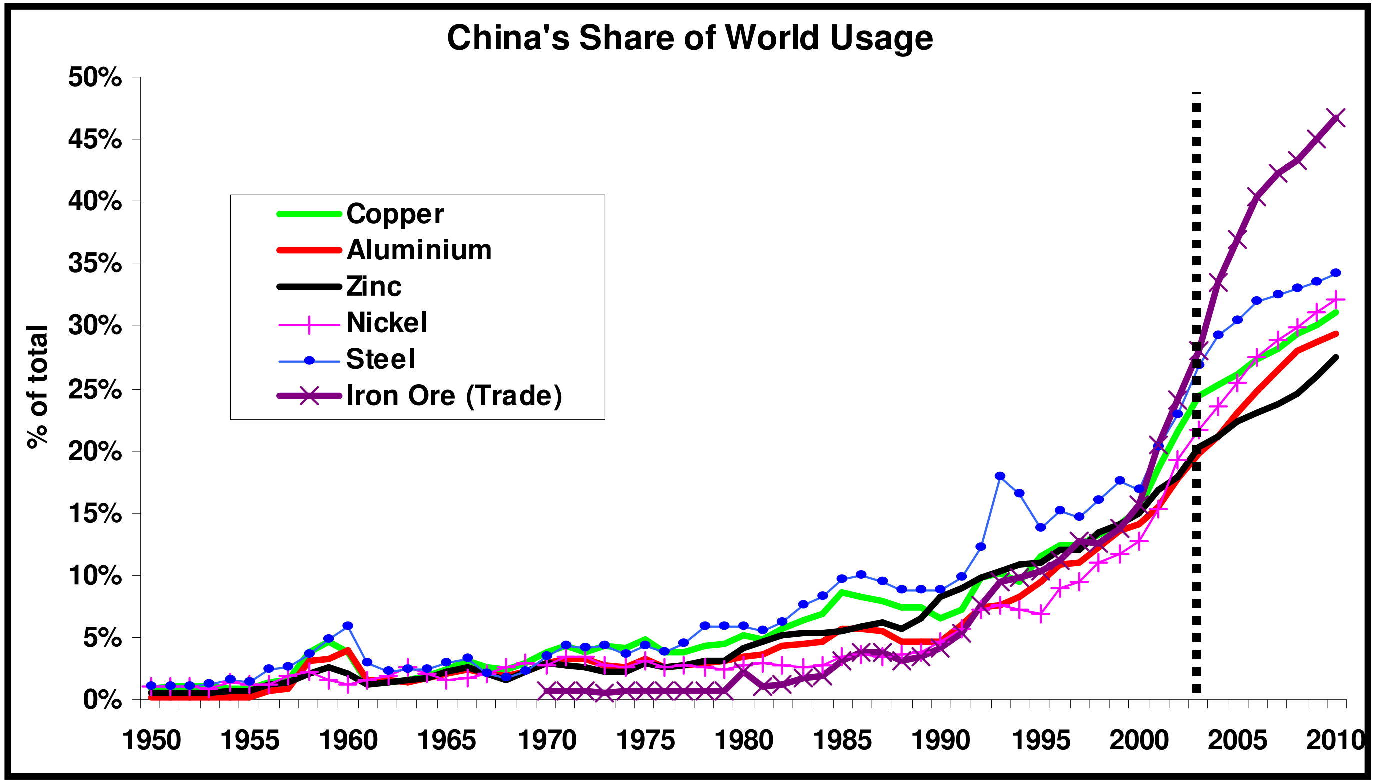
If stocks remain chronically tight, prices can remain high – to end August 2005



Source: LME, Macquarie Research, October 2005

➔ In the late 1980s, market inventories stayed at critically tight levels despite slowing economic growth – this is what supported prices.

The main reason for the breakdown in OECD relationship is China

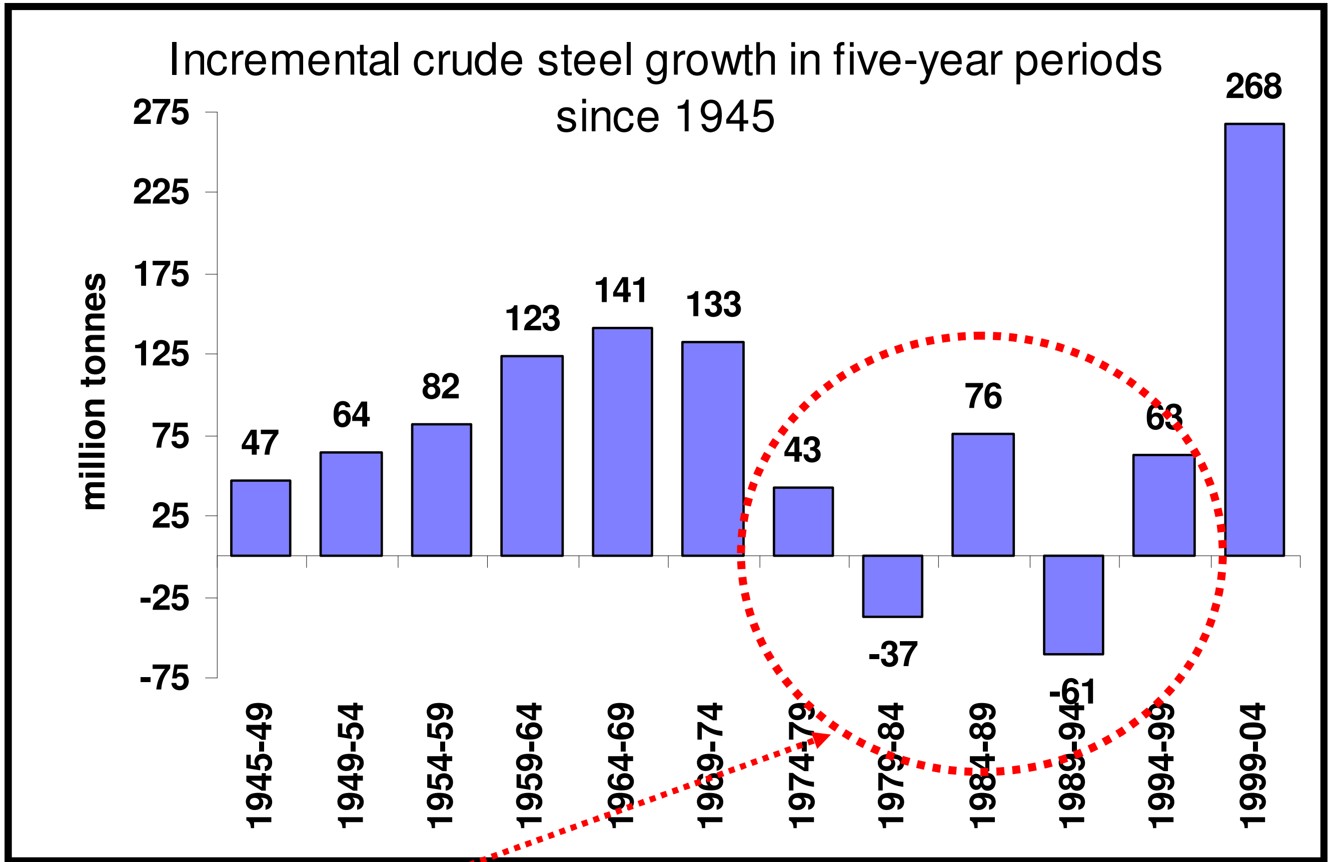


Source: Macquarie Research, October 2005

➔ China has gone from 7–10% of world demand for the main base metals in 1993 to 20–25% of world demand in 2003

➔ Even allowing for a slowdown from current growth rates, China is likely to account for 30%+ of world demand by 2010

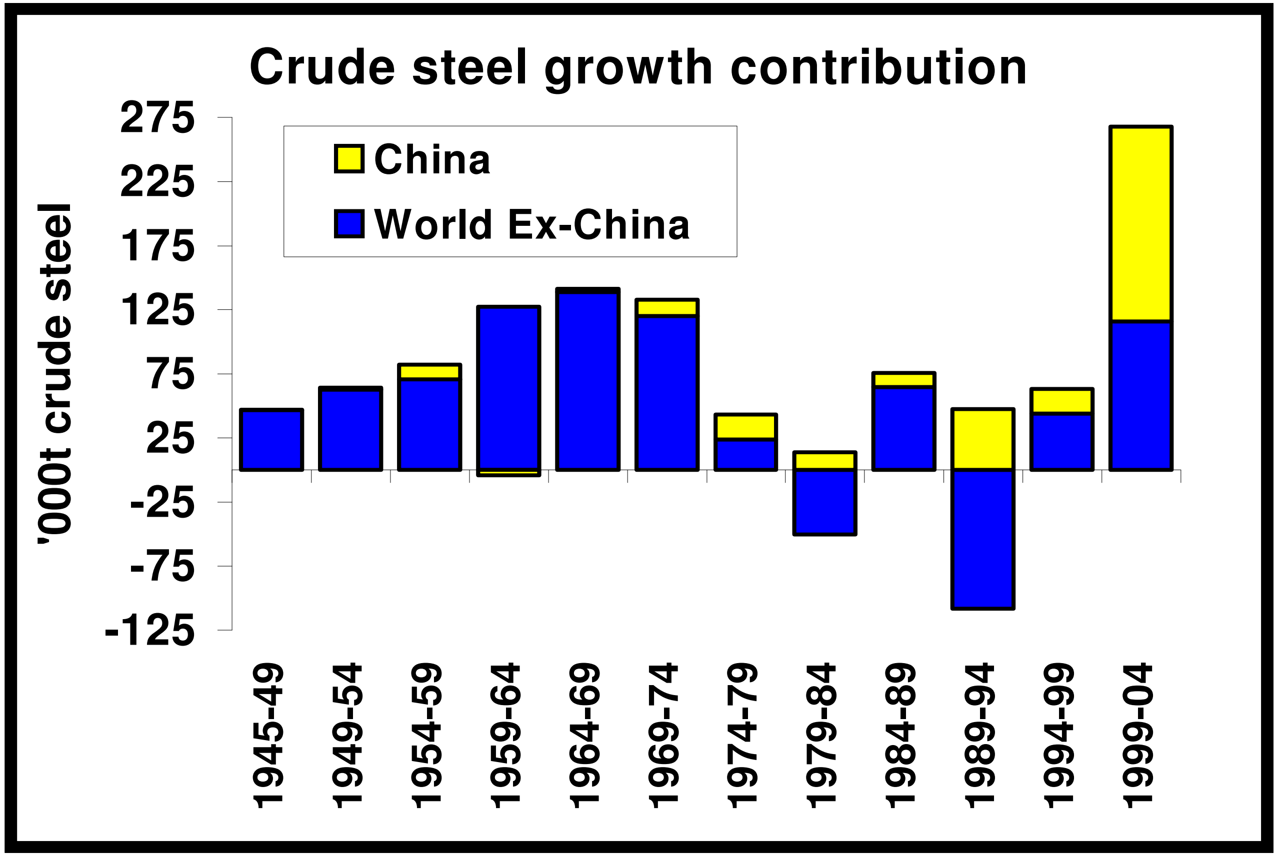
Impact of China in steel: huge leap forward in world steel growth since 1999



Source: IISI, Macquarie Research, October 2005

This was still the mindset of the steel industry and raw material suppliers…until very recently.

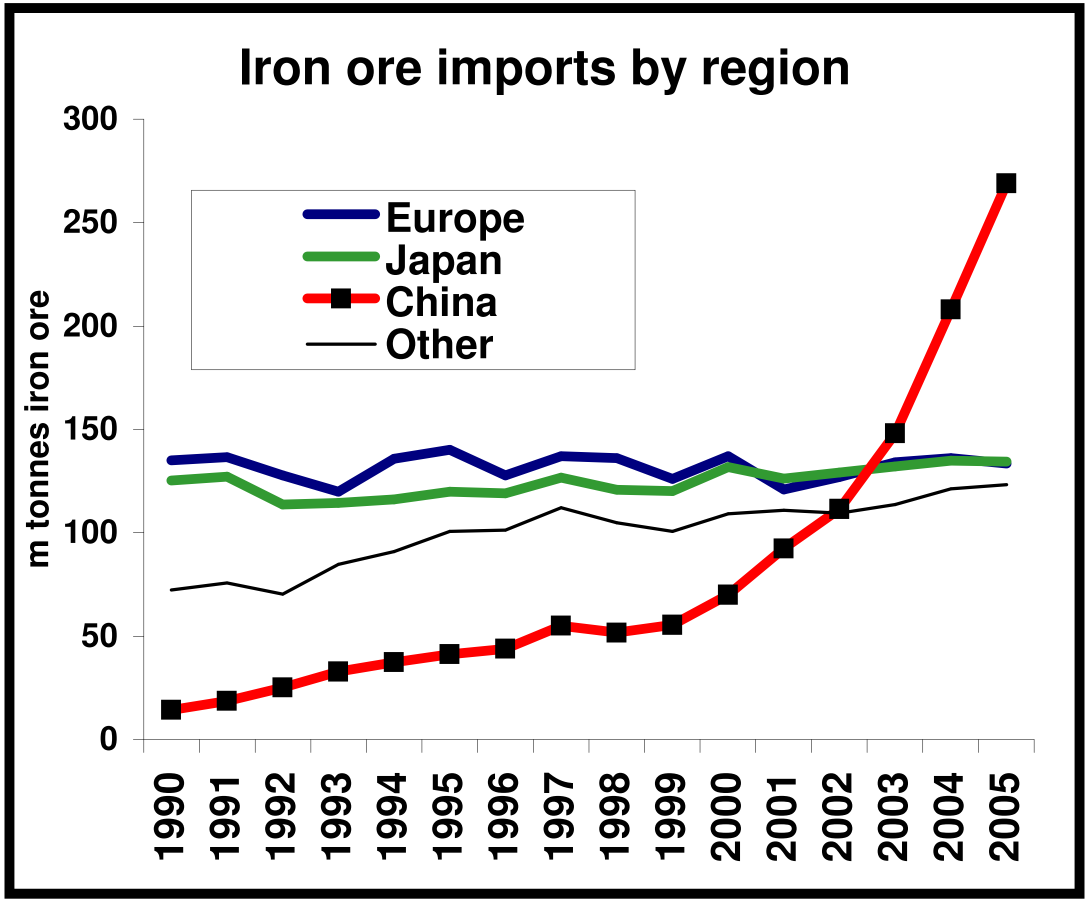
China is the main (but not the only) reason for this acceleration in growth



Source: IISI, Macquarie Research, October 2005

China represented 56% of growth since 1989, India 2.9%, other Asia 11%, former Soviet Union 8%, Latin America 4.7% (Japan, West Europe and USA 10% combined).

China has changed iron ore demand



Source: Macquarie Research, October 2005

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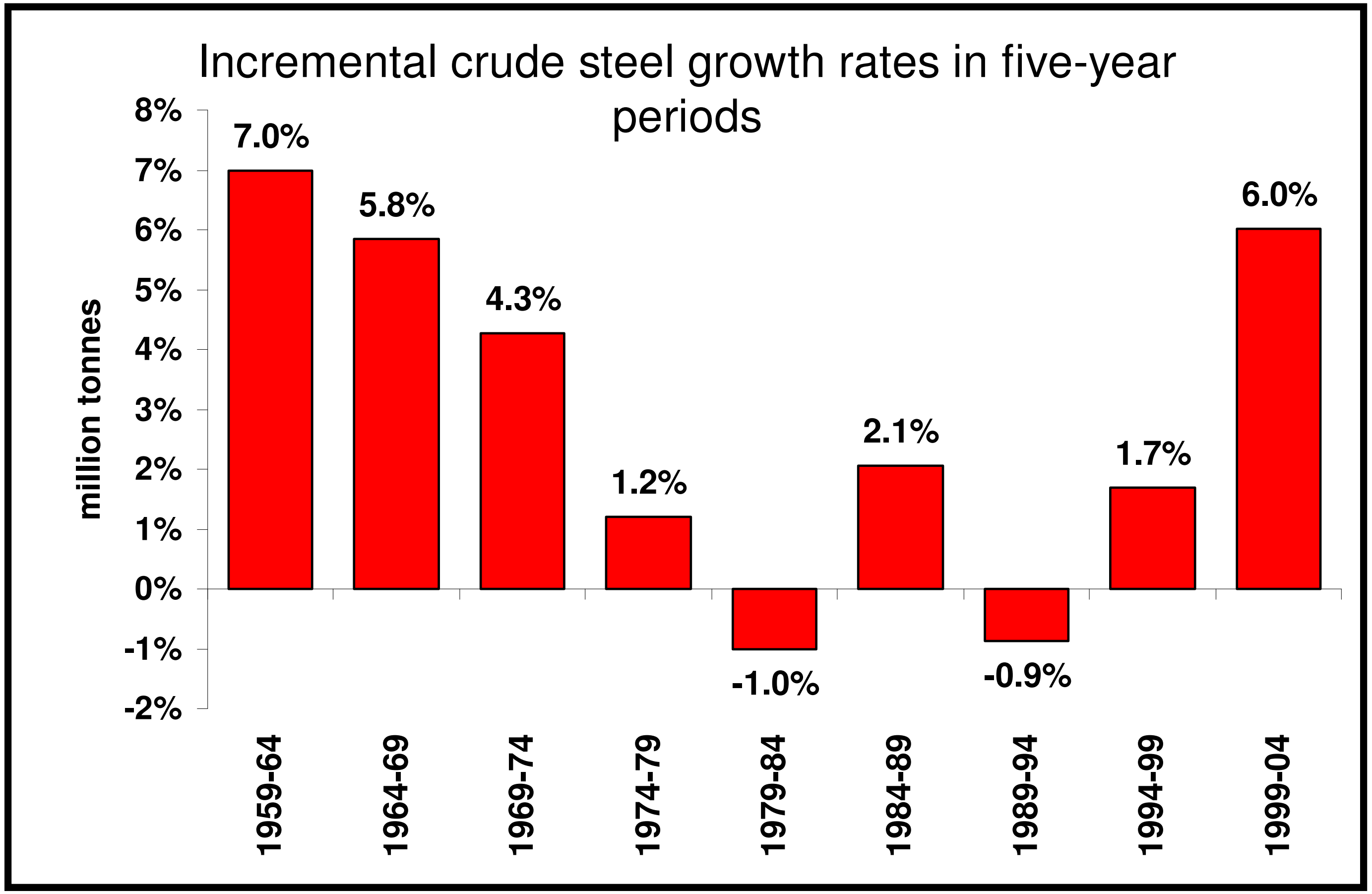
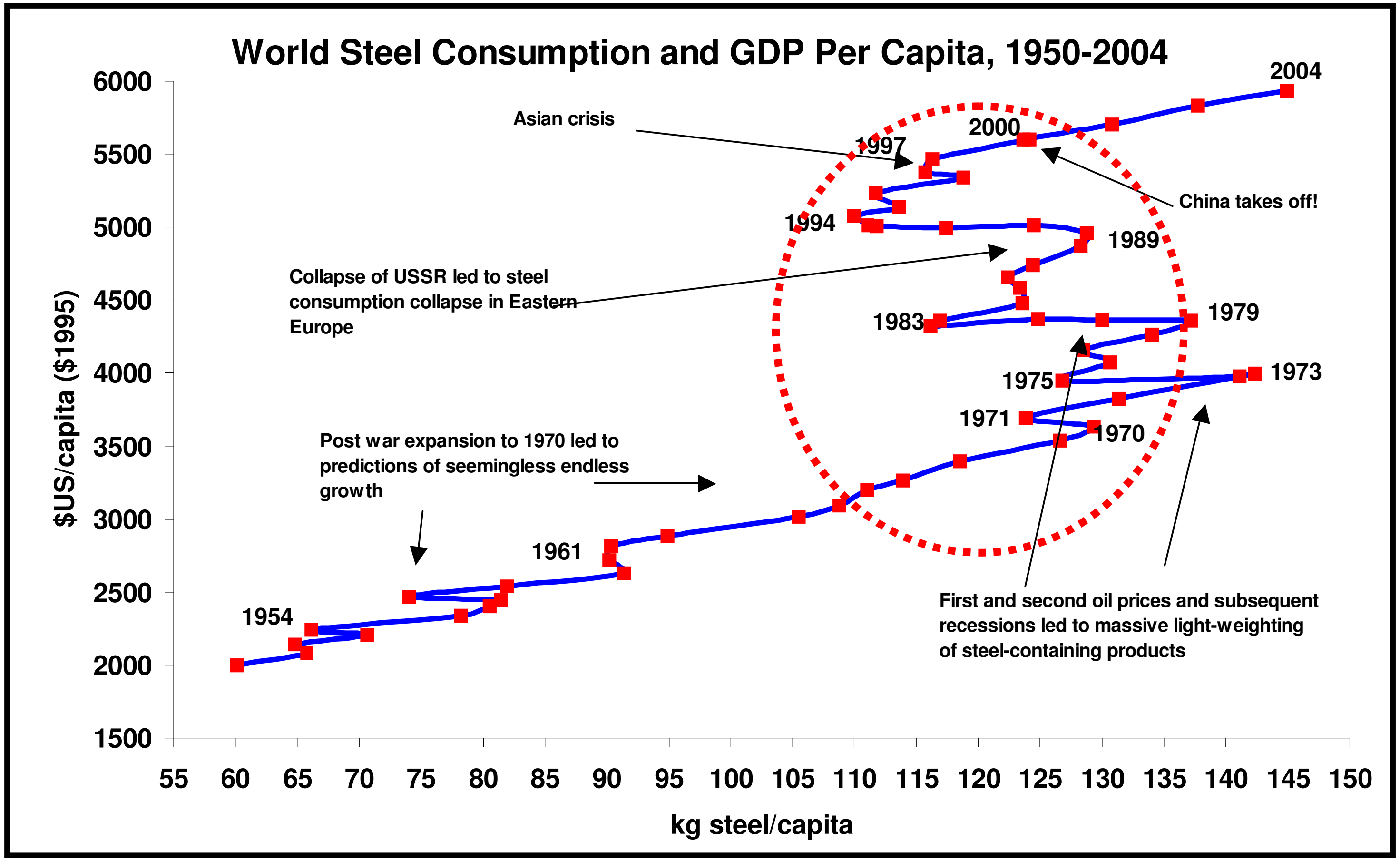
Rate of steel growth – back to the 1960s



Source: IISI, Macquarie Research, October 2005

World steel consumption per capita finally passes 1973 peak in 2004!



Source: IISI, World Bank, Macquarie Research, October 2005

Back to strong growth after "temporary" interruption from 1973-1994?

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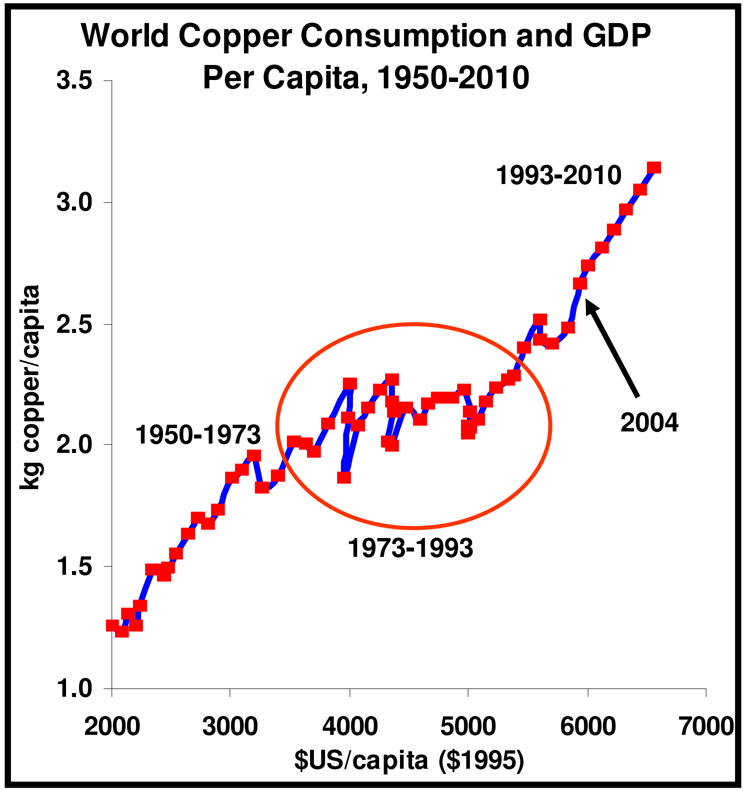
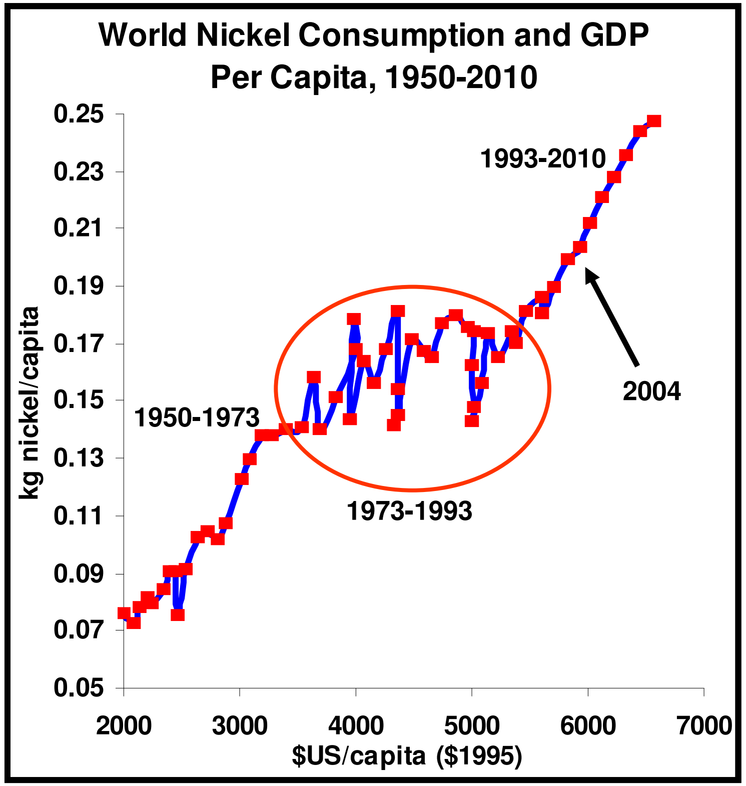
Intensity of use relative to GDP is rising again

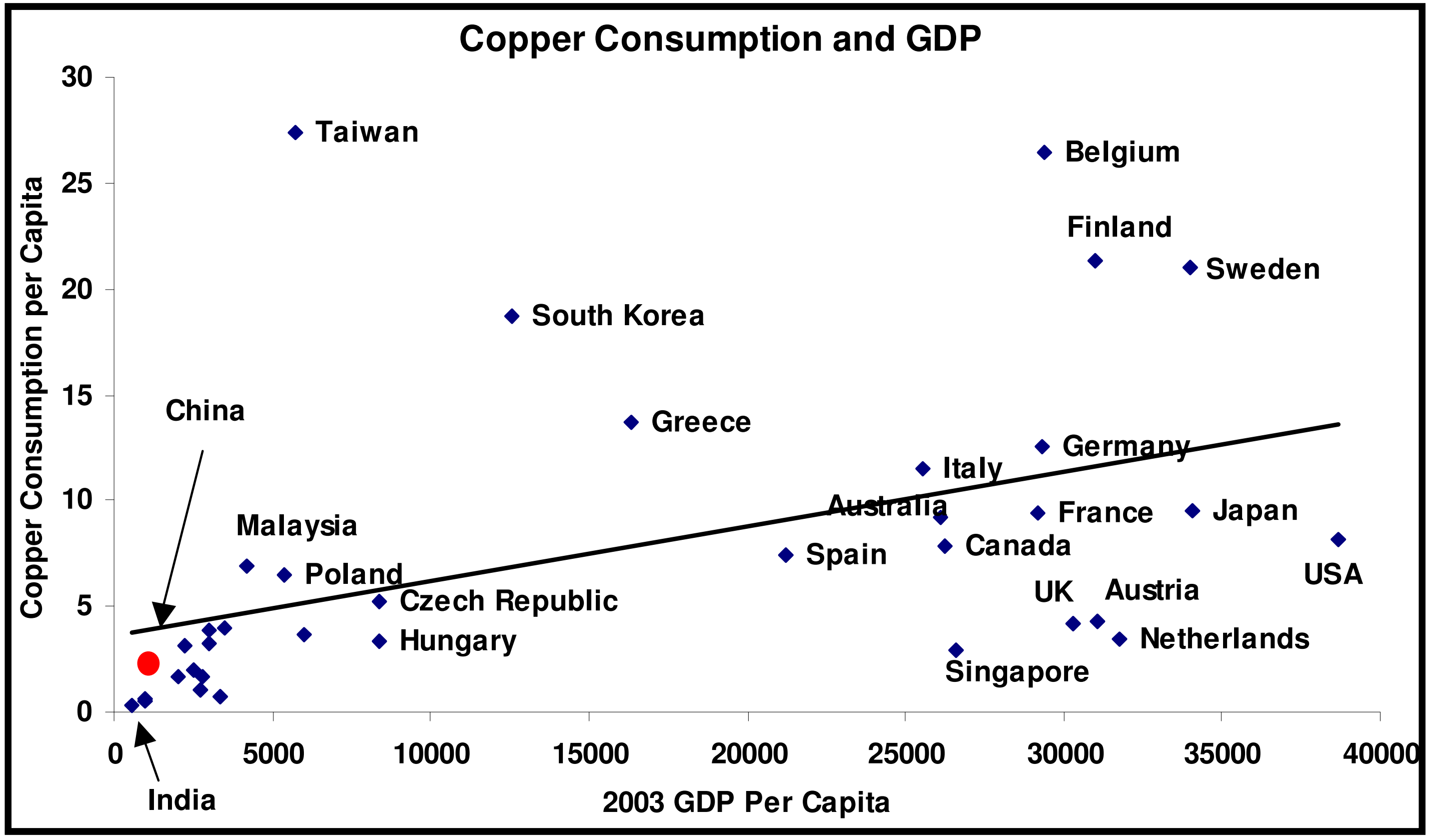




Source: Macquarie Research, October 2005

- ➔ Intensity of use of metals relative to GDP flattened out in the 70s and 80s
- ➔ Picked up again in 1990s and the 2000s – impact of China and other developing countries likely to continue this trend through the remainder of the decade

Reasons to be bullish China for the long term



Source: Macquarie Research, October 2005

➔ Chinese per capita consumption of metals remains extremely low – there is a lot of growth to come before it catches up with the other major economies

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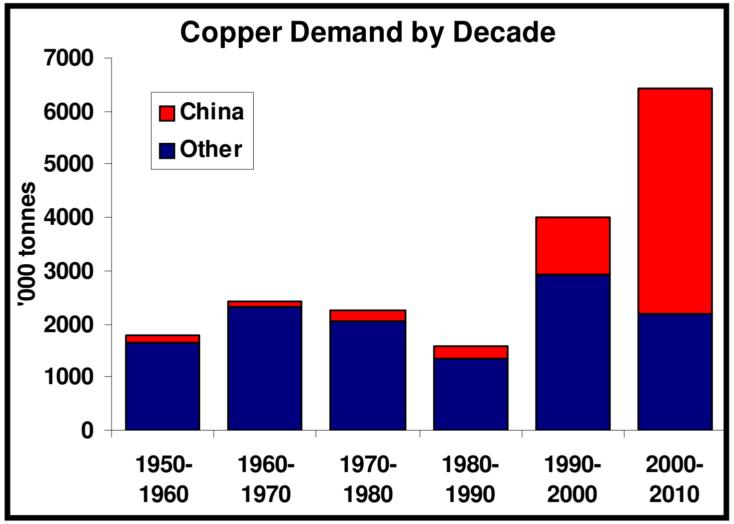
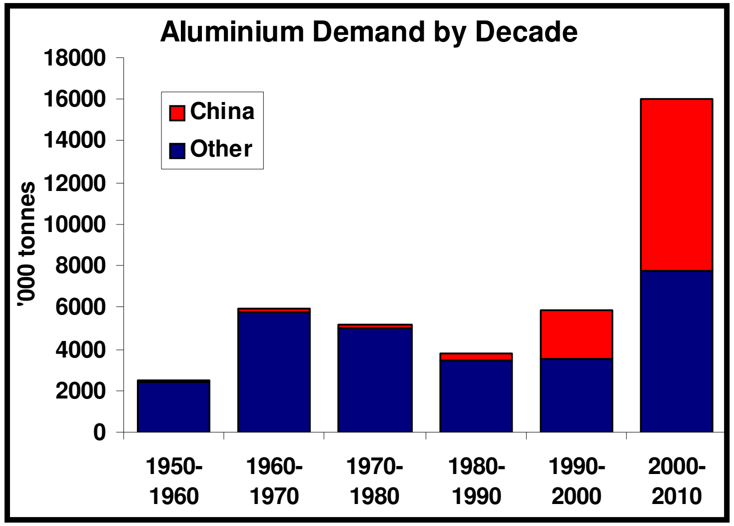
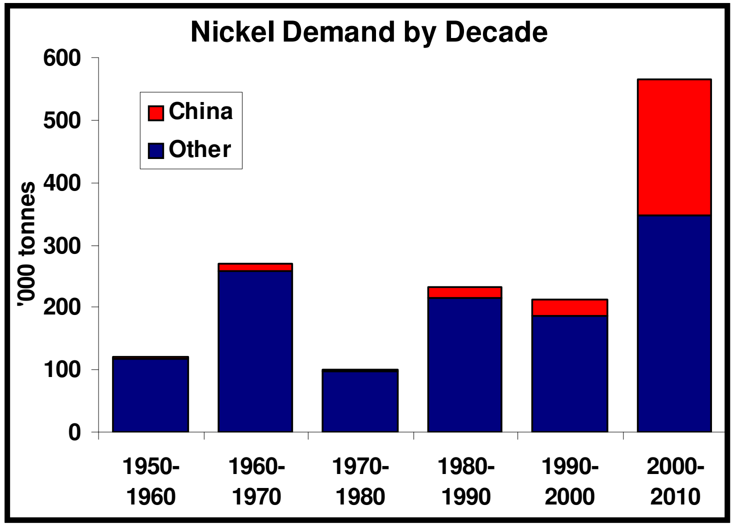
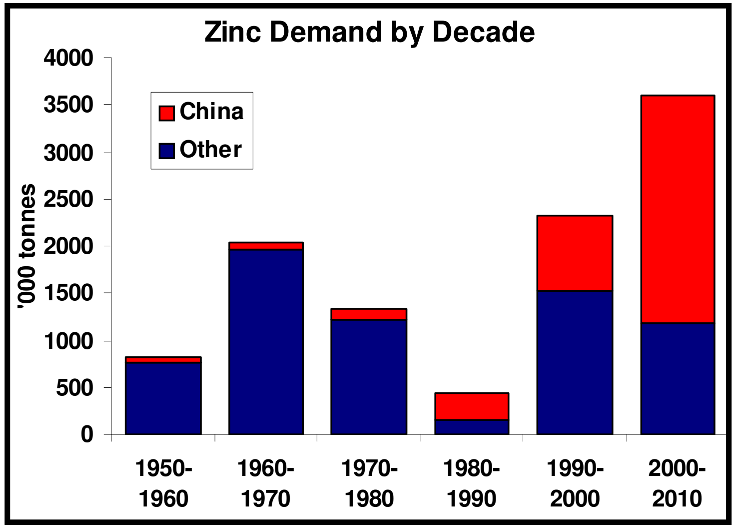
This is the impact China is having!







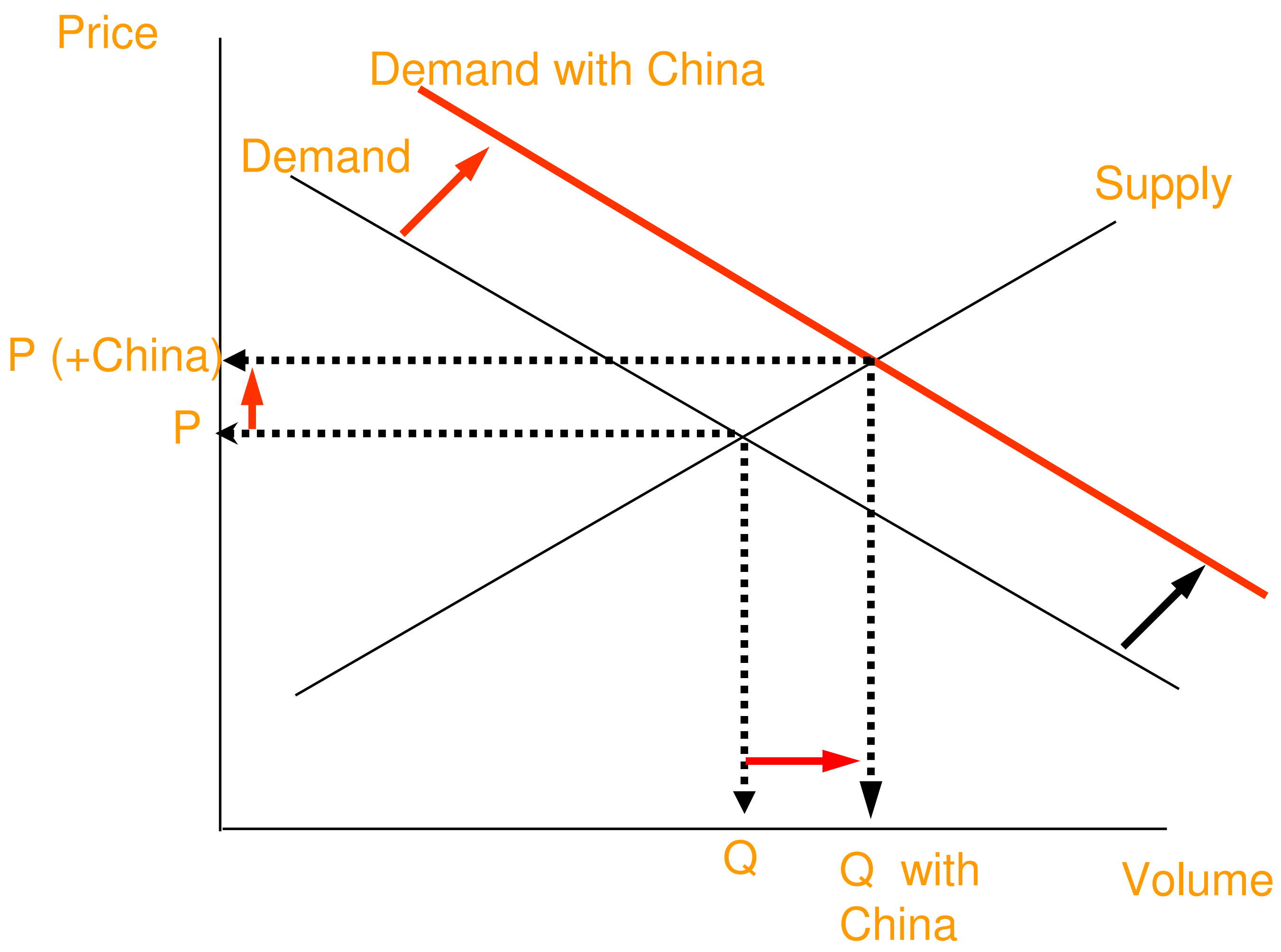


Source: Macquarie Research, October 2005

What has caused the recent bull markets?

- Emergence of strong Chinese demand growth which raised global demand growth above that expected by suppliers
- Muted supply response by producers due to structural bottlenecks and better supply-side discipline
- Subsequent run-down of inventories to historically-low levels causing shortages (or risks of shortages)
- This background was overlaid on a typical cyclical recovery in the OECD countries has and created an incredibly powerful bull market, which has continued into the subsequent economic growth slowdown

Simple economics: more demand = higher price!...before supply response



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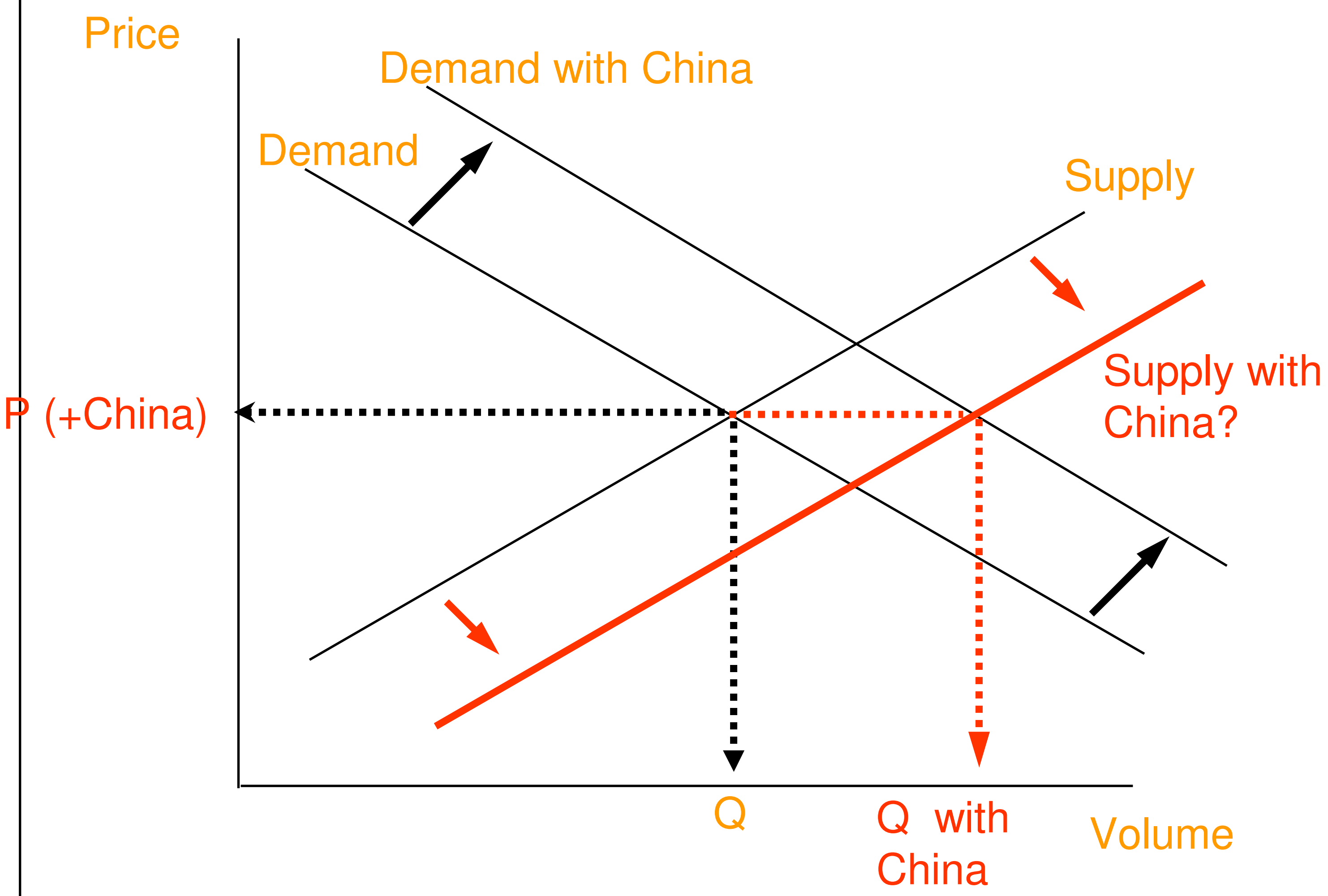
If supply rises fully to match extra demand then prices stay the same…



The structural arguments for a “super-cycle”

- Chinese demand growth will continue to drive above trend global demand growth *and it will continue to be under-estimated by suppliers*
- Supply constraints (real or deliberate) will prevent a sufficiently rapid production response – severe shortages of people and equipment, massive capital and operating cost escalation

Implication:

Any move into over-supply will be delayed and markets stay tight for a prolonged period - Prices remaining “stronger for longer”

What could drive the supply side – higher costs

- ➔ Higher capital and operating costs (in part due to higher energy costs, in part due to more costly projects (greenfield alumina) or new technology (Nickel PAL))
- ➔ Higher-cost, marginal capacity is needed to meet demand growth (e.g., Russian thermal coals, US./Canadian coking coal, African copper)

= free-rider impact for existing lower cost producers

What could drive the supply side – more power to the suppliers

➔ Higher rates of capacity utilisation/greater concentration of capacity/better producer discipline

= greater pricing power (and better margins) to suppliers

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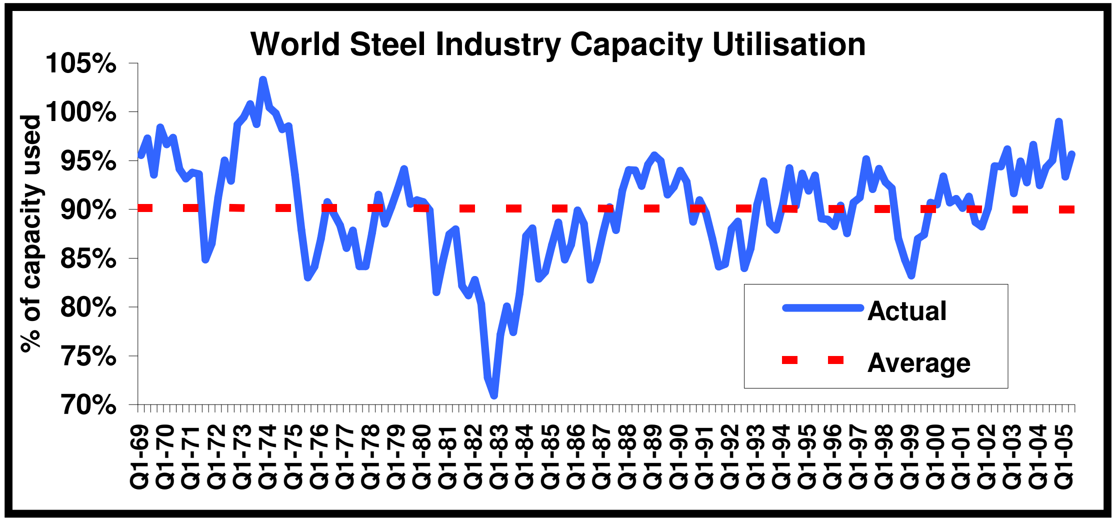
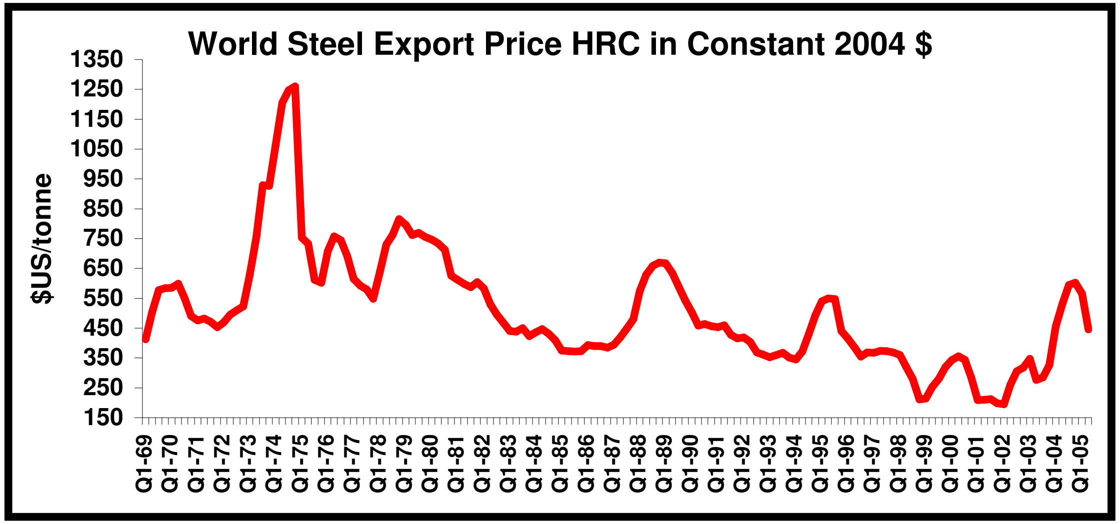
High steel prices – reflect the high rate of steel capacity utilisation





Source: WSD, October 2005

China and resources

- **Areas to be bullish (China doesn't have the resource base)**
  - Copper concentrate (but smelters are being built)
  - Nickel (but not stainless steel)
  - Zinc (China has outgrown its resource base)
  - Iron ore (China has outgrown its (poor) resource base)
  - Coal (China currently has plenty of coal (esp. thermal) but logistics will necessitate growing imports)
  - Alumina (outgrowing poor domestic resource base).
- **Areas of concern (China has (or will have) plenty of capacity)**
  - Carbon steel and stainless steel (quality issues still important but imports won't be needed in future)
  - Aluminium (3mtpa too much capacity currently but, longer term, is China a viable major exporter?).

Best to supply raw materials that China doesn't have rather than processing capacity which the Chinese can build

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Summary – what drives price

- Interaction of supply with demand = price
- Assuming that China changes the long run growth rate for commodities upwards…
- ….then key to prices is how supply responds
- There are reasons to believe that balance of power is switching in the medium term from the buyers to the suppliers

Conclusions

- A combination of cyclical and structural factors have driven the rally in metals/bulk commodities
- China will continue to contribute to above-trend rates of global demand growth
- Supply response is not enough
- Markets have stayed tight in 2005, and perhaps surprise on the upside in 2006 as well
- In the longer term there WILL be enough supply, but more pricing power has shifted to suppliers
- Commodity prices in general will NOT hold at current levels in the long term
- However, we are in a STRONGER FOR LONGER CYCLE

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