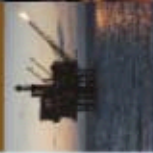


# Global Natural Resources Institutional Banking



# The Coal Industry in the Asia Pacific and Broader Commodities Markets

By: Andrew Harrington





## Global Natural Resources



### Big Picture:

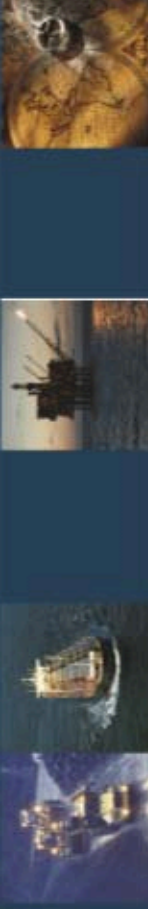
- 1. Four Factor Model:

$$\text{Output} = f \{ \text{Raw Materials} + \text{Energy} + \text{Labour} + \text{Capital} \}$$

- The addition of Chinese and Indian Labour to the Global Economy has boosted returns to the other components.
- BUT, eventually this will balance out
- 2. Slowing Global Growth – but still above long run average of 3.5%. However Inflation risk remains.
- 3. Energy Use:
  - per Capita stable, per \$GDP declining, in absolute terms increasing
- 4. Threat of Shocks: Terrorism, Disease, Weather, Financial...

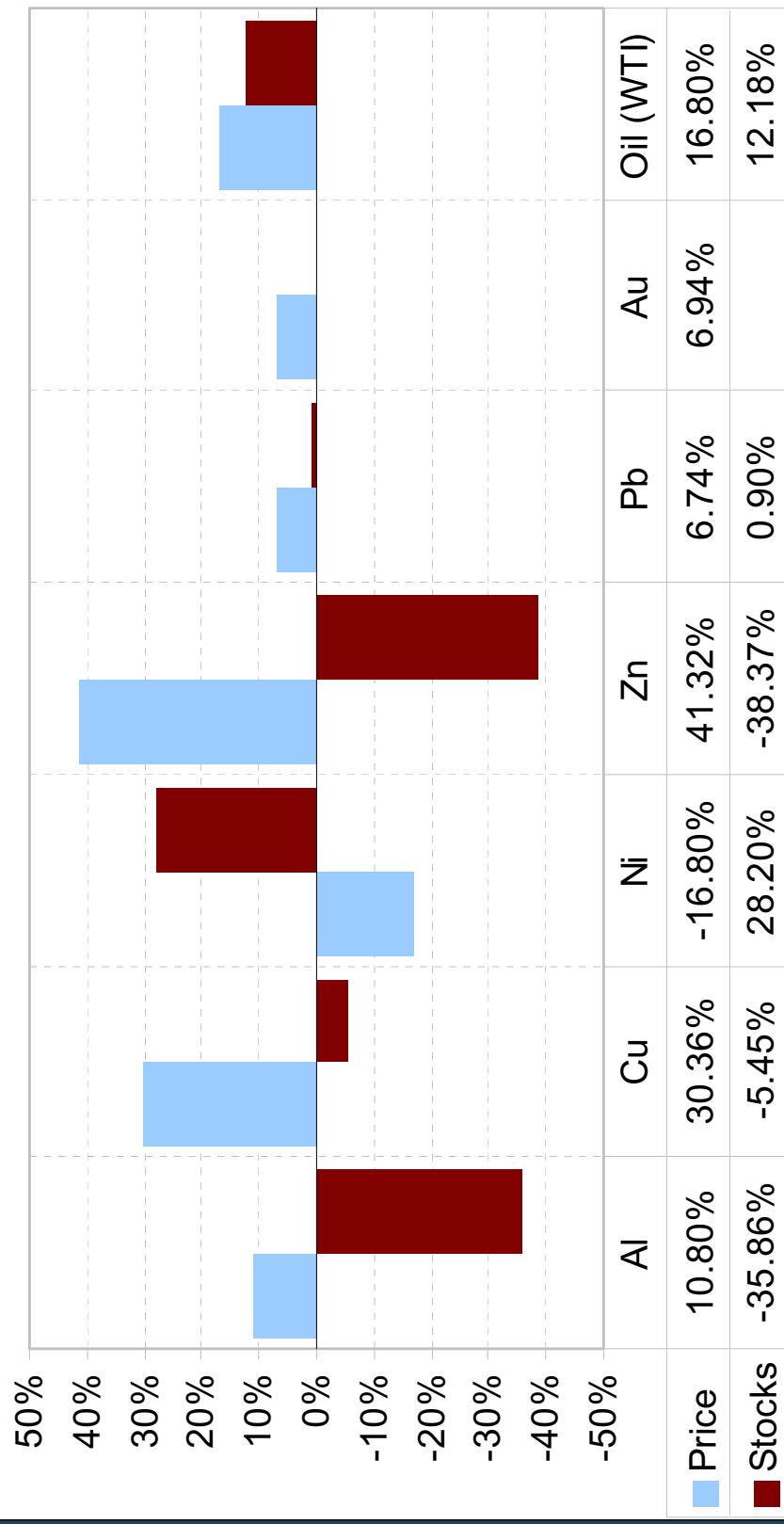


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Commodity prices have increased in the past year.

Thursday, 10 November 2005 Closing Prices and Stocks





## Individual country / regional growth forecasts

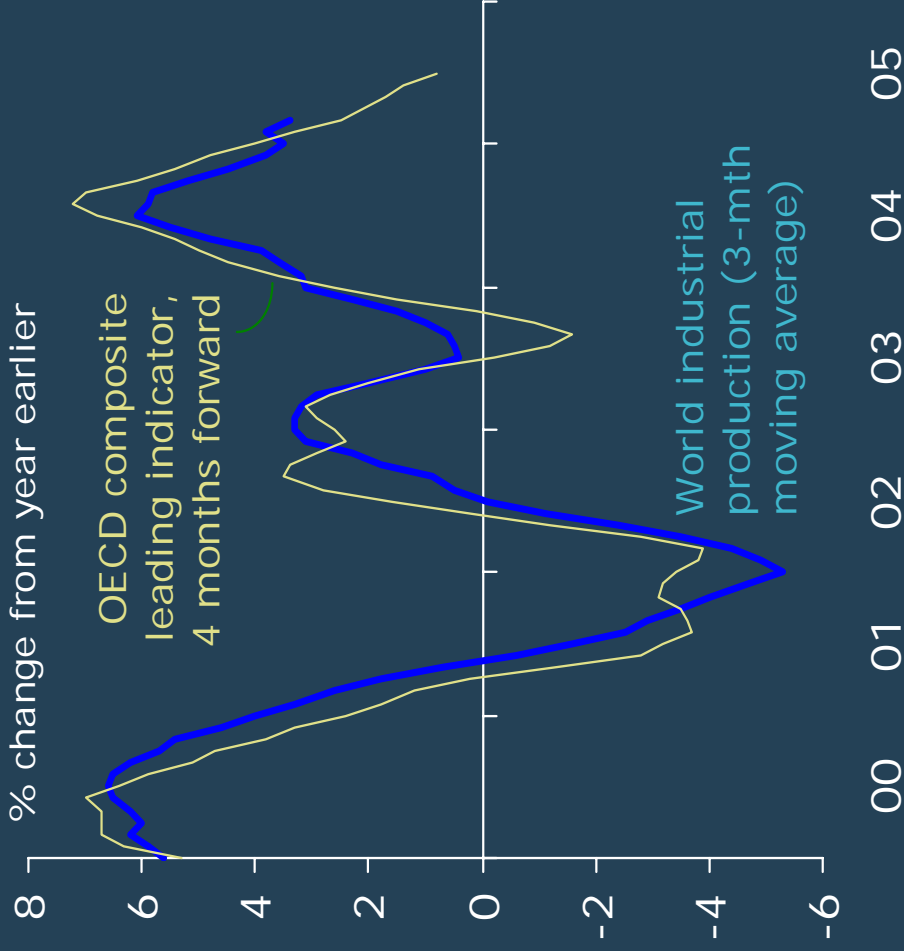
	% change in real GDP from previous year		
	2004	2005	2006
United States	4.4	3½	3
Japan	2.6	¾	1½
Western Europe	2.1	1¾	2
Canada	2.8	3	2¾
'Developed' countries	3.2	2½	2¼
China	9.5	8¼	7½
Other East Asia	5.8	5	5
South Asia	6.9	6¼	6½
Latin America	5.8	4¼	3¼
'Developing' countries	7.3	6	5¾
Russia & Eastern Europe	6.0	5¼	4½
World	5.1	4	4

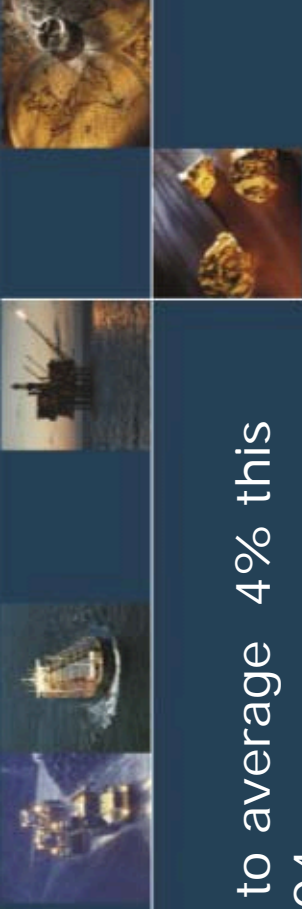
\* Weighted by GDP in US\$ at purchasing power parity exchange rates. Sources: national agencies; IMF; Economics@ANZ.

World economy is slowing – but from a **very** fast pace (fastest since 1976) to a fast pace

Both :

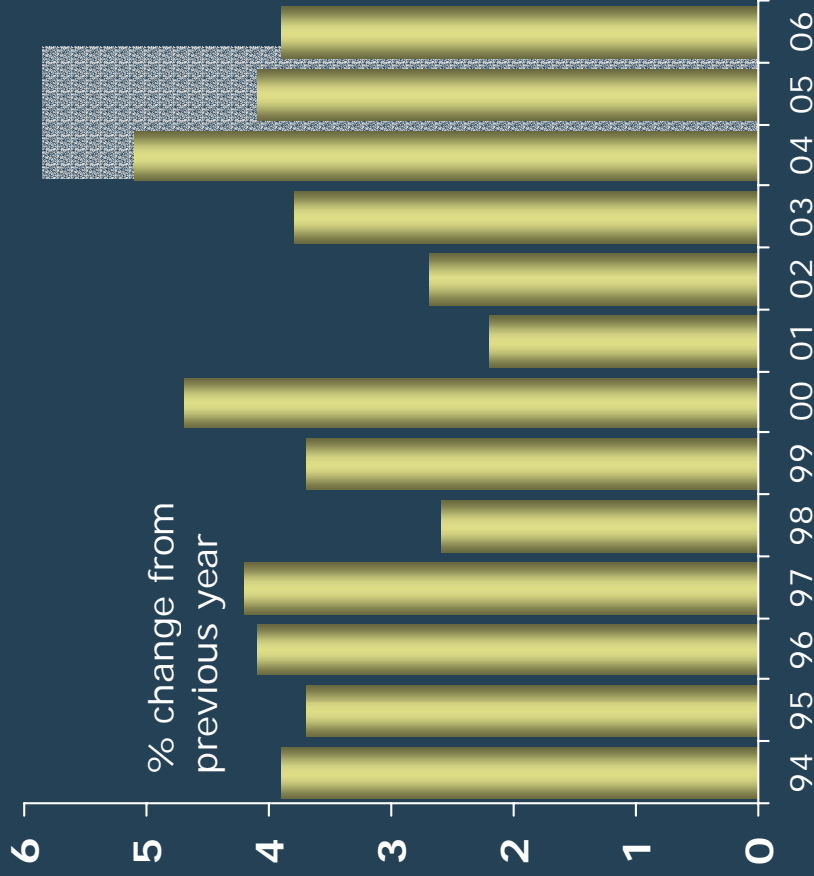
- World Industrial Production and
- the OECD leading indicator are declining.





World economic growth is expected to average 4% this year and next, down from 5% in 2004

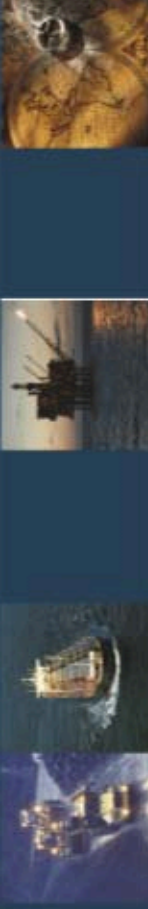
**World GDP growth**



**Why Slower Growth?**

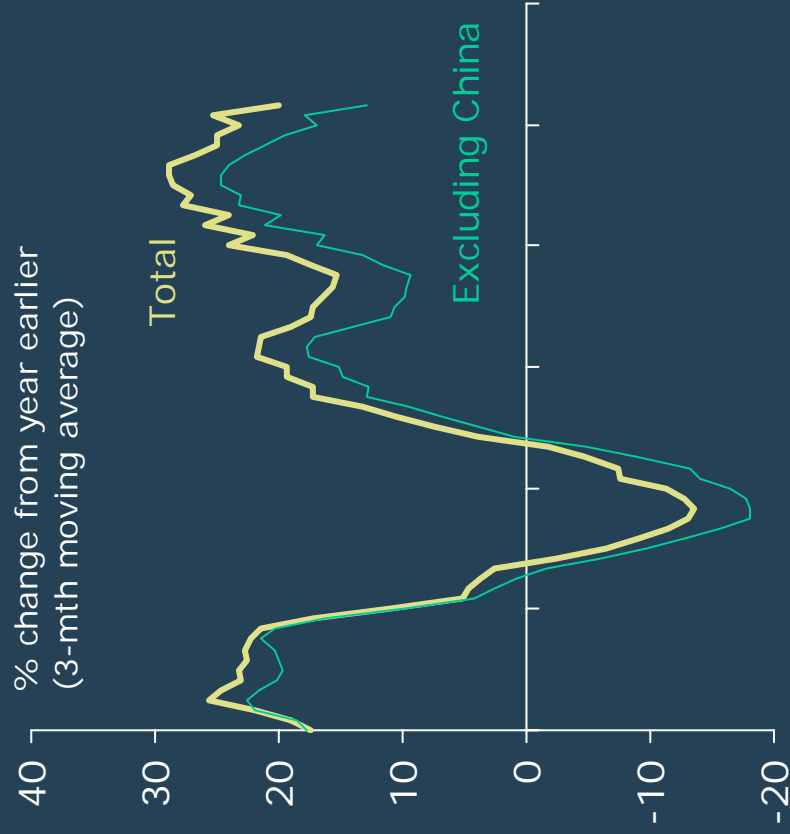
- No new fiscal stimulus
  - although G7 governments are not seriously tackling their deficits, nor are they this year (for the first time since 2000) adding to them
- Gradual withdrawal of monetary policy stimulus in the US
  - US short-term interest rates will be back at 'neutral' (around 4½%) by this time next year
  - interest rates in 'currency-pegging' countries will also tend to rise
- Drag from persistently high oil prices
  - although not nearly as much of a negative as in the 1970s and 80s, oil prices continuing in the US\$45+ range will detract from global growth

Note: GDP is in US\$ at purchasing power parity exchange rates.  
Sources: IMF; Economics@ANZ.

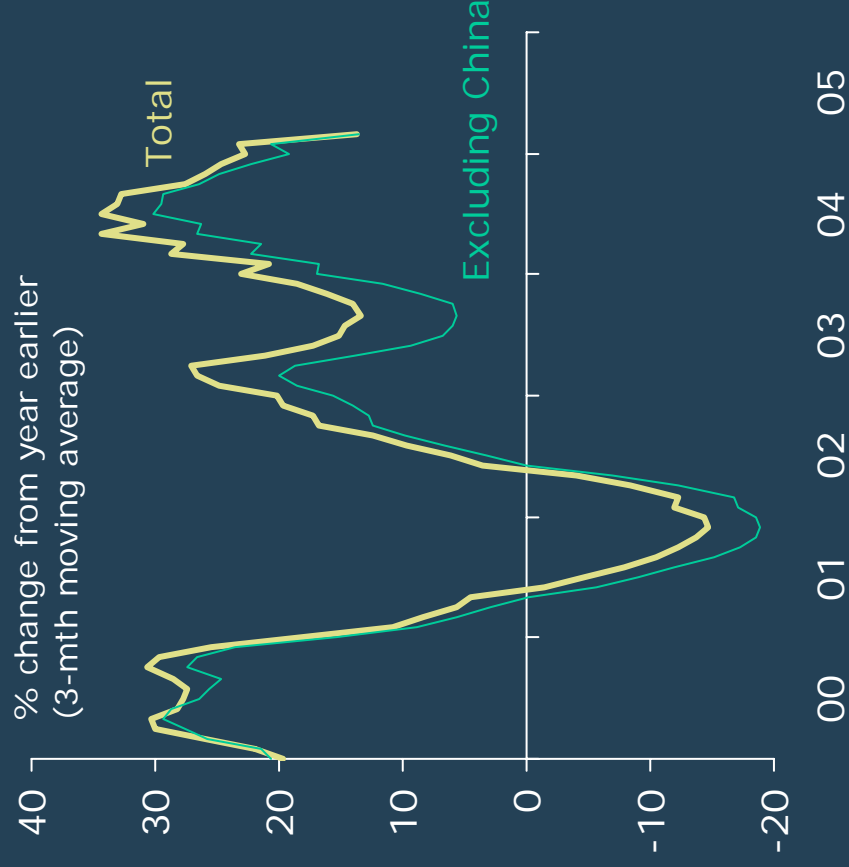


East Asian trade flows are slowing, another pointer to slower overall economic growth

### East Asian exports



### East Asian imports

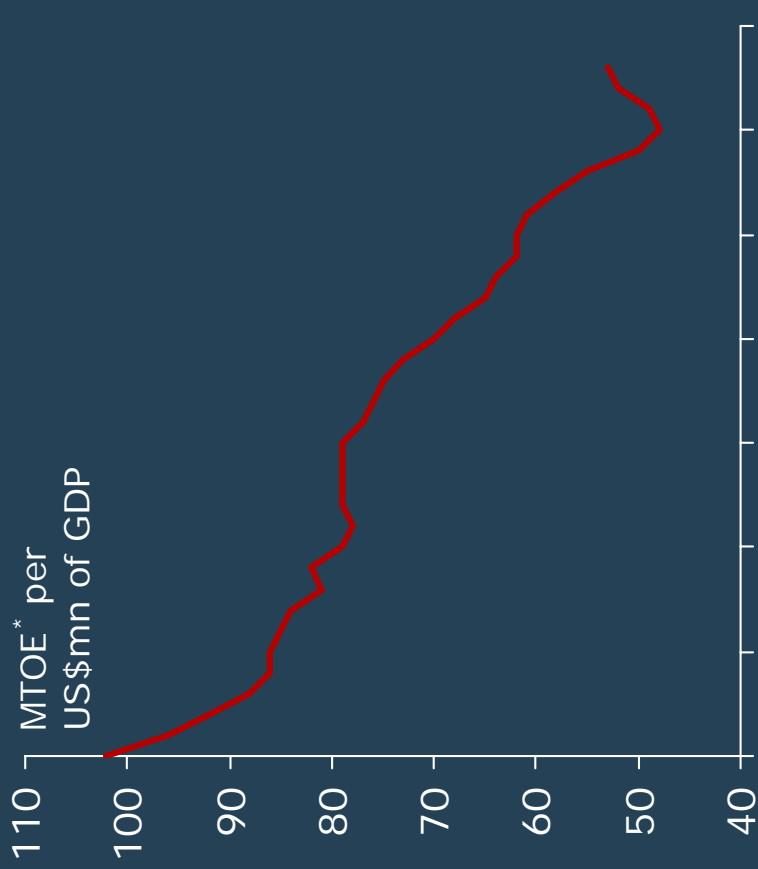


Note: 'East Asia' excludes Japan. Sources: Datastream; Economics@ANZ.

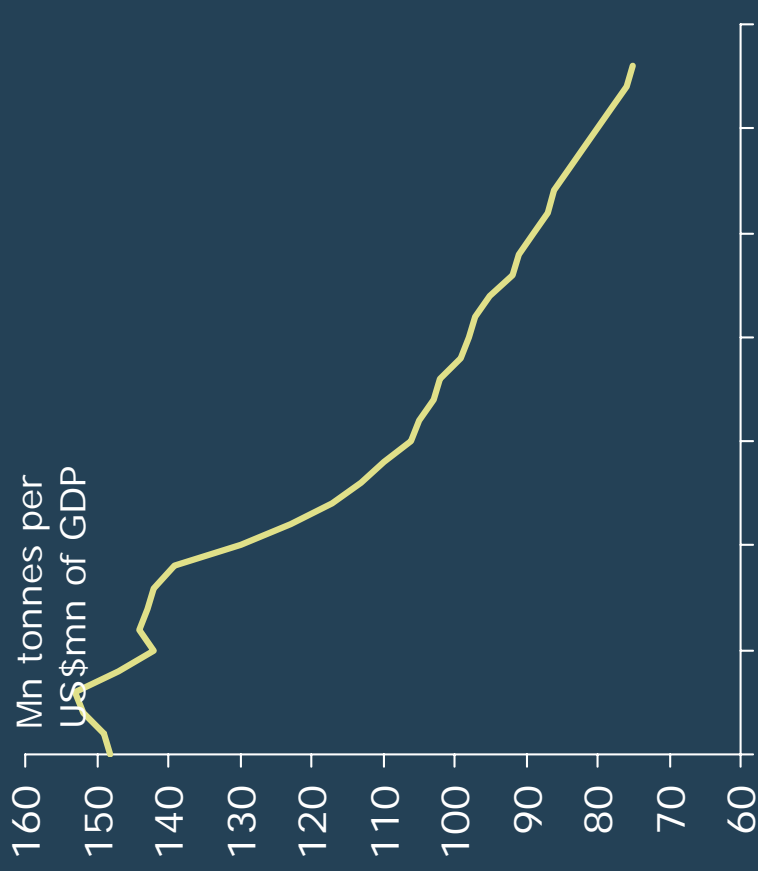


The long-term decline in coal-intensity of global GDP may have bottomed out

**Global coal consumption per US\$m of GDP**



**Global oil consumption per US\$m of GDP**

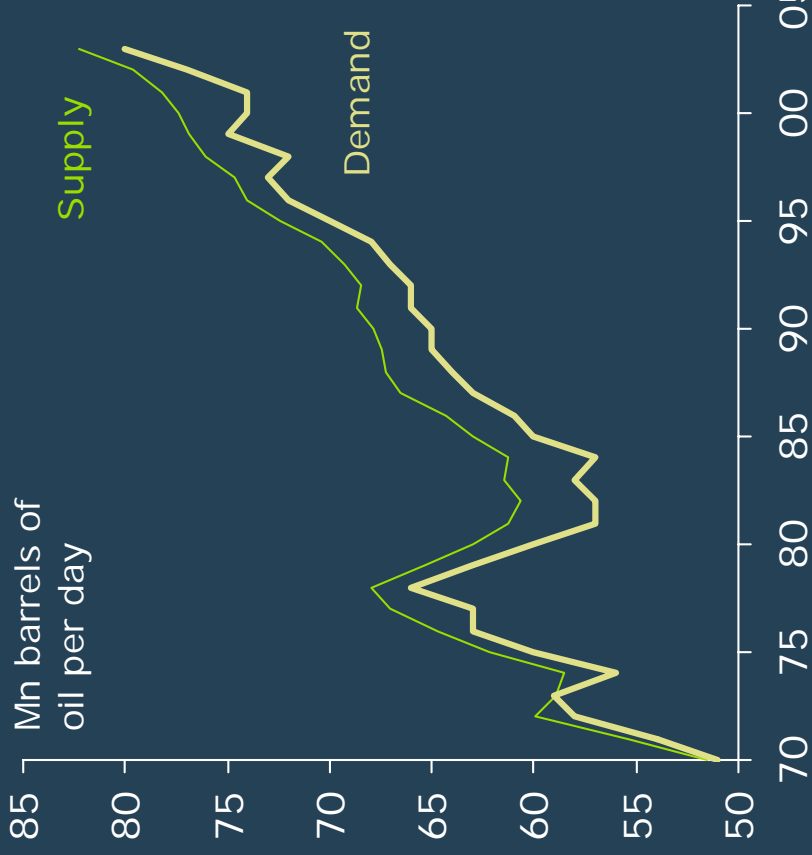


\* Mn tonnes of oil equivalent.  
Sources: BP Statistical Review of World Energy 2004; IMF World Economic Outlook April 2005; Economics@ANZ.

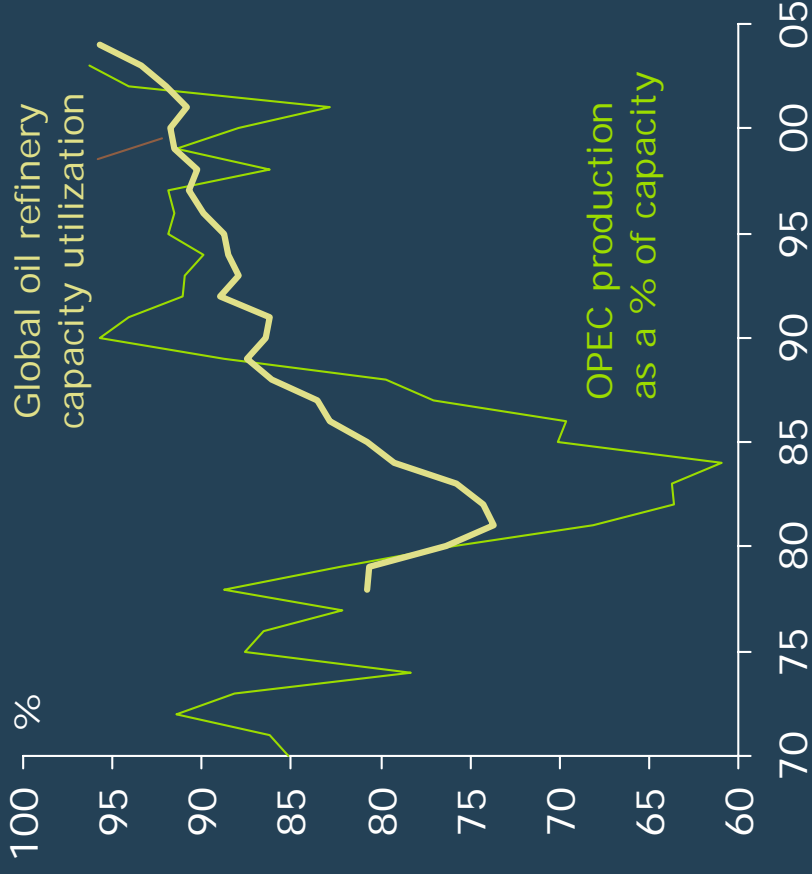


Persistently high oil prices reflect exceptionally tight conditions in global oil markets

### World oil supply and demand



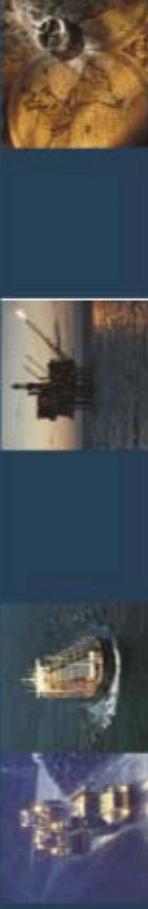
### Capacity utilization in the global oil industry



Sources: BP Statistical Review of World Energy 2004; IMF World Economic Outlook April 2005; Economics@ANZ.

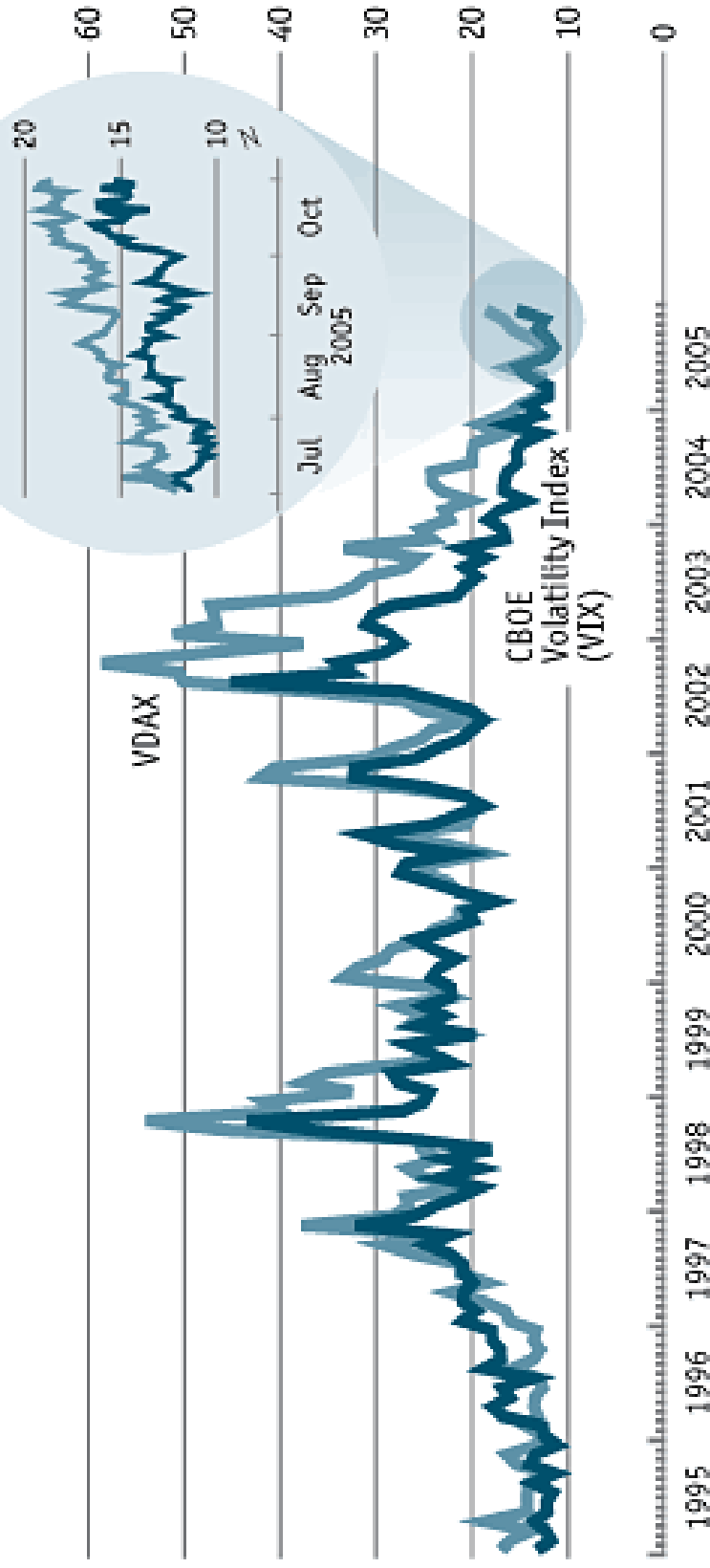


Global Natural Resources



Stock Market volatility has gone up.

### Feel the fear



Source: Thomson Datastream

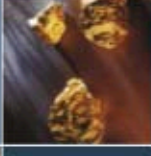
Sources: Economist Nov 1st 2005.



## Global Natural Resources

### Coal Market Status

- Producers are currently enjoying spot prices well above historic averages:
  - in US\$ terms 65% above the 10 Year Ave
  - and in A\$ terms 40% above the 10 Year Ave
  - China this year got a great settlement at about 56-57 FOB
- Higher thermal coal prices have been driven by:
  - A structural upward shift in global energy prices as demand expands
  - Infrastructure constraints in key export countries – Australia & South Africa – currently expanding
  - Chinese demand unsatisfied due to logistic issues with internal rail network – expanding rapidly
- However further escalation in prices will be more difficult (and a peak may have been established) have due to:
  - continued huge growth in Indonesian exports
  - Ability of China to now act as a Swing supplier
  - supply response from producers looking to capitalise on higher prices





## Global Natural Resources

### Current Coal Market Highlights

#### Record production and exports:

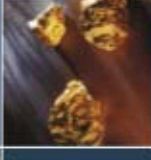
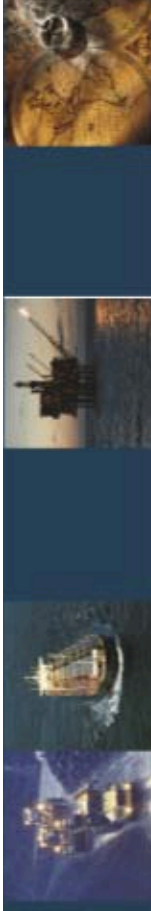
- PWCS 7.7Mt last month ~ 92Mtpa
- Short covering. Some spot deals still being done for December and up to a couple of weeks ago it was still for November shipment
- Consumers appear to be stocked up. But the games have begun

#### The price/quality dynamic playing a big part.

- Hunter Valley semisoft down about 2.5Mt while thermal is up by 5Mt this year
- Macarthur is now selling some thermal rather than PCI
- WCC had buyer shift 100kt of PCI to JFY06
- Some expect that Ultra low-vol PCI will fall \$100 to \$70, while PCI down from \$85 to high \$60s
- Steel mills cutting production esp. Europe and Japan.

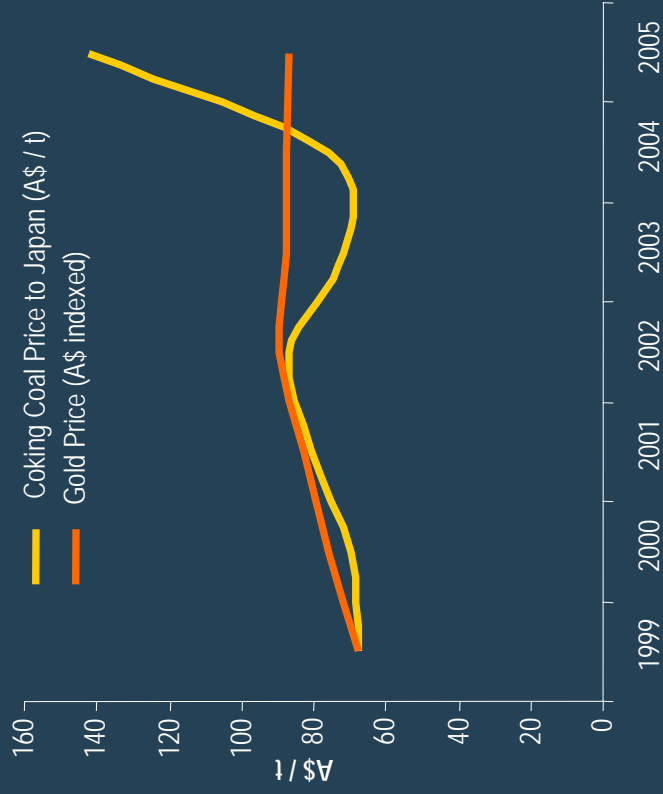
They ran hard last year so needed good coking coal – now less concerned.

May take more semi material if prices fall from \$80 \$60 – but this may remove some thermal supply.

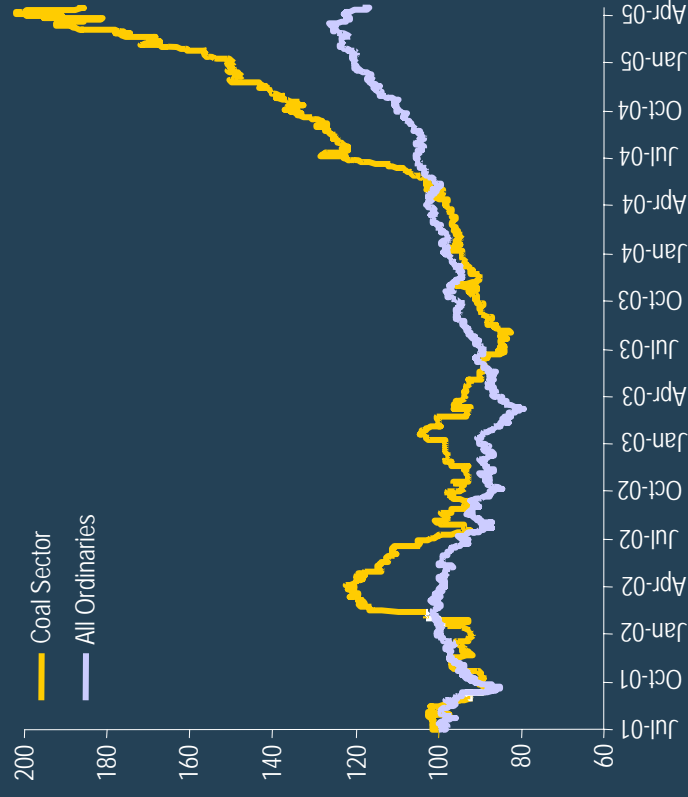


Price increases in A\$ are still dramatic

**Coking coal prices – A\$ / t**



**ANZ Coal Index against ASX all ordinaries**

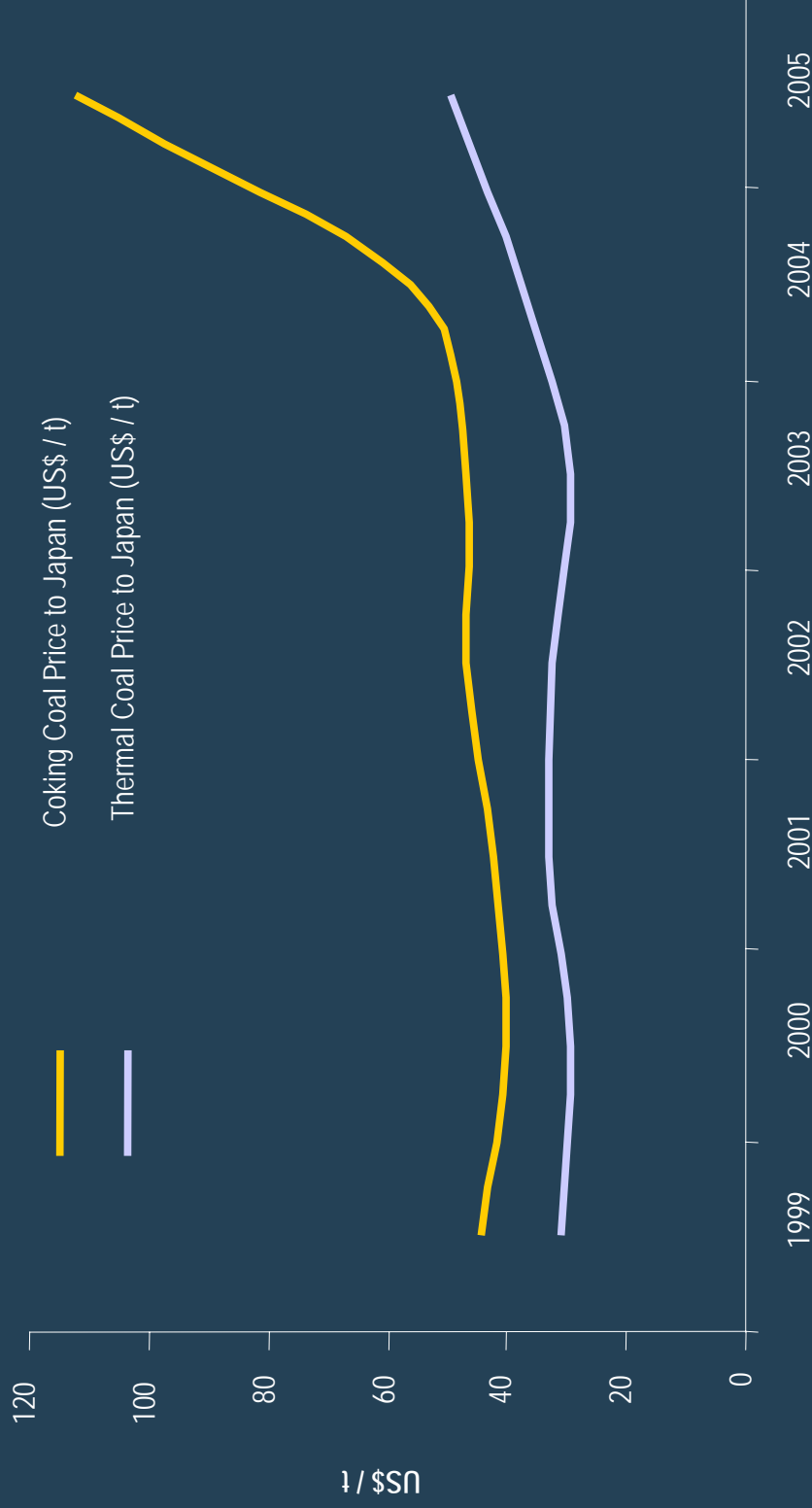


↑ Accordingly, coal stocks have outperformed the market.



Global Natural Resources

Coking coal outrunning thermal coal – likely to continue



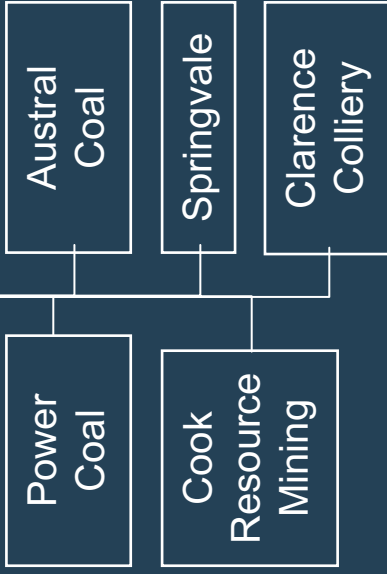
Driven by booming commodity prices



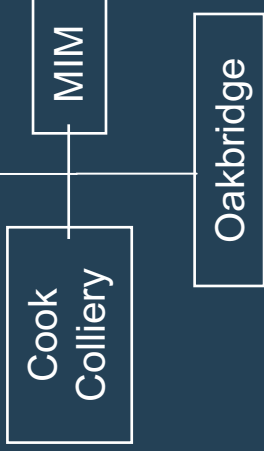
# Global Natural Resources

Consolidation has been a steady theme for producers, and accordingly limited entry points remain

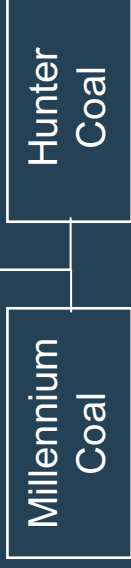
## Centennial Coal



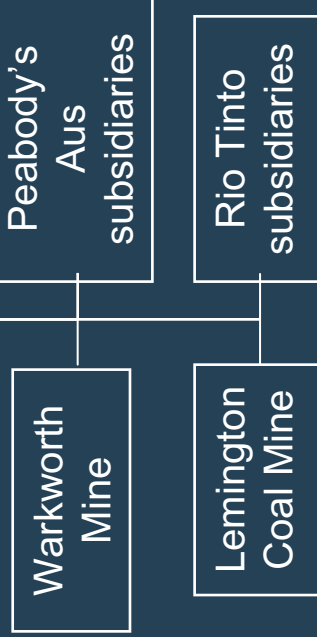
## Xstrata Coal



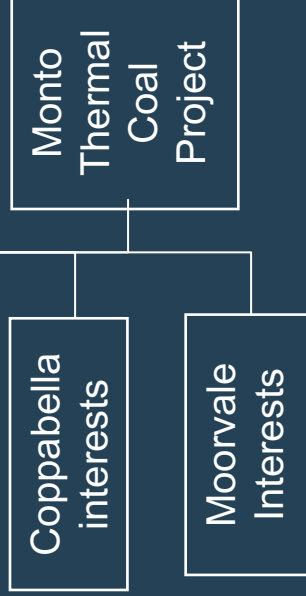
## Excel Coal



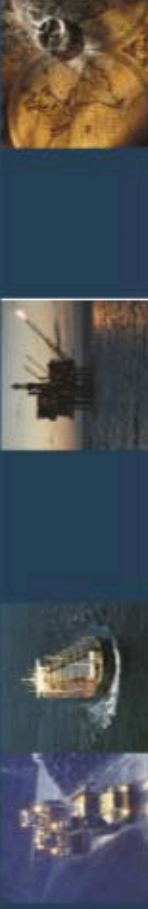
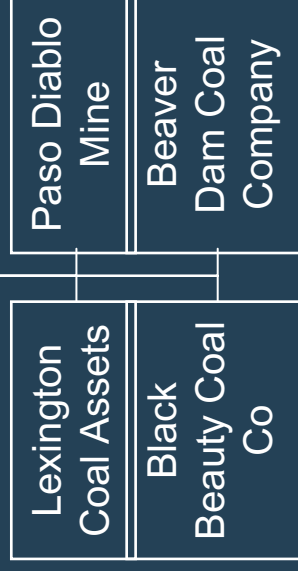
## Coal and Allied



## Macarthur Coal



## Peabody

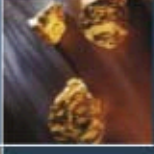




## Global Natural Resources

### Mining Costs are Blowing Out

- All equipmentment:
  - drills
  - tires – backlogged to 2007 and second-hand costs like new prices a couple of years ago
  - Diesel prices up
  - explosives up 40%
- Labour
  - miners, construction, geologists, mining engineers all earning top dollar
- Indonesia oil price triple hit – diesel up, subsidy cut, and Rupiah depreciated. Rough estimate of the impact is about \$4/t
- One Canadian miner cash cost at CAD70/t selling at CAD 120/t

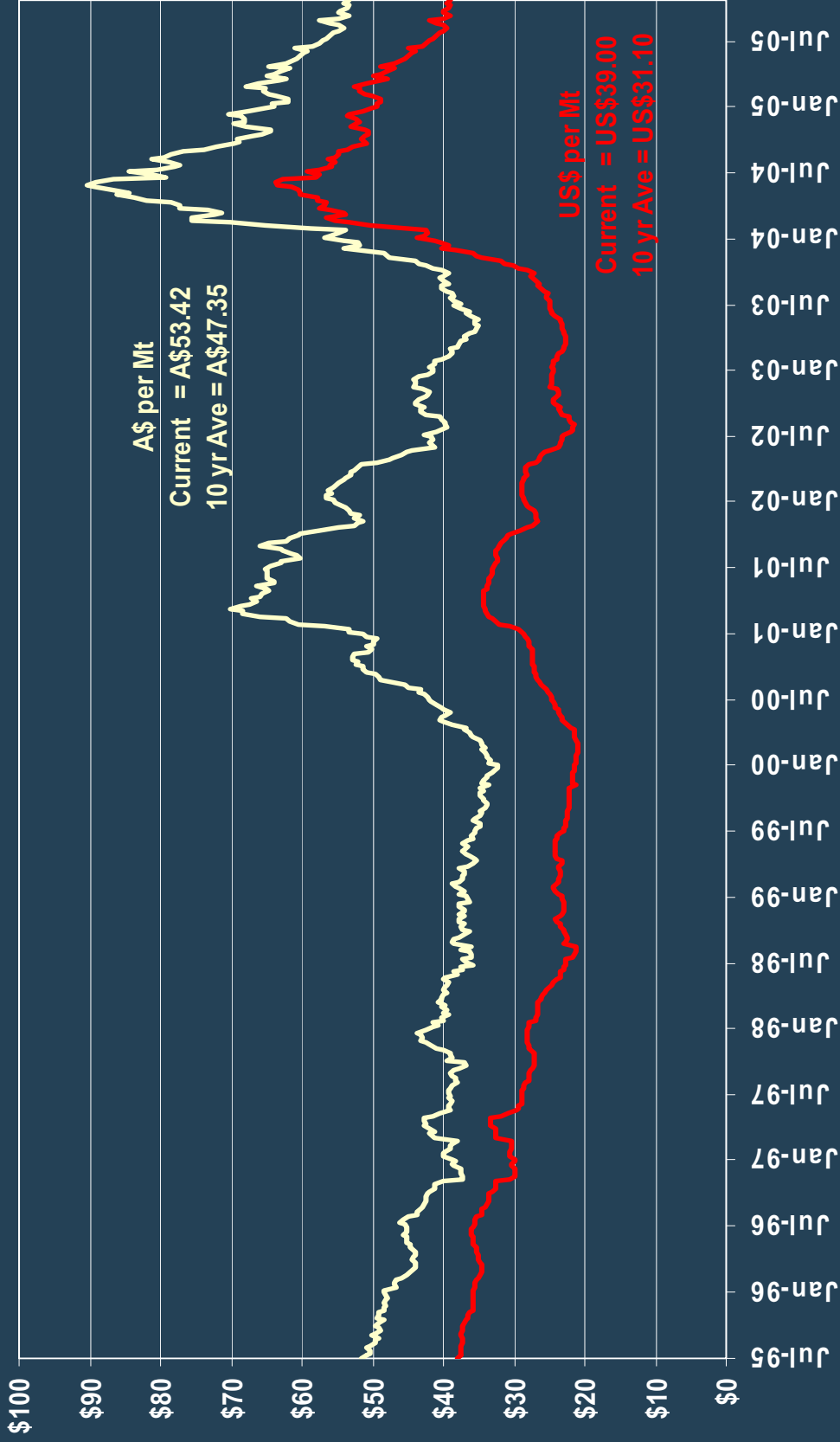




Global Natural Resources



## Long Term Price Chart – Thermal Newcastle FOB



Source: Barlow Jonker, globalCOAL & ANZ



## Global Natural Resources

But Prices starting to come off and Supply increase.

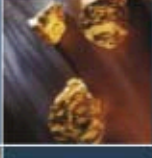
- Taipower offered 49 cargoes and took 22 at \$49/t C&F basis 6322kcal/kg with \$10 freight – Mostly Indonesian coal
- ~\$41 coal ex-Newcastle.

Chinese swing now suppliers.

- Export allocation not being met.
- High domestic prices reduce exports.
- Qinghuangdao going to 200Mtpa

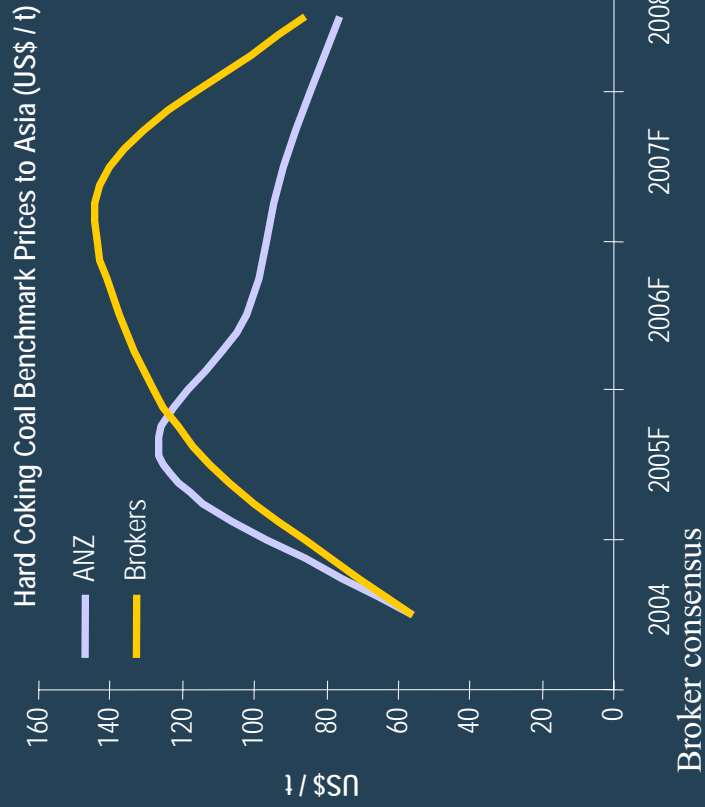
Australian mine expansions

- Ashton 3Mt
- Rolleston 4Mt
- Wambo 2Mt
- Ensham 2Mt
- Dawson 4Mt
- Expansions elsewhere – British Columbia, South Africa, Colombia, Indonesia

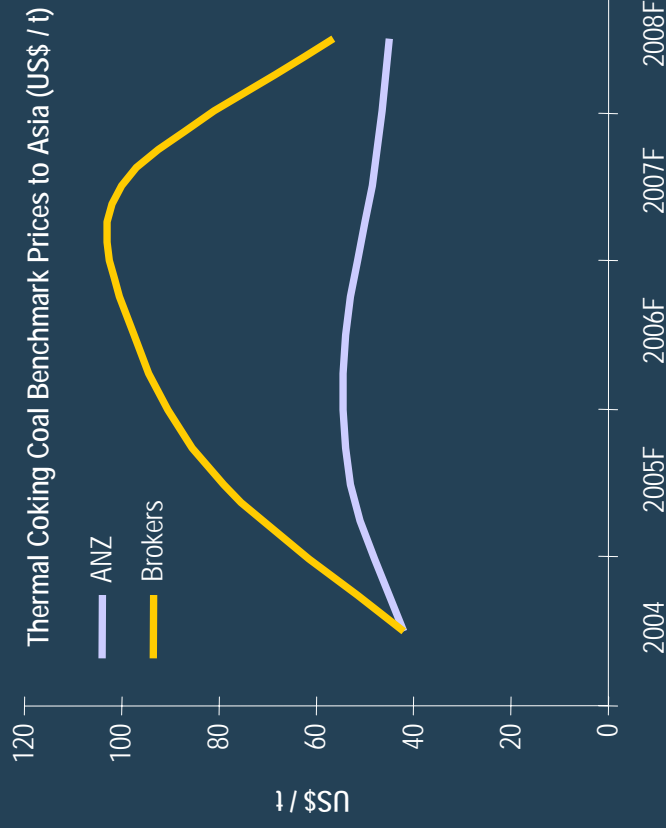


## Pricing outlook

**Hard Coking Coal Outlook (Nominal prices to Japan)**



**Thermal Coal Outlook (Nominal prices to Japan)**



Most analysts are forecasting coal prices to return to lower levels over the next three years, however settling at levels well above historical averages.

