Coal at the crossroads in maturing energy markets?

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Europe – a maturing market undergoing considerable change

- Demand declining – imports growing slowly
- Environmental issues already being priced in
- Deregulation requires risk managed approach
- Emergence of spot and derivative markets
- Energy market convergence
  - power generation growth from gas
  - strong coal/gas competition

European market for coal has fundamentally changed

The cold facts behind energy supply to the EU power industry

- Fossil fuels comprise 51% of total EU power industry energy consumption
  - approximately half of these fossil fuels are imported
- 58% of fossil fuel supply to power generation is coal, 30% gas
- 55% of hard coal is imported; and share is increasing
- Natural gas from Russia and North Africa represents nearly 50% of EU consumption
- 22% of electricity must be produced from renewables by 2010

Growing dependence on imported fossil fuel supplies

Source: IEA, EU

Regulators and vested interests threaten coal

- Local deregulation processes create variable regional growth rates
- Installed base of coal fired plants is ageing rapidly
- Global environmental pressure will increase future generation costs

What is the potential for substitution by gas or "green" fuels?

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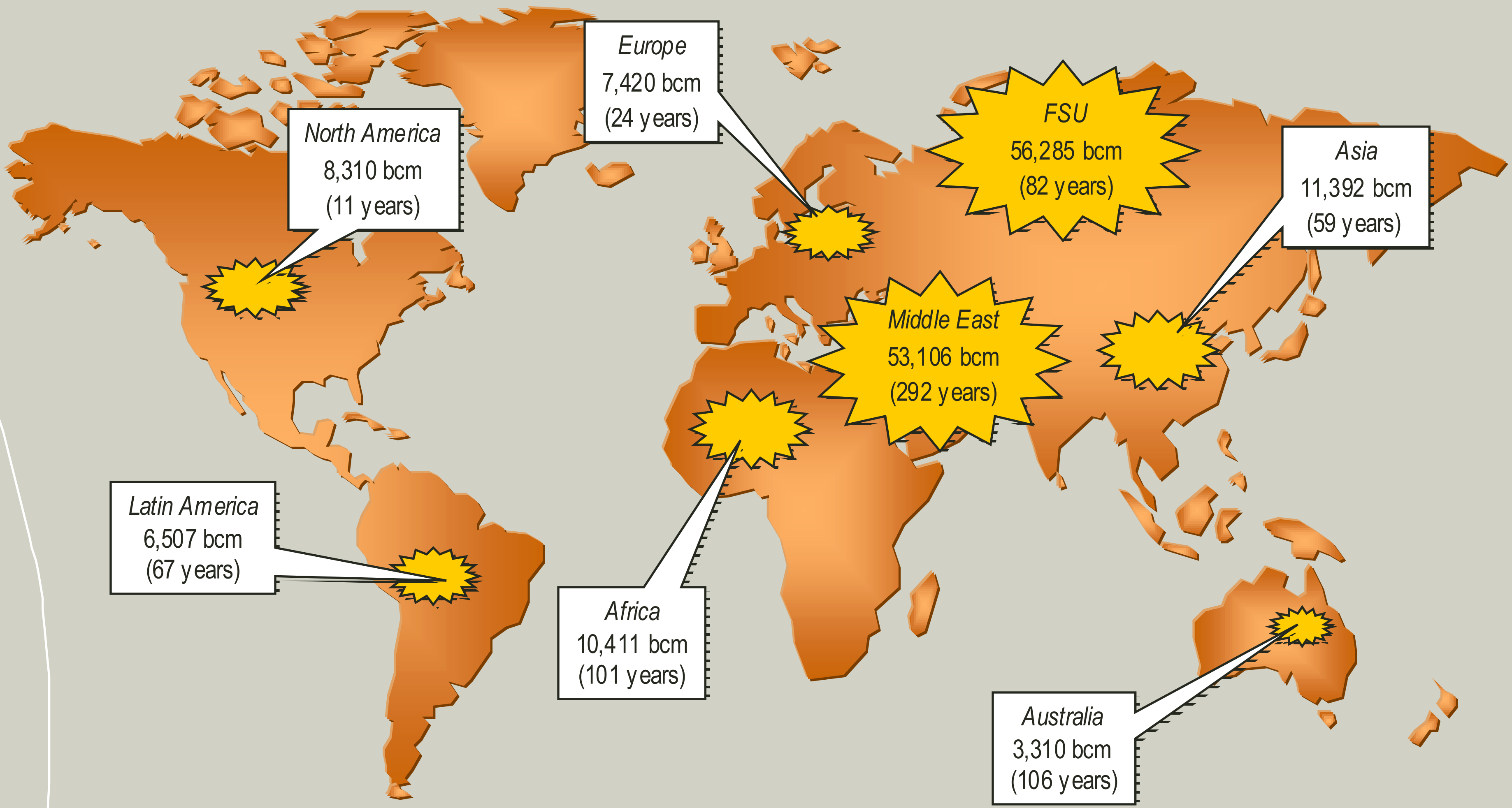
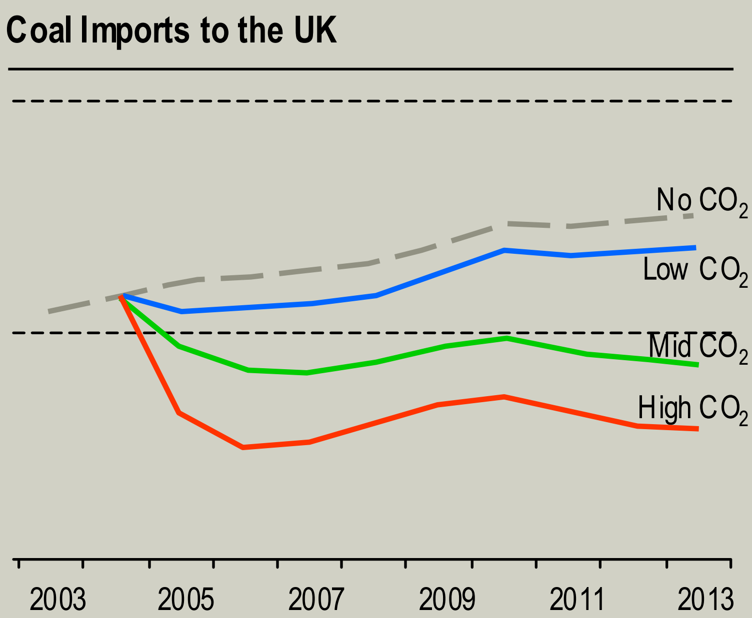
Where will the gas come from?

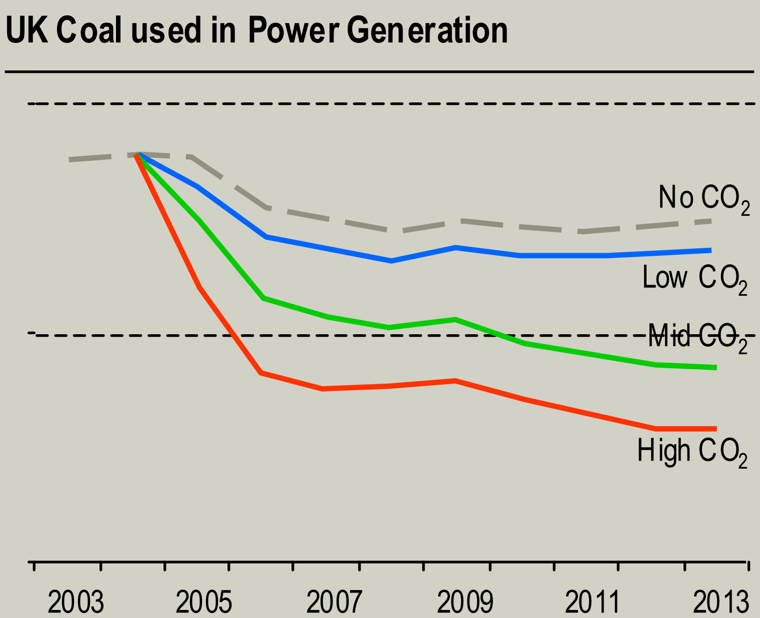


Source: IEA Natural Gas Information

*billion cubic meters (bcm), reserve to production ratio (R/P)

Impact of legislation – not just a CO_2 issue





- Large Combustion Directive sets emissions limits for SOx, NOx and dust
- Non compliance could lead to plant closures

Effect will be to restrict coal burn or force capital investment

EU Emissions Trading Scheme – implications for coal

- Trading scheme for CO_2 emissions due to start Jan 2005
- Emissions allowance for Phase 1 (2005-07) now trading at ~ €10/t
- Cap and trade mechanism allows generators to purchase CO_2 shorts
- Market currently illiquid but expected to grow once national allowances are known
- Key issues
  - Russia signing Kyoto protocol
  - ability to import > 8% credits in Phase 2 (2008 to 2012)

Under all CO_2 pricing scenarios demand for imported coal is reduced

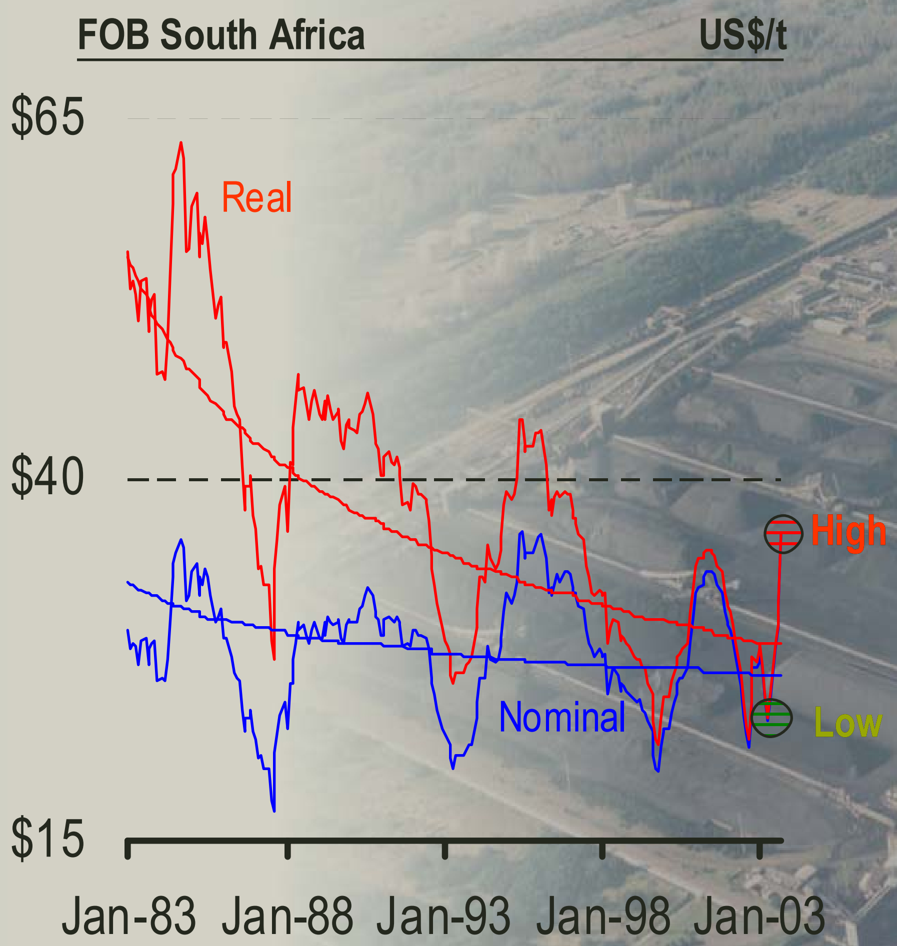
Coal has a legitimate commercial role in EU energy supply

- Competitive
- Low price volatility
- Abundant and geographically diverse
- Easy to store and transport
- Largest share of global generation

Imported coal's contribution to fuel supply in the EU will remain relatively stable

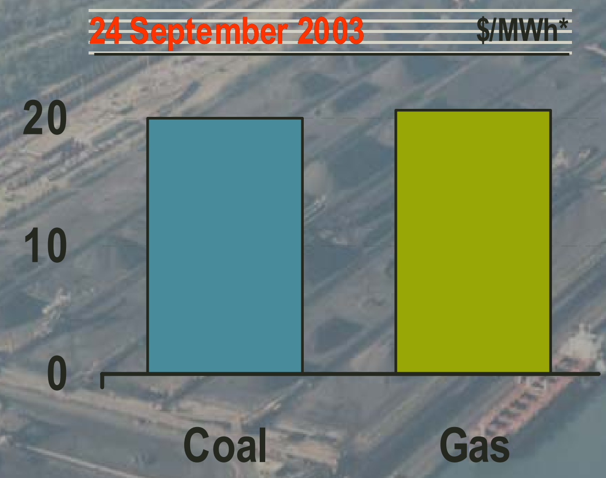
Coal competitive even at the top of the cycle

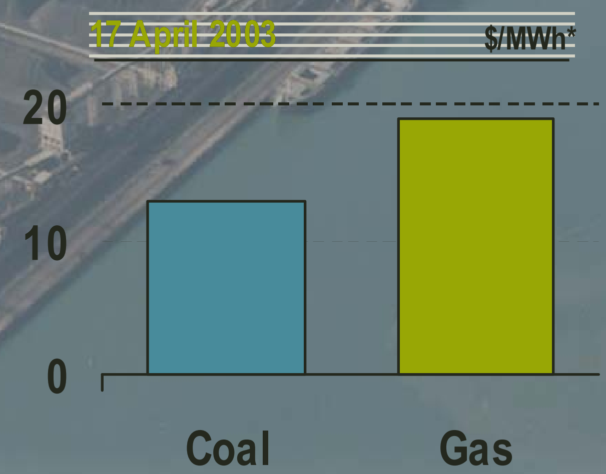
Coal price history



Source: McCloskey, Bloomberg

Typical European inter-fuel competition





*Heat and efficiency adjusted

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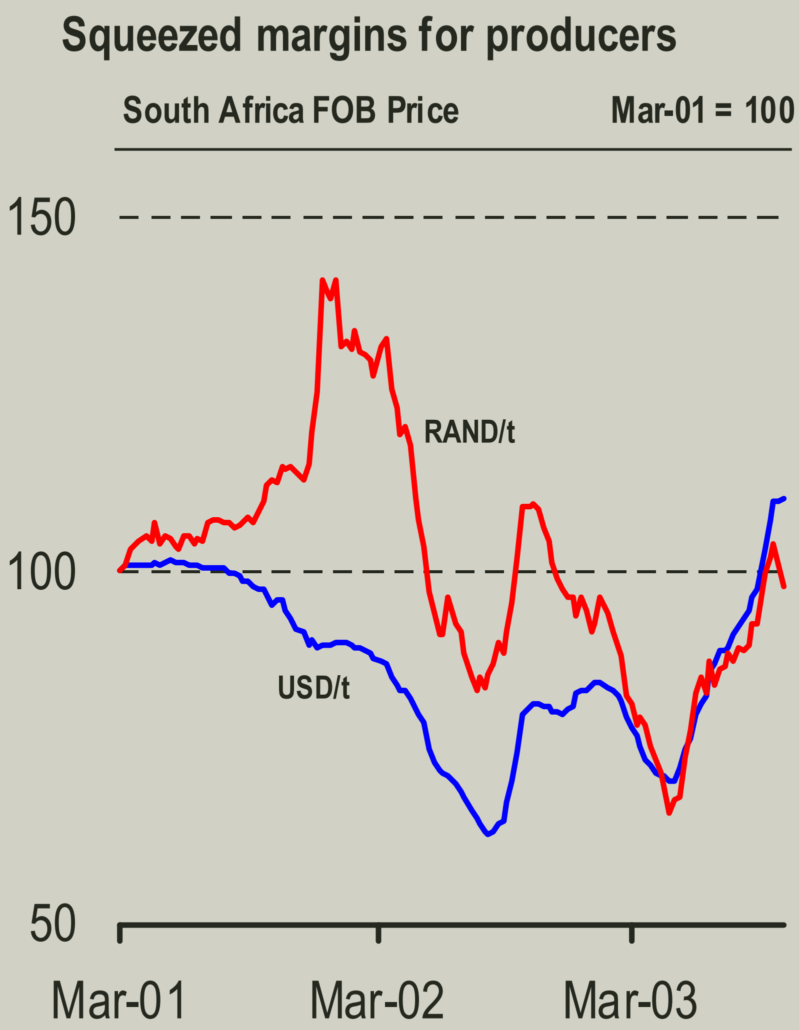
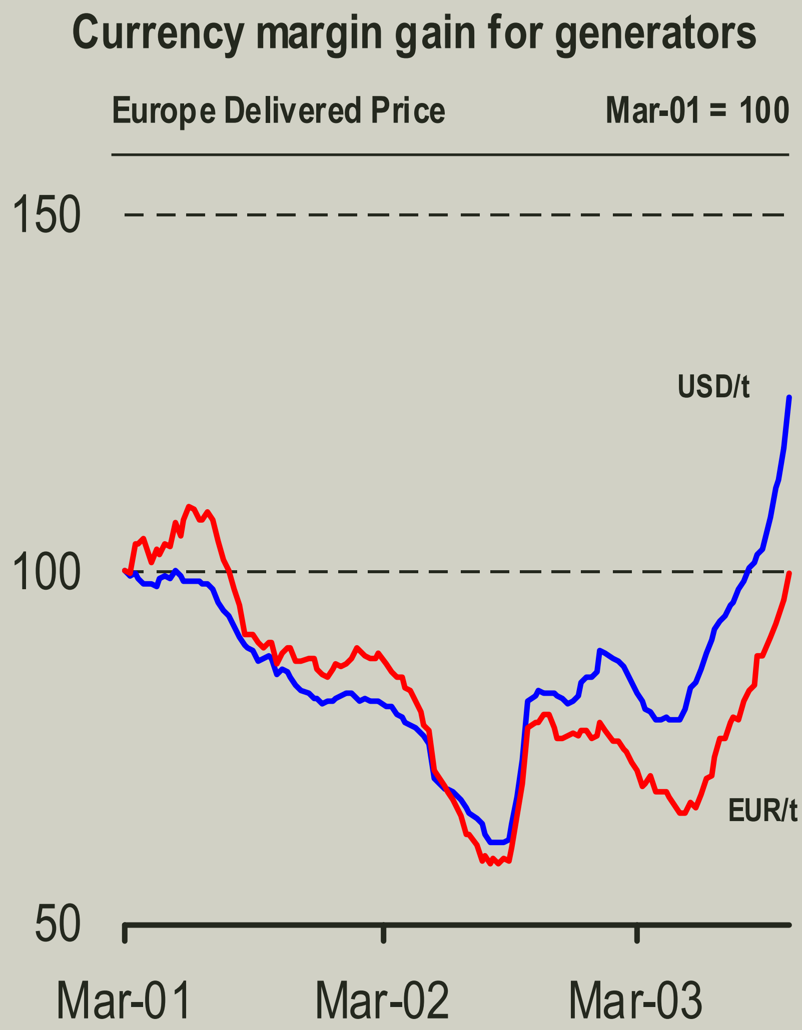
Currency affects both producers and consumers





Source: McCloskey, Bloomberg

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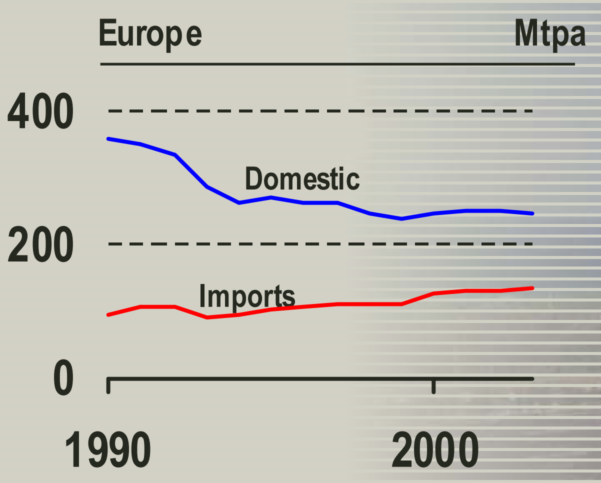
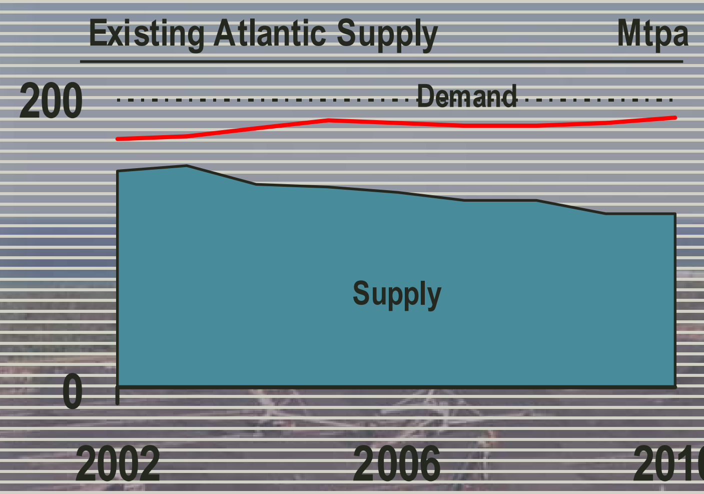
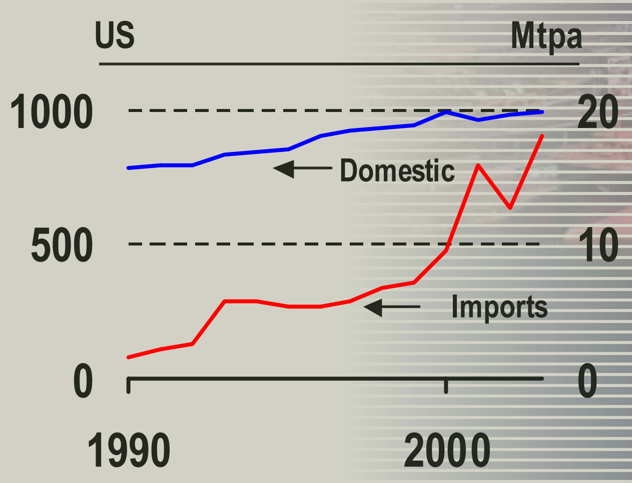
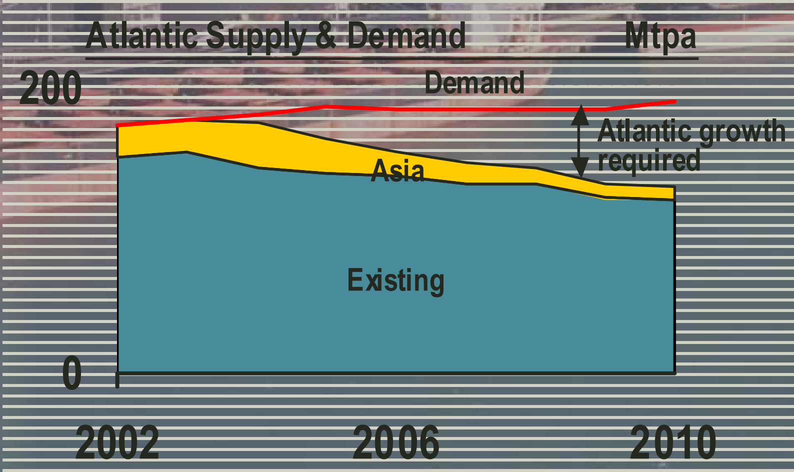
Prospects for traditional Atlantic supply









Source: IEA, McCloskey, BHP Billiton

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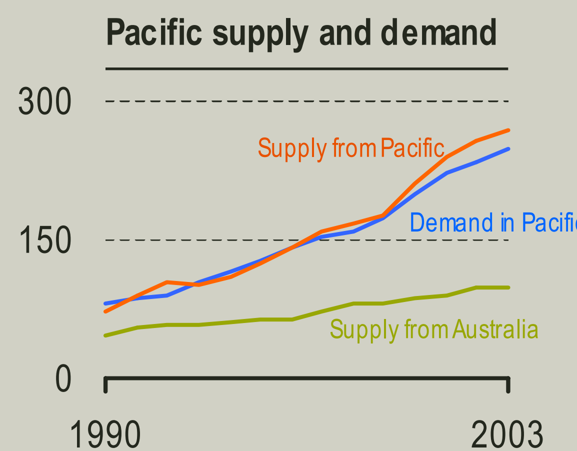
Can the wild cards help Europe ?

CHINA:

- rapid domestic growth
- rational economic behaviour
- deeper new mines

INDONESIA:

- short term production not profit focus
- decline in world class reserves
- no long term investments



Source: IEA, McCloskey

Need for combined initiative

- Environmental and “dirty” image pressures are growing
- Market mechanisms cannot be relied on to drive longer term EU energy needs
- Coal industry needs to play a proactive role
  - technology solutions
  - public policy influence
  - innovation in production and consumption
- The power industry needs to actively promote the coal option

Coalition of industry participants needed to guarantee coal’s role in the future EU energy mix

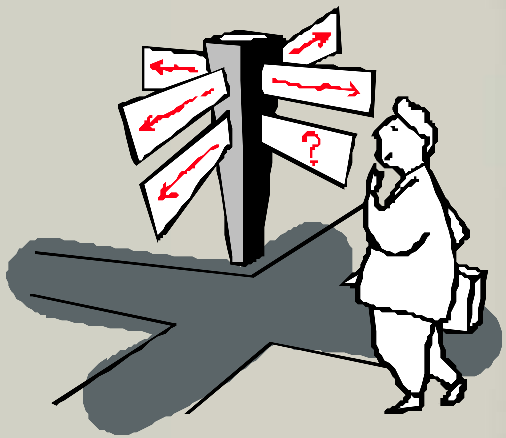
We are at the crossroads

Proactive Coalition ?

- industry and government wins
- commercial solutions around CO_2 and GHG

Status Quo ?

- terminal decline
- industry shrinks
- lose coal as a supply option forever



Consumers, generators and producers cannot and must not lose the optionality of coal supply in the EU long term energy mix

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