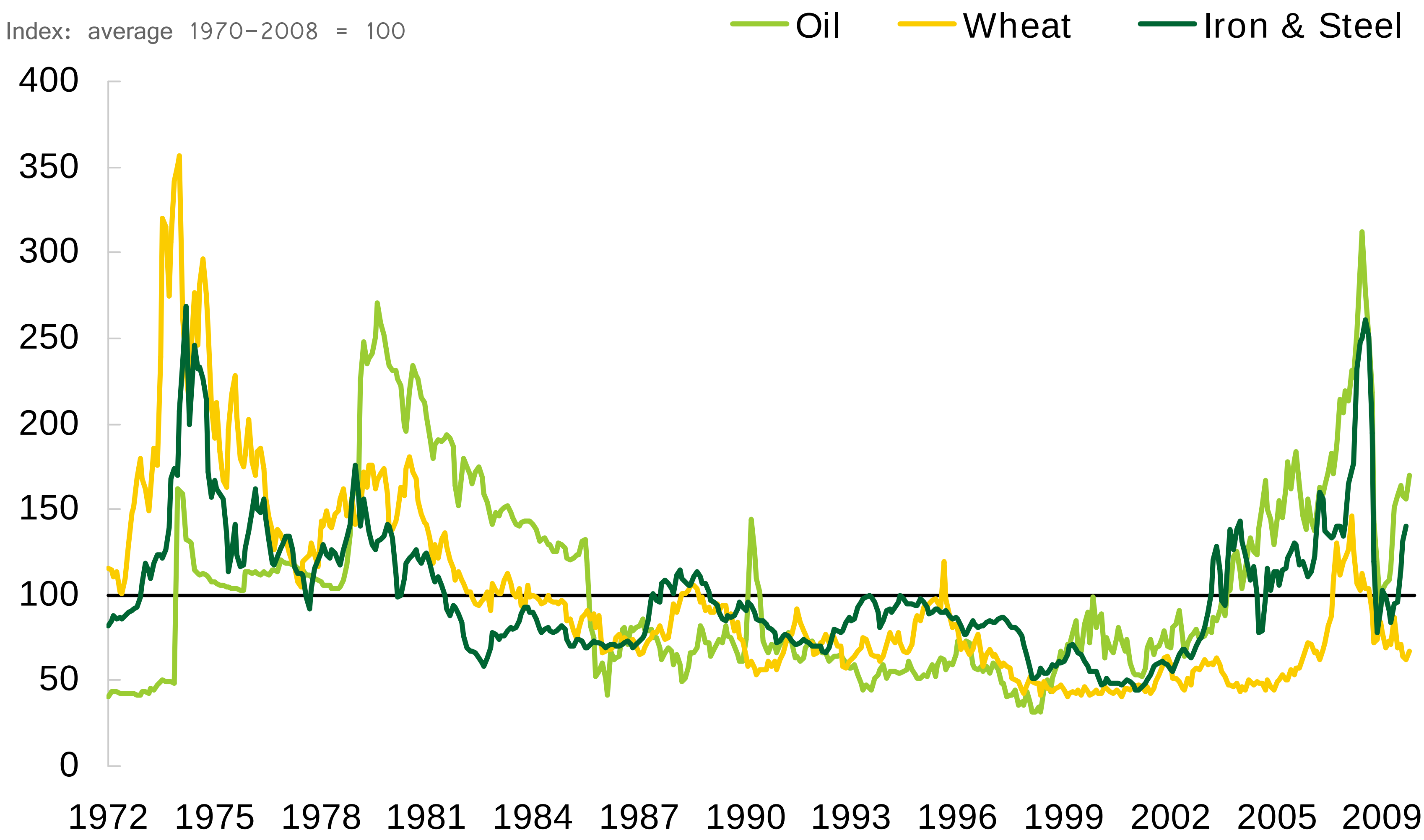
Energy Markets: The Long And The Short Term

Christof Rühl, Group Chief Economist, BP plc.
Washington, April 2010

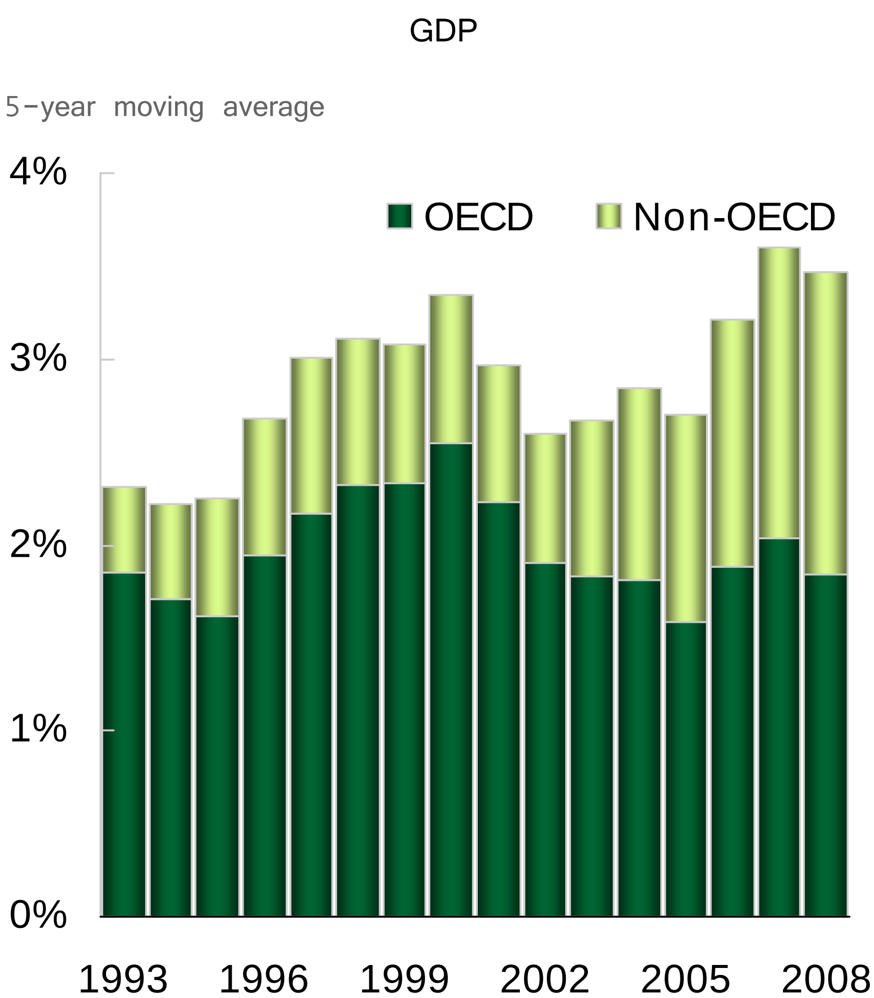
Outline

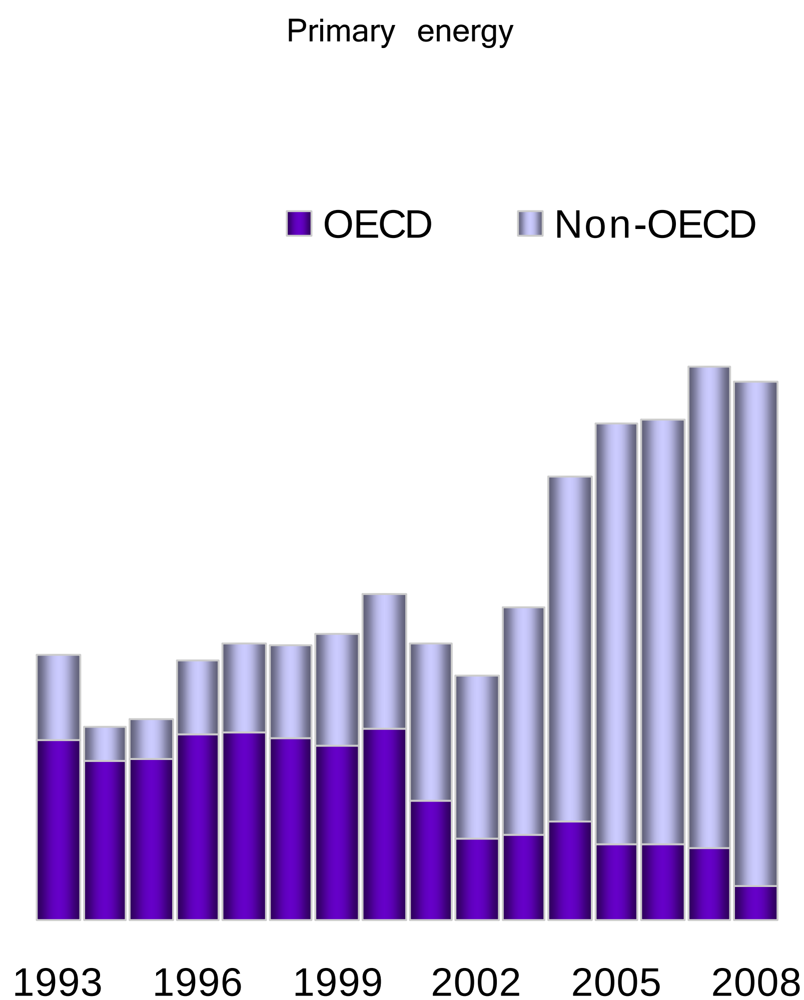
- Long term context
- Structural change in oil markets
- Natural gas: a new game
  - How does it matter?
- Conclusion

The Long Term: Real Commodity Prices

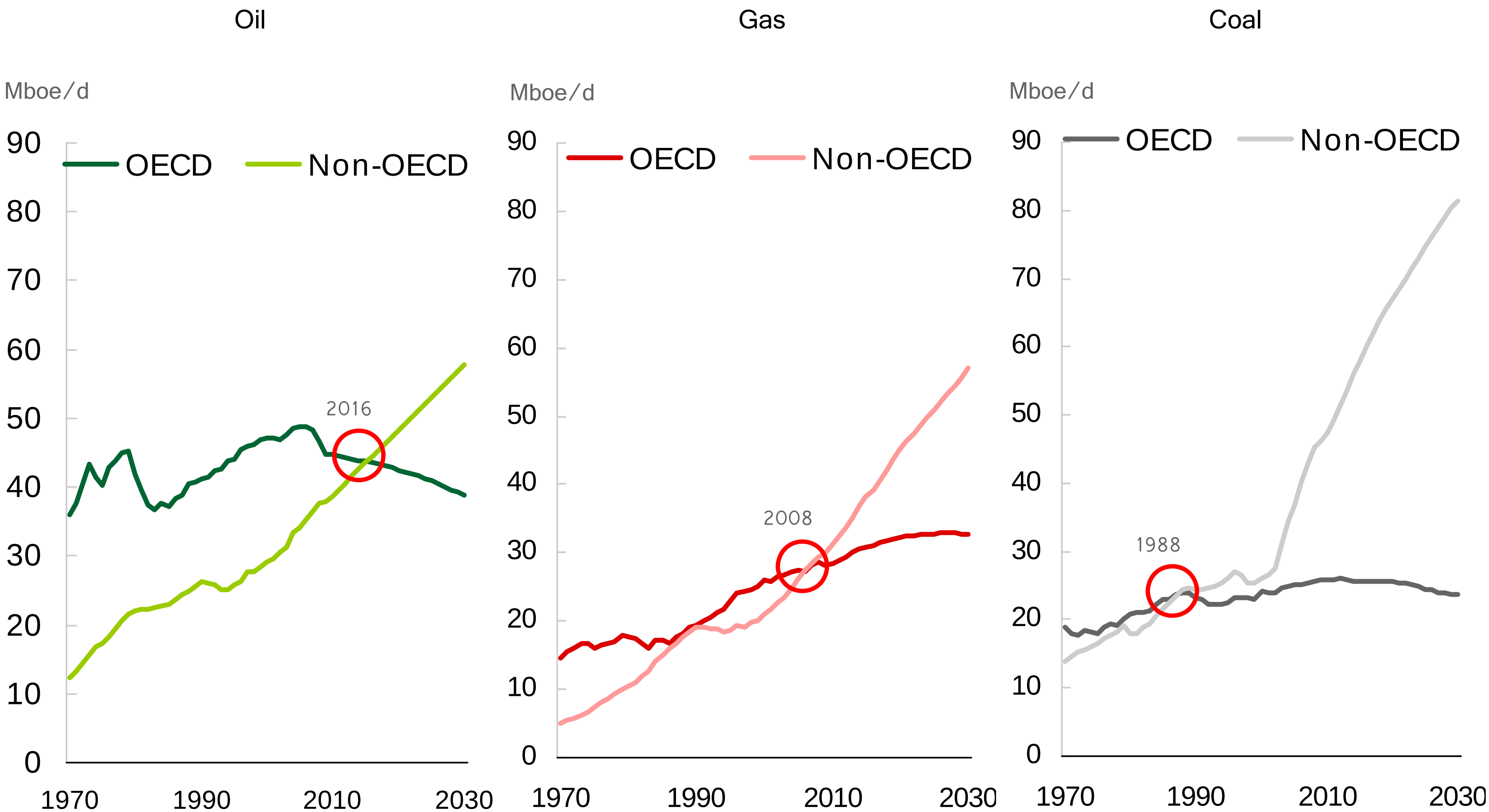


The Long Term: Contributions to Growth



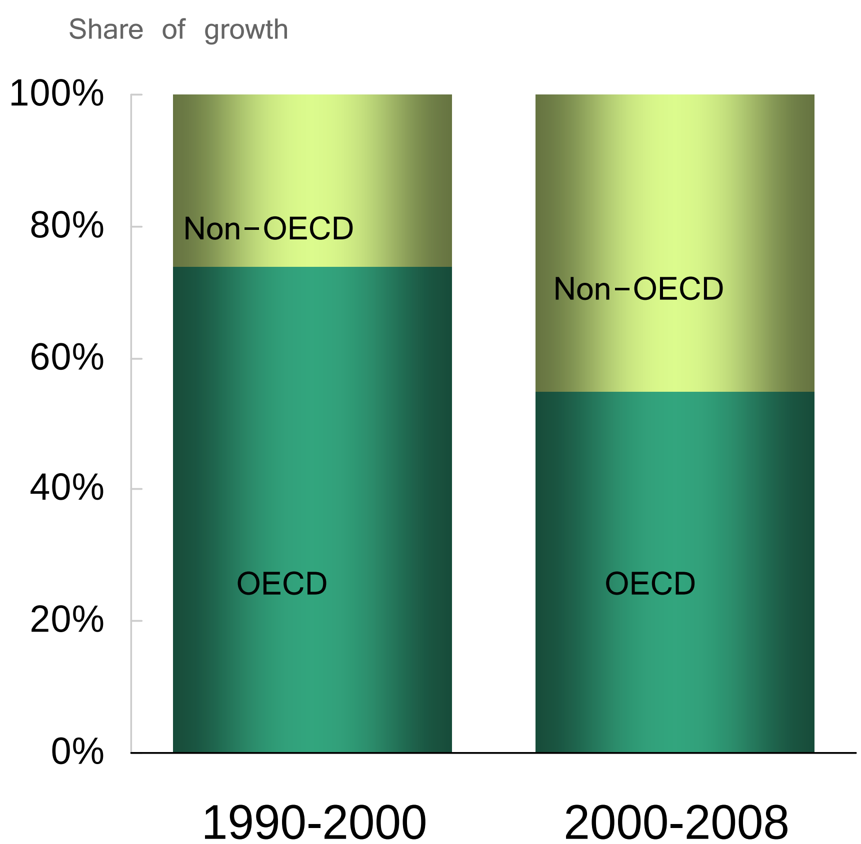


Energy Demand Growth

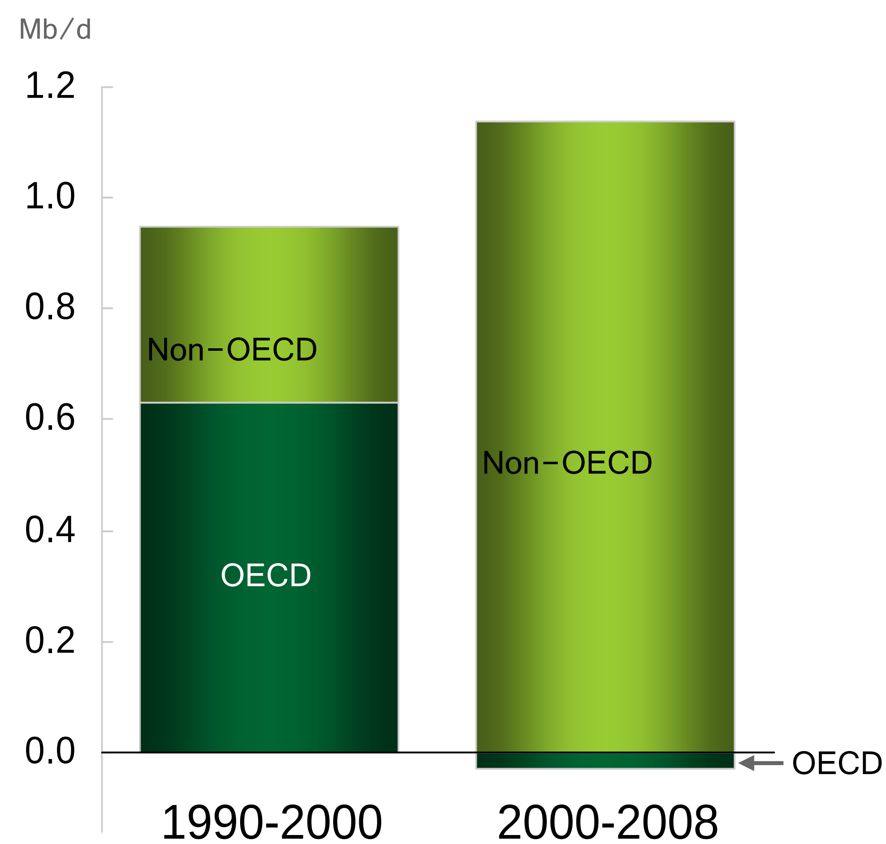


The Future Is Here: Oil Demand Growth

Contribution to GDP growth



Oil consumption growth



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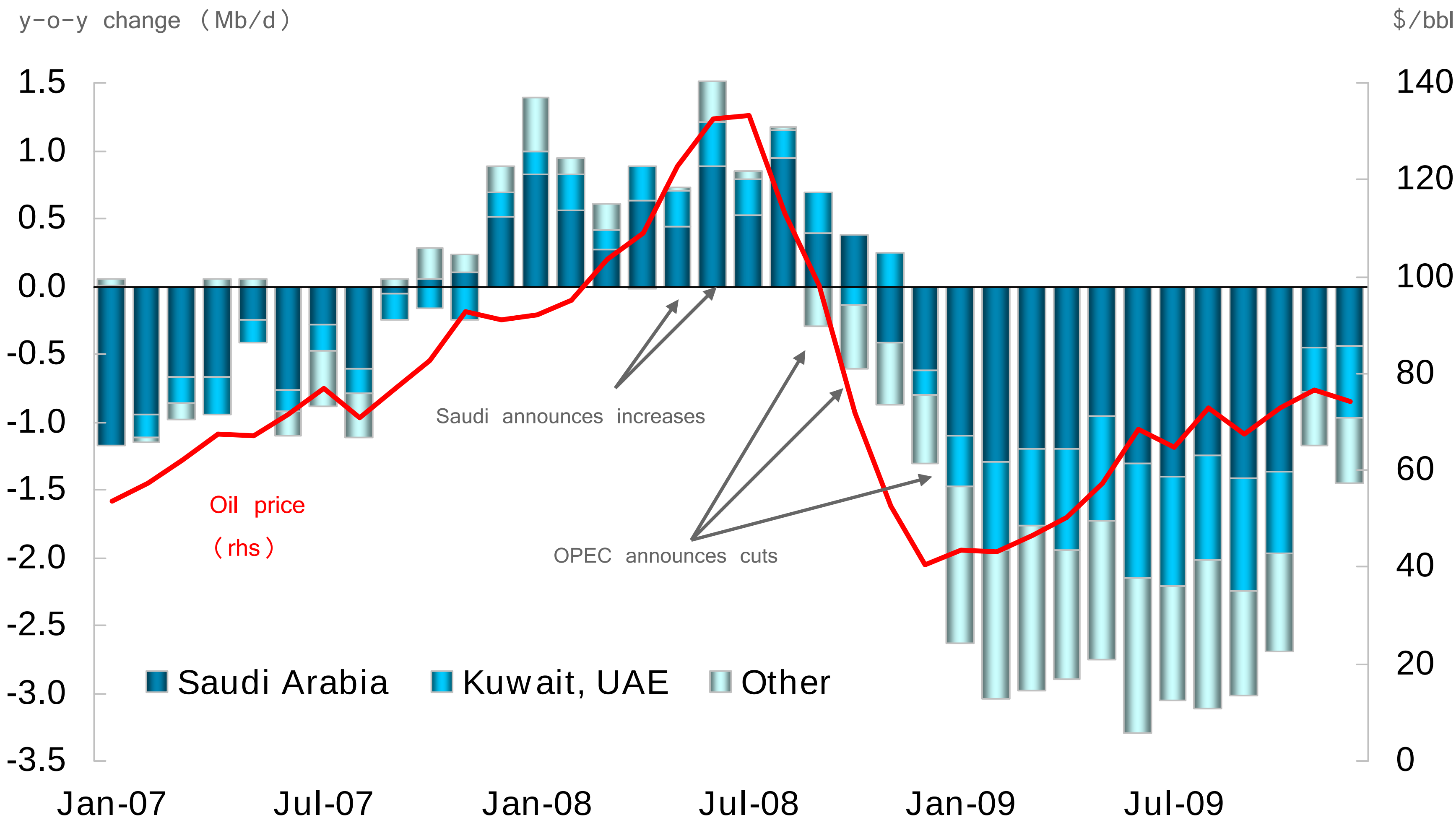
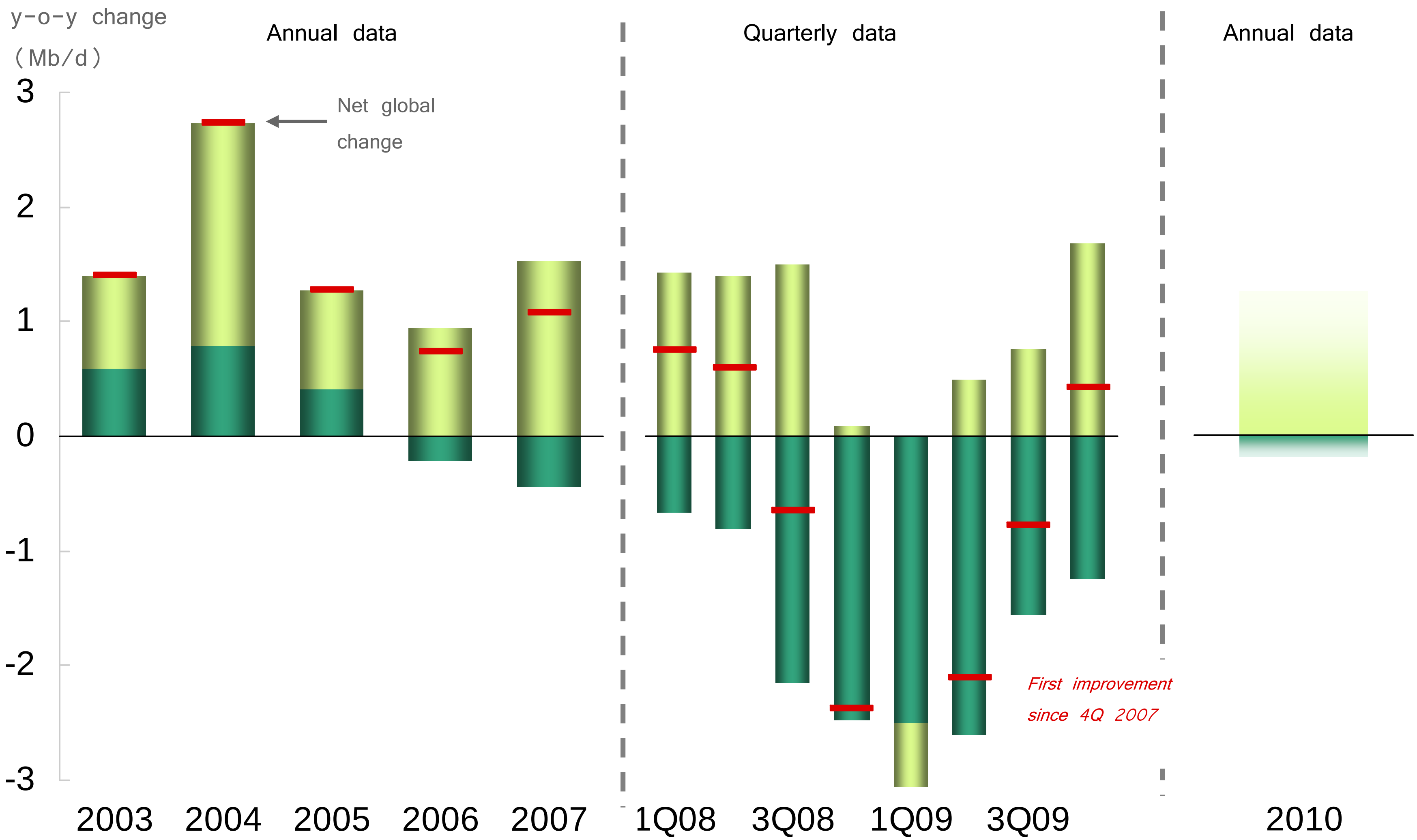
Spot and Futures Prices (Brent)

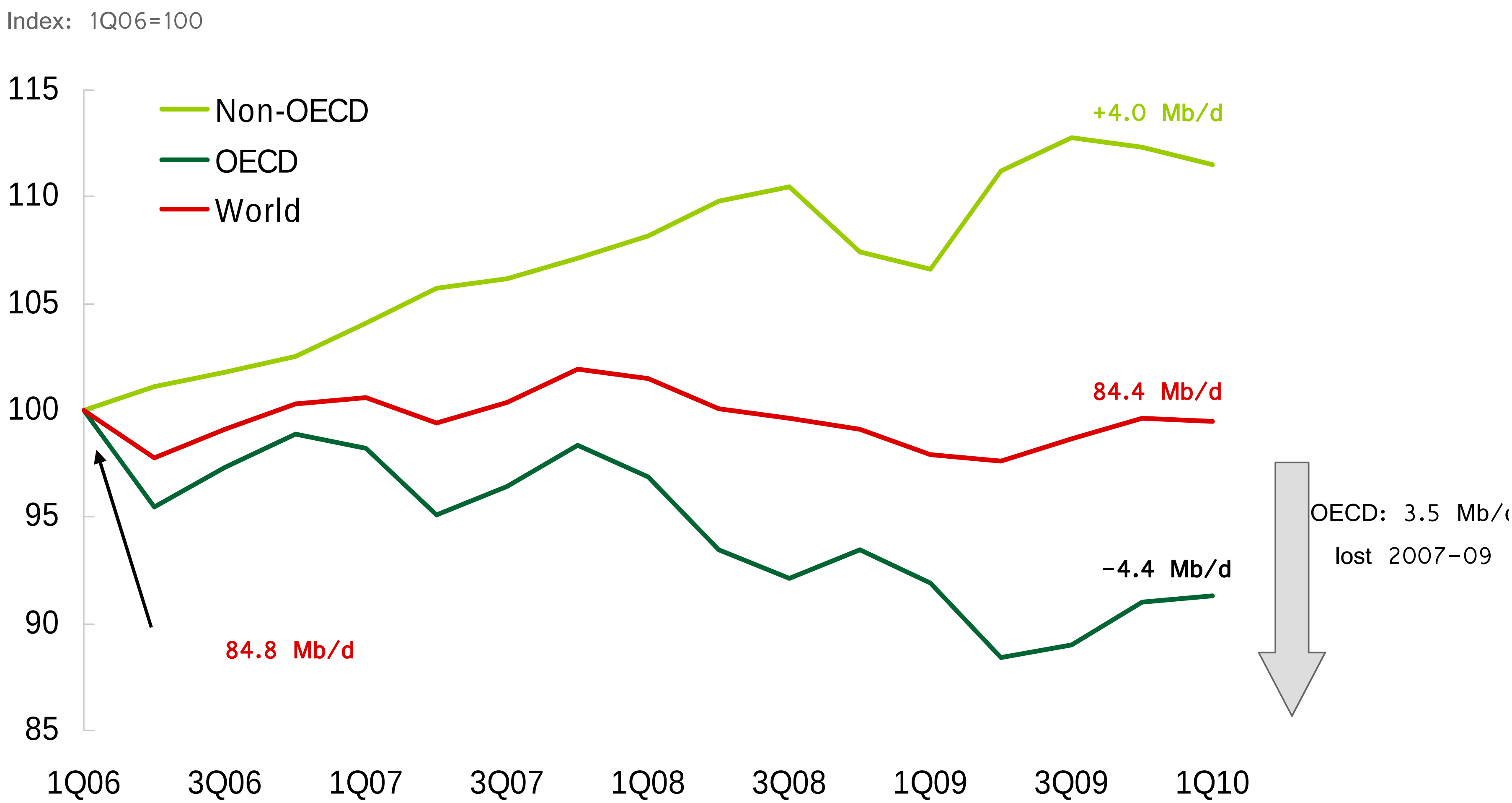
OPEC Supply Management, 2007-09



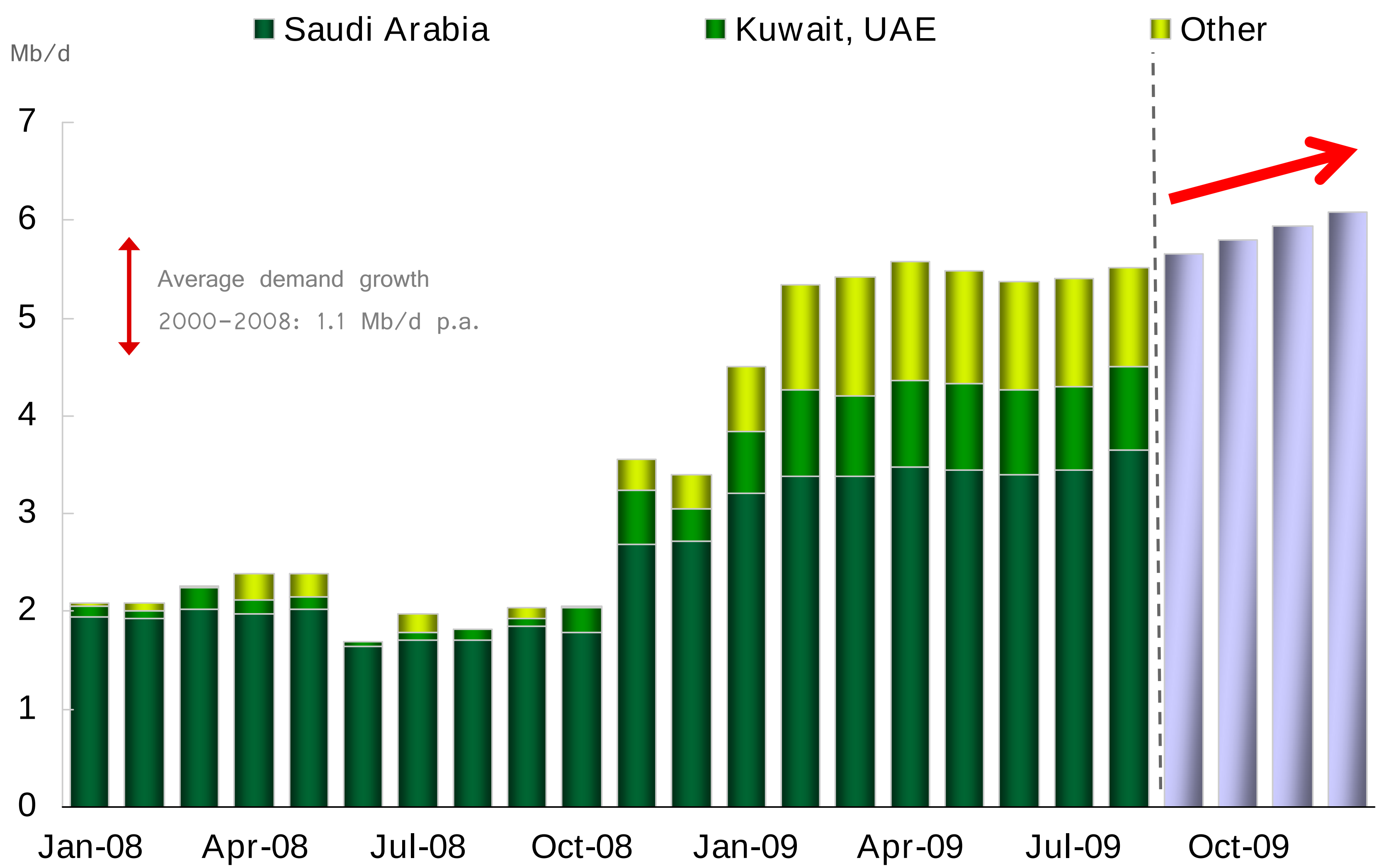
Consumption Growth, 2003-2009



1. Demand: OECD Has Peaked



2. Supply: The Spare Capacity Challenge



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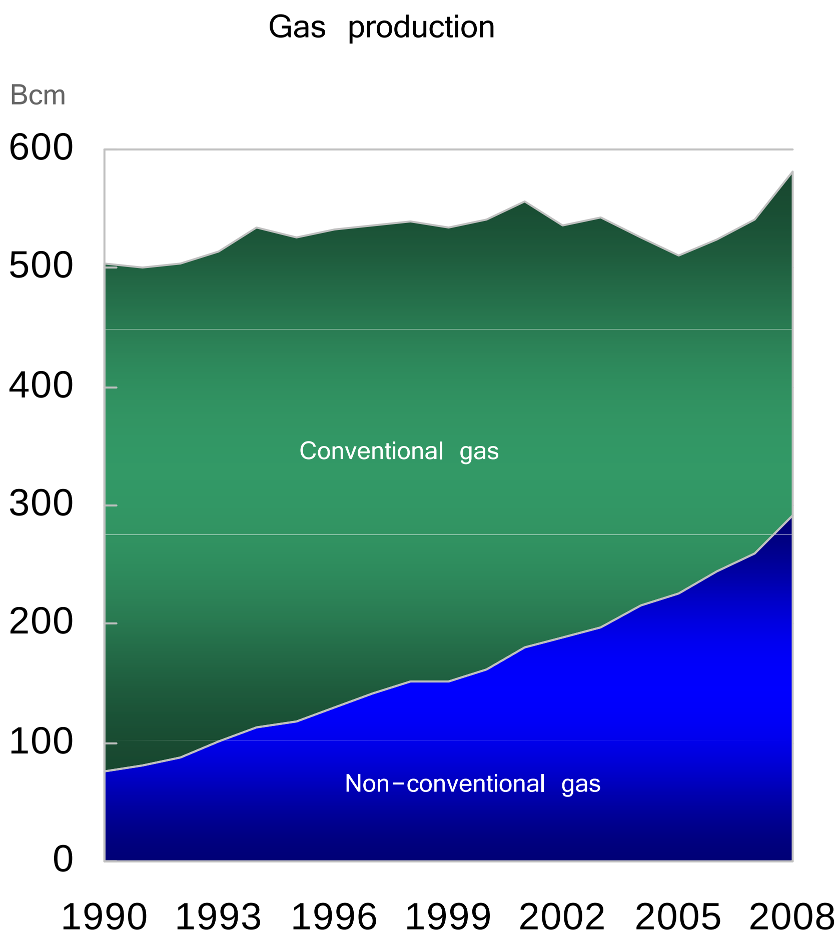
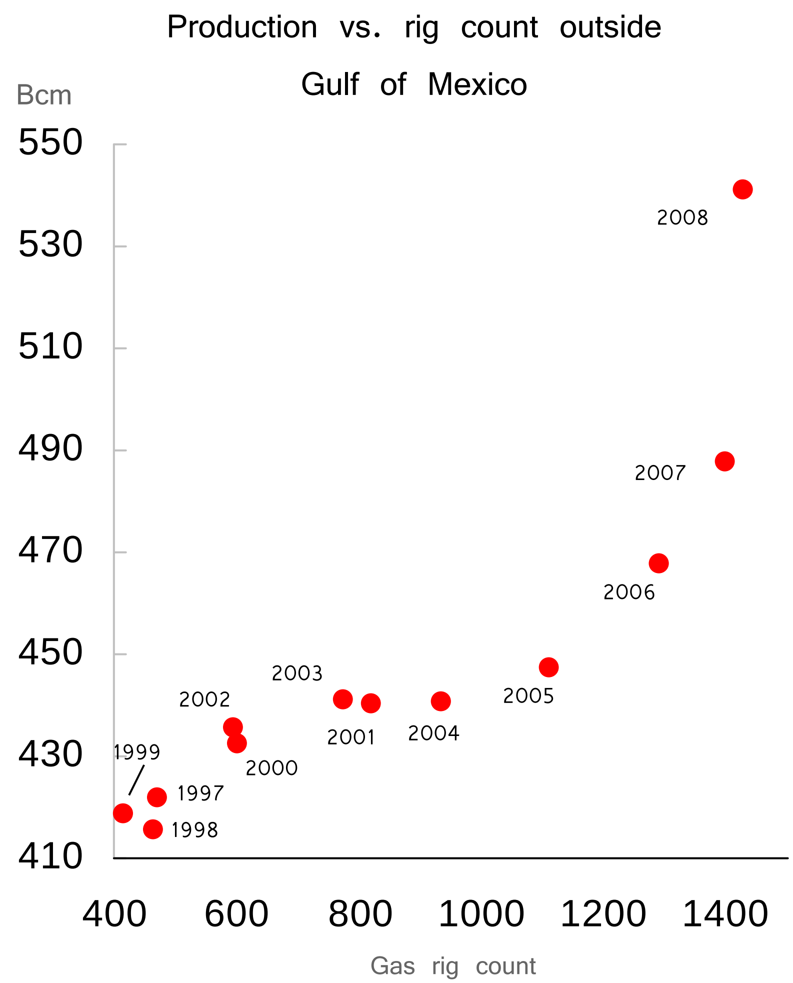
US Gas Production

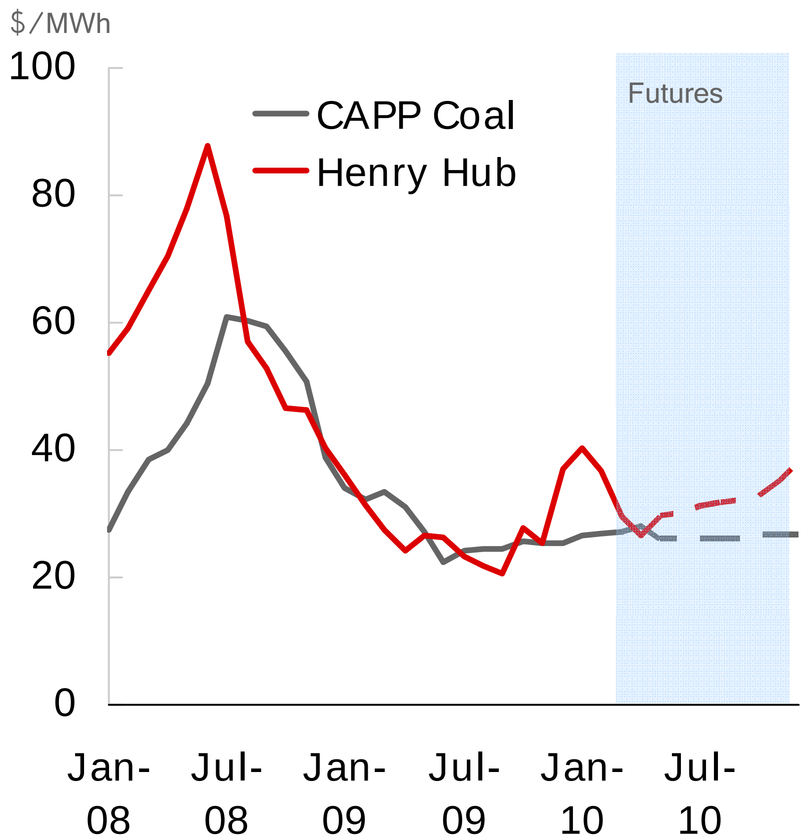




Sources: Includes data from US DOE and Baker Hughes

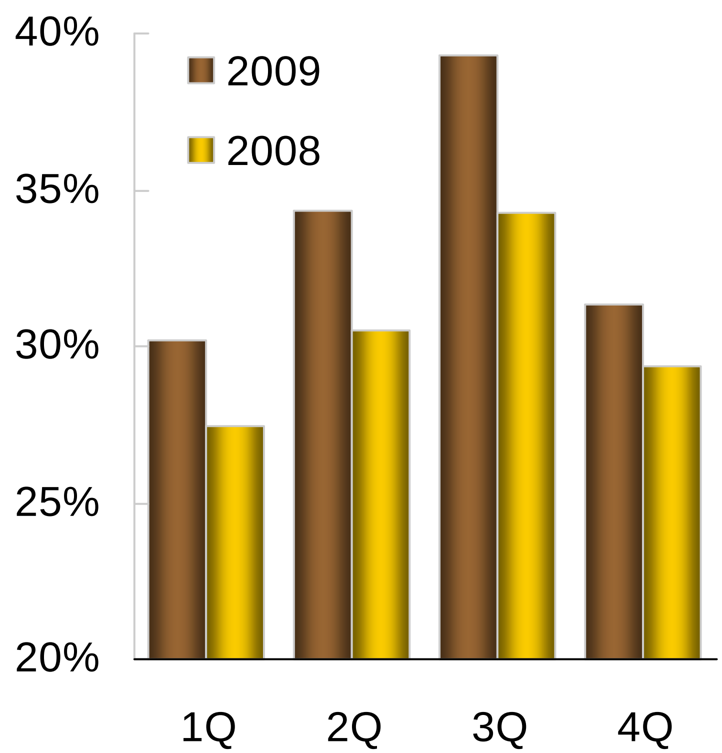
US Prices Chasing Coal Parity

Gas Gains Cost Advantage
In Power Generation*



US Gas-Coal Substitution

Gas share in total electricity generation from coal and gas

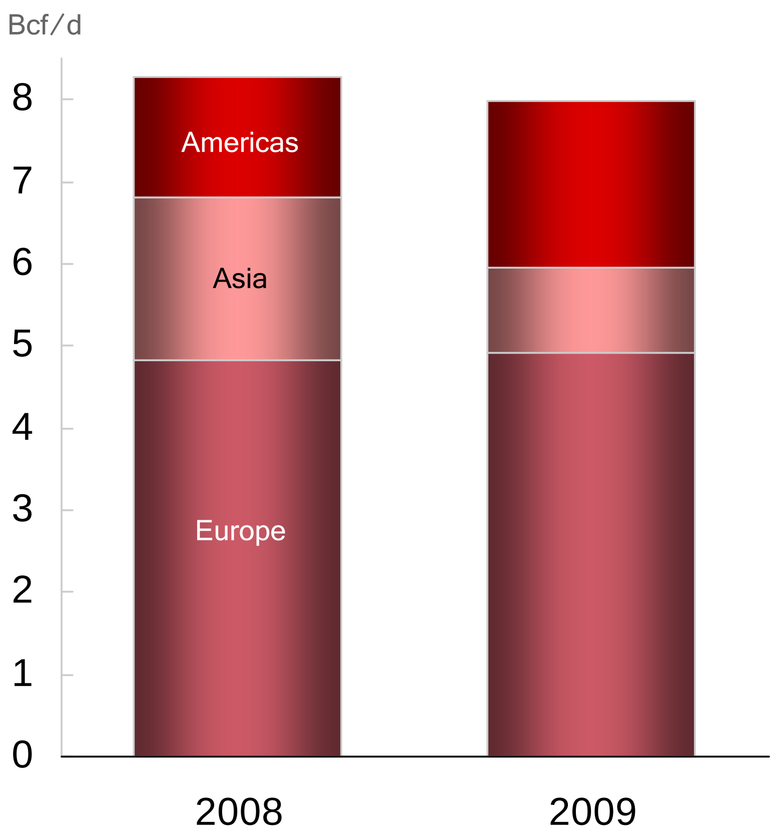


* Accounting for thermal efficiencies and transport cost of coal

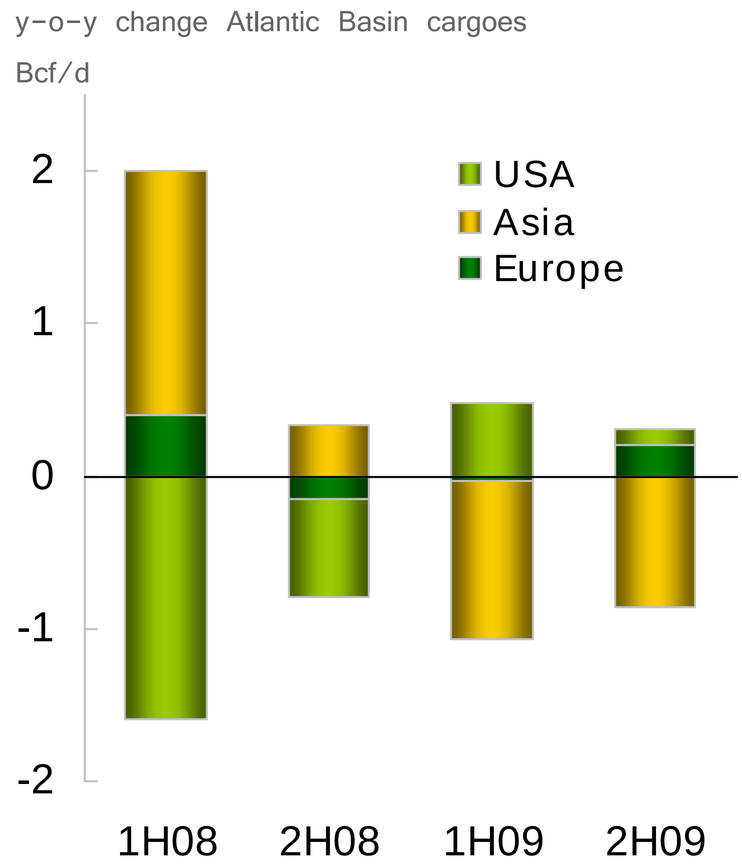
Sources: includes data from Platts, NYMEX, EIA STEO

Meanwhile, LNG* Integrates…

By importer



Flexible LNG Switching Markets

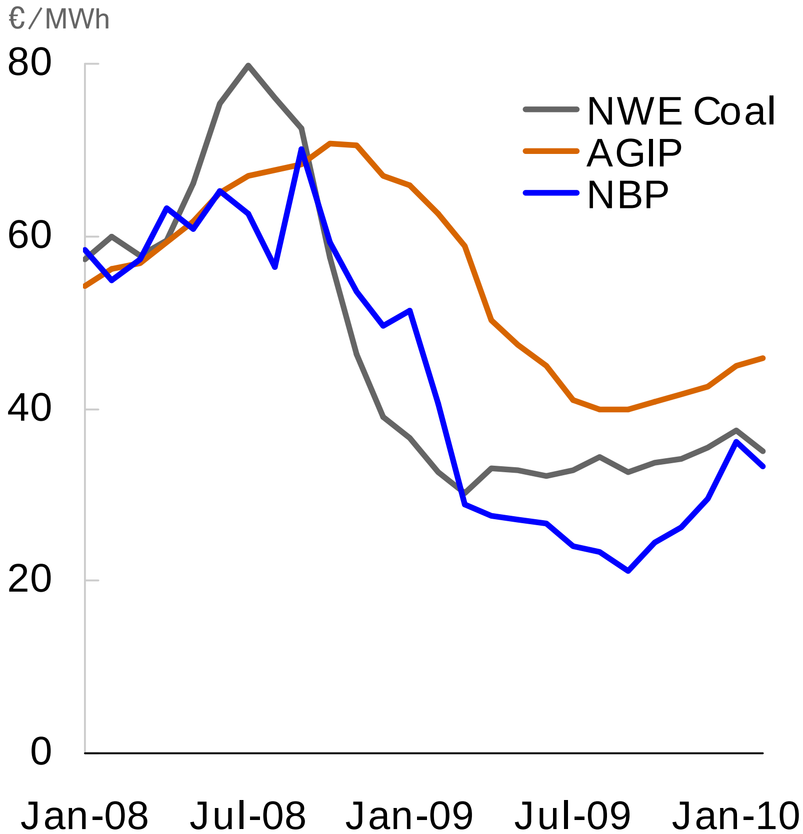


* LNG from Algeria, Belgium, Egypt, Nigeria, Norway, Trinidad and Equatorial Guinea

Sources: Includes data from Waterborne LNG

European Spot Prices Competing with Coal

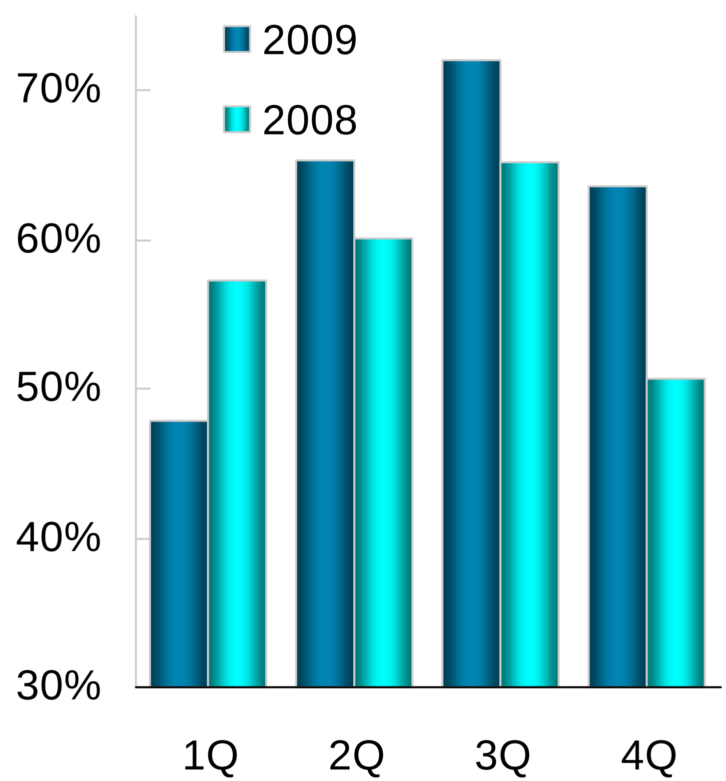
Spot Gas At Cost Advantage In Power Generation*



* Accounting for thermal efficiencies and CO_2 prices

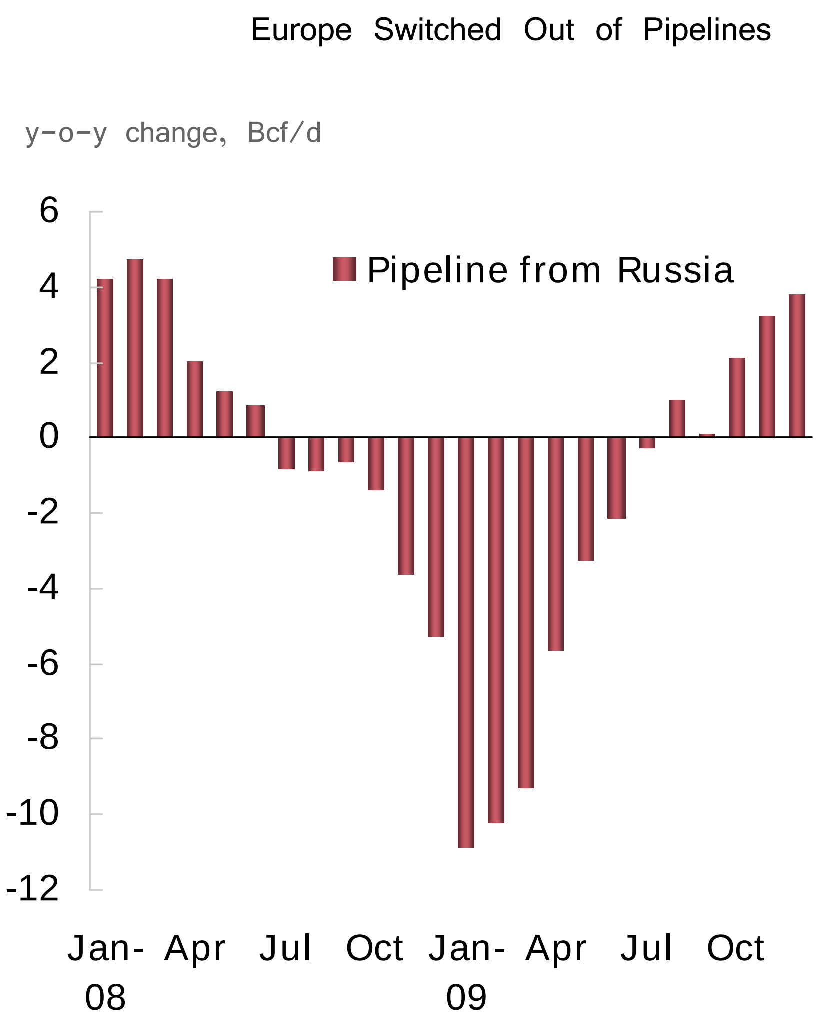
UK Gas-Coal Substitution

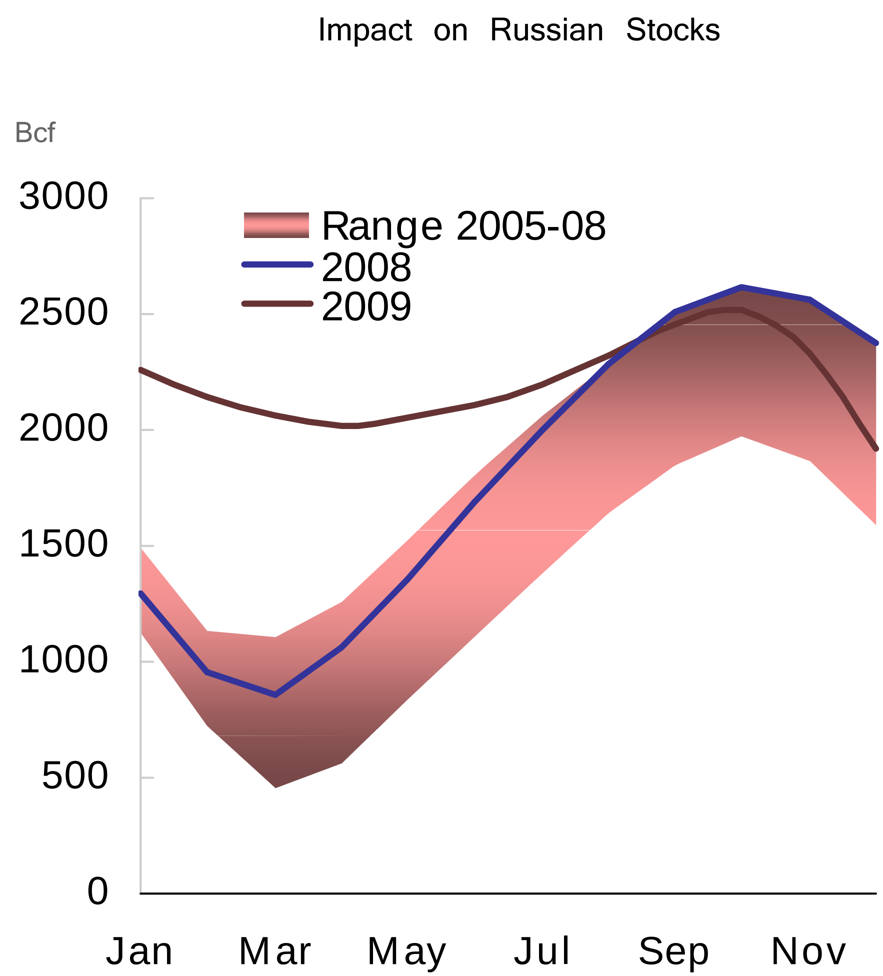
Gas share in total electricity generation from coal and gas



Sources: includes data from Platts, McCloskey, European Climate Exchange, DECC

… With Consequences for Russia





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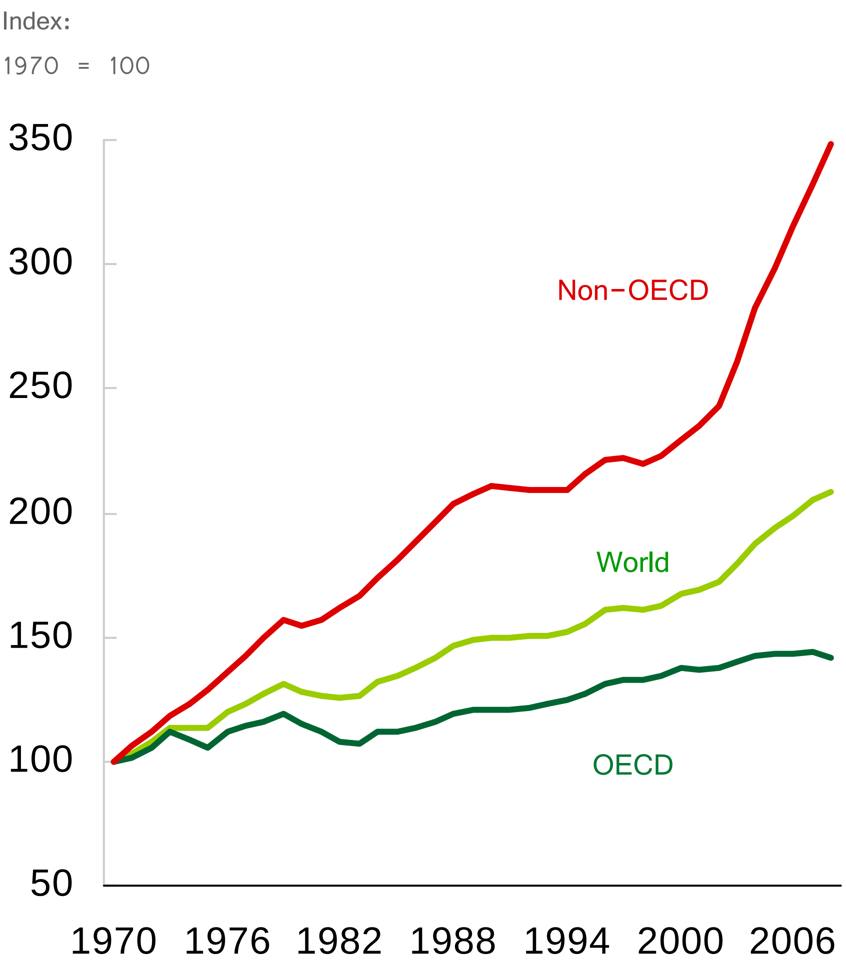
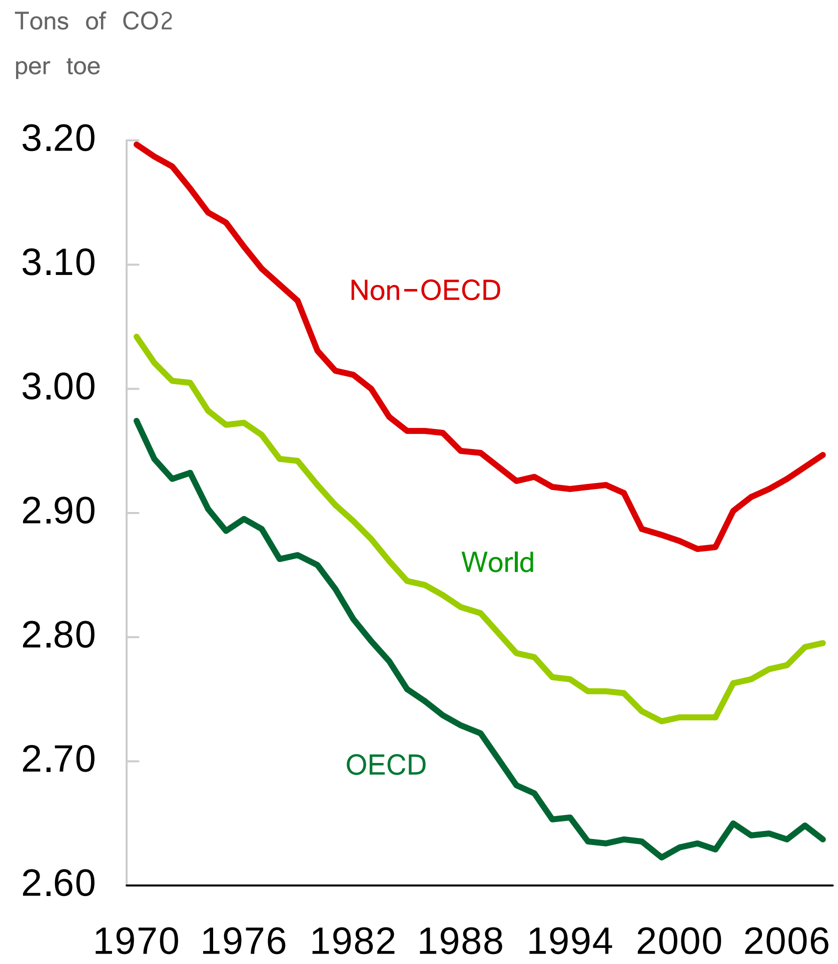
1. Climate Change Policies

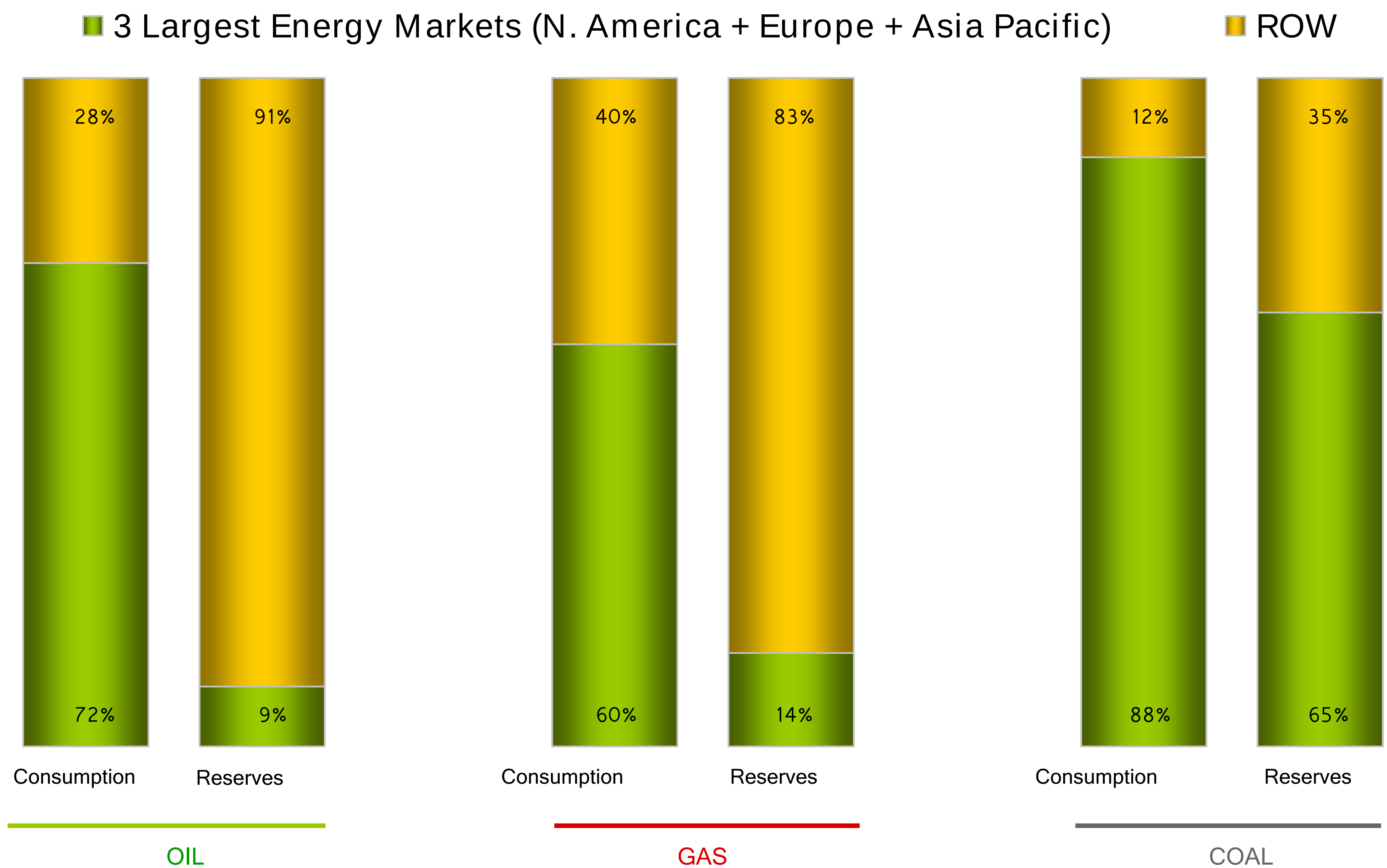
World Carbon Emissions



CO2 Intensity of Energy



2. Energy Security



Will It Happen?