



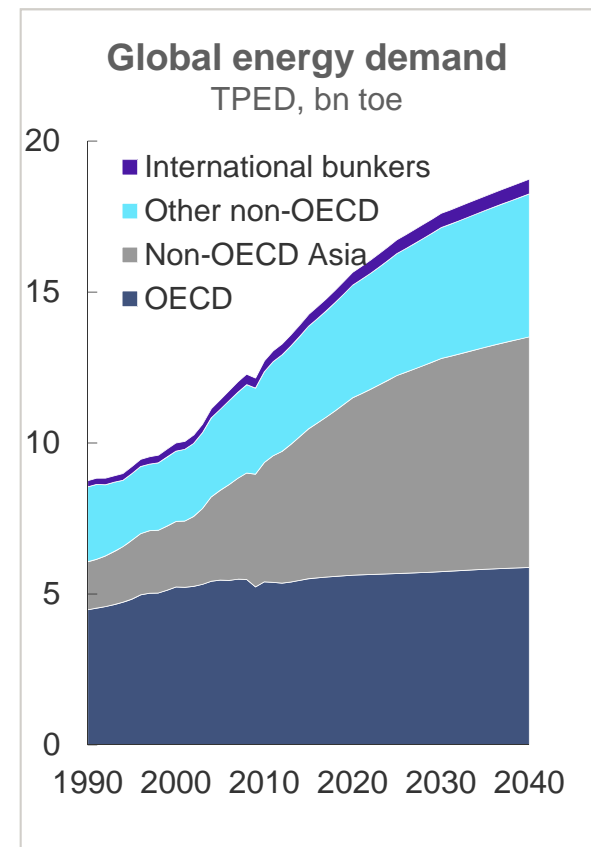
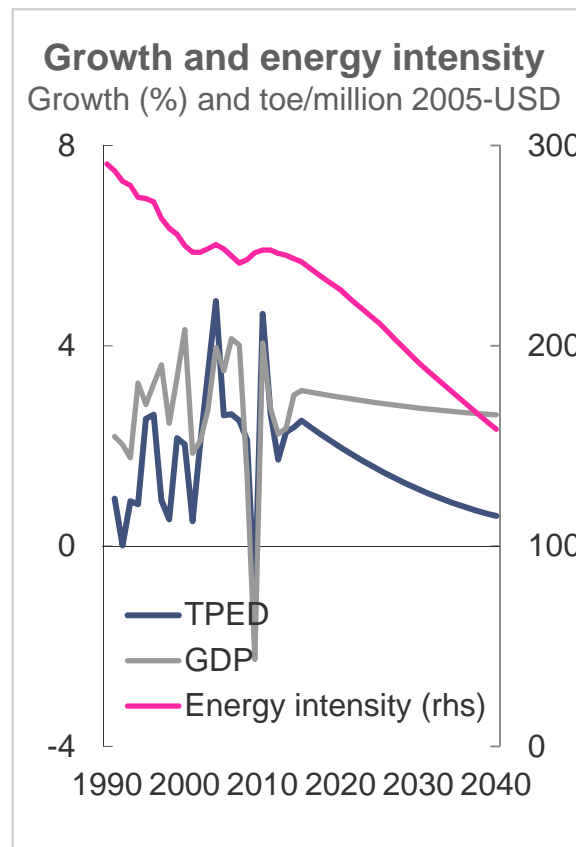
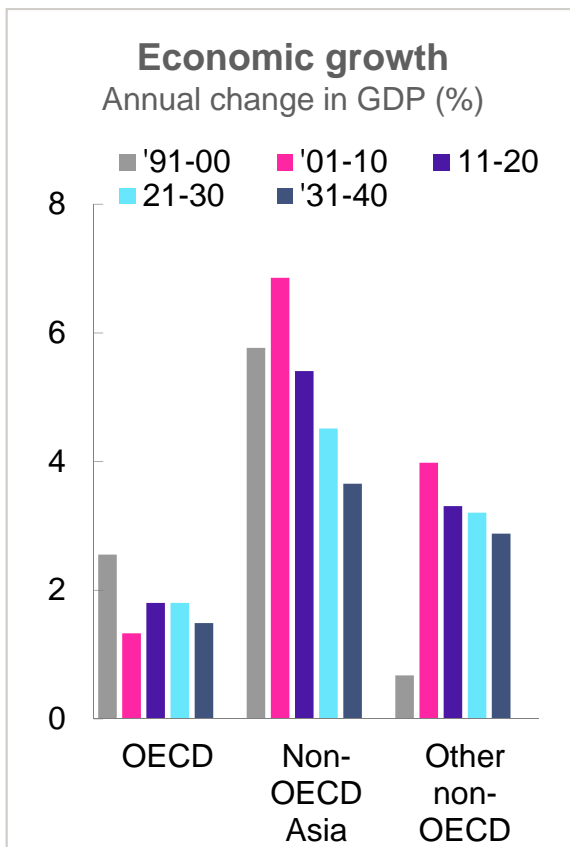
Statoil

Energy Perspectives - Outlook and some challenges

4th IEA-IEF-OPEC Symposium on Energy Outlooks
Riyadh, 22 January 2014
Eirik Wærness, Chief Economist

Growth, efficiency and energy demand

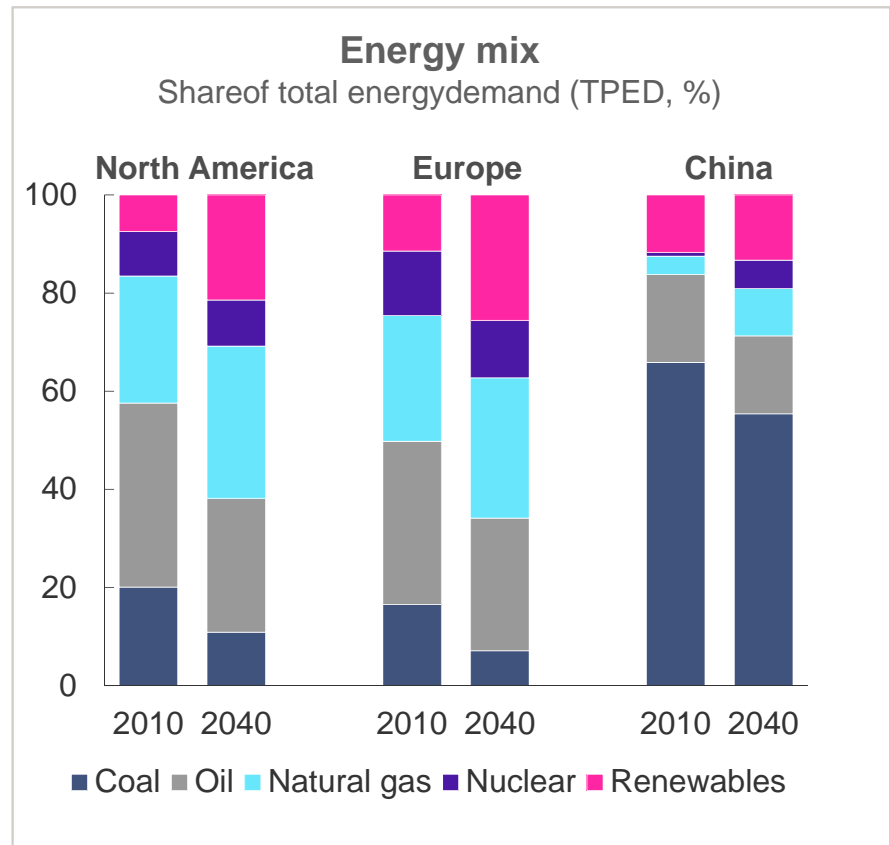
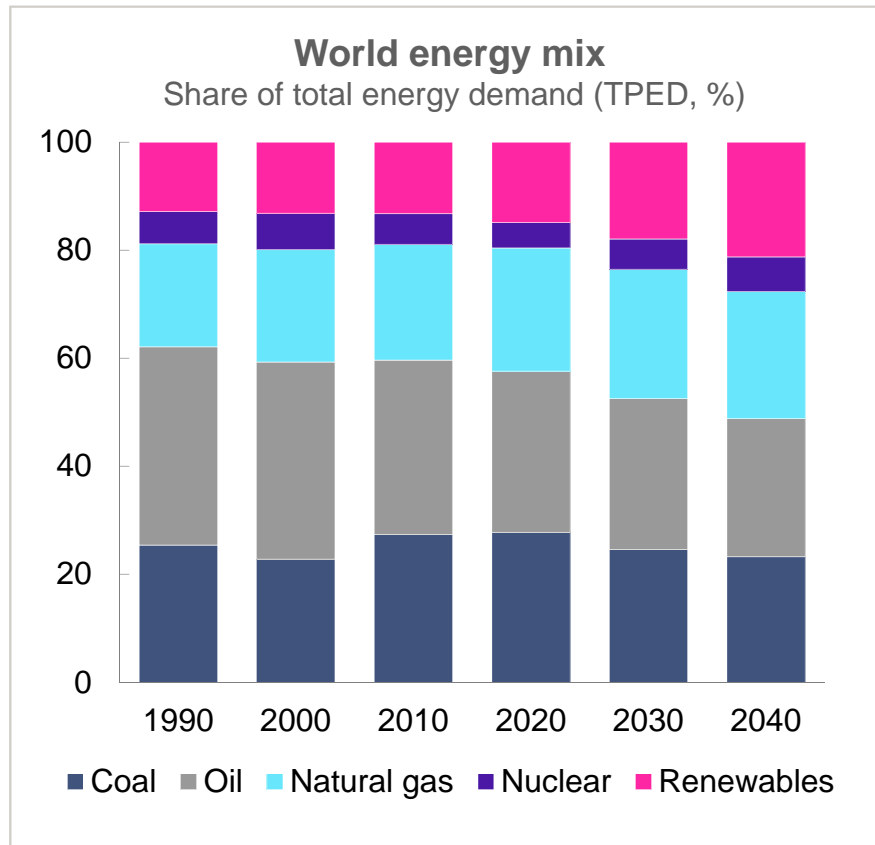
Non-OECD driving growth, energy efficiency to improve by almost 40%



Source: IHS Global Insight and IEA, Statoil

Gradual greening of energy mix

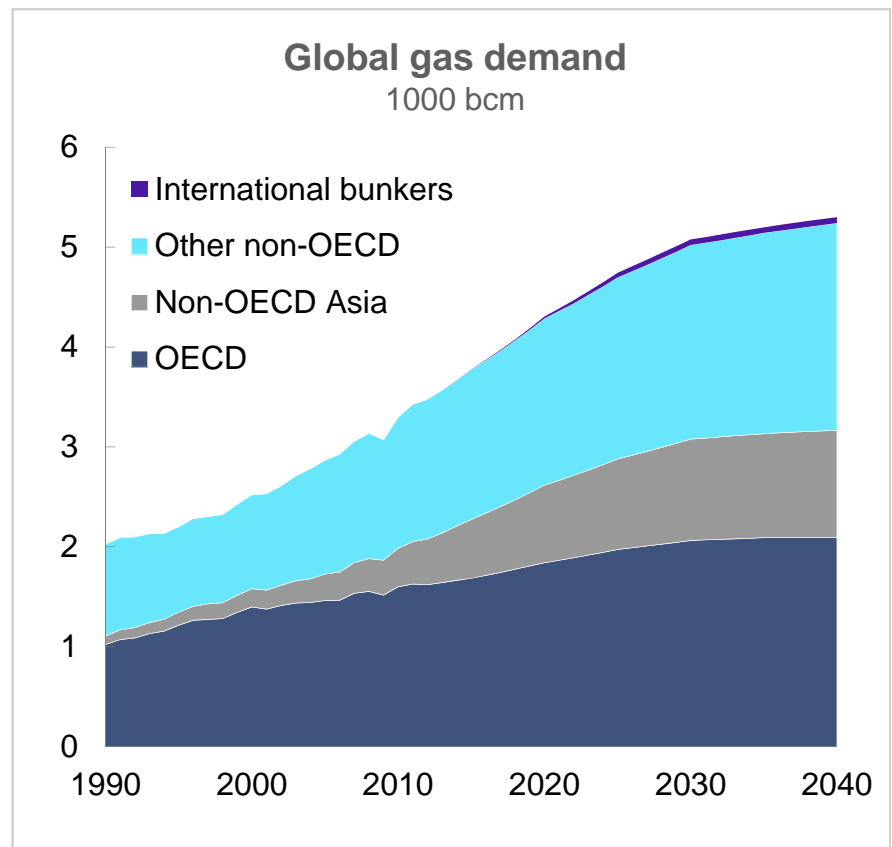
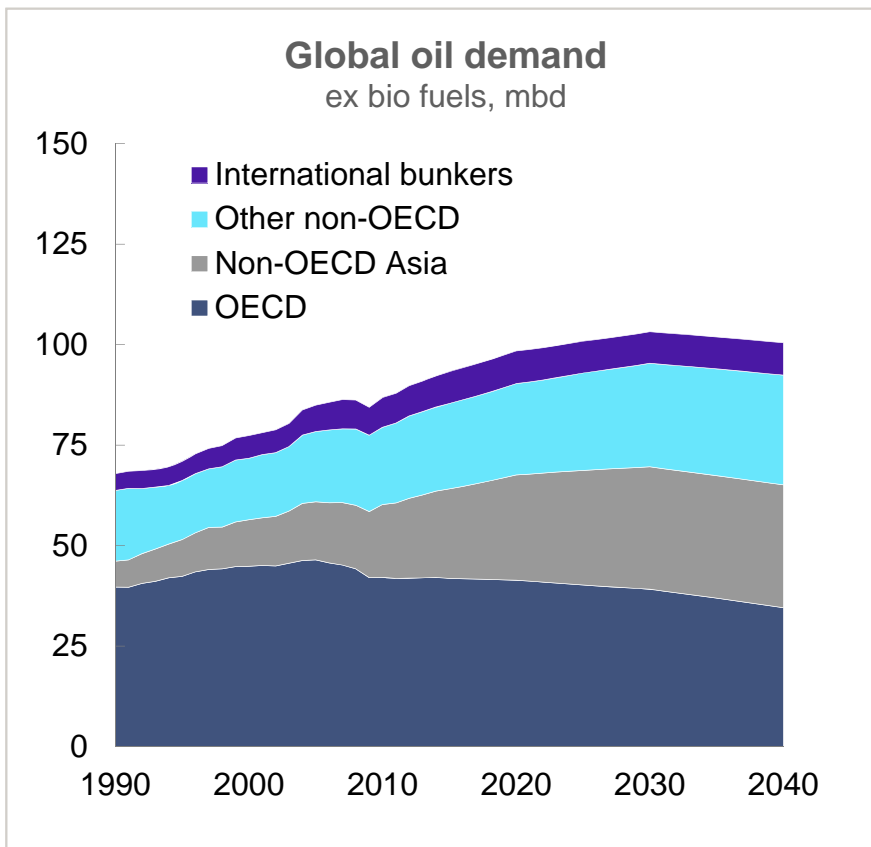
... but fossil fuels constitute 72% of total energy demand in 2040



Source: IEA, Statoil

Fossil fuels are here to stay

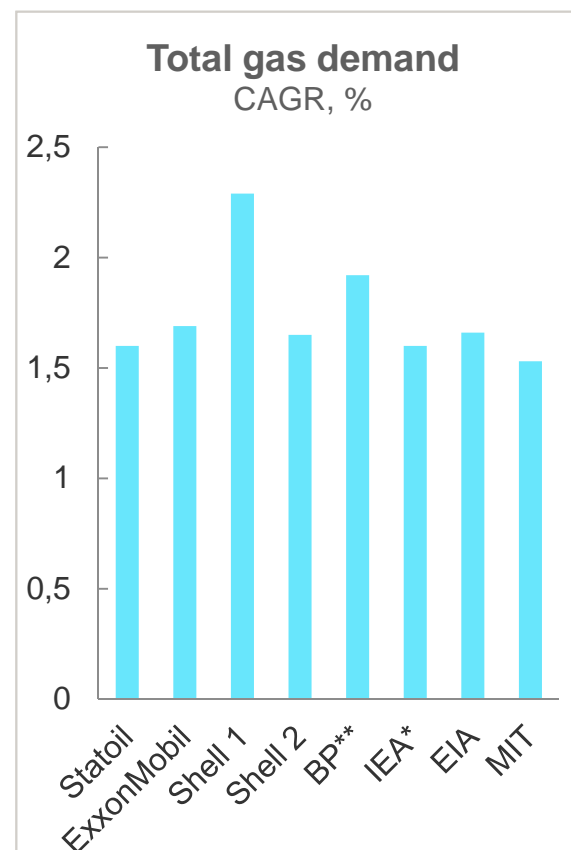
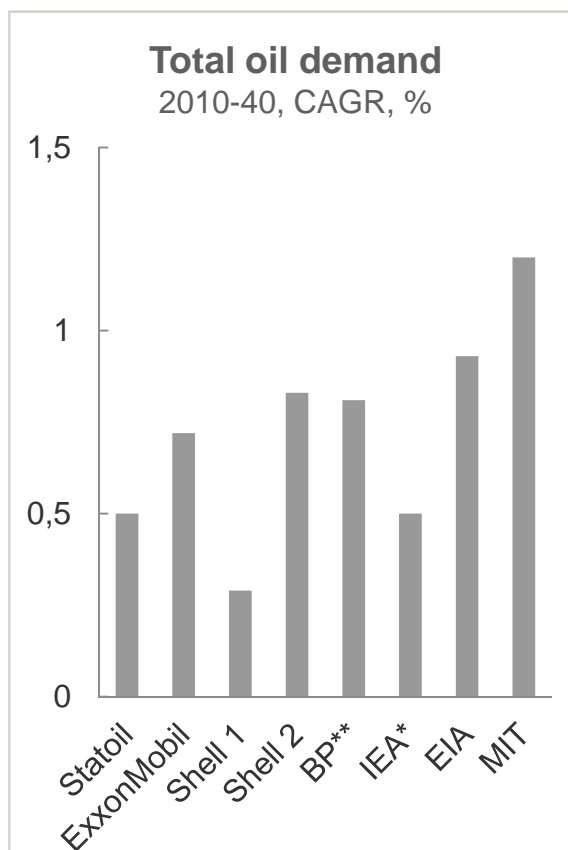
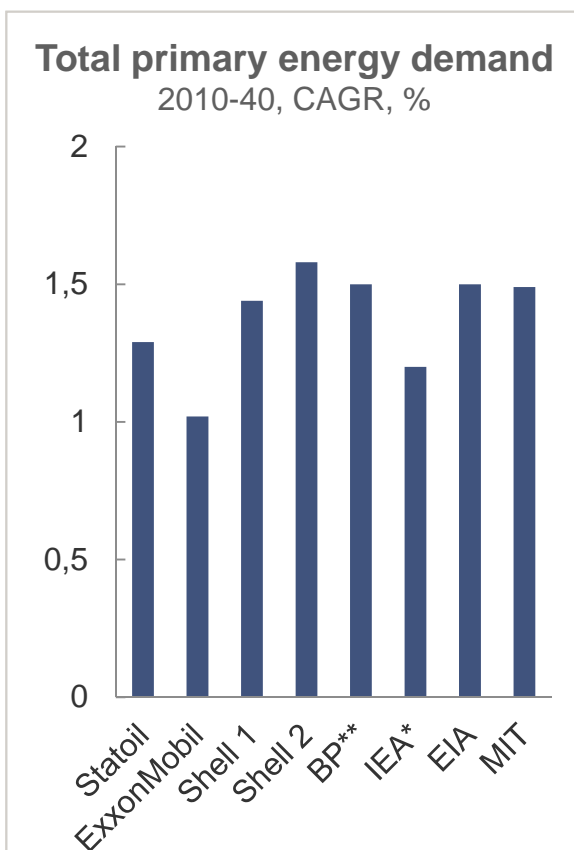
Emerging economies drive demand growth – oil demand peaks ~ 2030



Source: IEA, Statoil

Different forecasts are relatively similar...

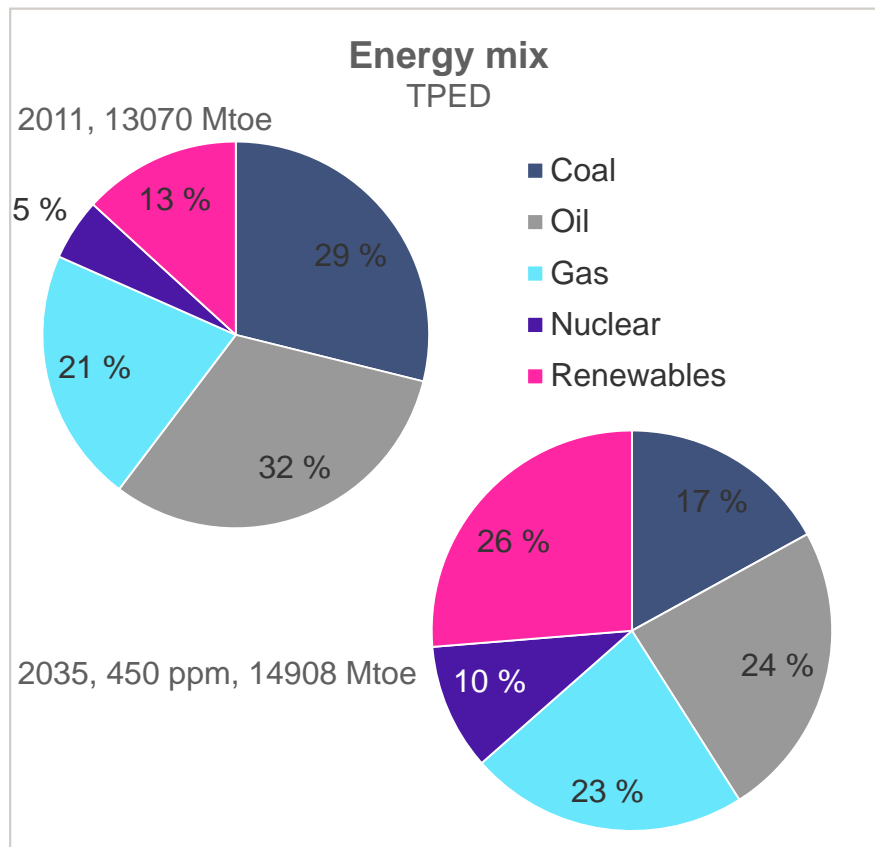
Could there be something that all of us are missing?



* 2011-35, ** 2012-35

A key challenge of relevance to all

The world needs fossil fuels, but must address CO₂ emissions



Source: IEA

- 64% of TPED in 2035 in IEA's 450 scenario
 - 20% more gas than today, only 13% less oil, but 33% less coal – HOW?
- Gas as a bridging fuel, but losing out to coal in key regions?
 - Carbon price/tax, pricing/regulation of local pollution
 - What is the potential for unconventional gas outside North America?
- Who/what will drive development of CCS?
 - Both producers and consumers?
 - Carbon price/tax?
 - Subsidies for technological development

There's never been a better
time for good ideas

Thank you!