October 2013

Energy Outlook 2030

Key trends and implications

Alexander Naumov, Macro Economist

bp

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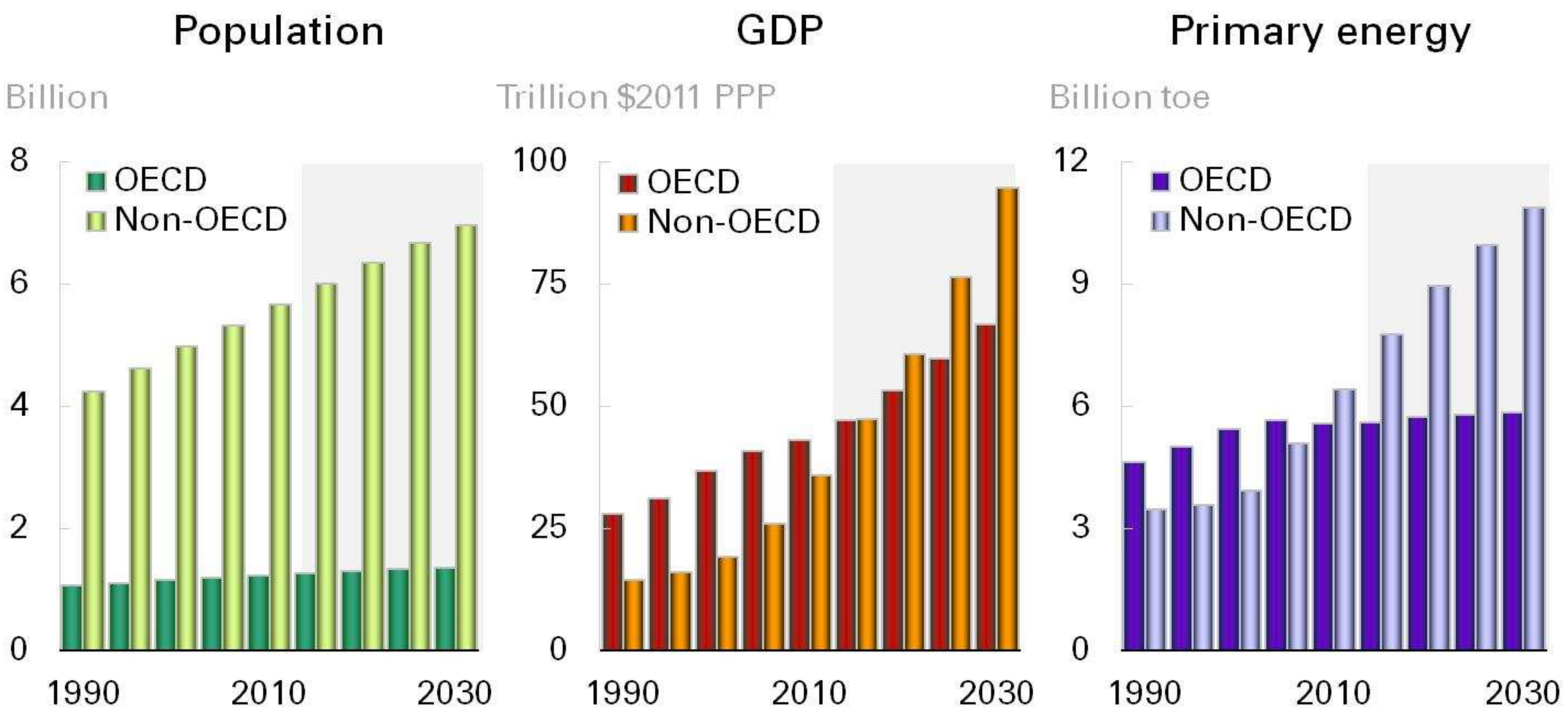
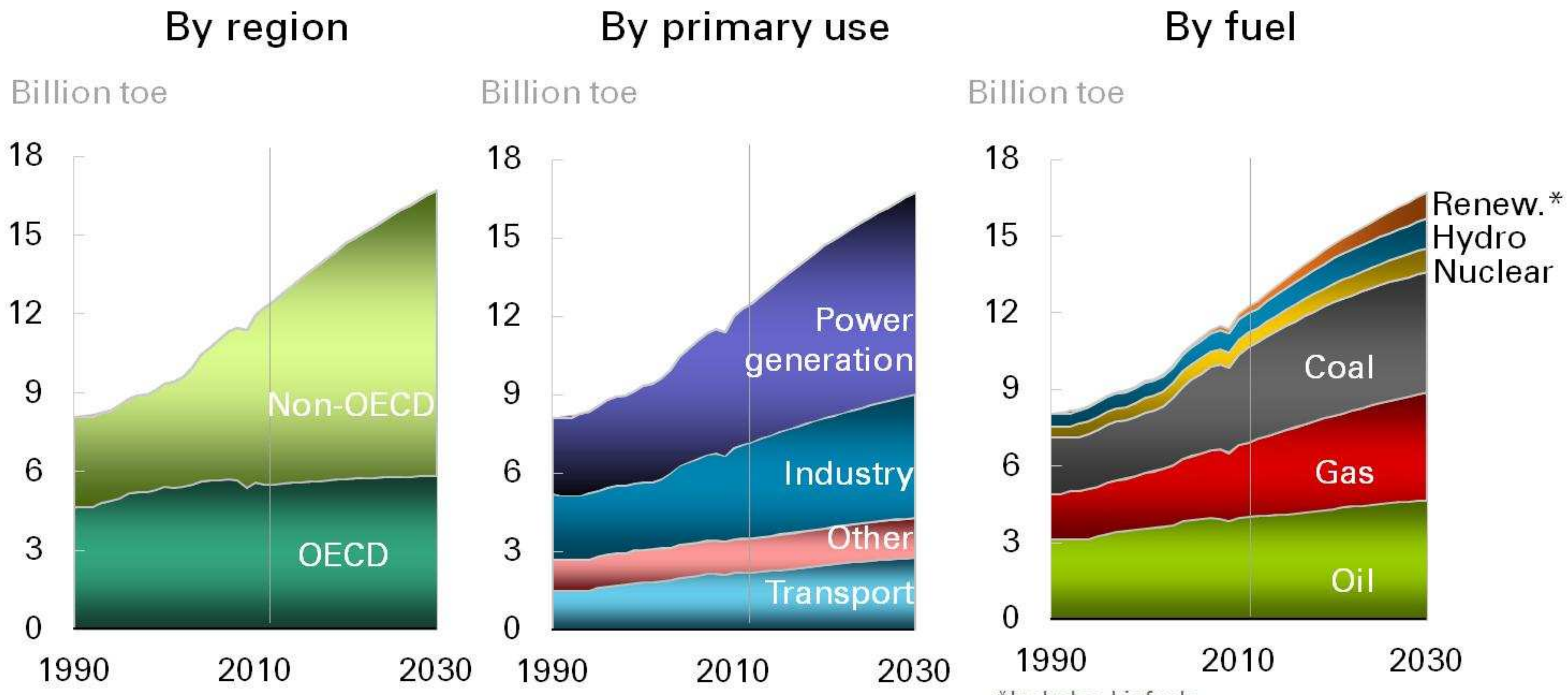
Population, income and energy growth

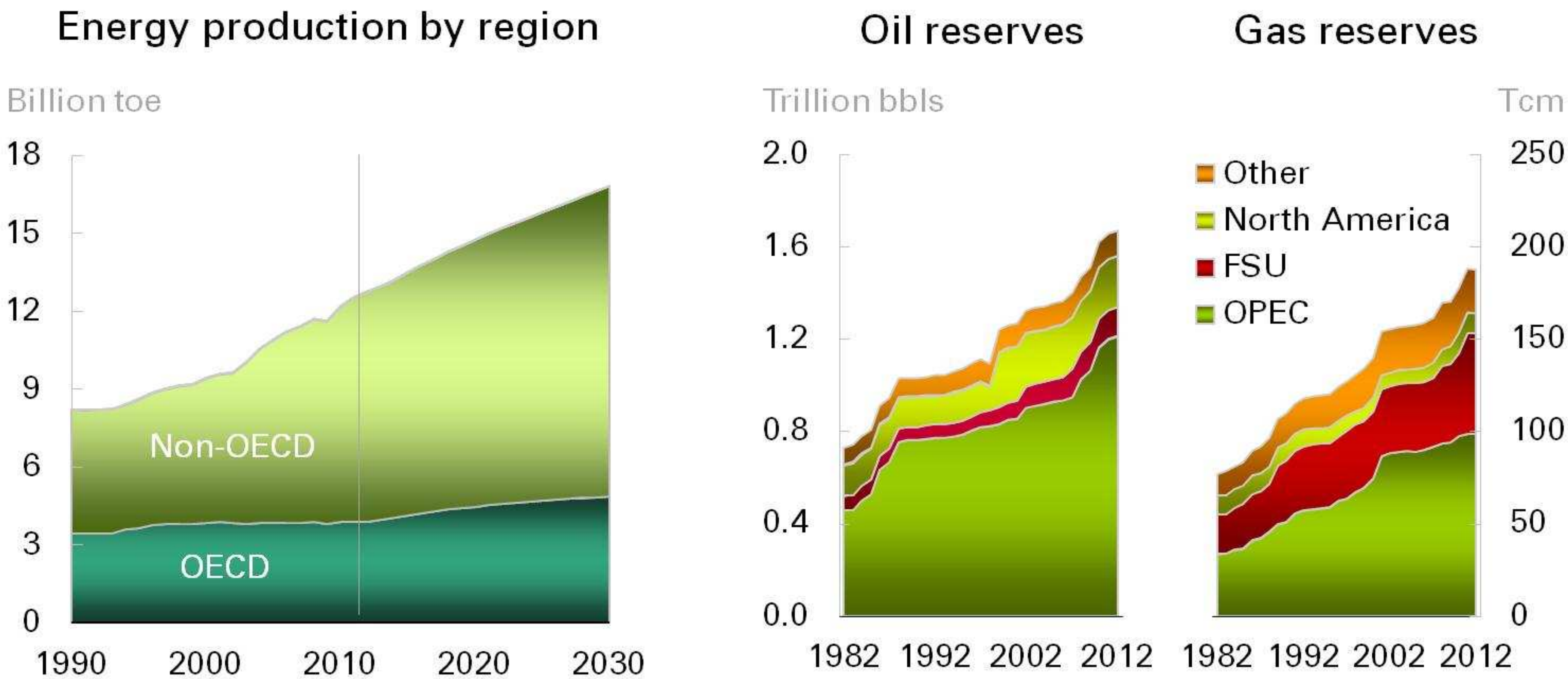


Industrialisation drives energy growth



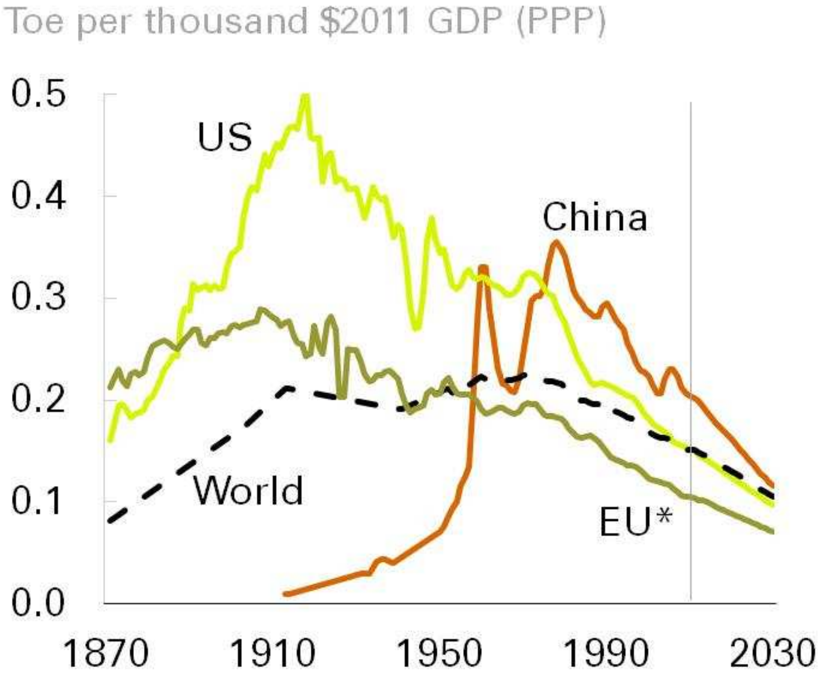
*Includes biofuels

Emerging economies dominate energy production



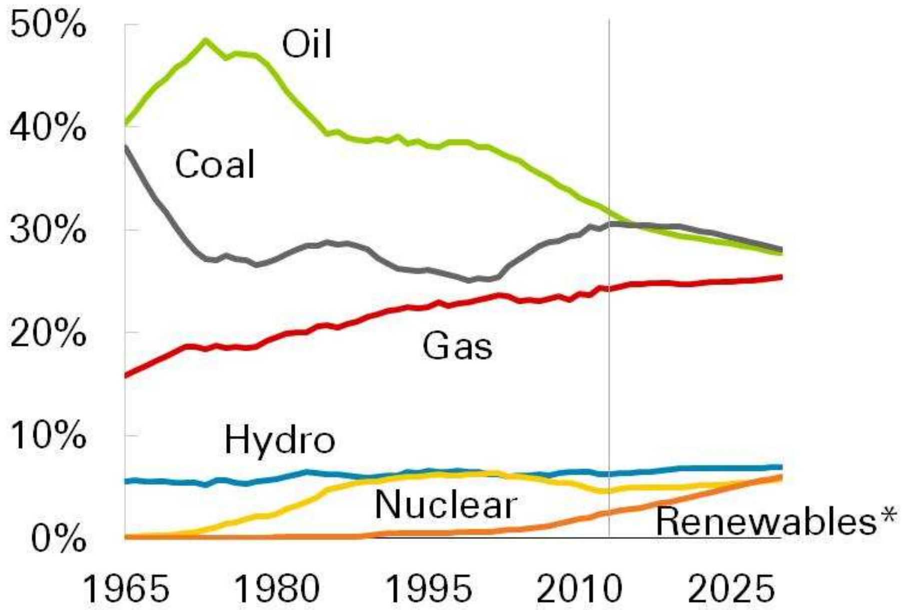
Convergence of energy intensity and fuels shares

Energy intensity



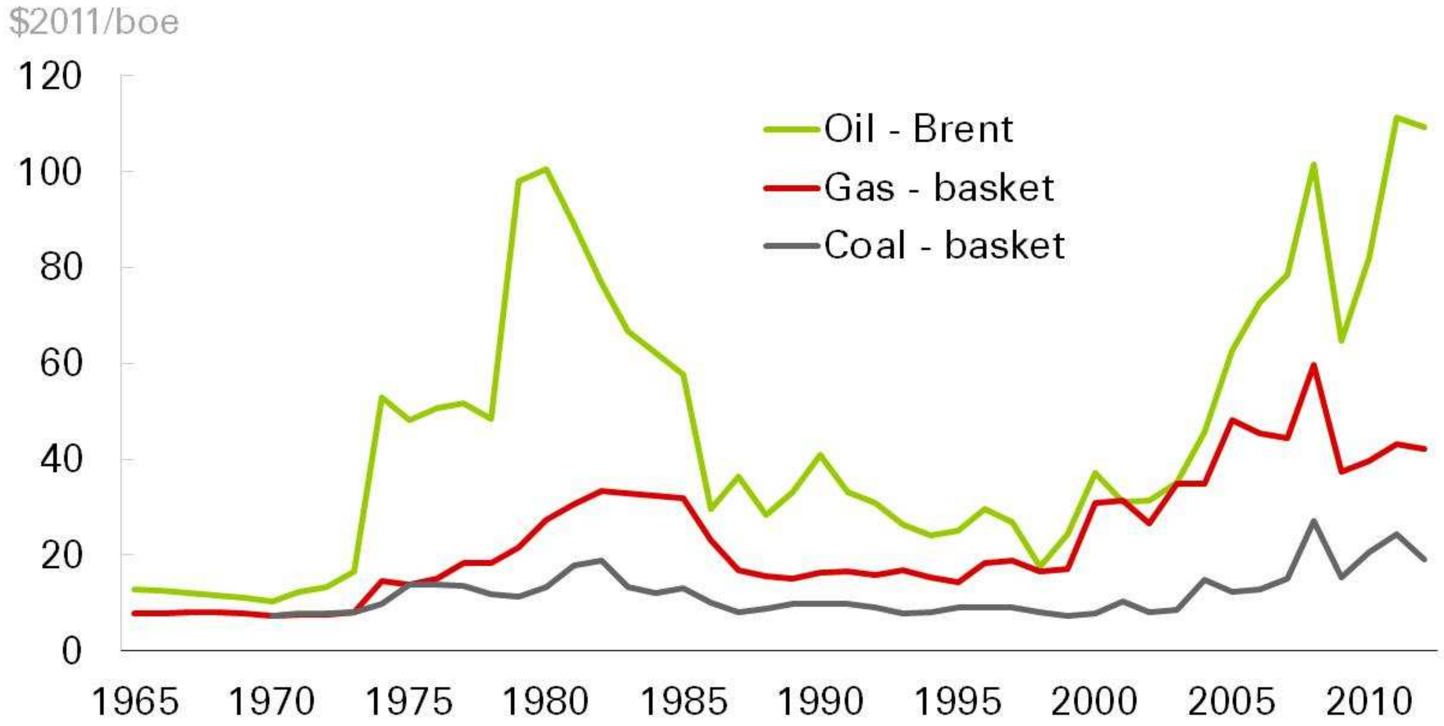
*Euro4 (France, Italy, Germany, UK) pre-1970

Shares of world primary energy



*Includes biofuels

Energy prices



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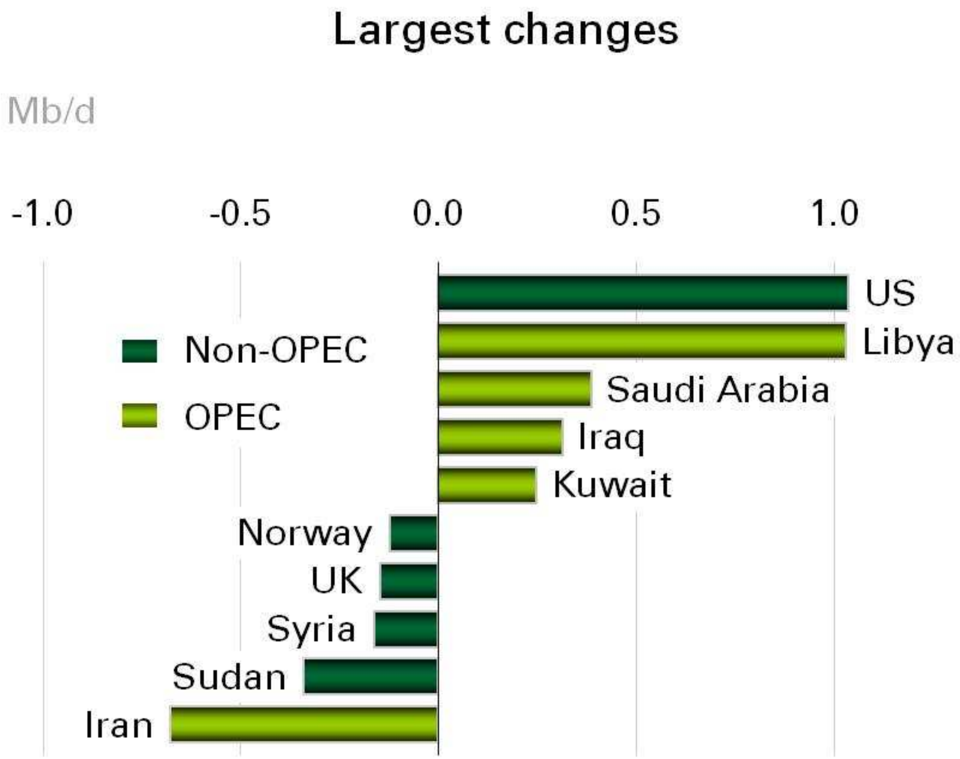
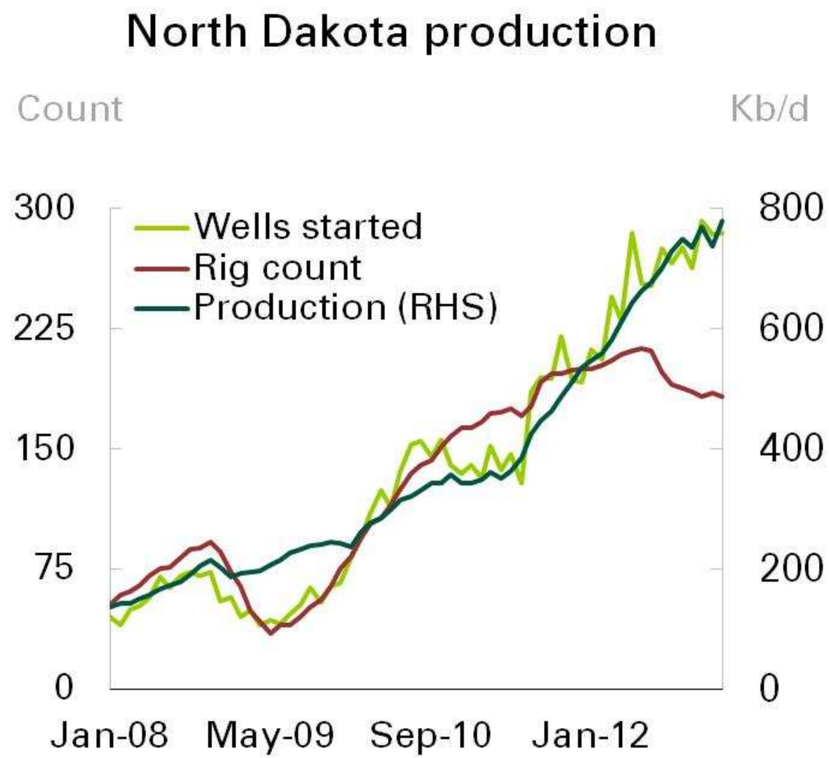
Oil production in 2012

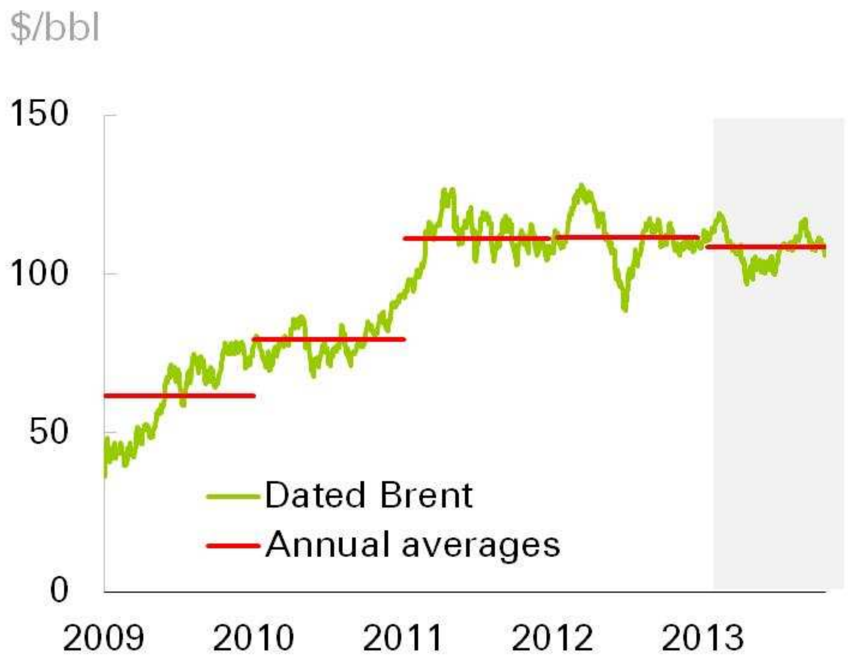




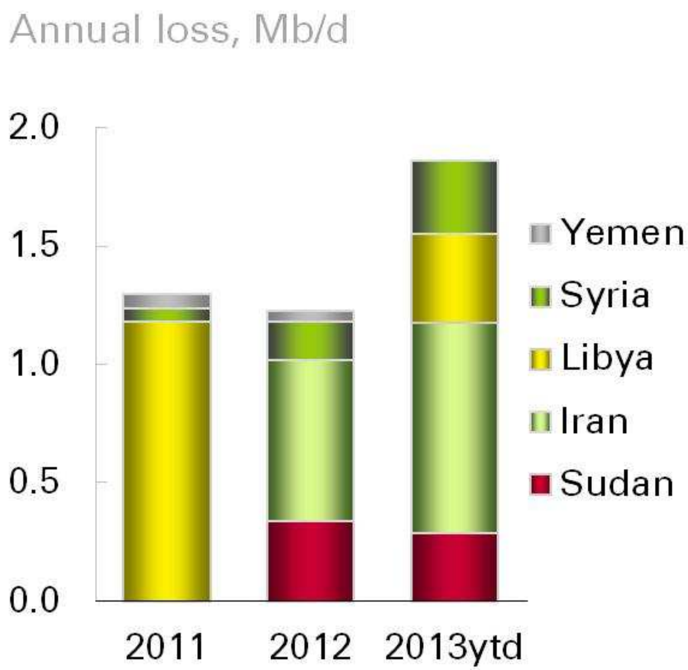
Source: includes data from North Dakota Department of Mineral Resources

The oil market

The price of oil

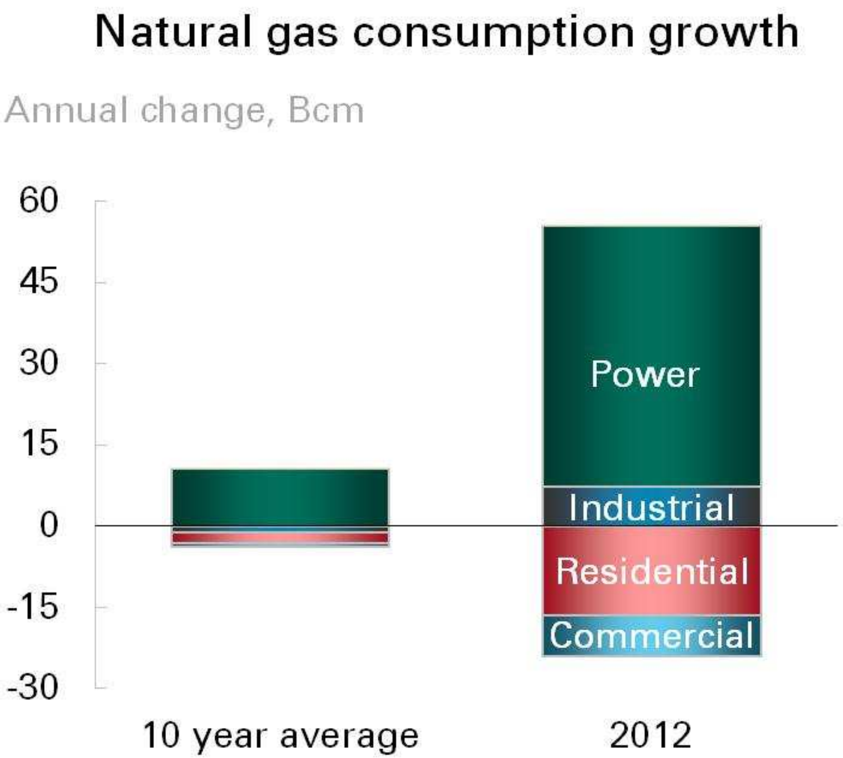


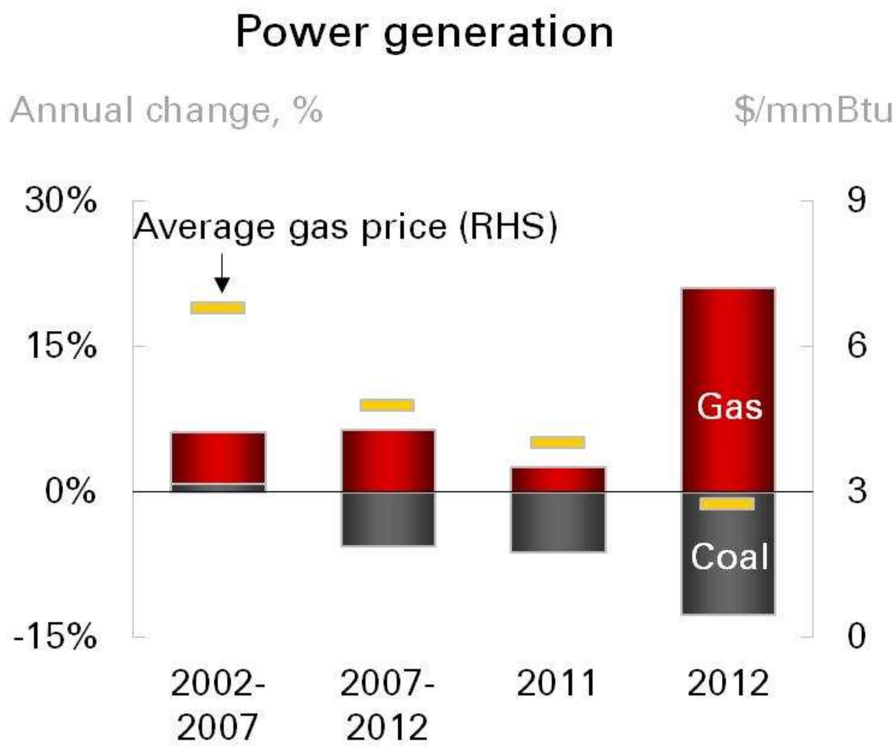
Supply disruptions



Source: includes data from Platts and Energy Information Administration

US coal to gas switching

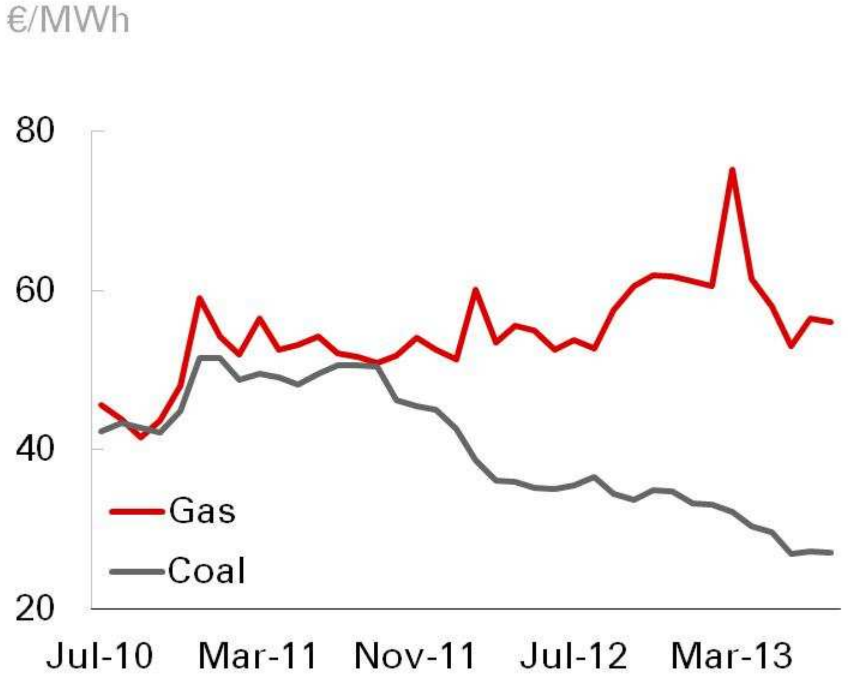




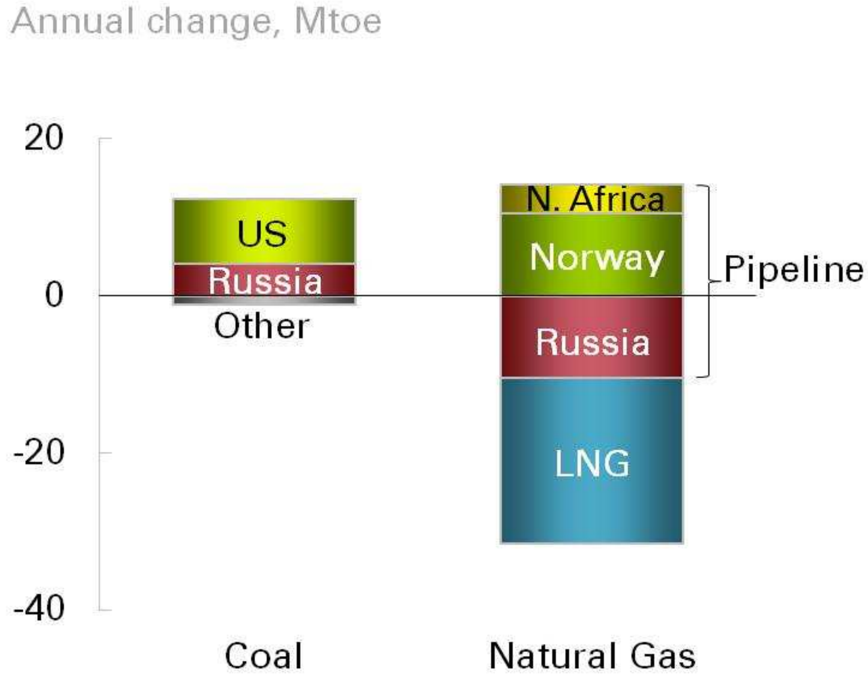
Source: includes data from Energy Information Administration and Platts

European gas-coal competition

EU power generation cost



2012 changes in EU imports



Source: includes data from Platts, IHS McCloskey and IntercontinentalExchange

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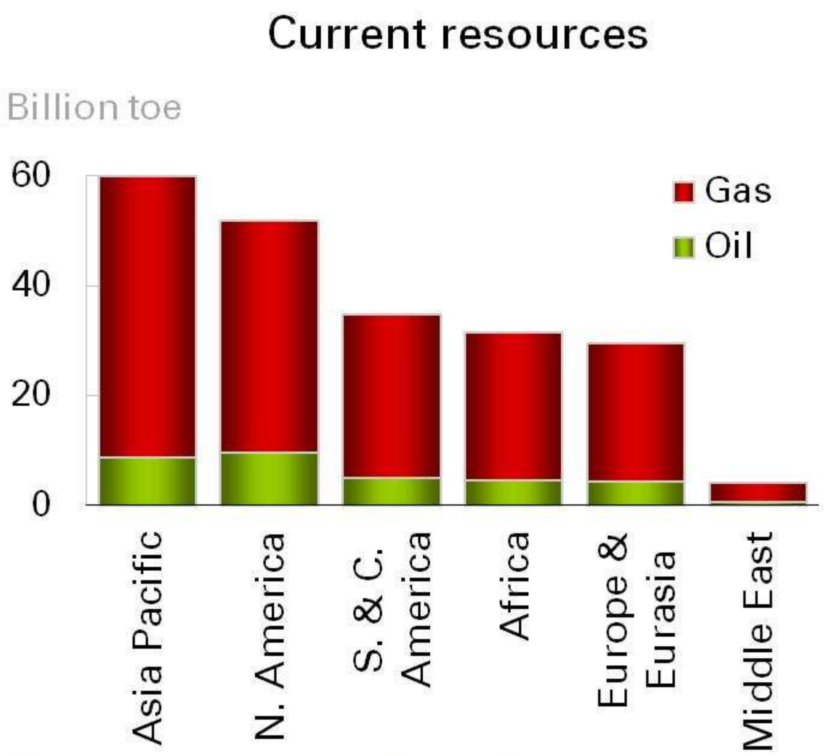
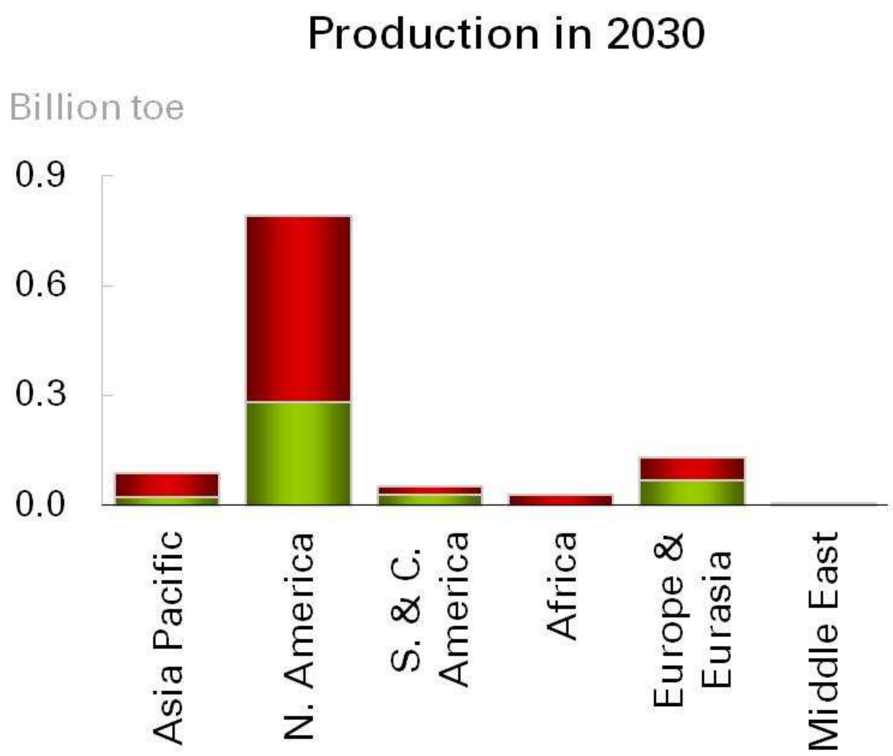
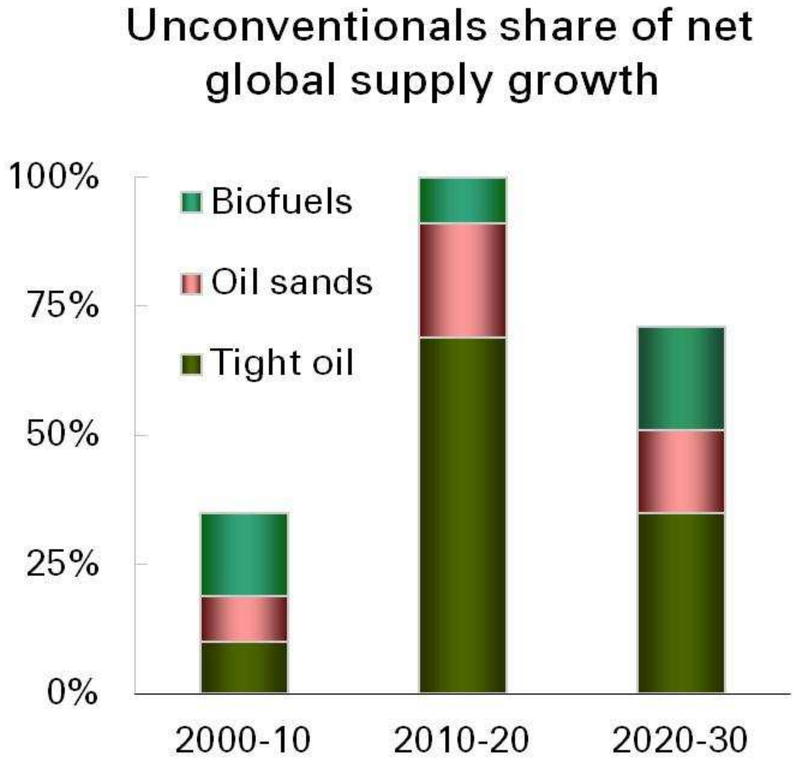
(1) Policy: tight oil and shale gas resources and production

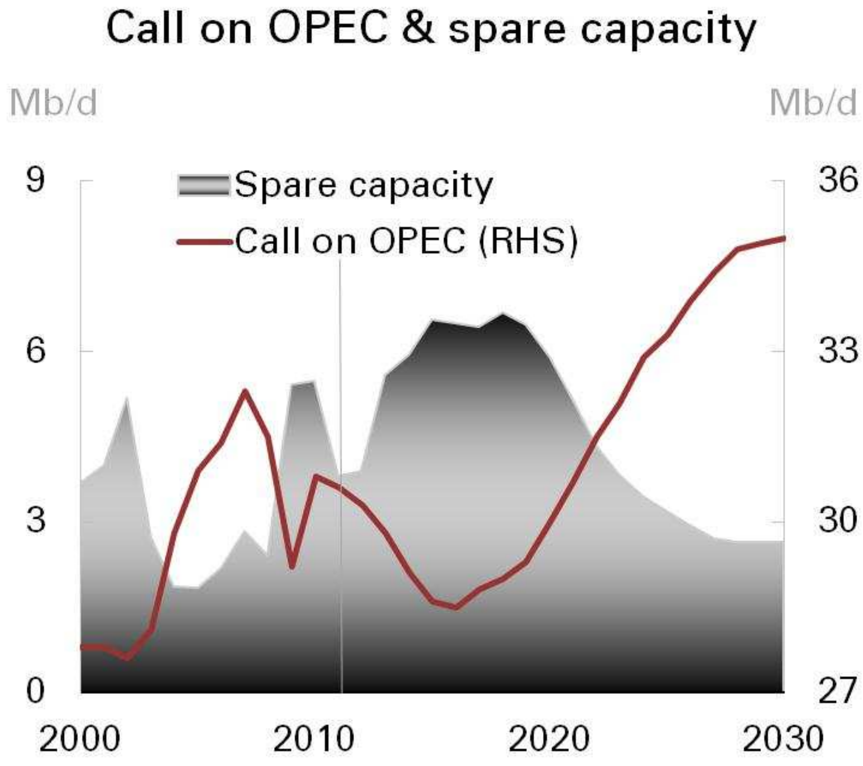




Resources data © OECD/IEA 2012

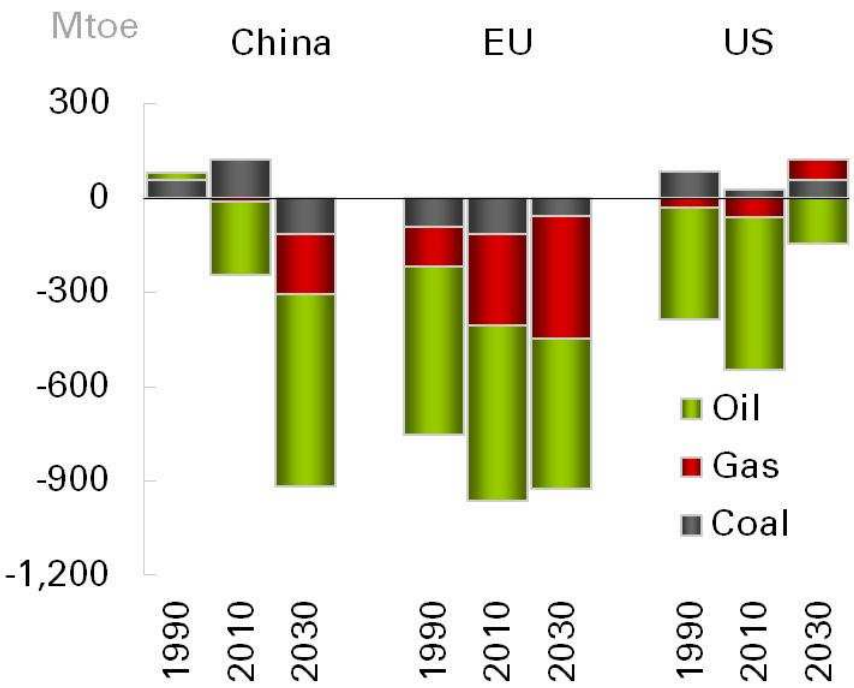
(2) Global oil markets: the call on OPEC



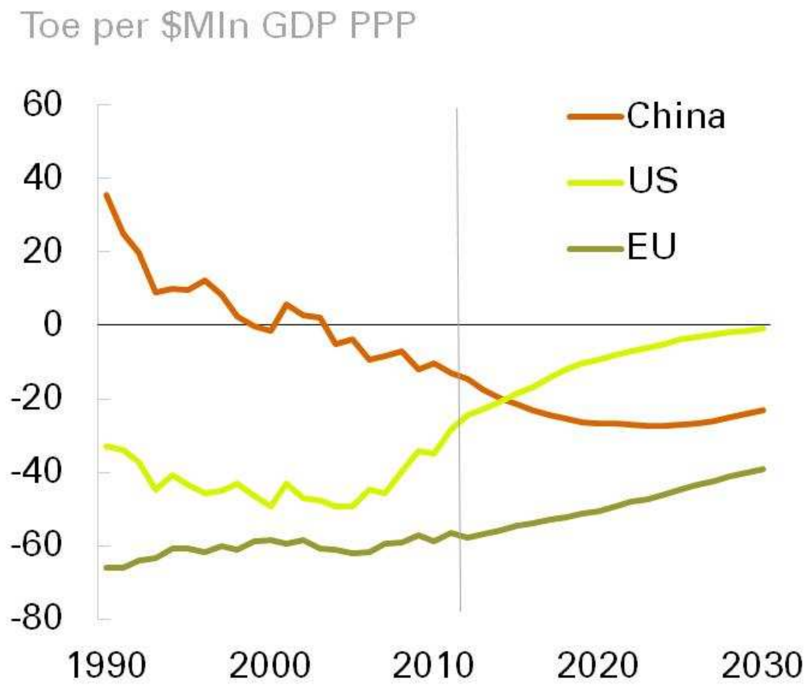


(3) Geopolitics and (4) economics: import profiles

Energy imbalances

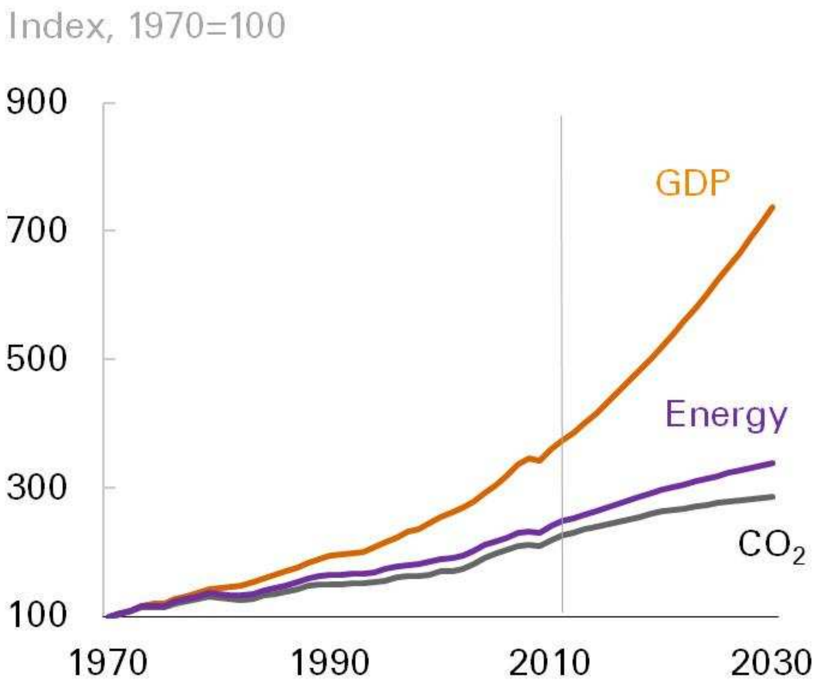


Energy imbalances to GDP ratio

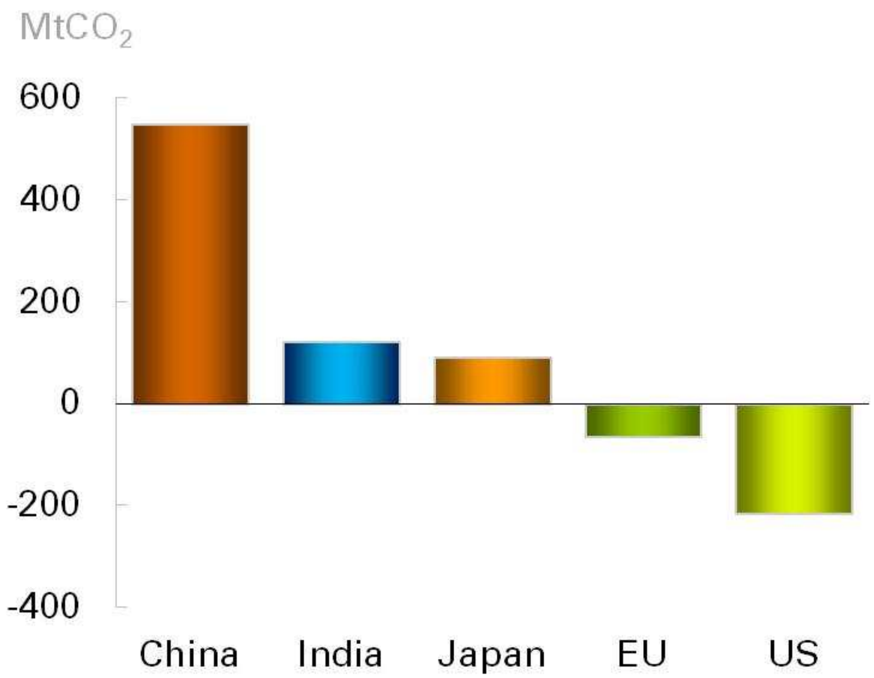


Conclusion

GDP, Energy and CO_2 emissions



Largest emission changes in 2012



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