



Energy markets – the short and the long term

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Outline

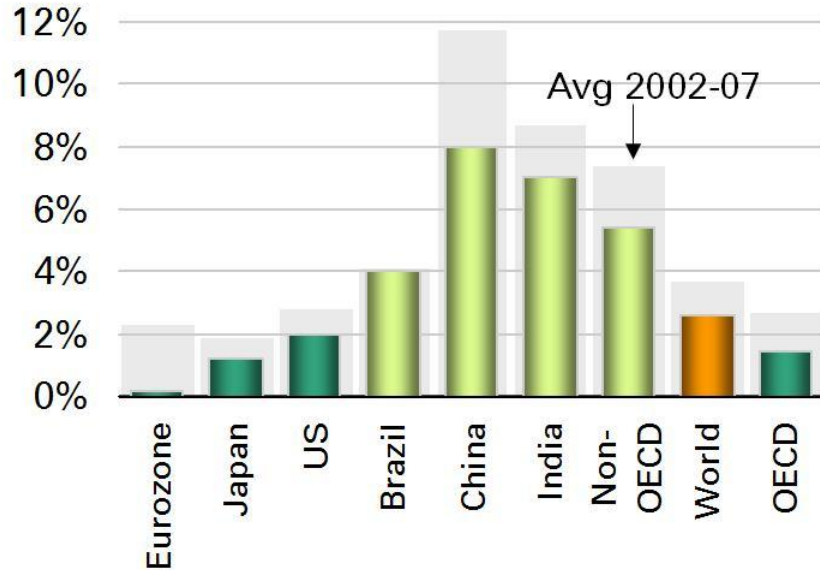
- The economy
 - A year of disruptions
 - Long term implications
 - Conclusion
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Global growth: slow and on life support

2013 GDP and the good old days

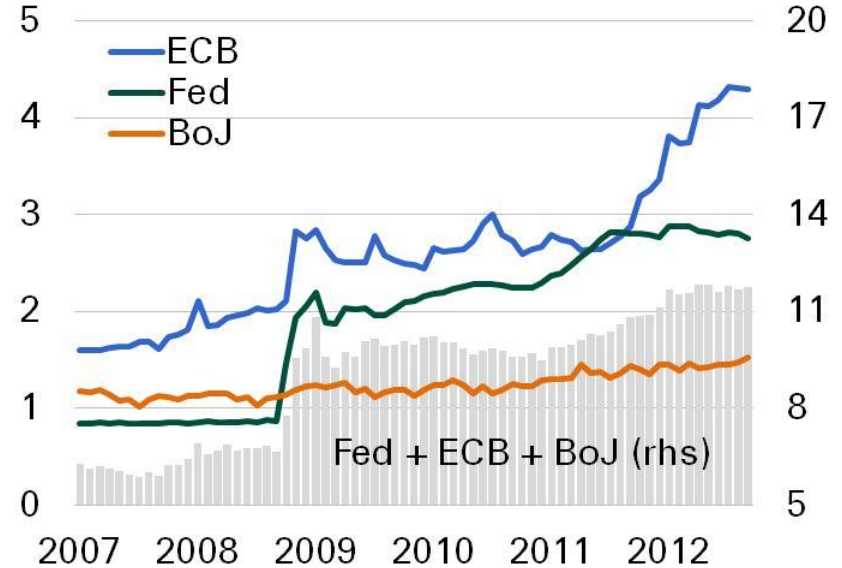
Annual change, %



Central Bank liquidity

Trillion \$US*

% of world GDP

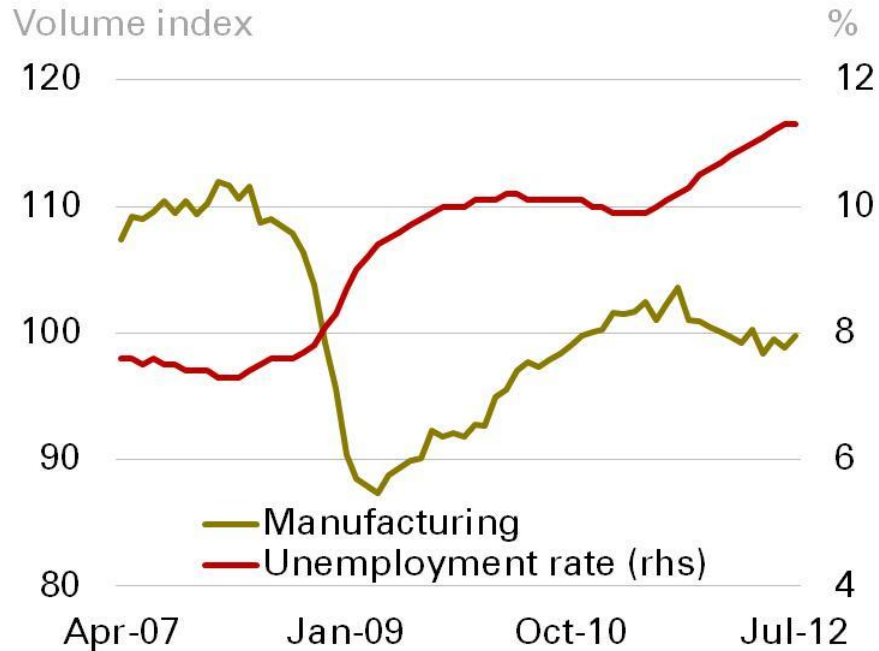


*At constant 2011 exchange rates

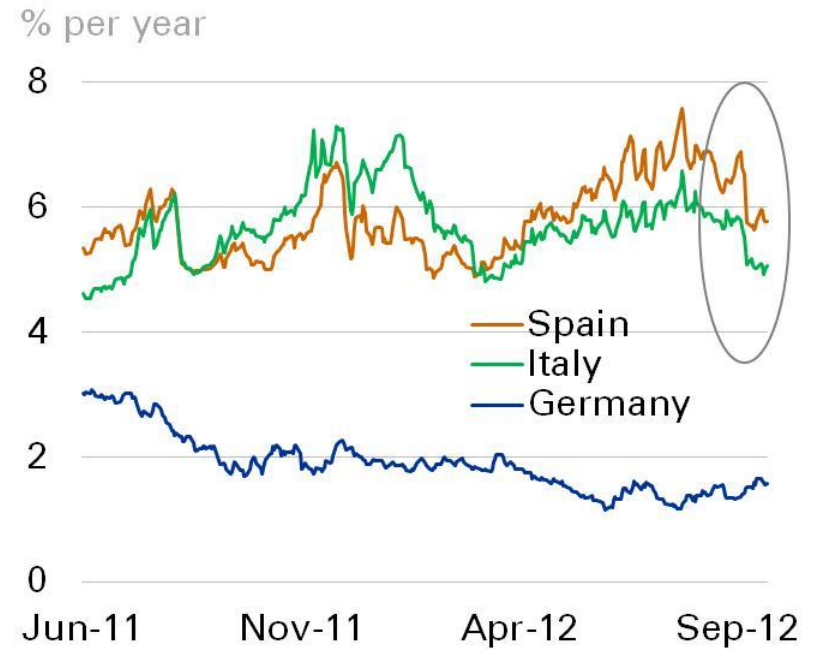


Europe struggles into recession

Eurozone indicators



10-year benchmark bond yields

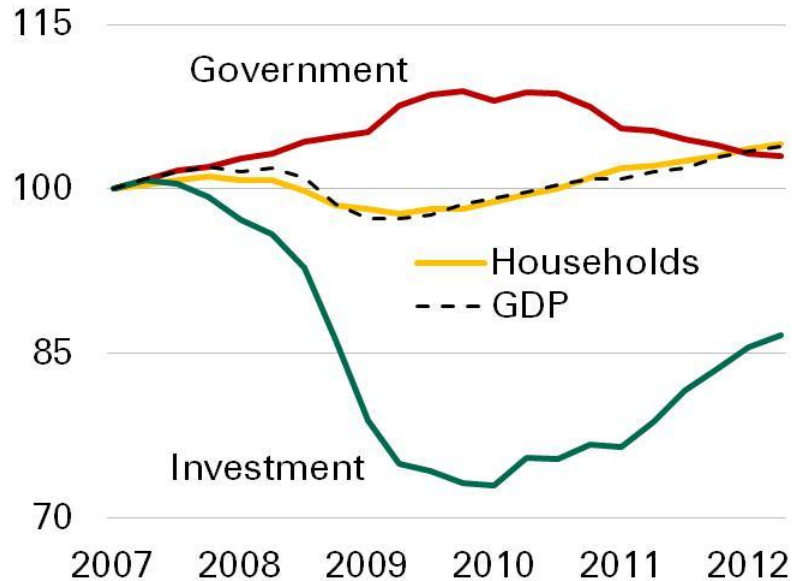




The US grows slowly

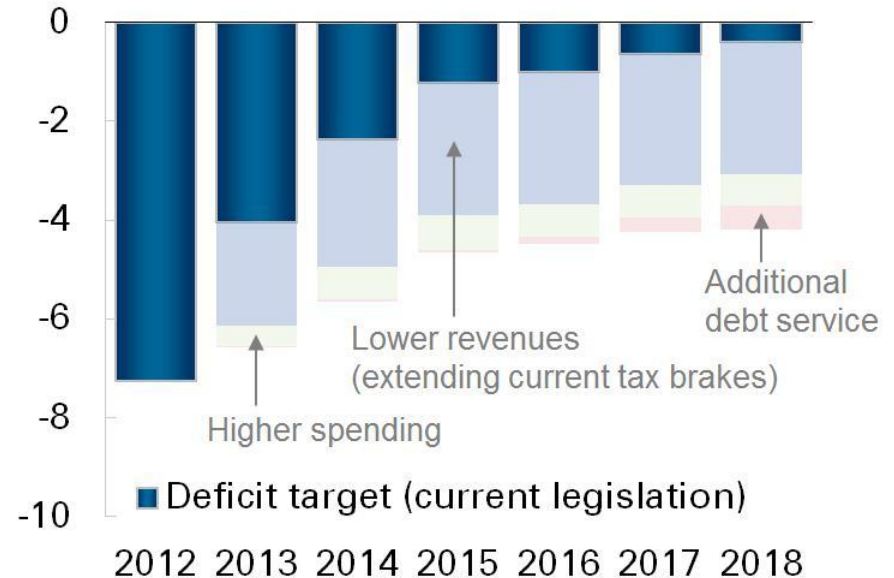
Components of domestic demand

Index: 1Q 2007=100



"Fiscal cliff"

Budget deficit, % of GDP

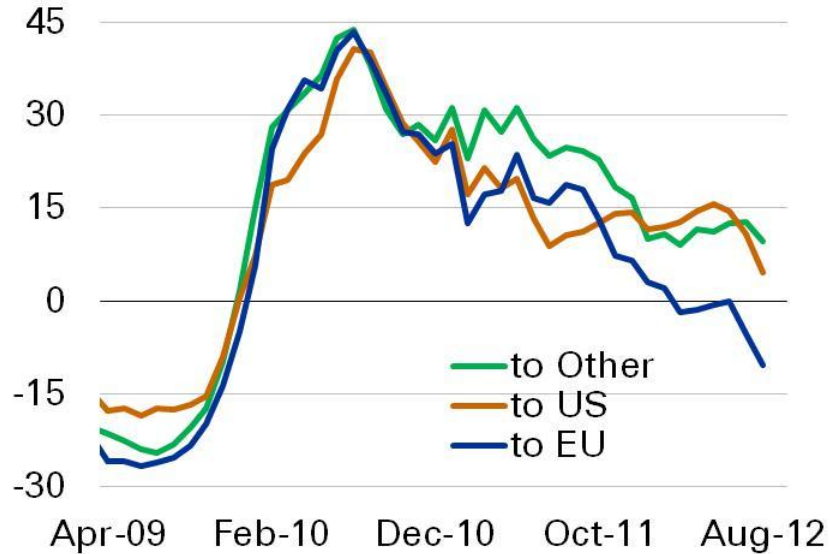




The Chinese economy slows

Exports

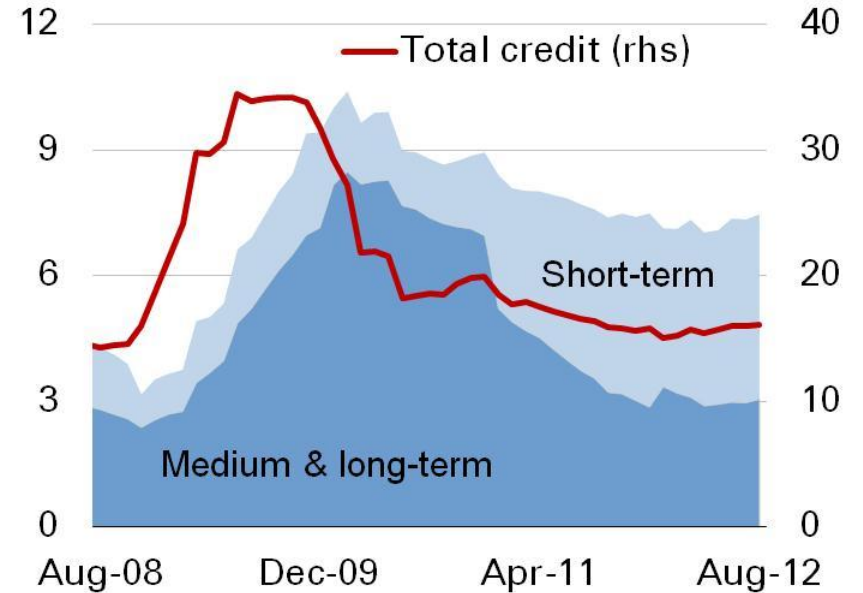
% y-o-y, 3m ma.



Commercial bank loans

Change y-o-y, trillions of CNY

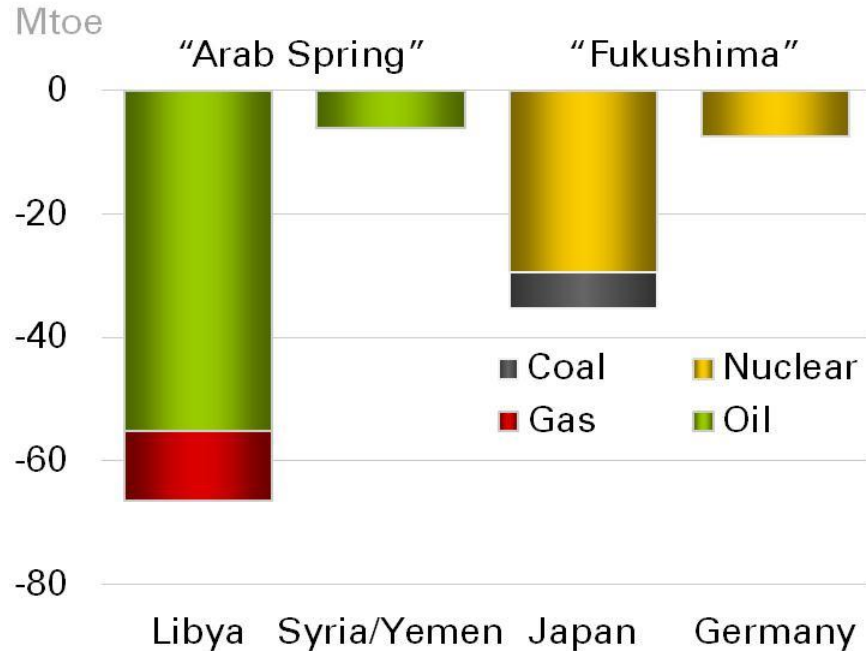
% y-o-y



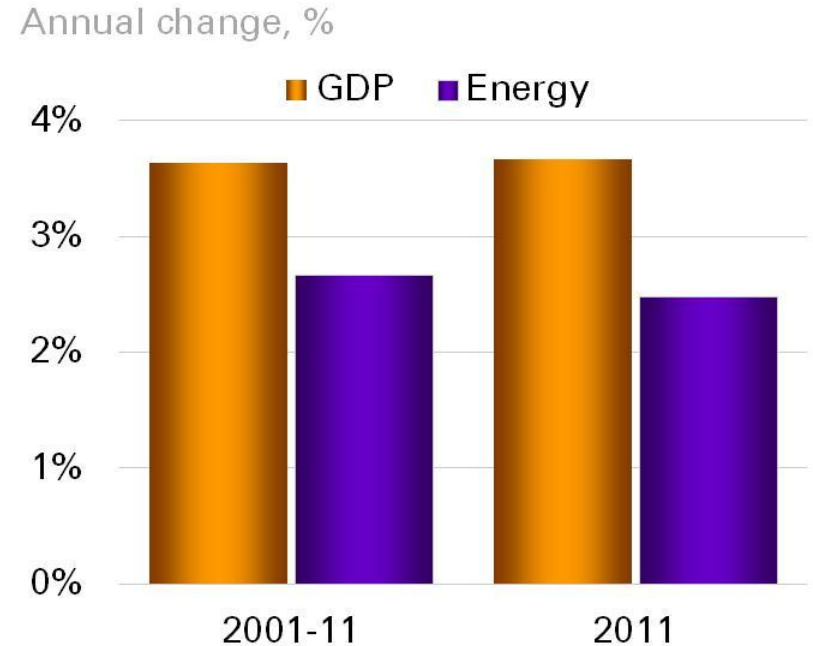


Energy in 2011 – disruptions and continuity

Supply disruptions



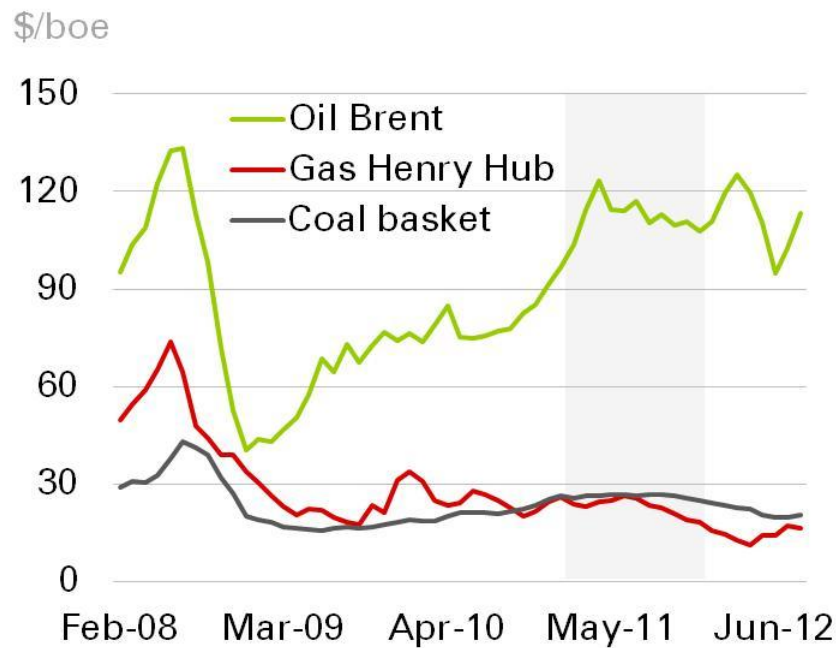
GDP and energy growth



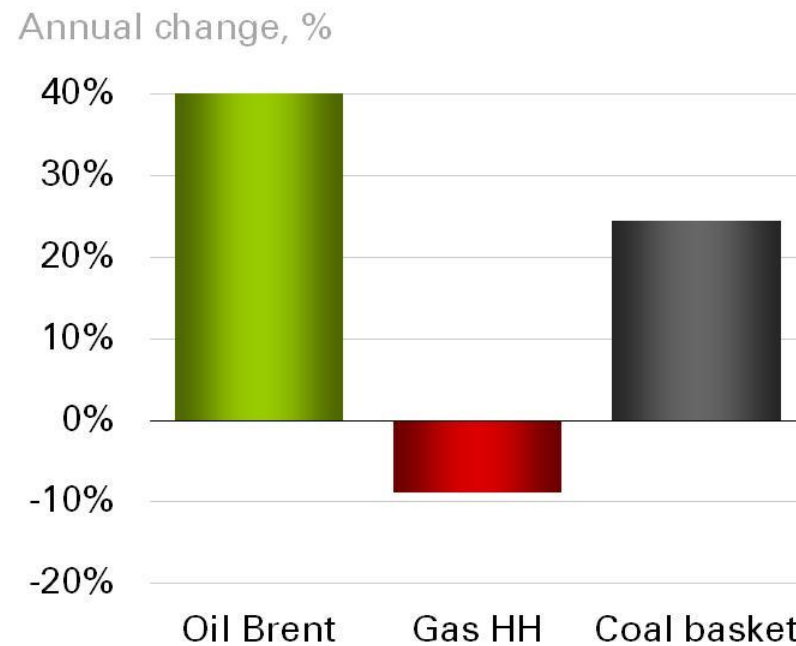


Energy prices

Energy prices



2011 price changes





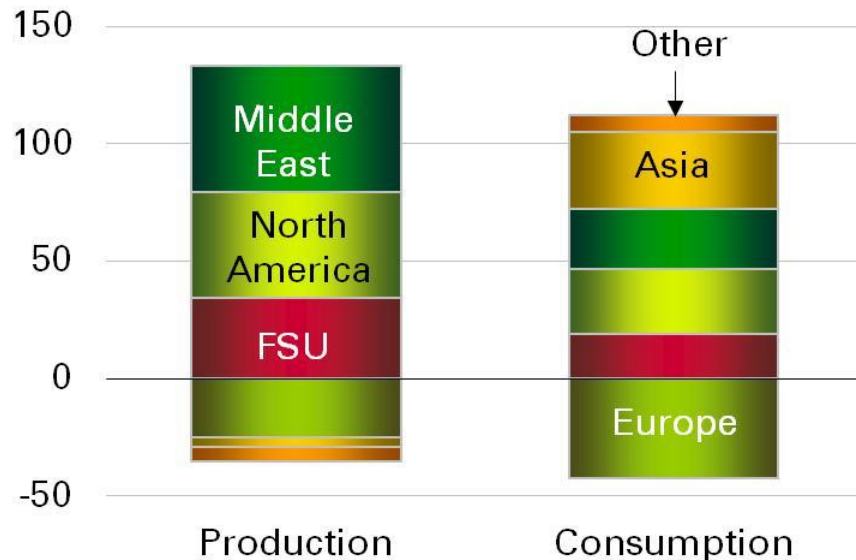
The Fukushima Adjustment



Natural gas markets in 2011

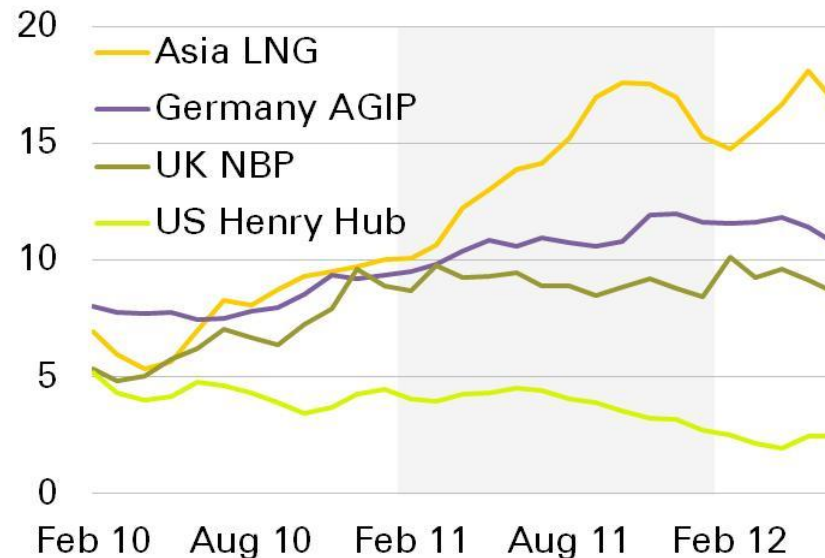
Production and consumption growth

Annual change, Bcm



Regional gas prices

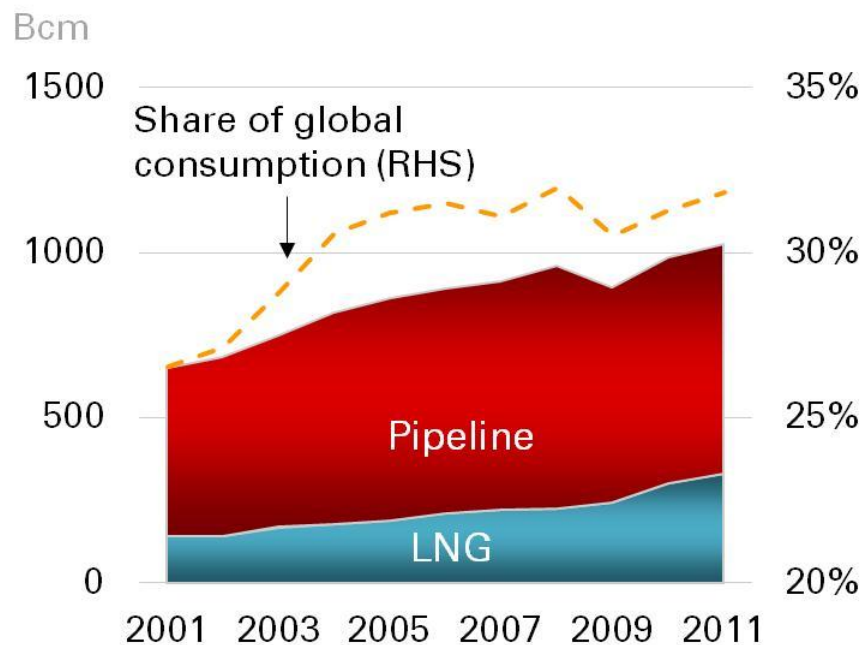
\$/Mmbtu





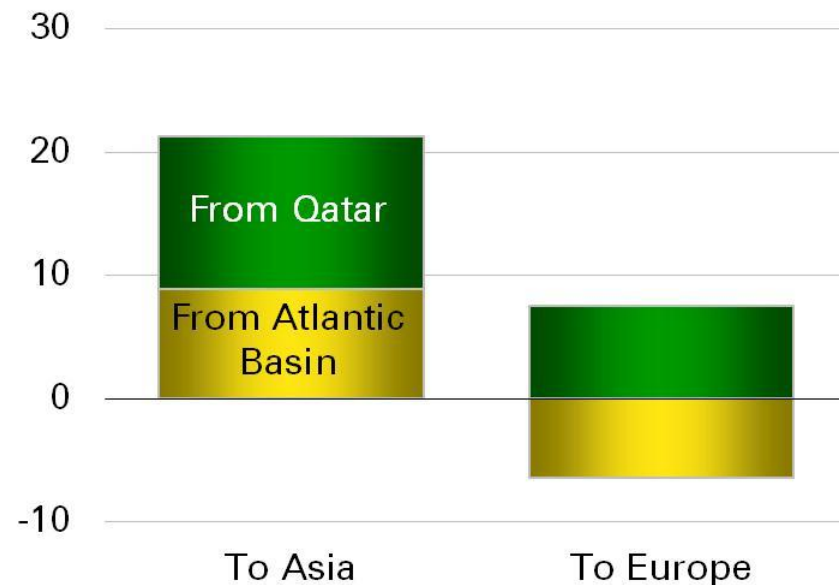
Global gas trade

Gas exports



LNG import growth in 2011

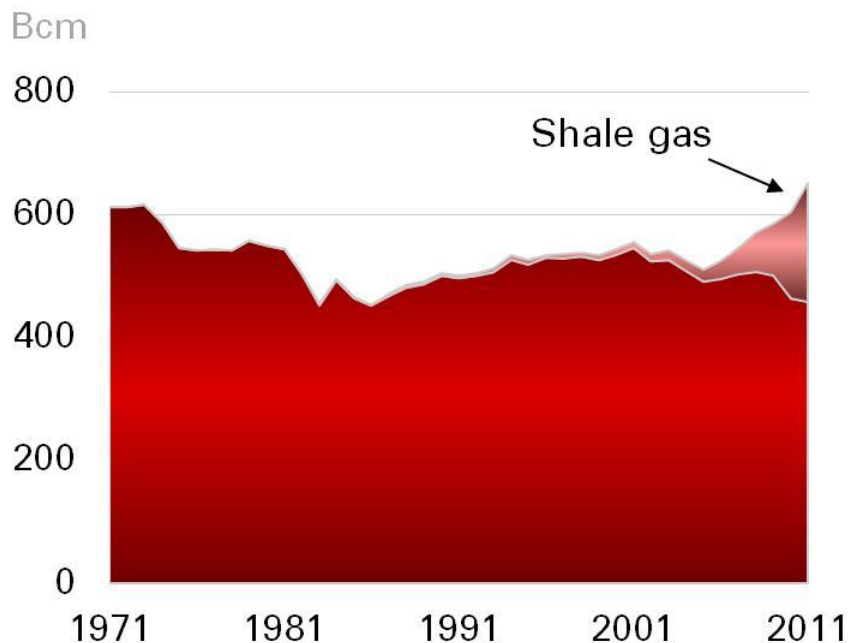
Annual change, Bcm



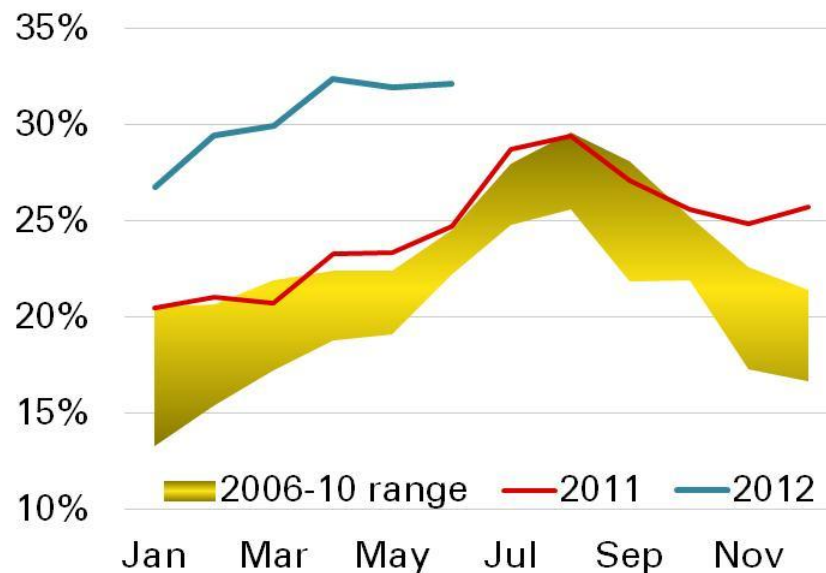


US natural gas market

Production



Gas share in power generation

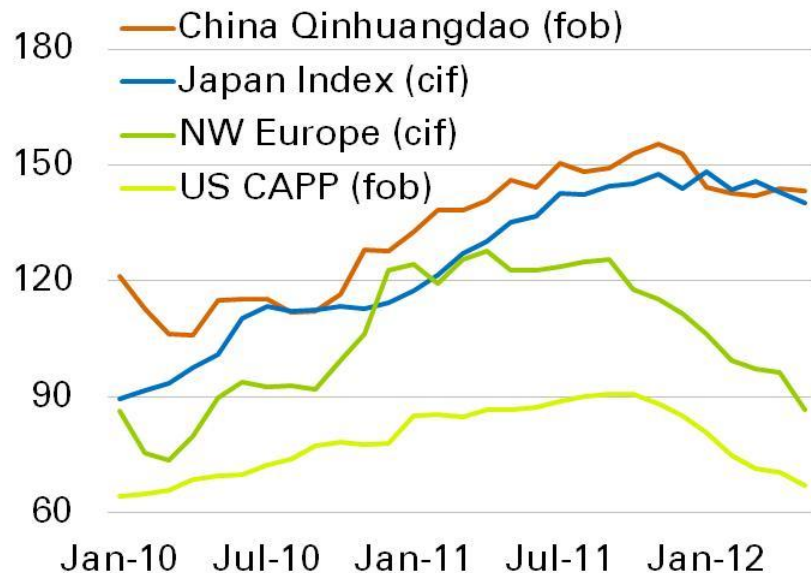




Coal prices and trade

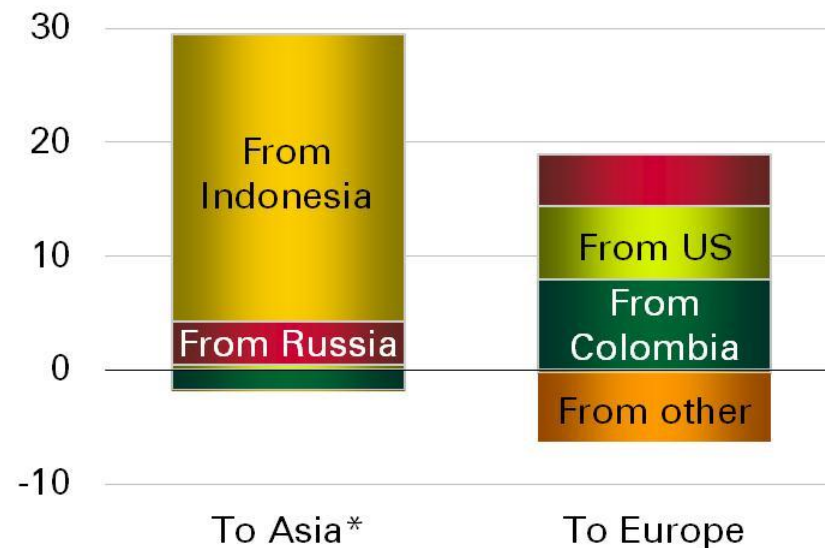
Steam coal prices

\$/tonne



Import growth in 2011

Annual change, Mtoe



*China, India, Japan, South Korea, Hong Kong, Taiwan

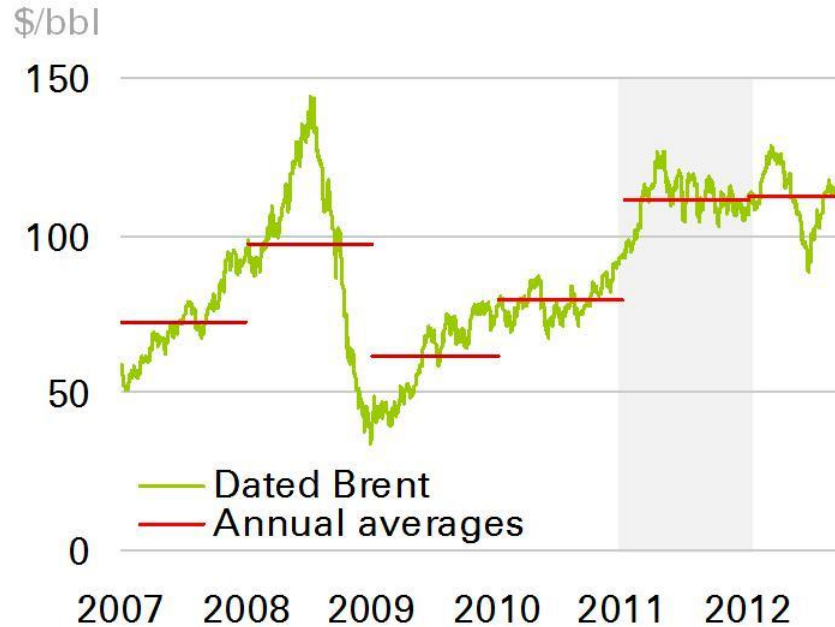
Oil markets and trends



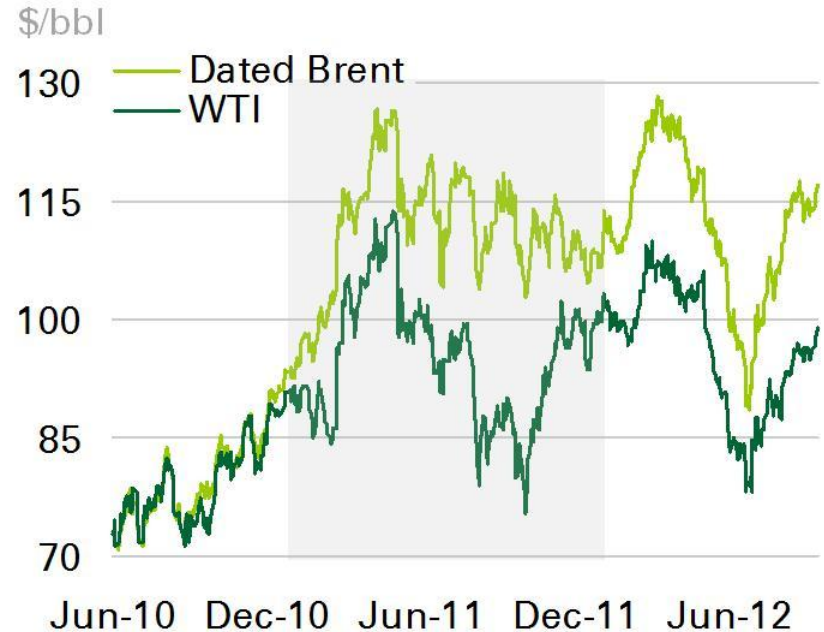


Crude oil prices

Dated Brent

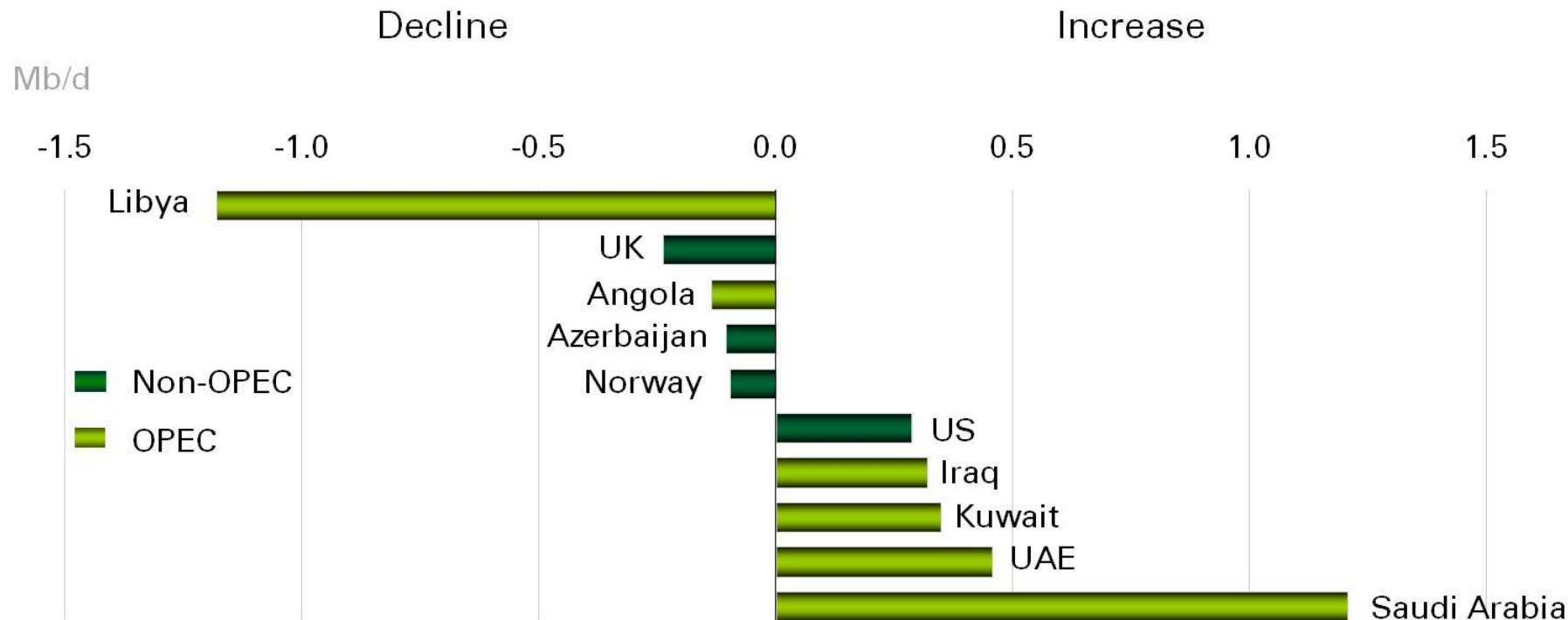


Dated Brent and WTI





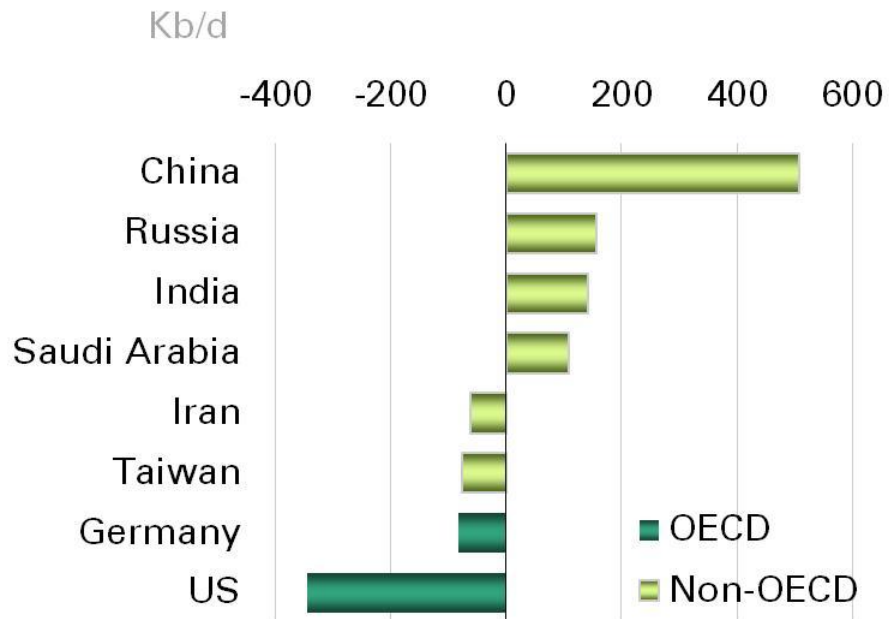
Oil production growth in 2011



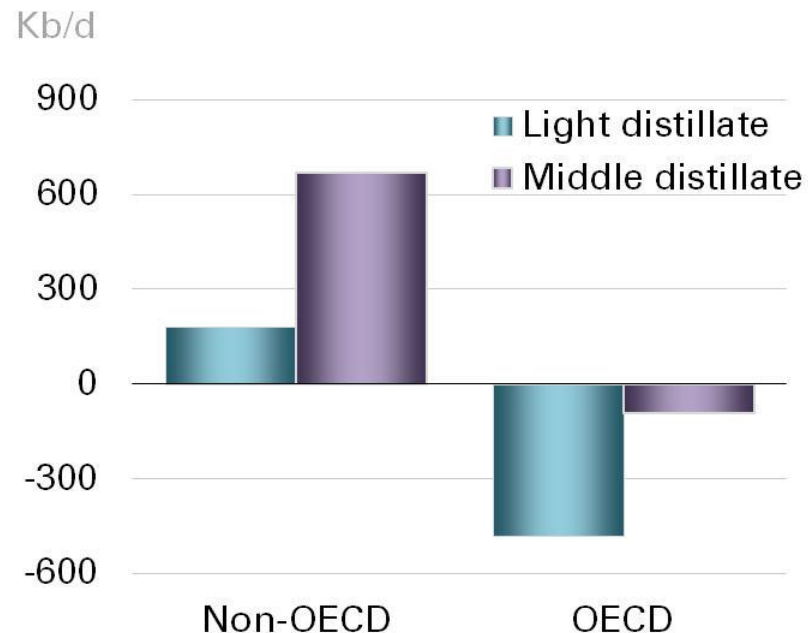


Oil consumption growth in 2011

Largest changes



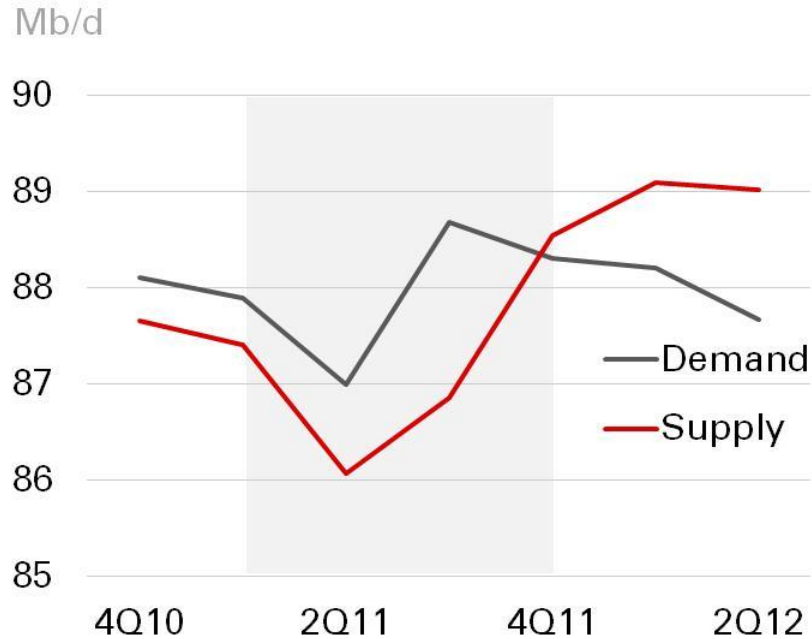
Regional growth by fuel type



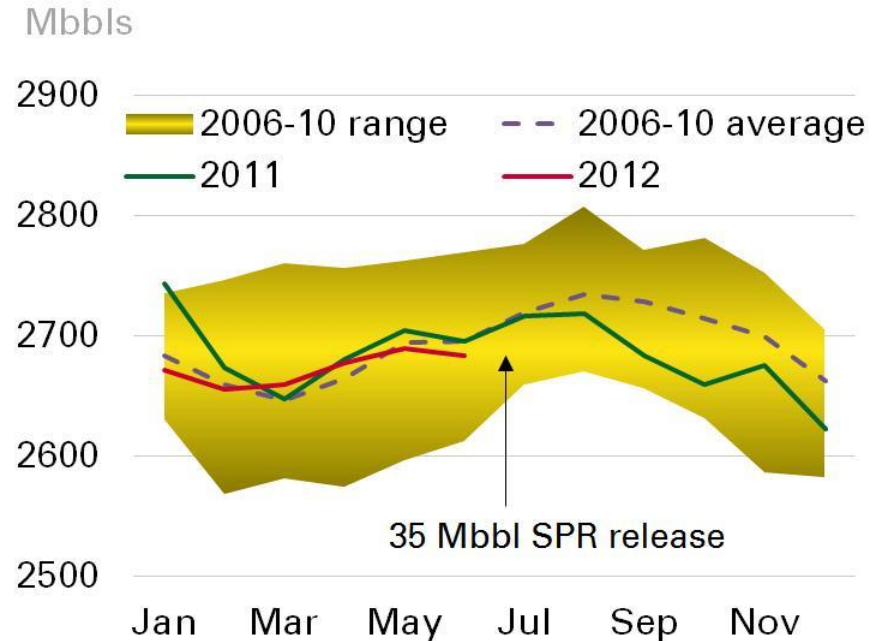


Oil consumption and production

World liquids demand and supply



OECD commercial oil stocks

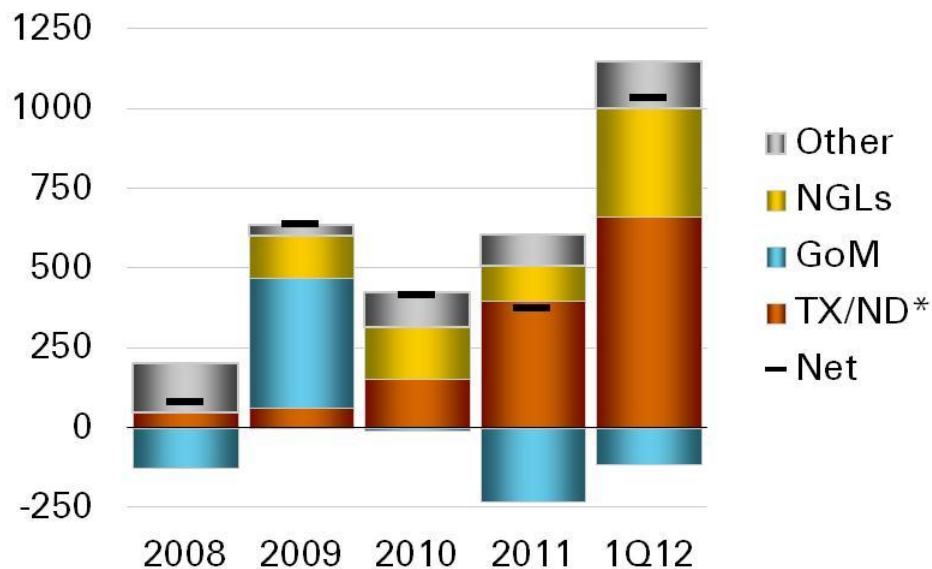


US supply



US supply

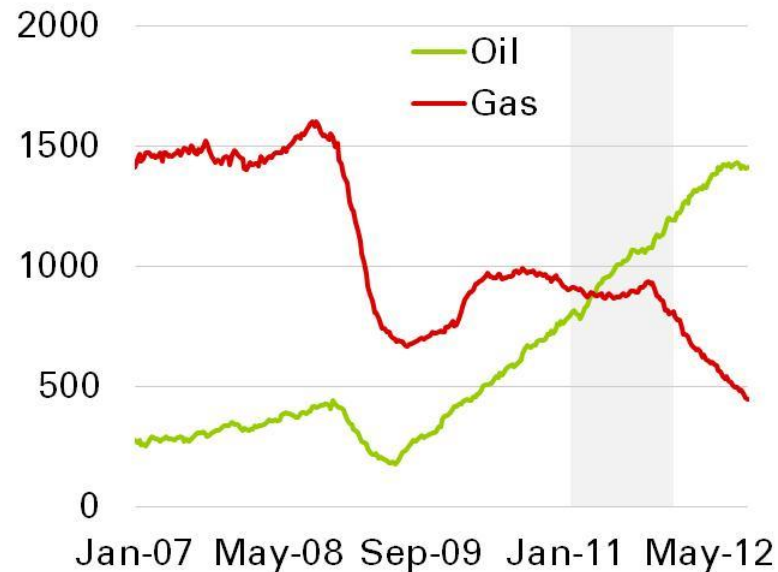
Annual change, Kb/d



*Texas and North Dakota

US rig counts

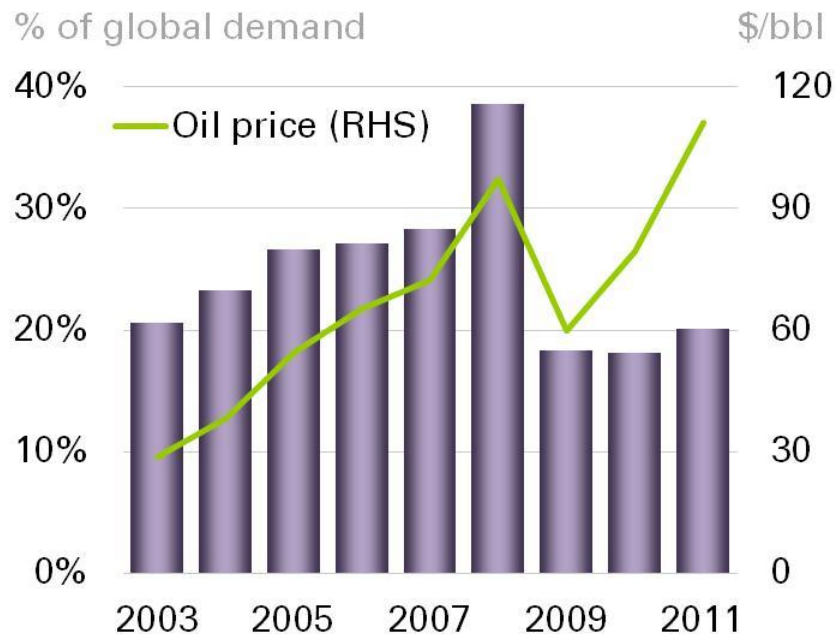
Rigs



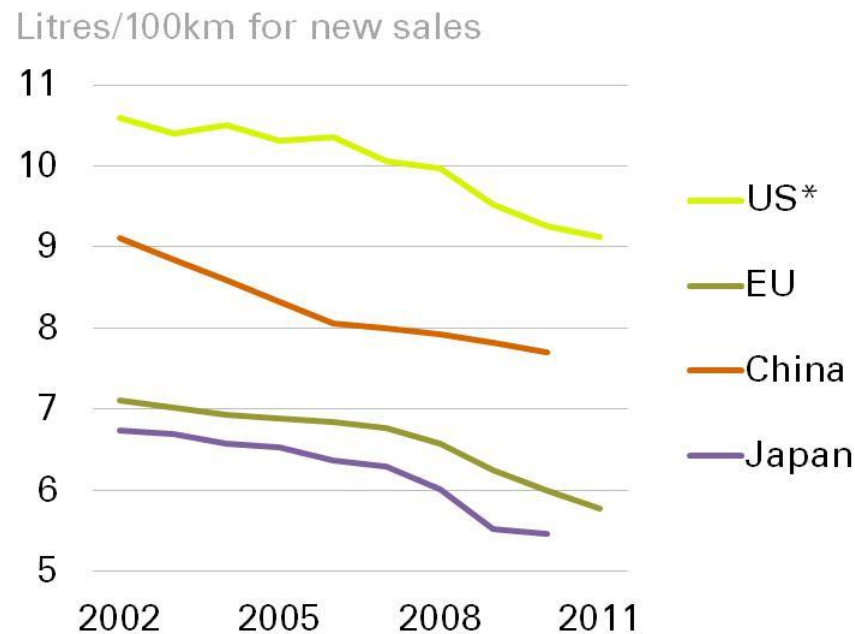


Limits to oil consumption growth

Subsidised consumption



Vehicle fuel economy



* Includes light trucks

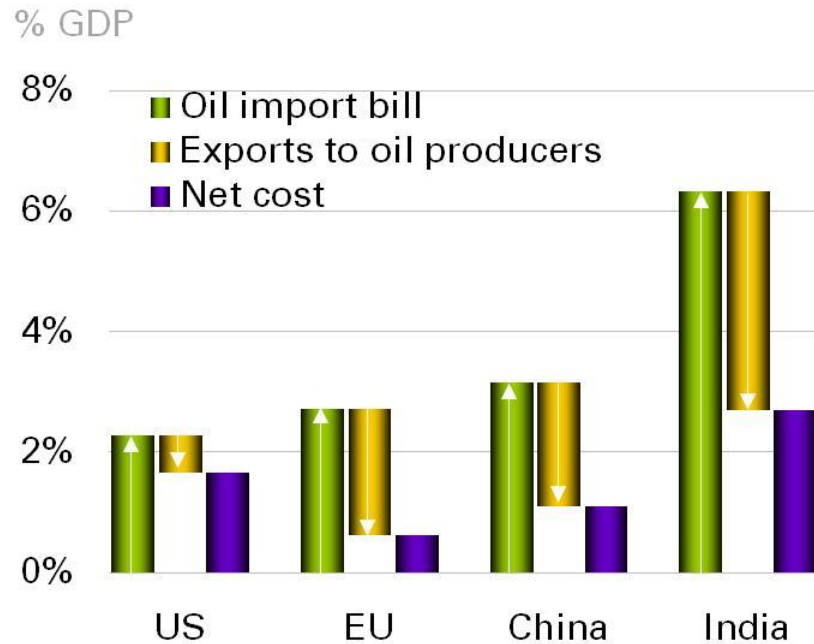


The long term: energy security

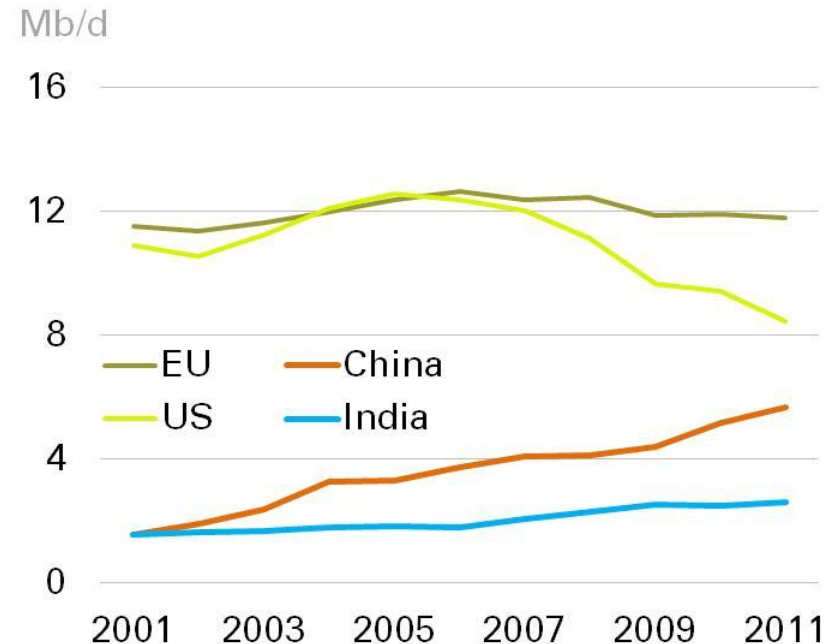


Impact of oil prices on the economy

2011 net oil import bill

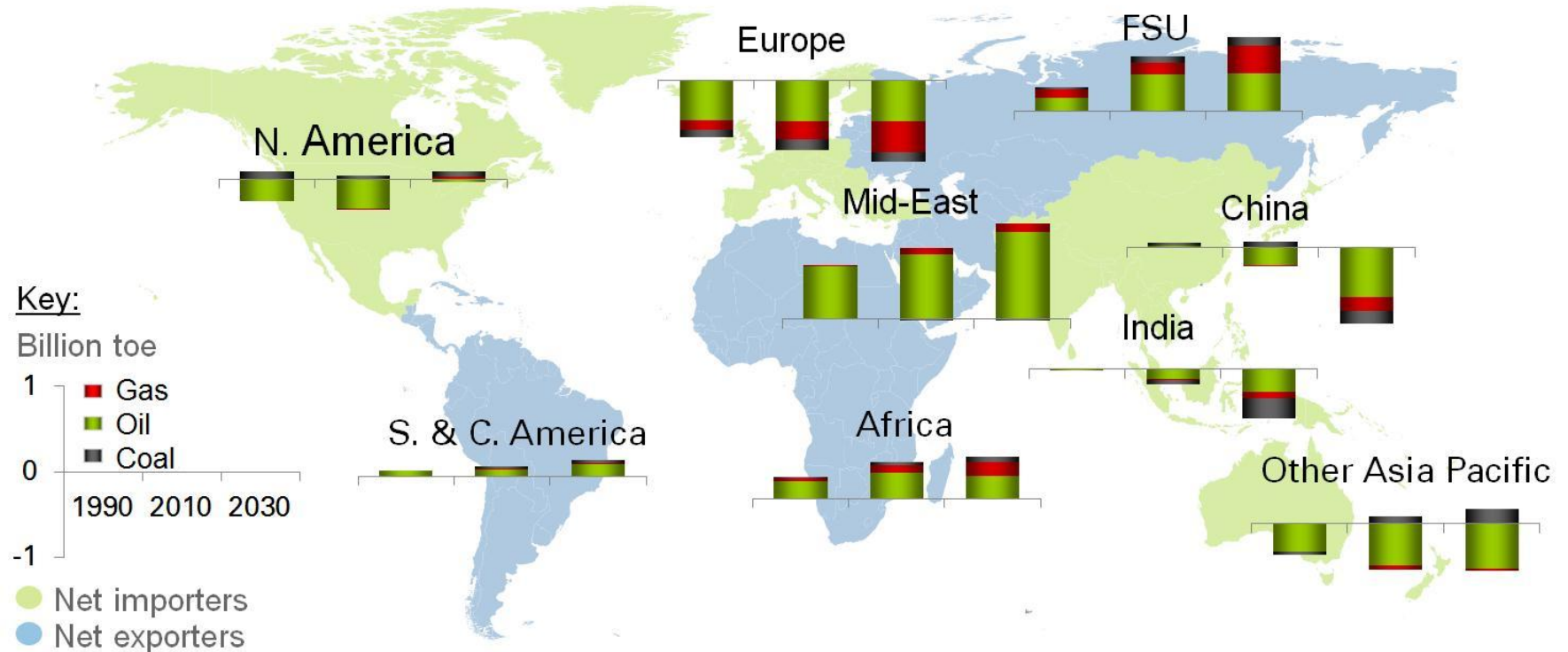


Net oil imports





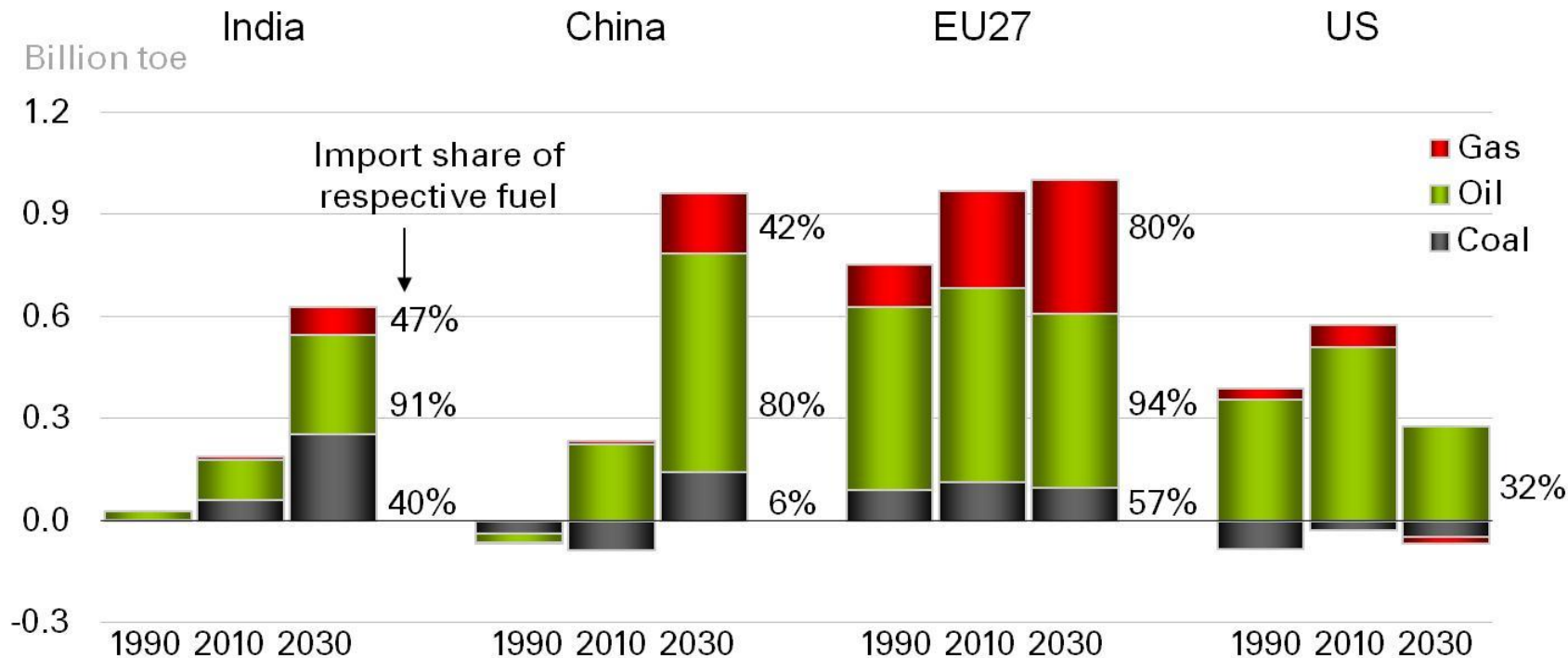
Regional energy imbalances



Source: includes data from the International Monetary Fund



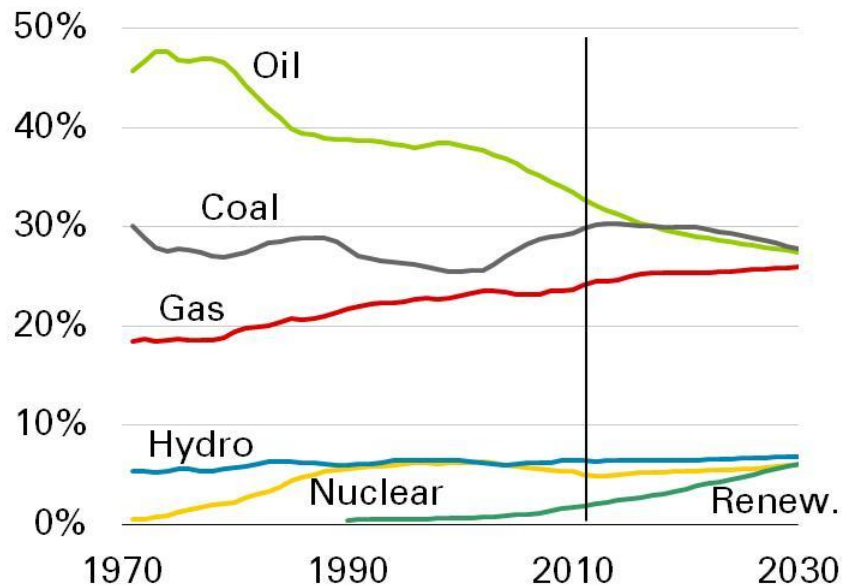
Import dependency rises in Asia and Europe



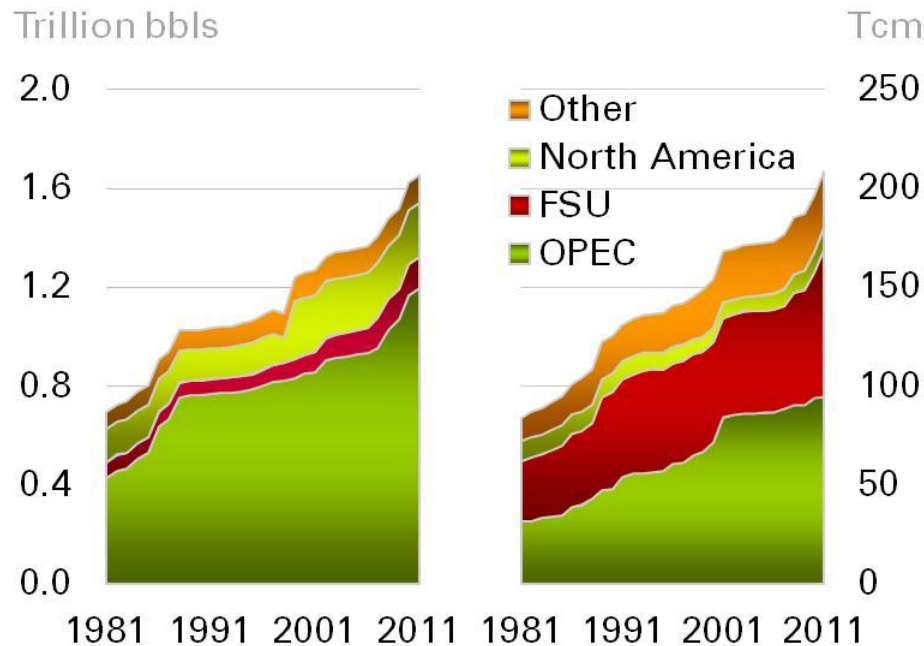


Long-term trends

Shares of world primary energy



Oil and gas reserves





Conclusion

- Key to the 2011 response: flexible markets
 - Medium term: supply response, inter-fuel substitution and trade optimisation
 - Long term: Global integration and its perils
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