Global Energy Markets

Overview, March 2011

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bp

- Long-Term Forecasts

Comparison of the Outlooks

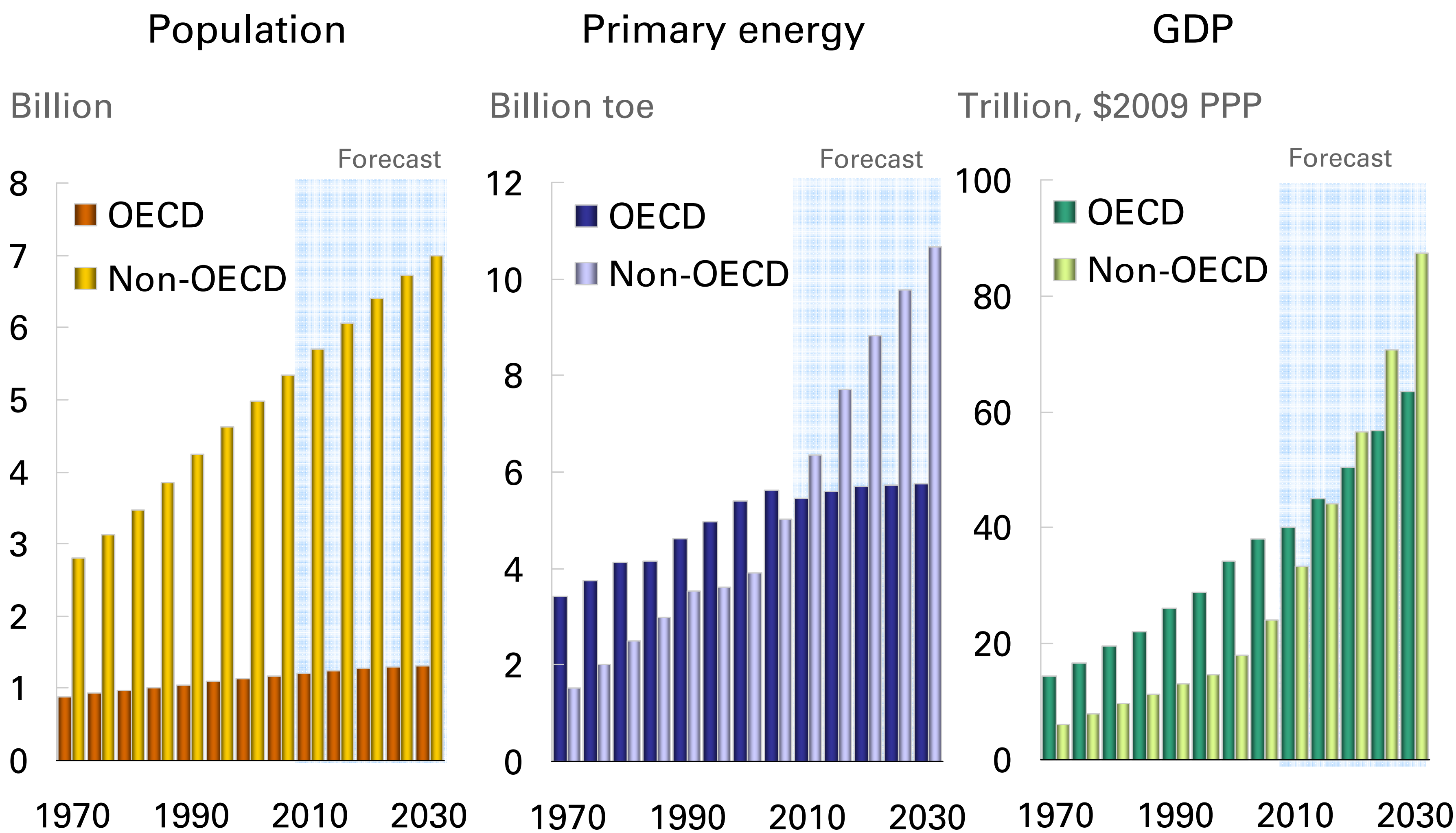
	2010-2030 Projected Growth Rate (%pa)			
	BP Base	BP Policy	Exxon	IEA NP
Primary Energy Consumption				
North America	0.2%	-0.1%	0.1%	0.3%
S&C America	2.3%	2.1%	2.0%	1.7%
Europe & Eurasia	0.7%	0.4%	0.3%	0.5%
Middle East	3.0%	2.7%	2.0%	1.7%
Africa	2.7%	2.6%	2.1%	1.3%
Asia	2.6%	2.2%	1.7%	1.7%
OECD	0.3%	0.0%	0.2%	0.3%
Non-OECD	2.6%	2.3%	1.8%	1.7%
China	3.0%	2.7%	1.8%	1.8%
India	3.9%	3.5%	2.4%	2.5%

Shell do not provide a detailed regional breakdown, but show all the growth in non-OECD

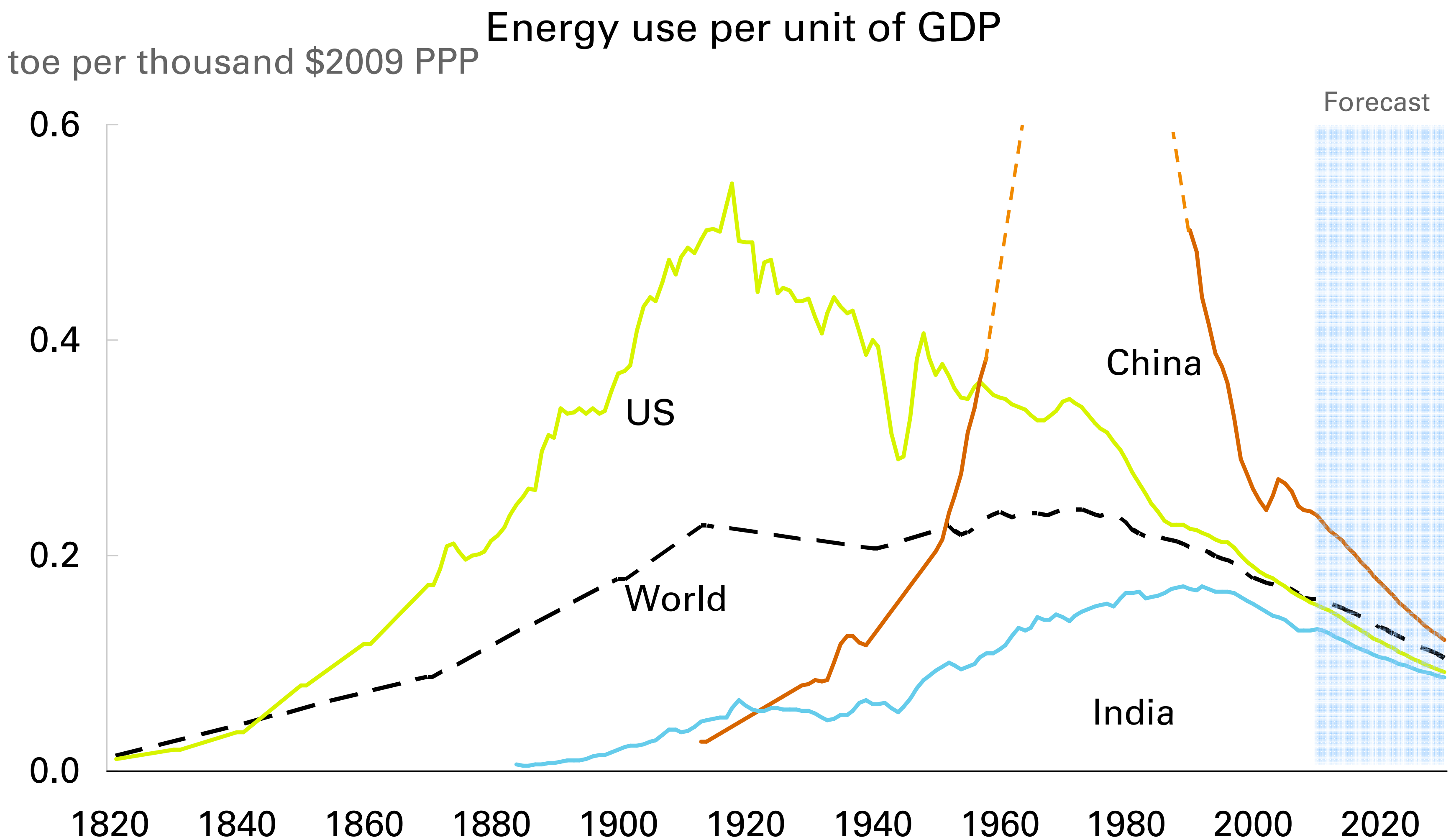
	2010-2030 Projected Growth Rate (%pa)				
	BP Base	BP Policy	Exxon	IEA NP	Shell
World, by fuel					
Primary Energy Consumption	1.7%	1.4%	1.3%	1.3%	1.7%
Liquids	0.9%	0.6%	0.8%	0.9%	0.8%
Gas	2.1%	1.9%	1.9%	1.4%	2.0%
Coal	1.2%	-0.1%	0.2%	0.6%	1.3%
Nuclear	2.9%	3.6%	2.9%	2.6%	2.8%
Hydro	2.0%	2.4%	2.0%	2.2%	*
Renewables	8.6%	10.1%	5.8%	6.7%	9.8%

* Shell do not show hydro separately, and it is not entirely clear in their table where it been included

The world we live in

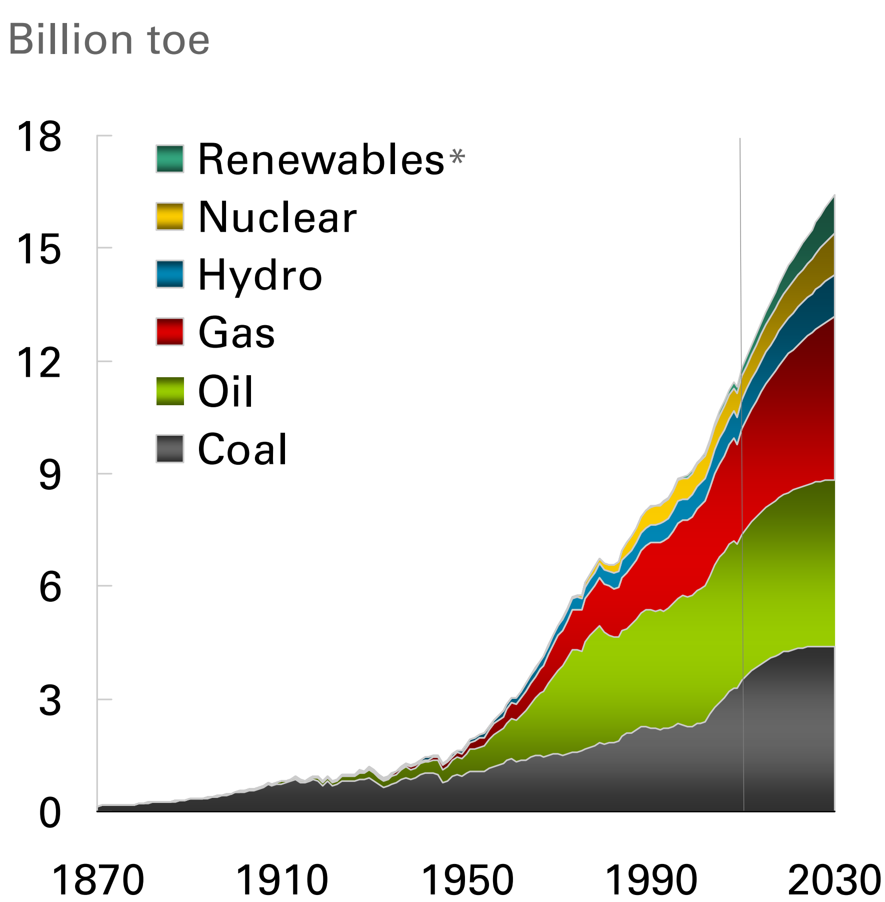


Historical trends and patterns of development



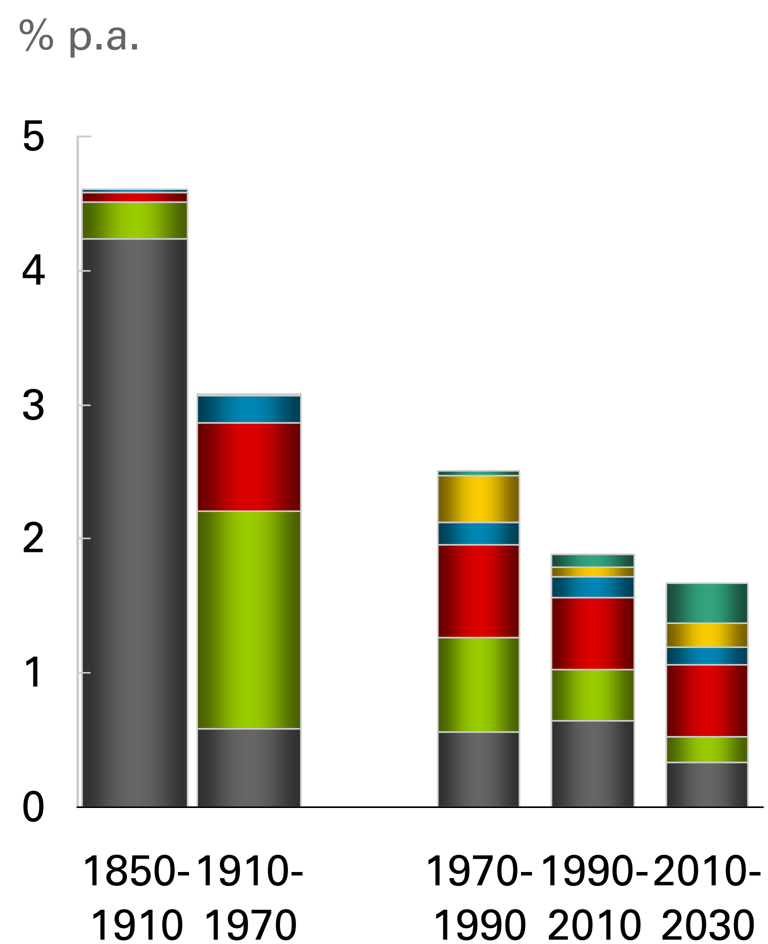
The long view: Energy consumption and fuel mix…

World commercial energy use



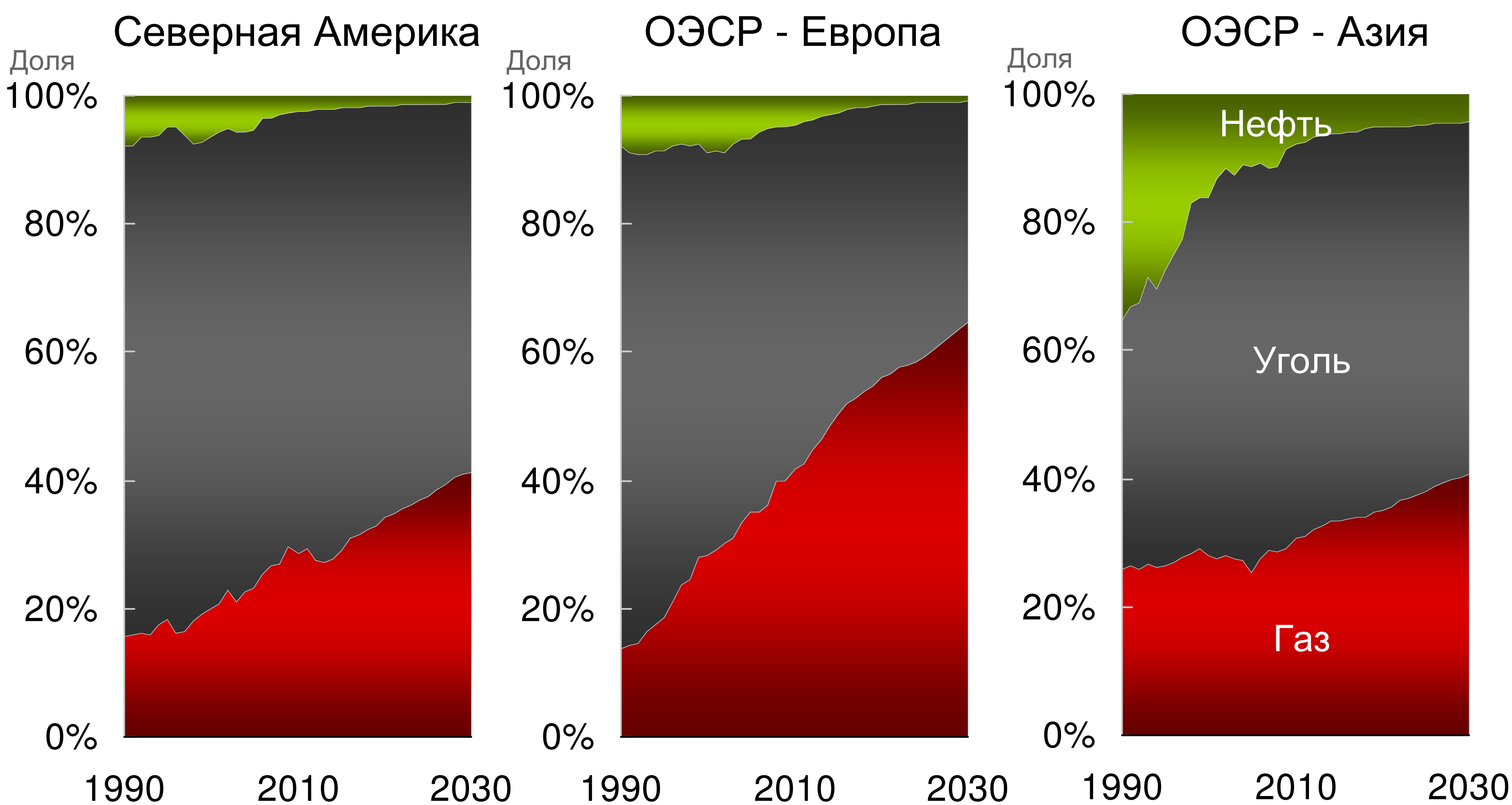
* Includes biofuels

Contribution to total energy growth



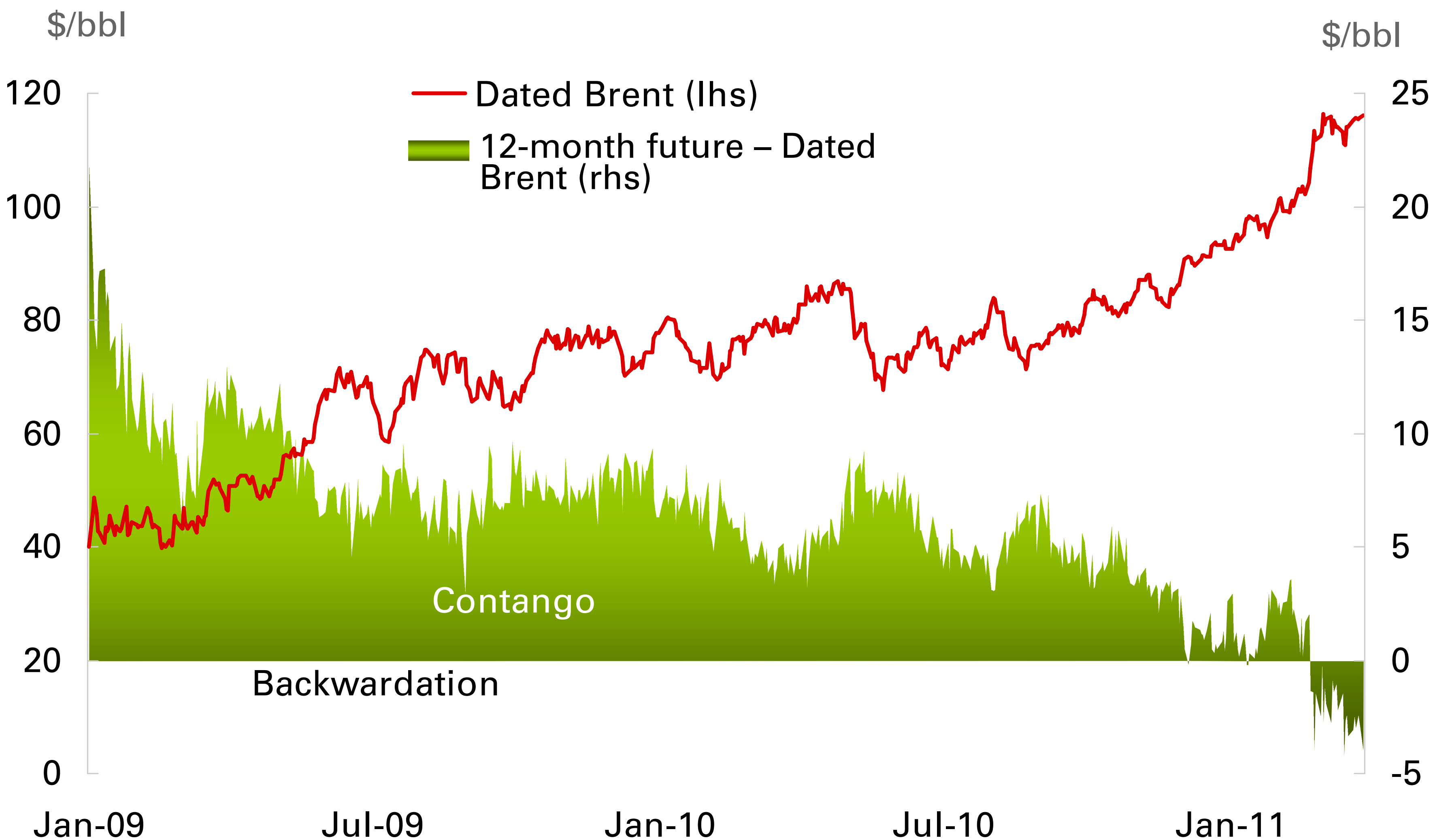
Газ вытесняет уголь в в выработке электроэнергии стран-членов ОЭСР

Доля энергии, производимой на основе ископаемых видов топлива

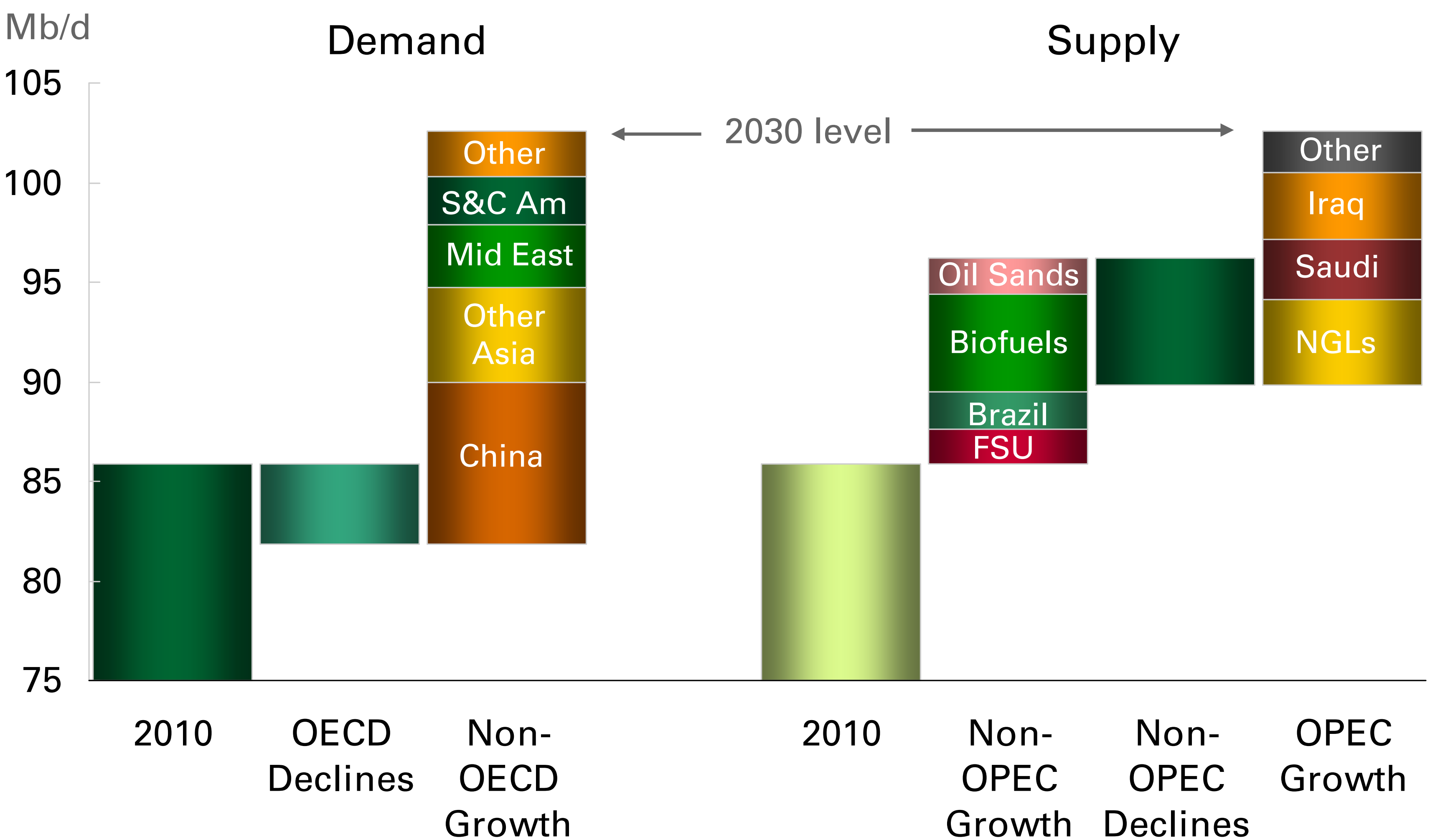


- Oil Markets

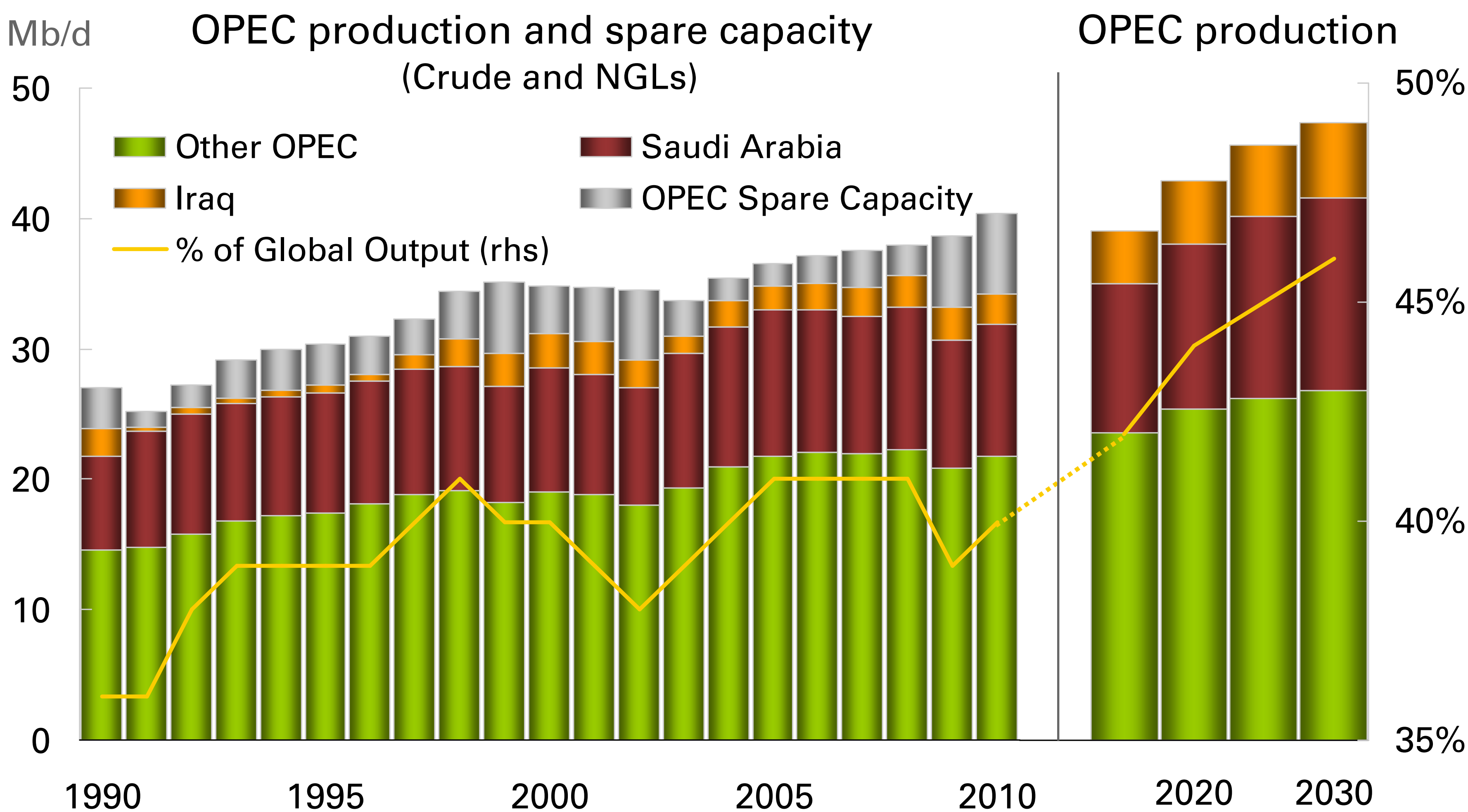
Crude prices rise, backwardation returns



Liquids demand growth from non-OECD countries…

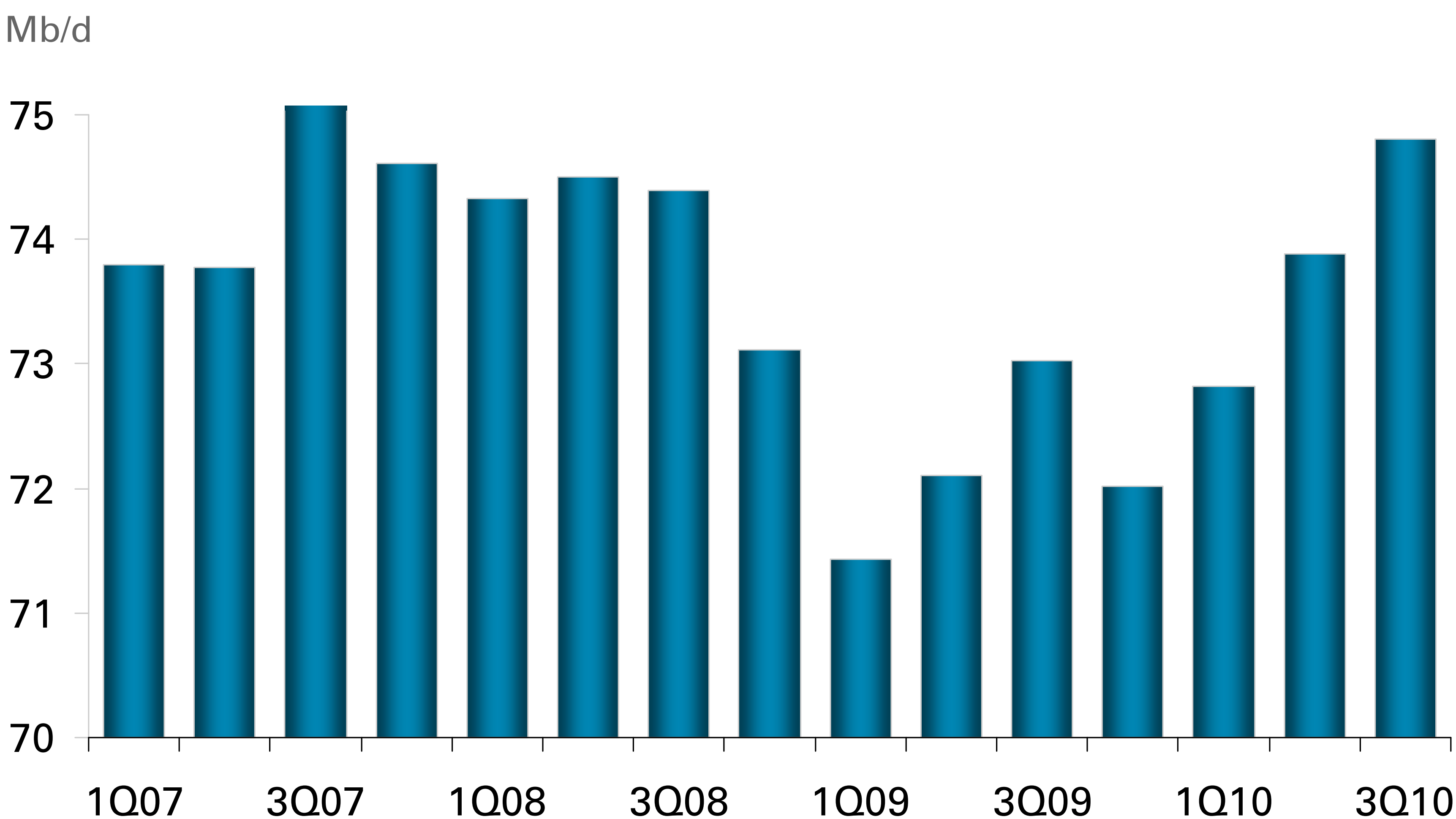


OPEC's critical role in the oil market continues...

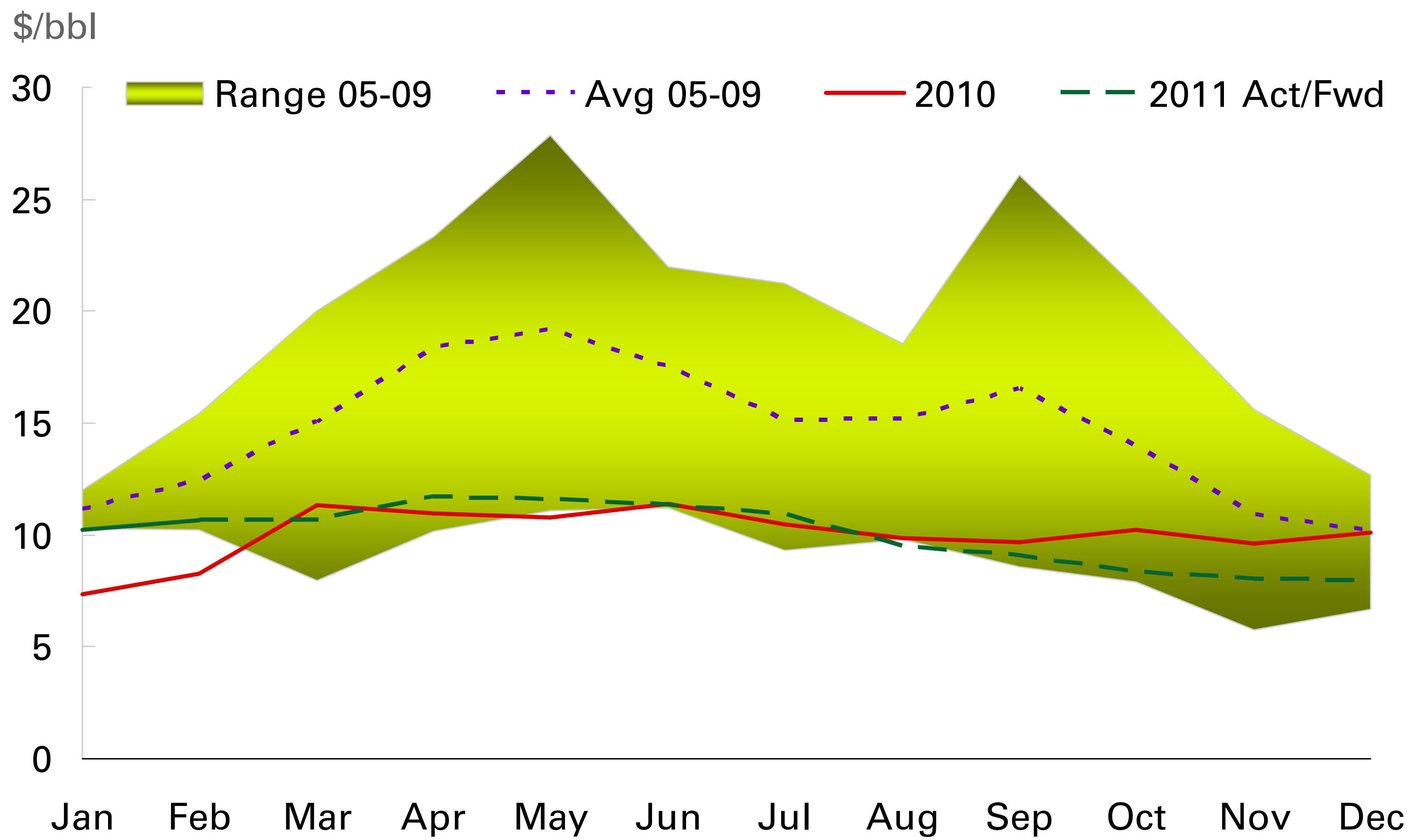


Refining Markets

Global Crude Runs

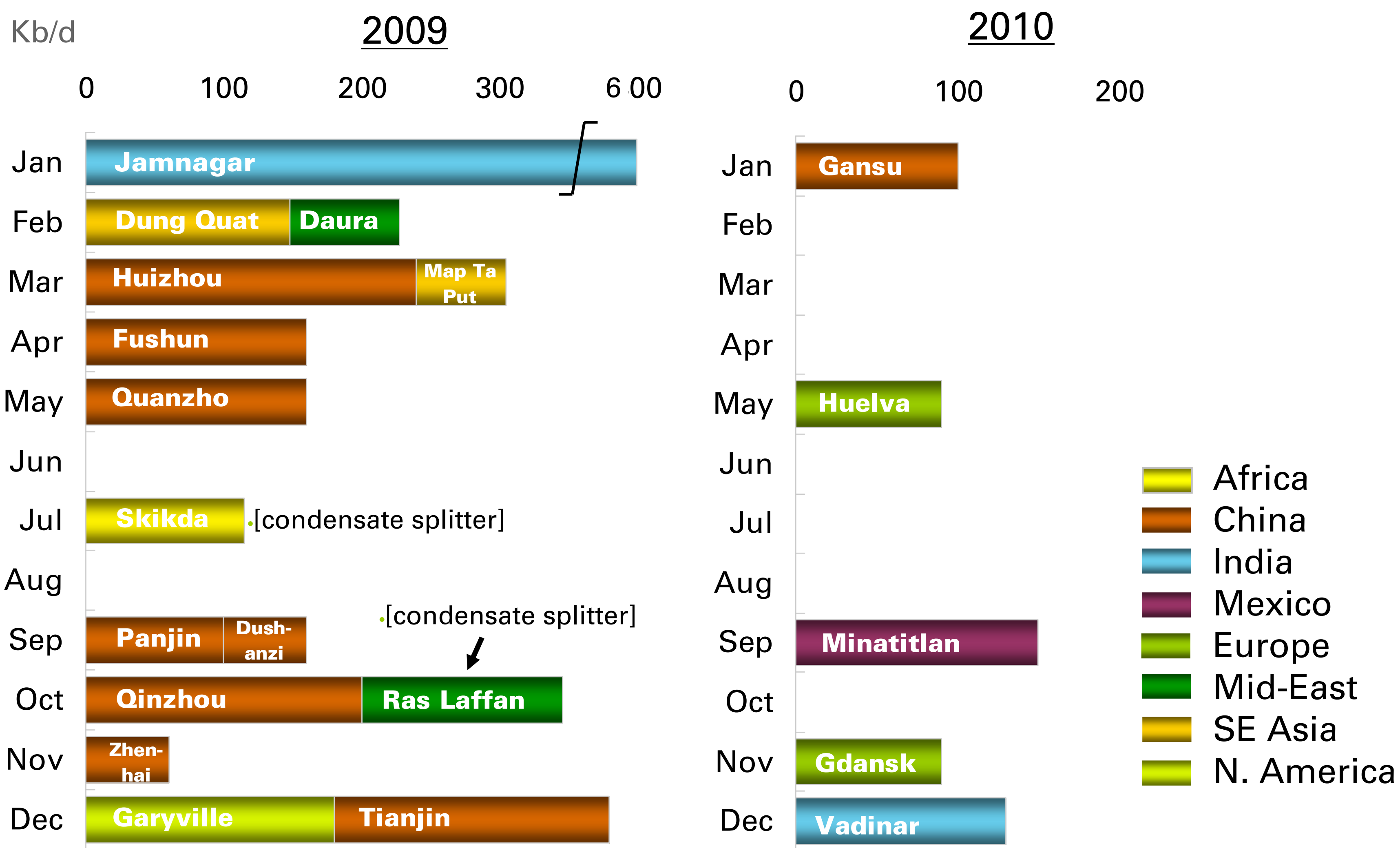


Forward Refining Marker Margin



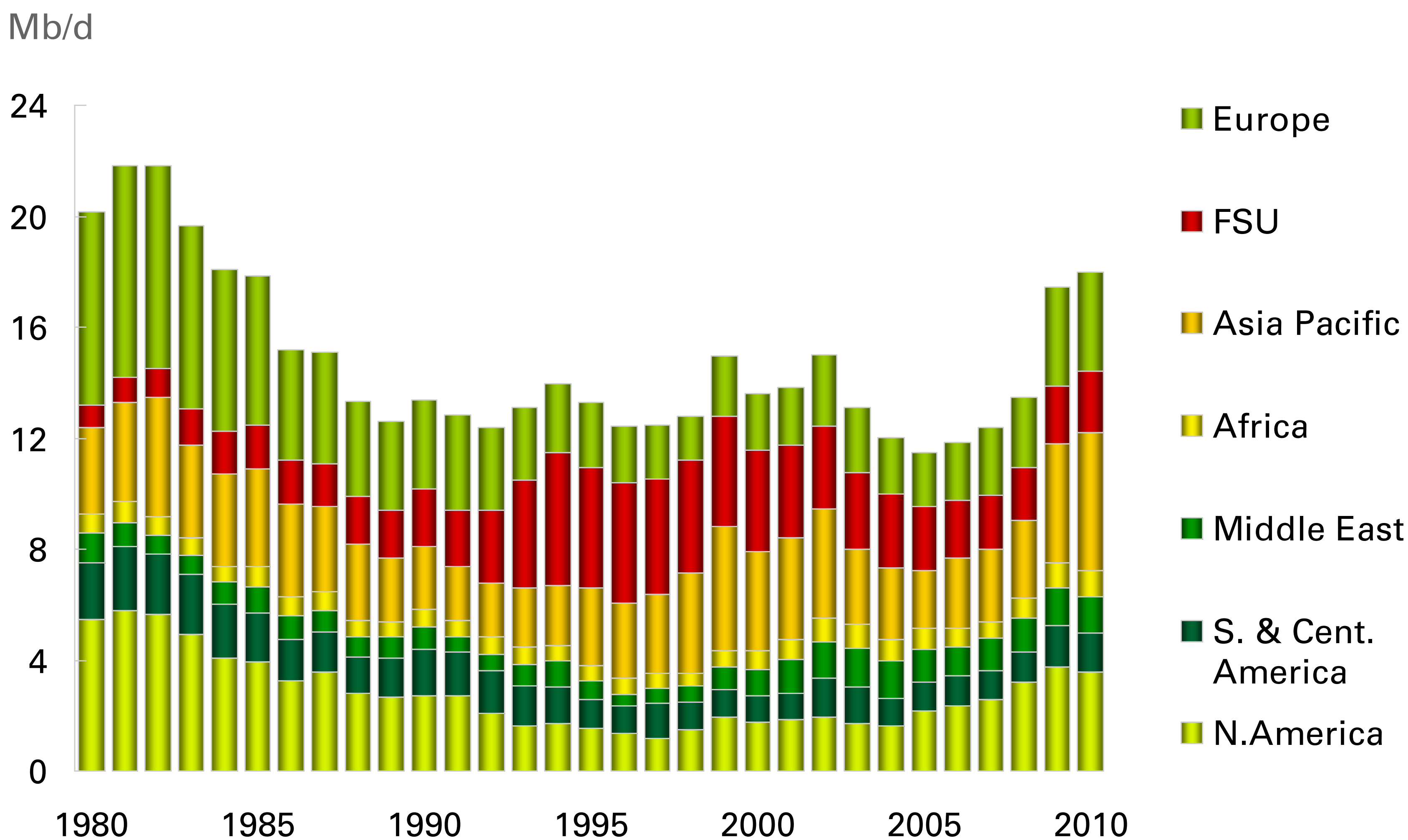
source: Platts & bpriskmanager data

2009-10 Project Start-Ups Front-End Loaded



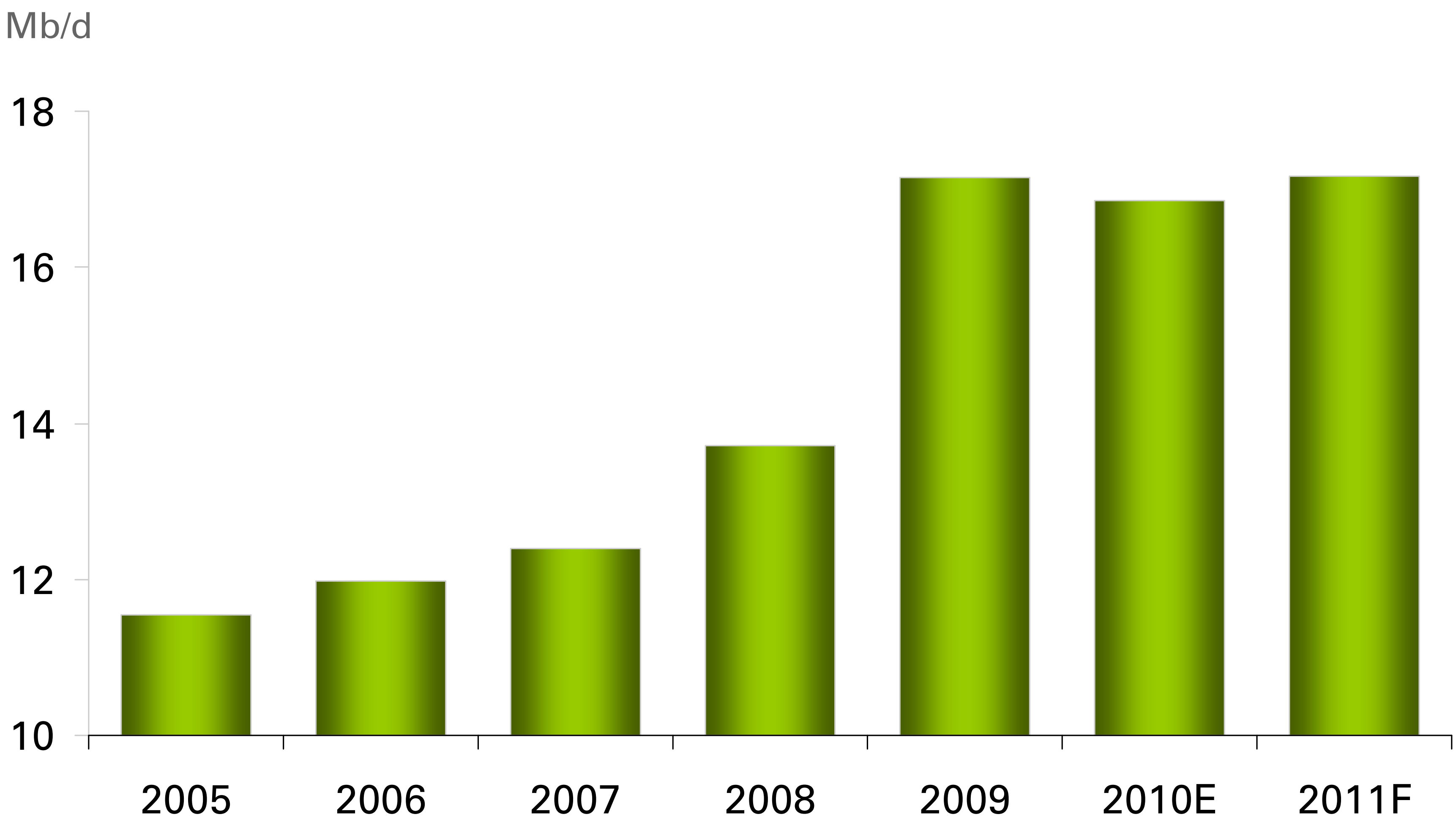
* Projects > 60 Kb/d net capacity additions; includes crude distillation plus condensate splitting

Refining Spare Capacity Back to 1980s Levels

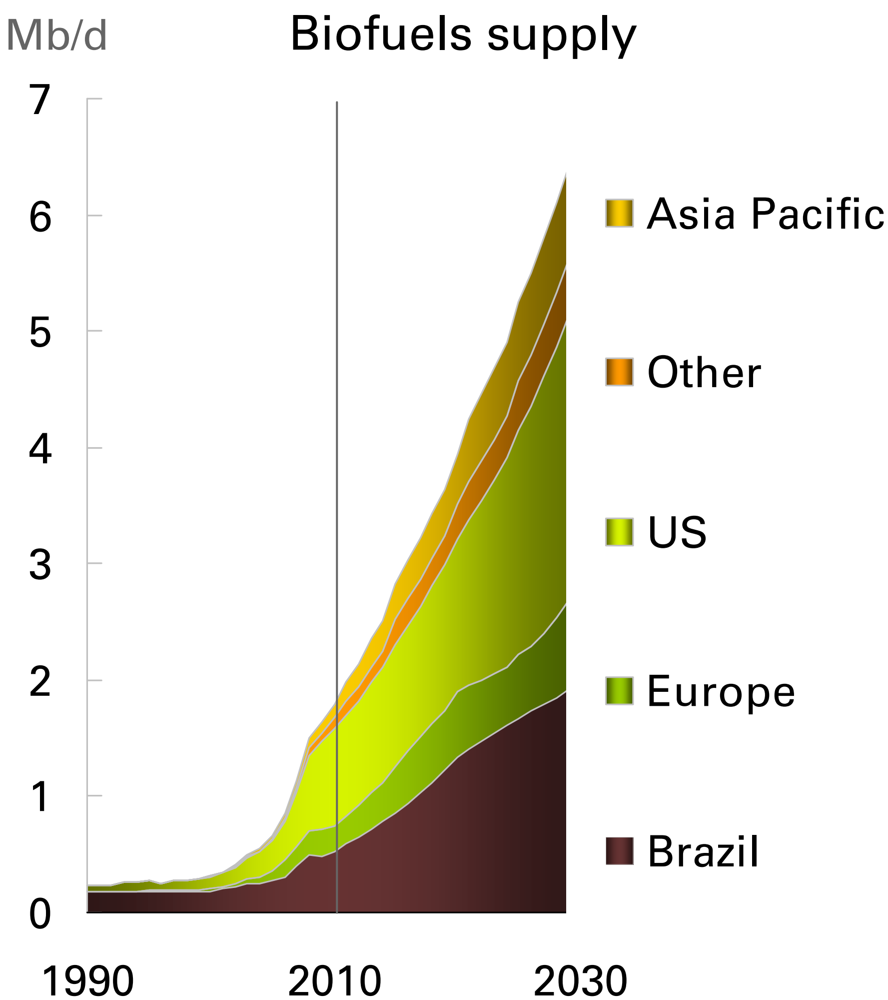


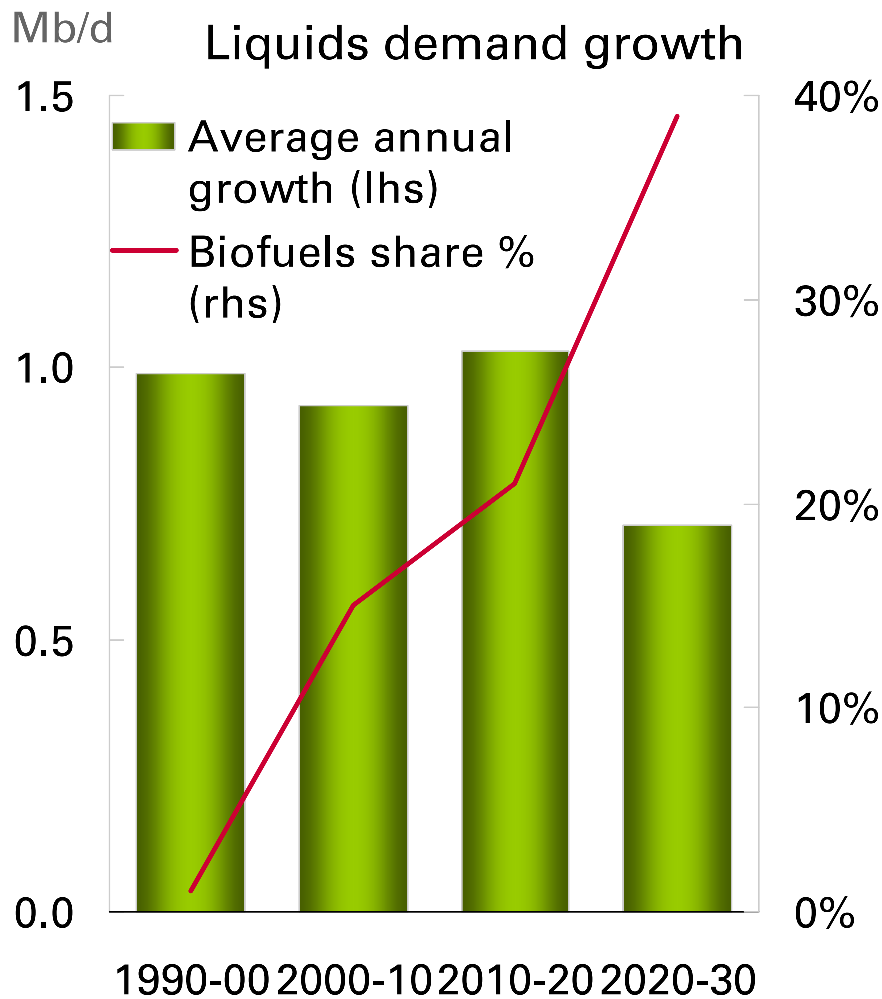
Source: BPSR plus data from Parpinelli-Technon & ESAI.
Flying J Bakersfield (US), Valero Delaware (US), Sunoco Eagle Point (US), Total Dunkirk (France) and Petroplus Teeside (UK) all assumed closed from end 2009

Unused Global Refining Capacity



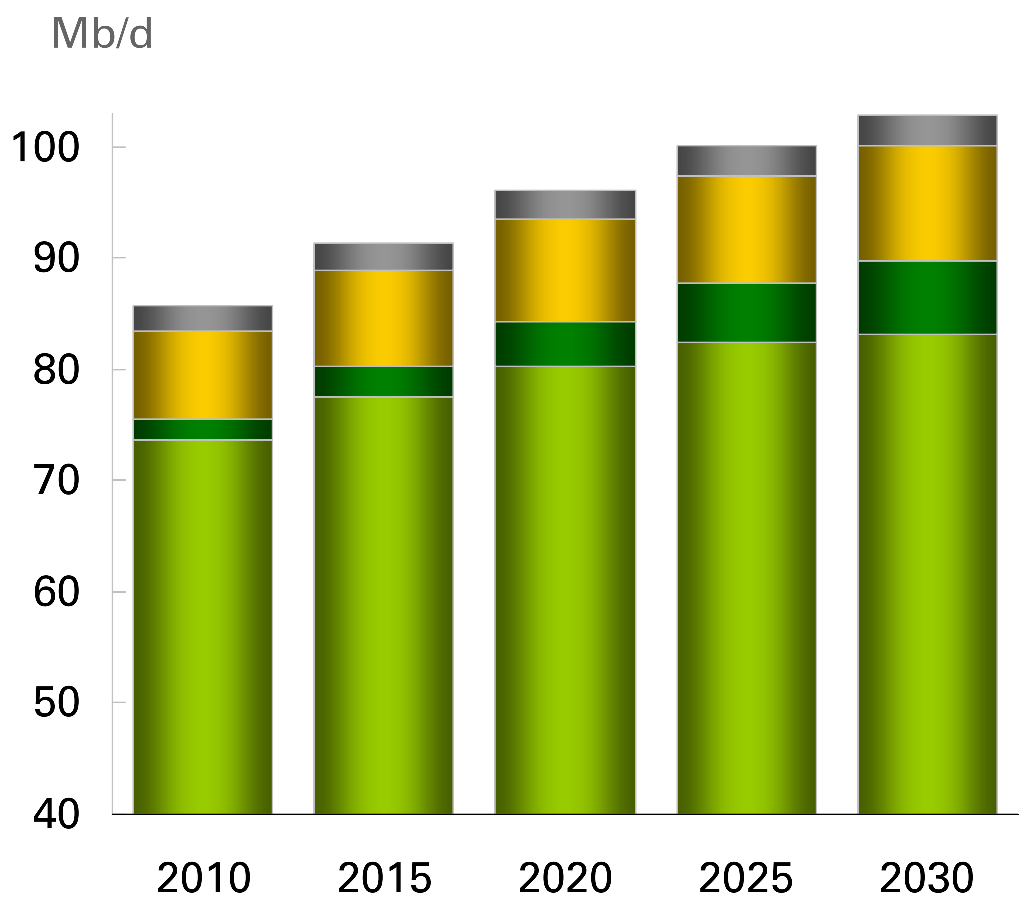
Biofuels meet an increasing share of demand growth





Refiners face competition from various supply sources

Liquids supply



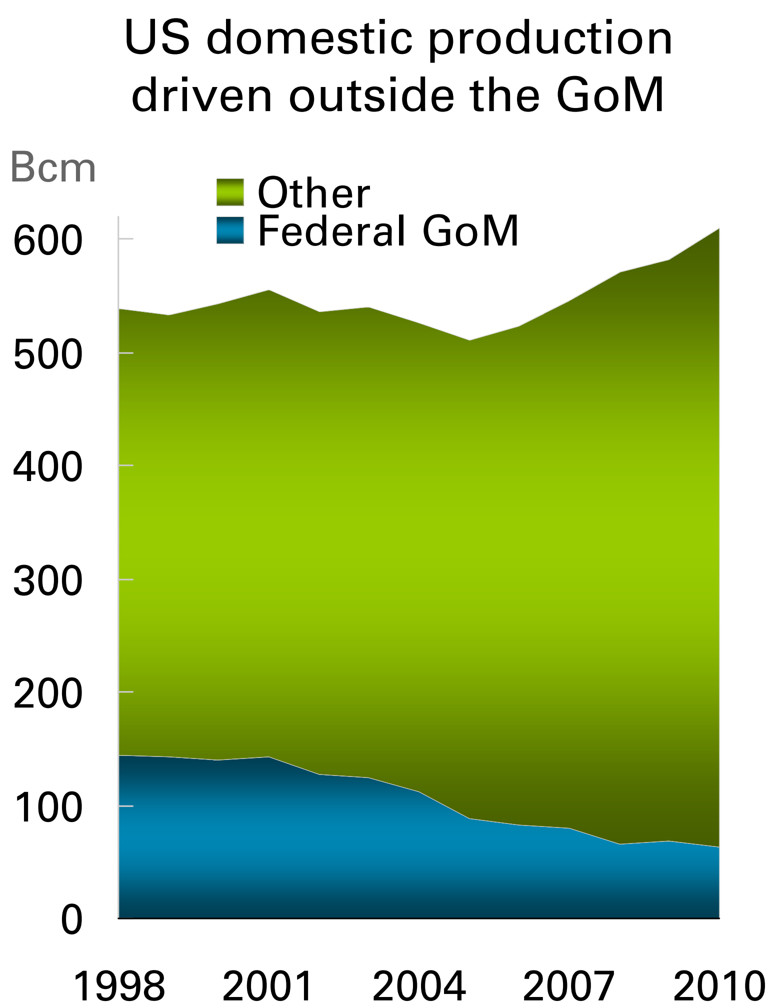
Growth 2010-30

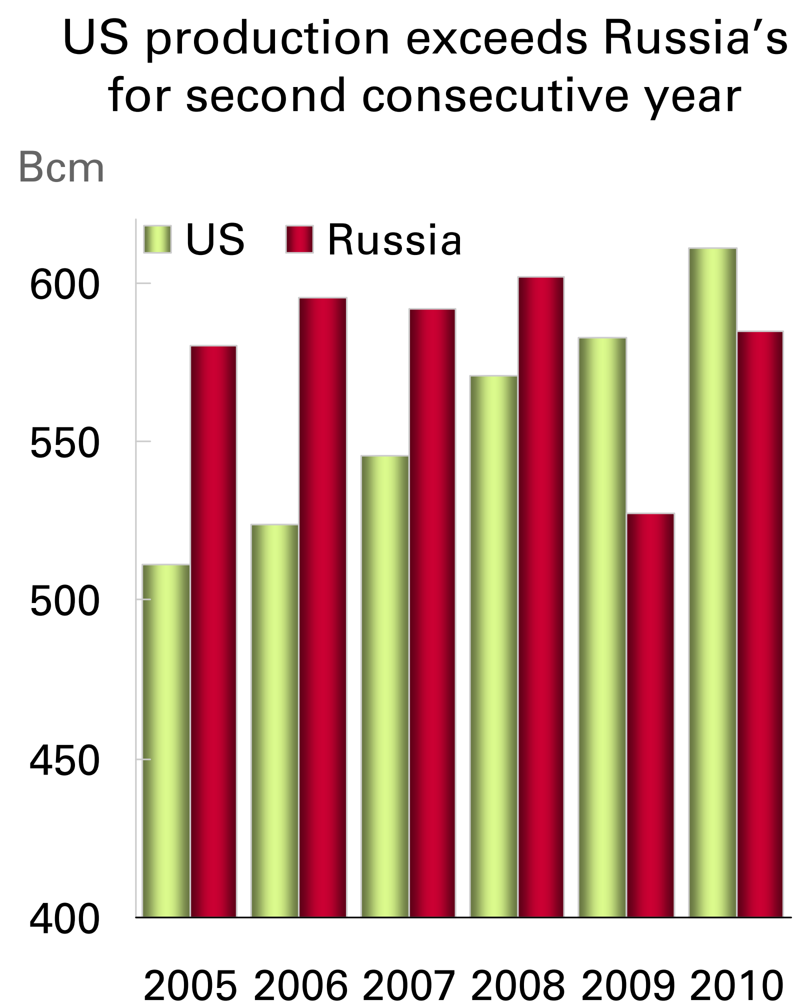
Other liquids:*	1
Non-refined NGLs:	2
Biofuels:	5
Total non-crude:	8
Crude runs	9
Liquids demand	17

*includes processing gains

Gas Markets

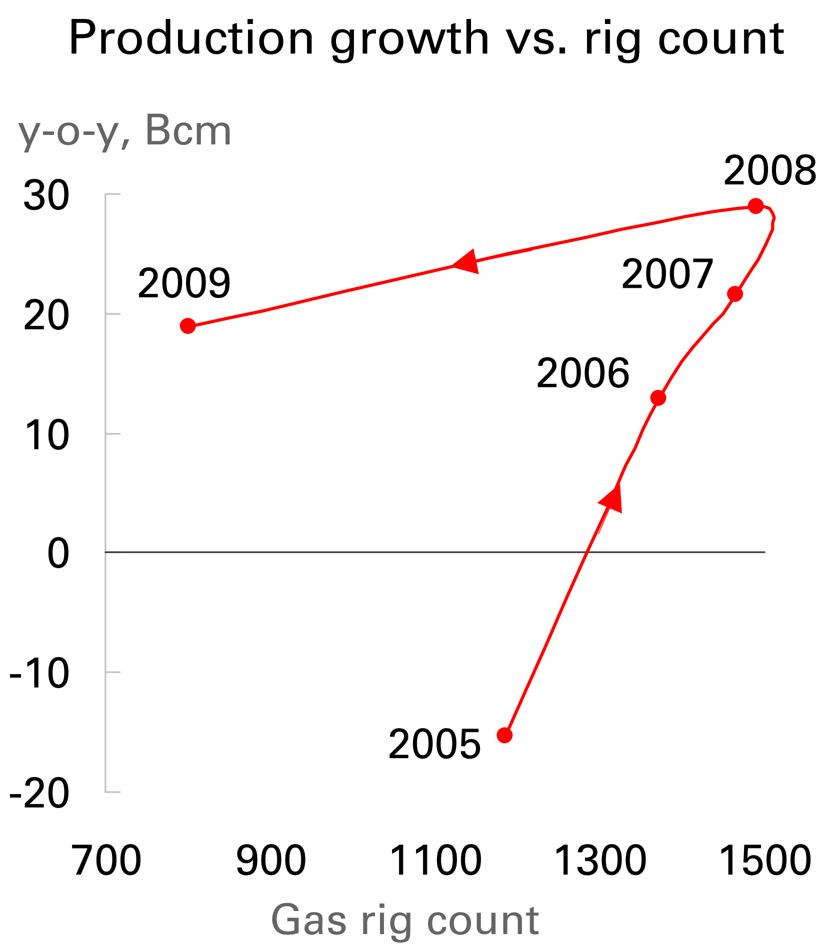
US domestic gas production

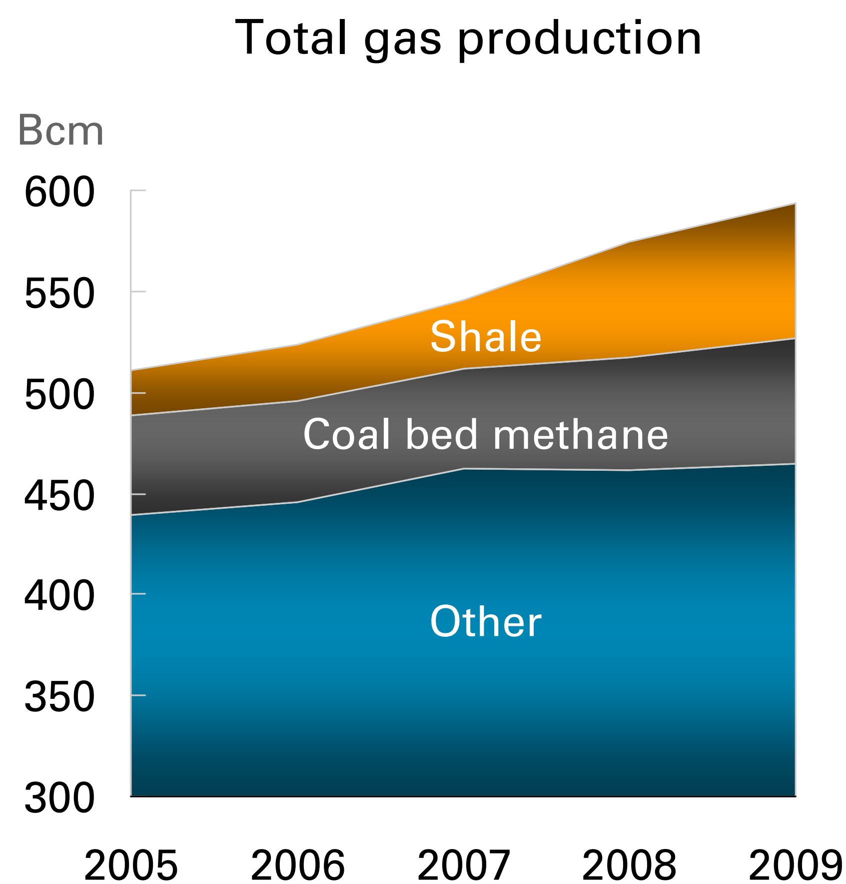




Source: EIA, CDU-TEK

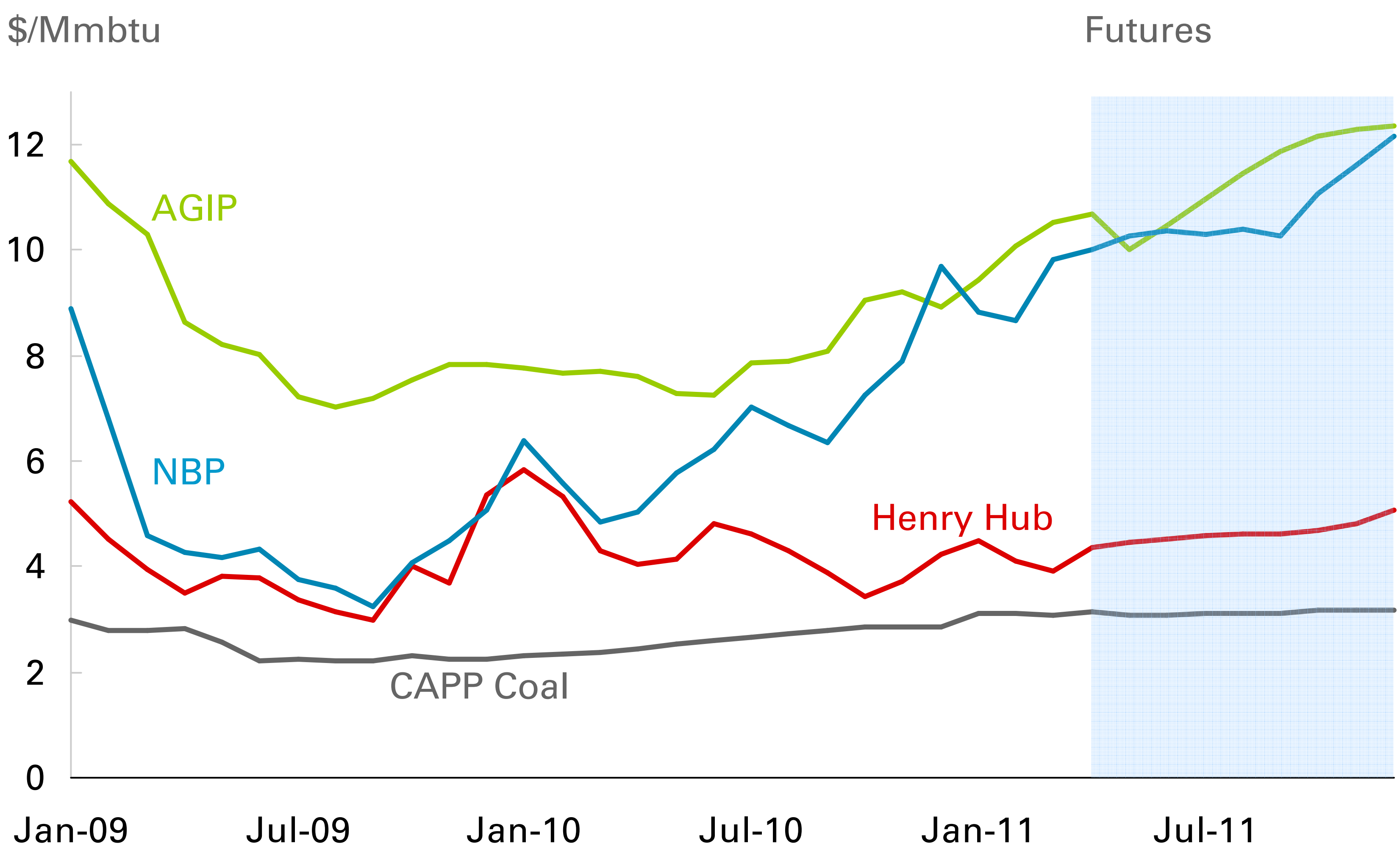
US unconventional gas revolution





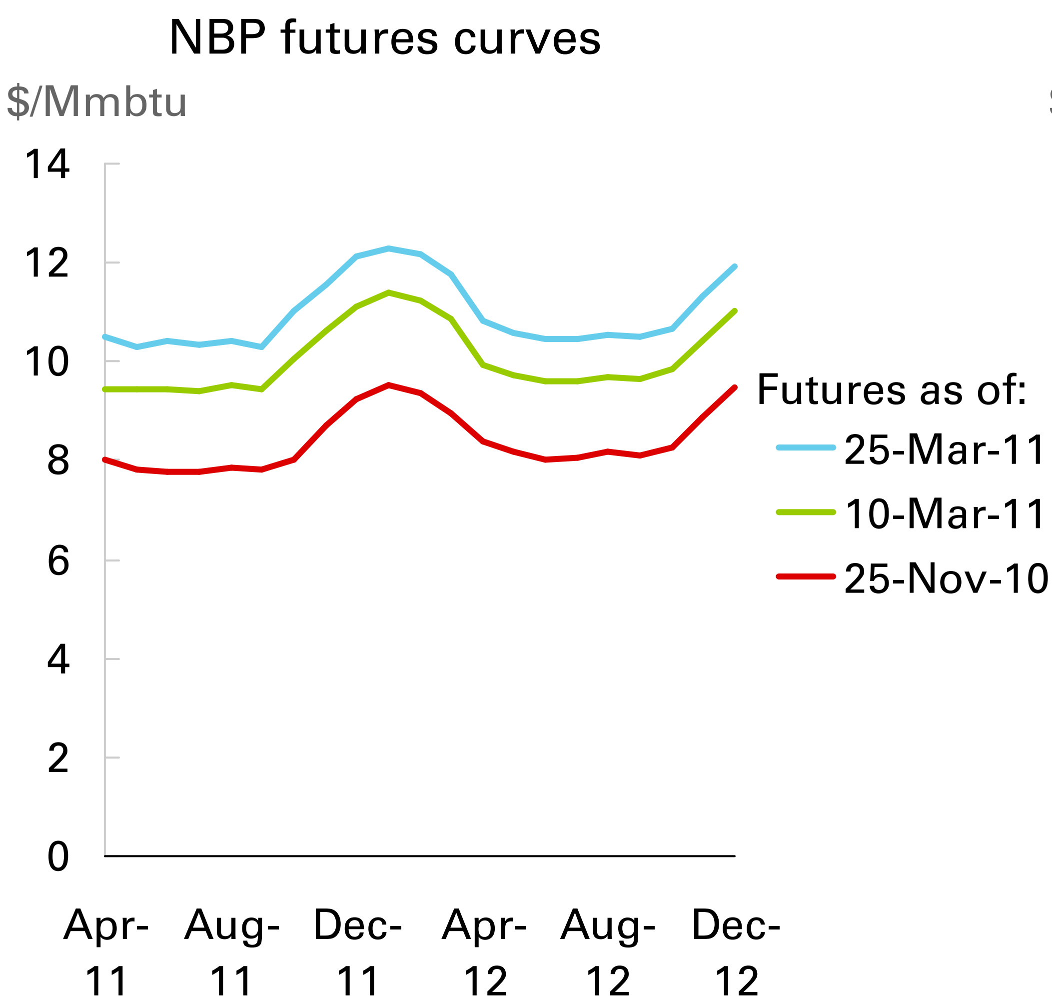
Source: BP Statistical Review of World Energy, EIA and Baker Hughes.

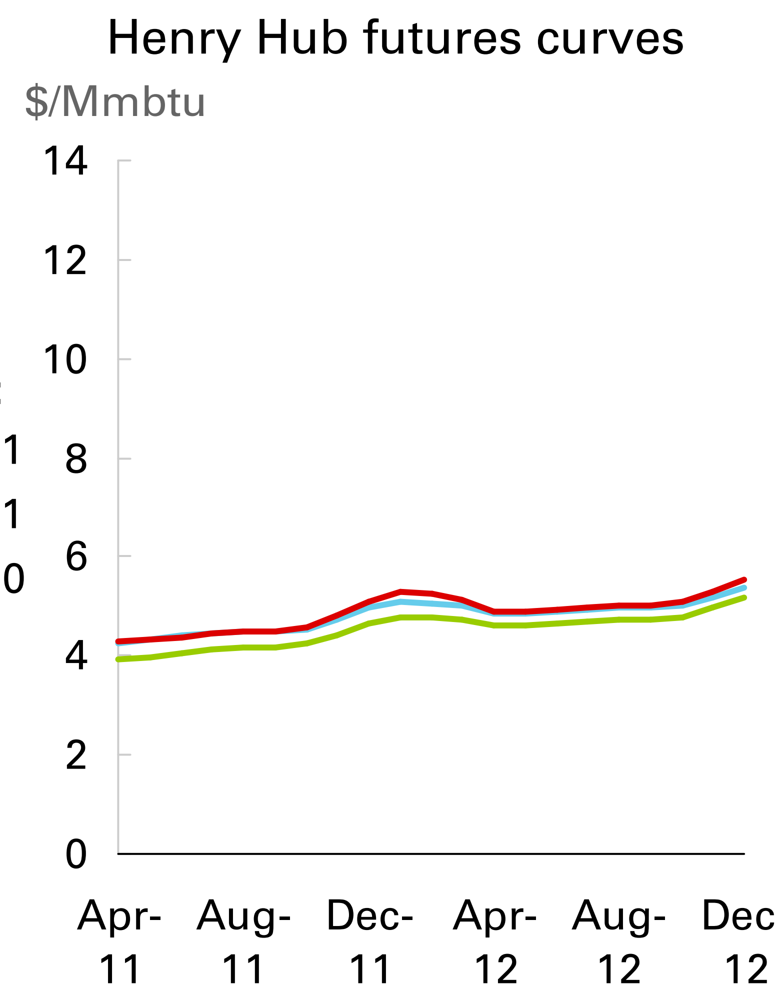
Gas Prices: NBP Near Oil-Linked Contracts



Source: includes data from Platts, BAFA, ICE, NYMEX

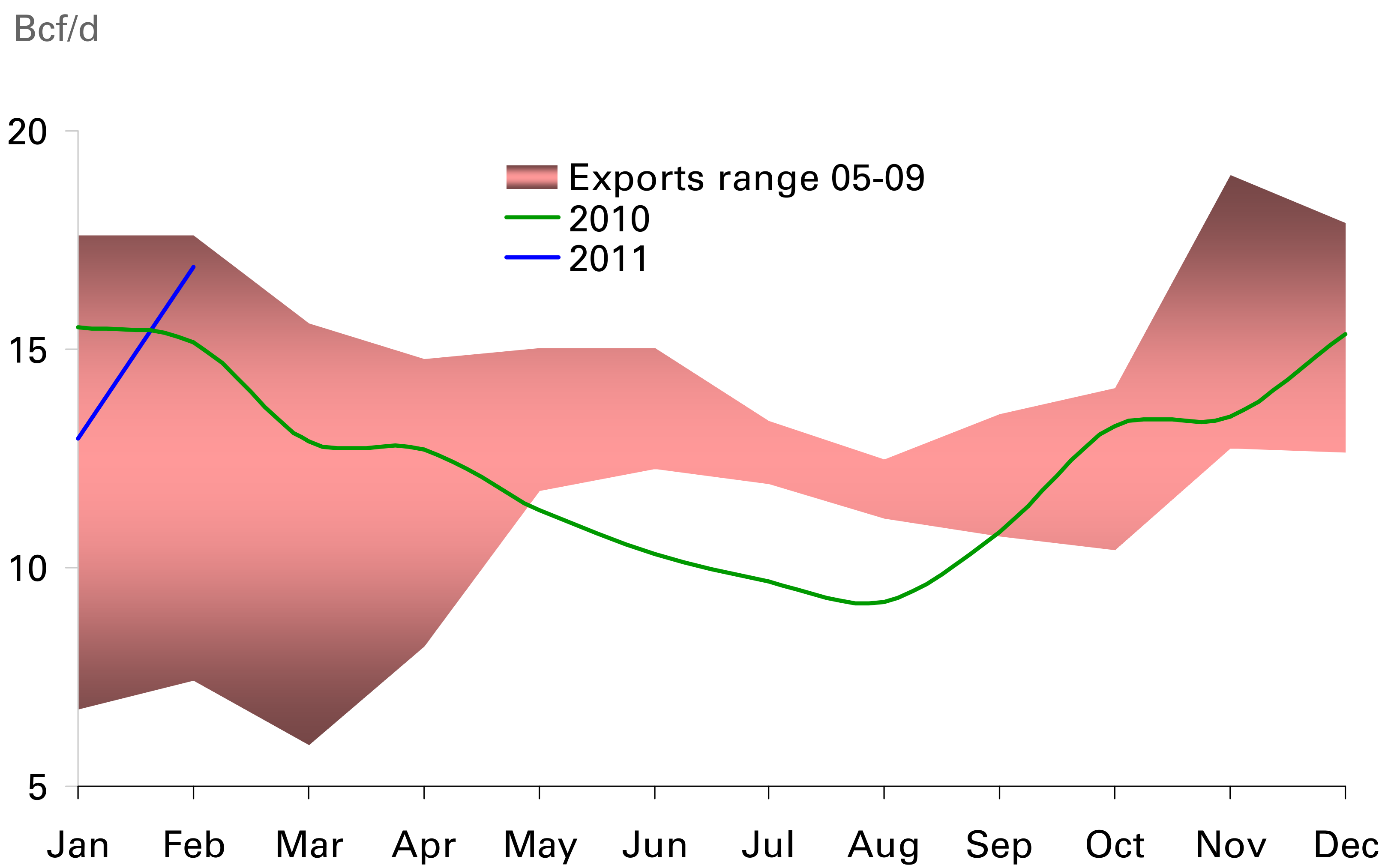
European and North American markets reacted differently to the recent shocks





Source: includes data from Platts

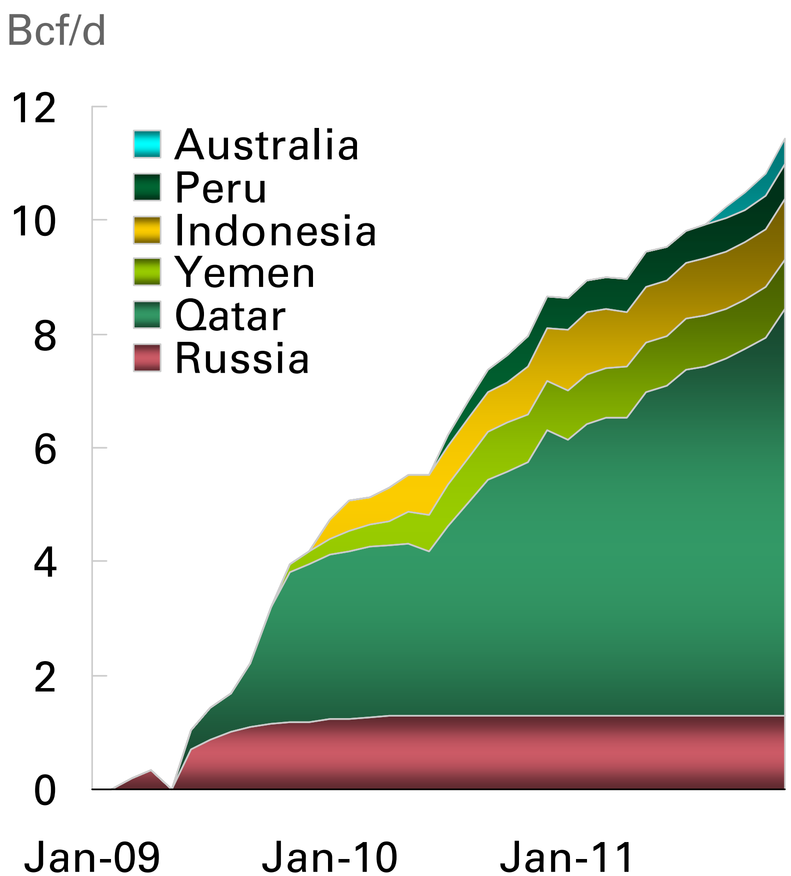
Europe's Call on Russian Gas



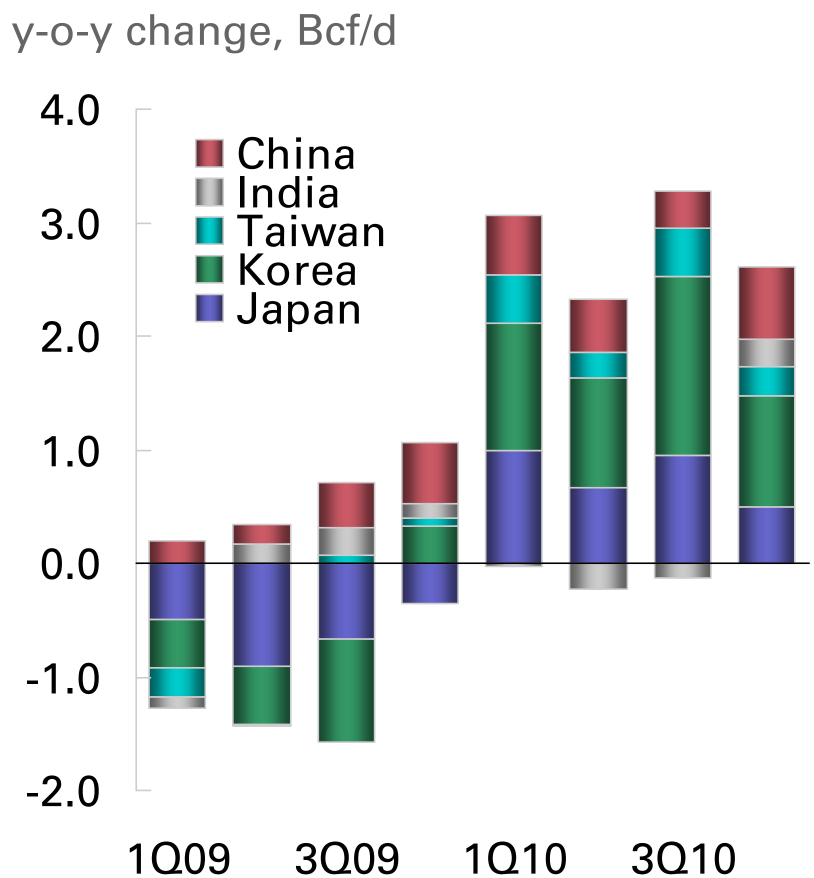
Source: GIE and CDU TEK

Global LNG market expands

LNG from new plants arrives ...



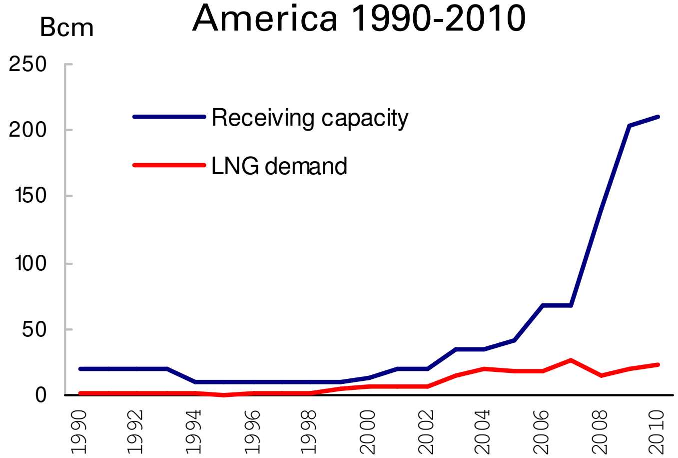
... Asian imports surge



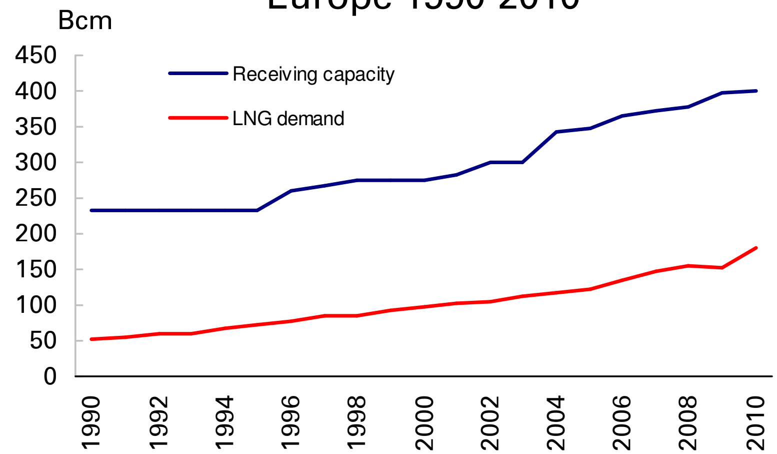
Sources: includes data from Waterborne Energy

Global LNG market: Capacity vs. Demand

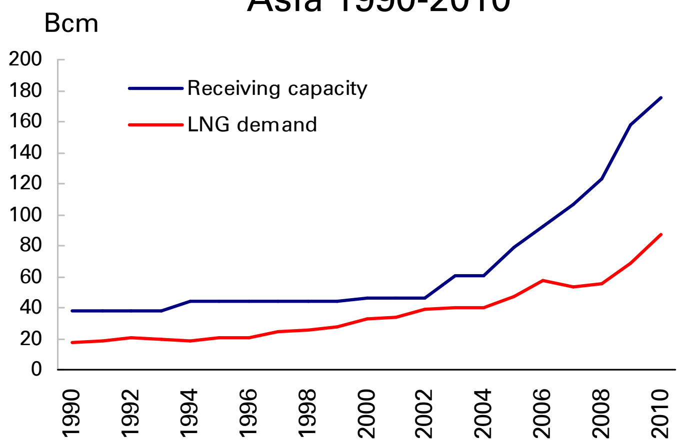
Regasification and LNG demand in America 1990-2010



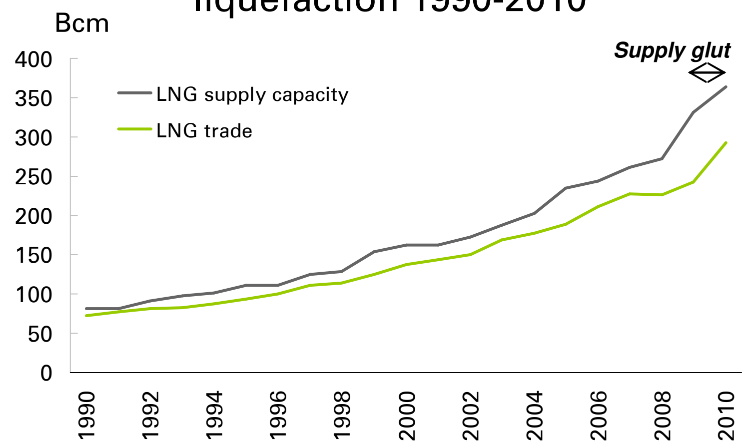
Regasification and LNG demand in Europe 1990-2010



Regasification and LNG demand in Asia 1990-2010

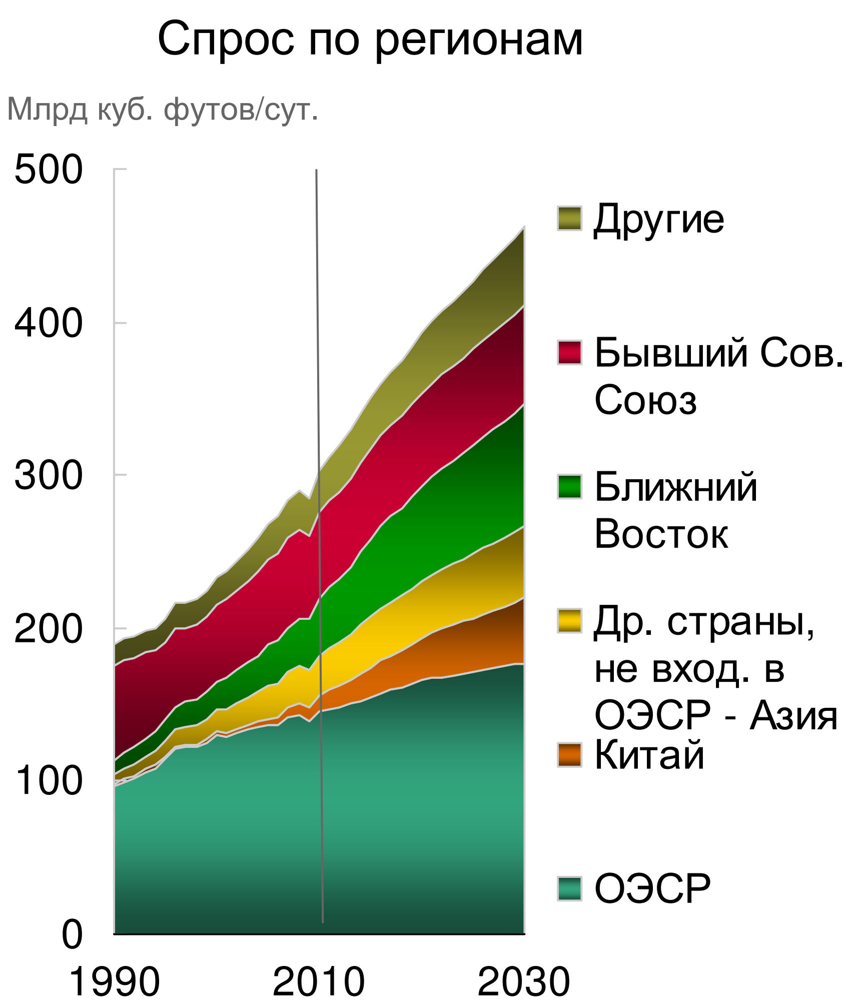


LNG demand and global liquefaction 1990-2010



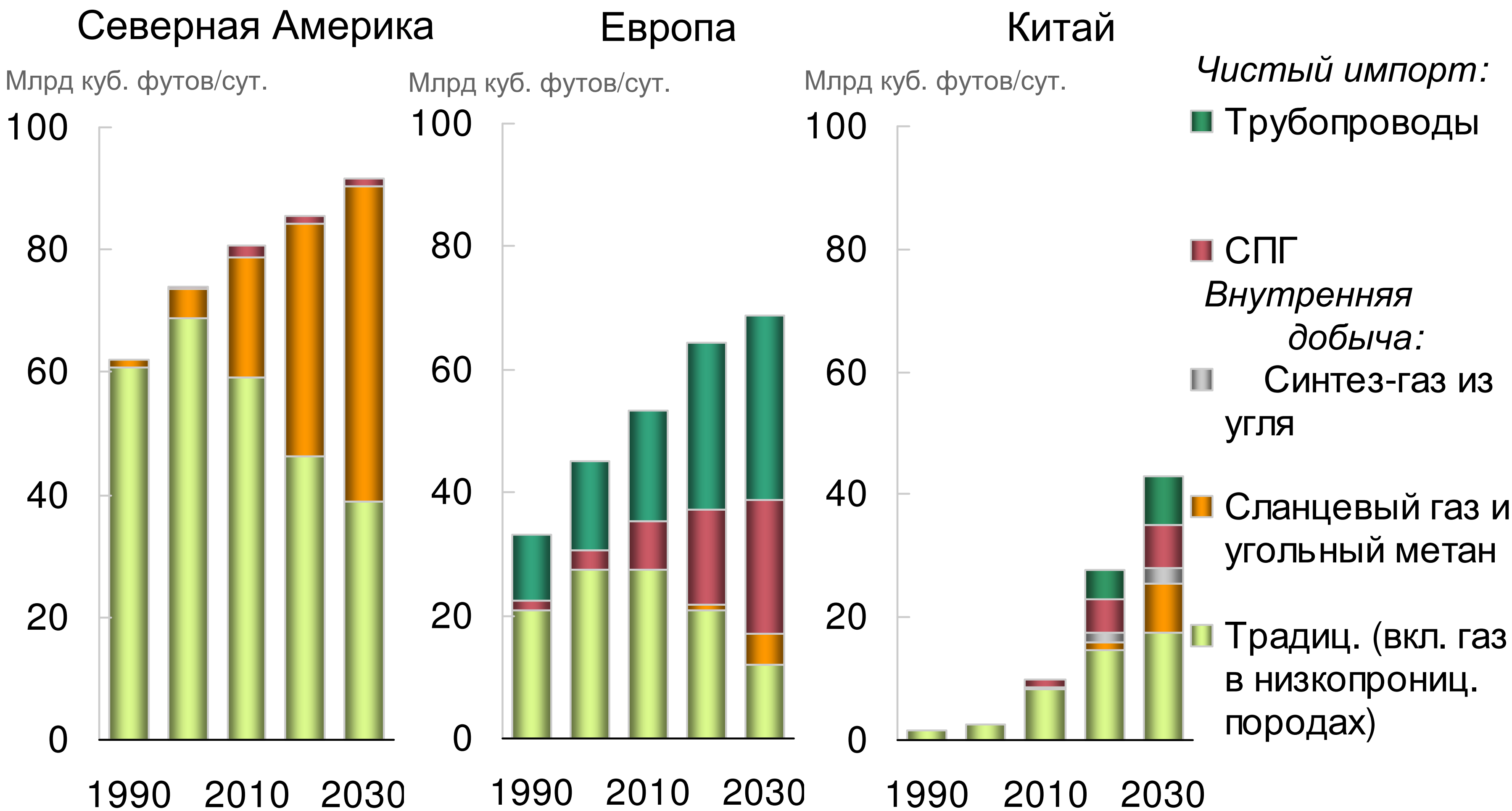
Source: Cedigaz Statistical Database

Рост спроса на газ определяется странами, не входящими в ОЭСР

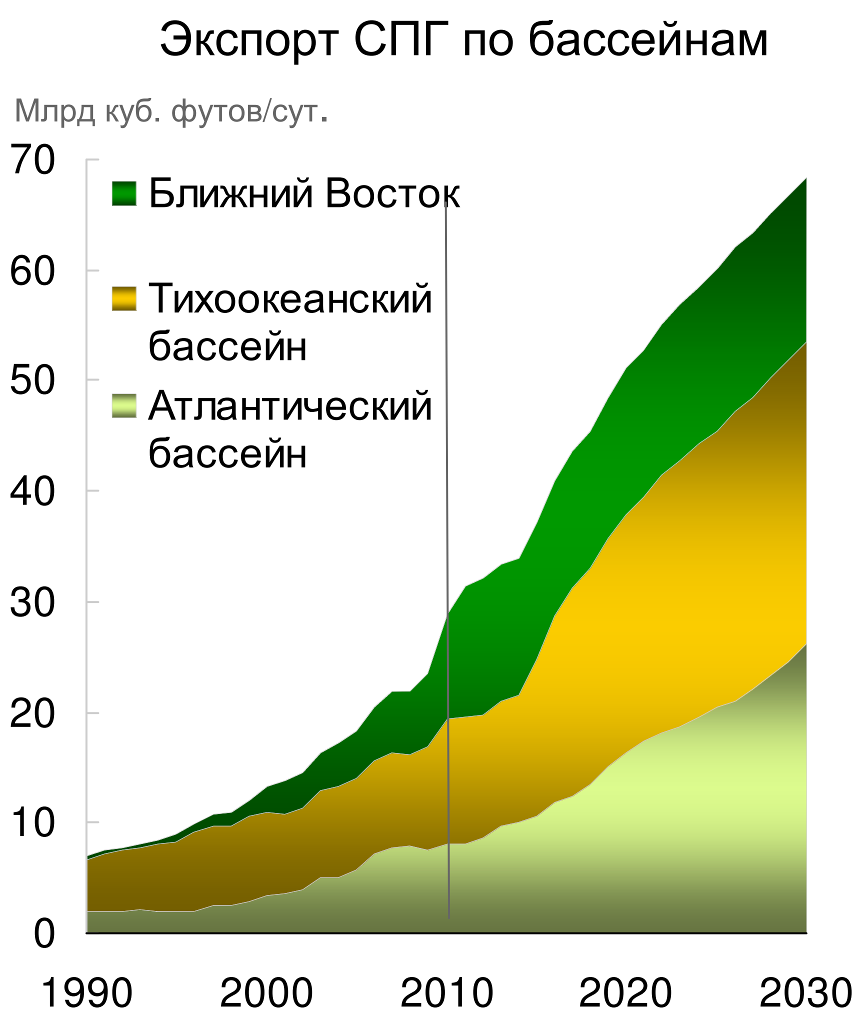


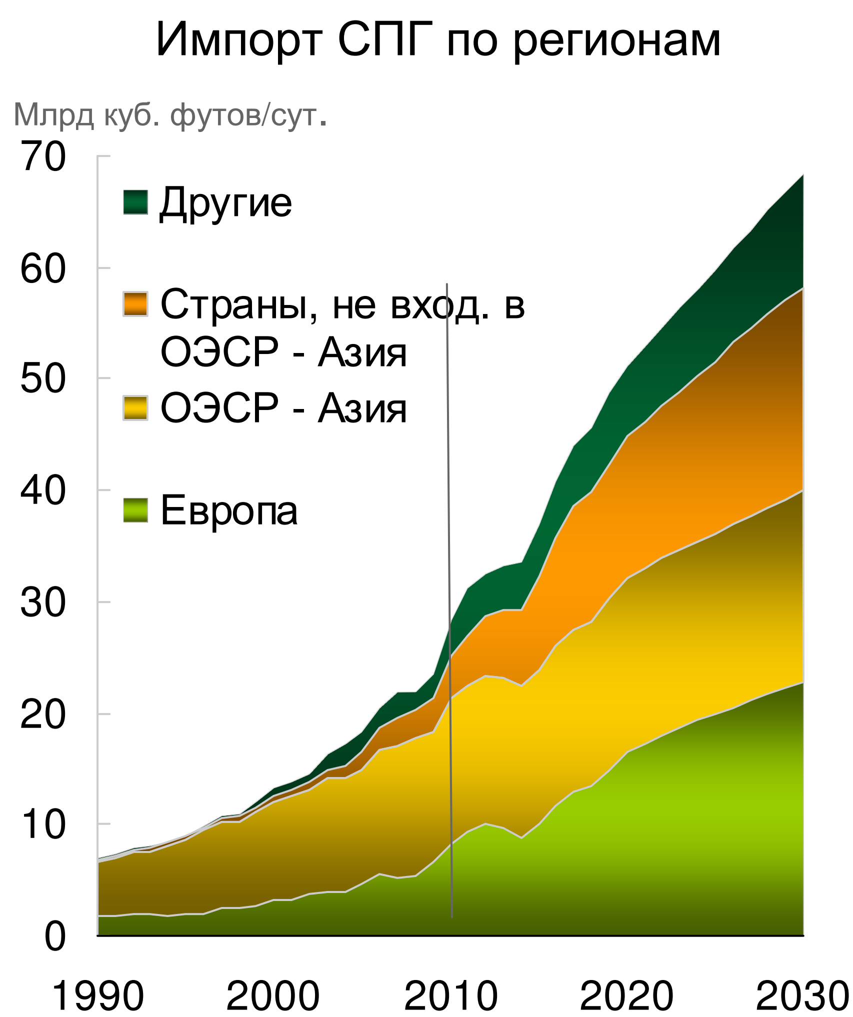
Газ из нетрадиционных источников будет играть возрастающую роль…

Источники поставок газа по регионам



Торговля СПГ будет расти вдвое быстрее, чем глобальная добыча газа

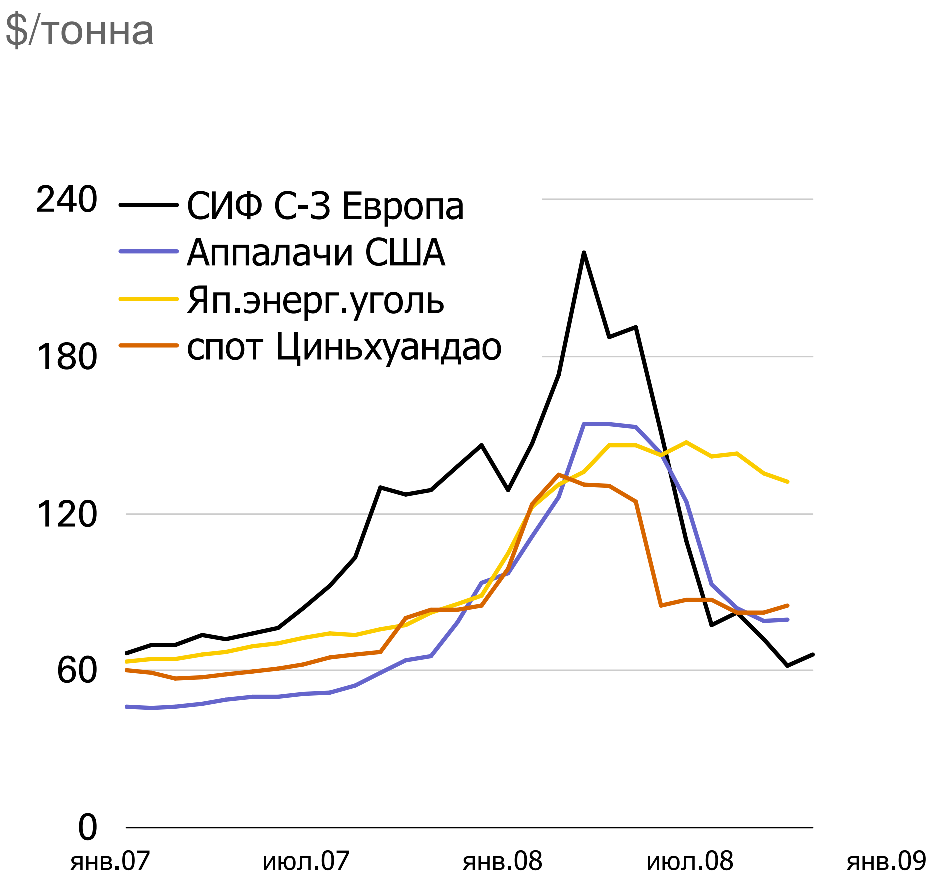




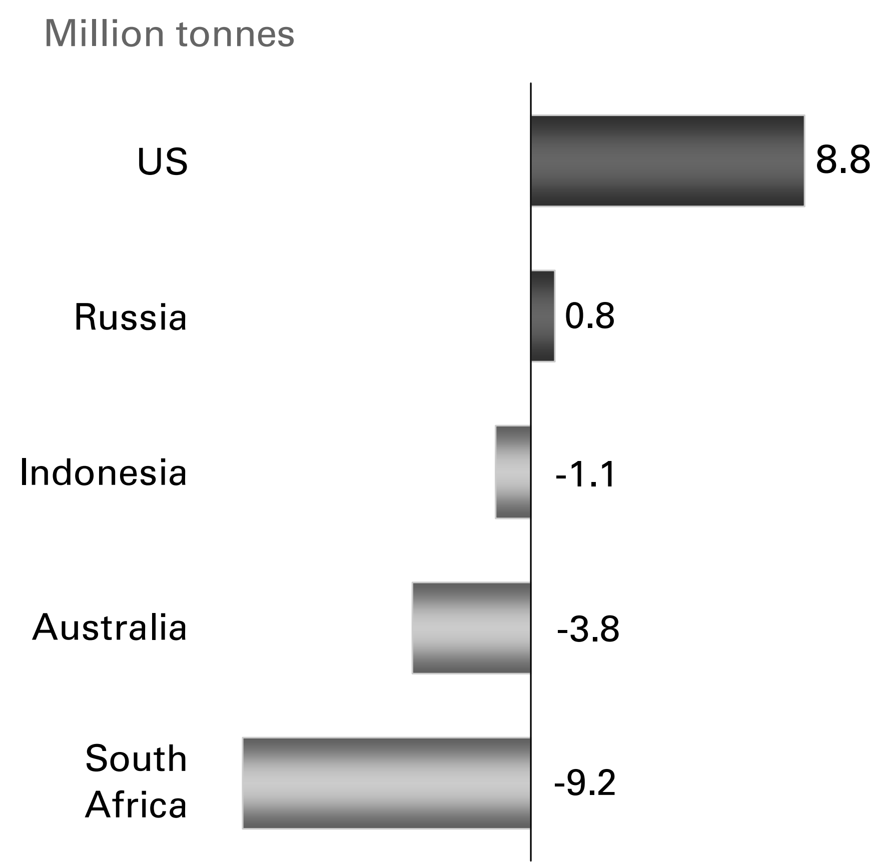
- Coal Markets

Потребление и импорт угля в Европе в 2008 г.

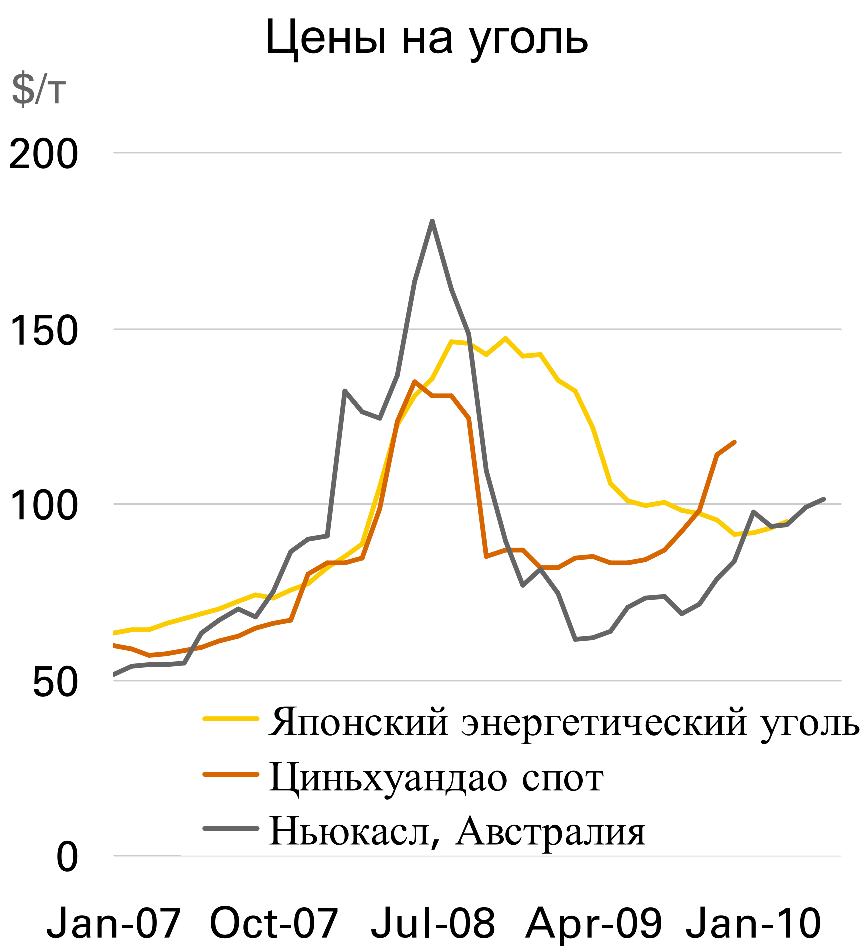
Цены

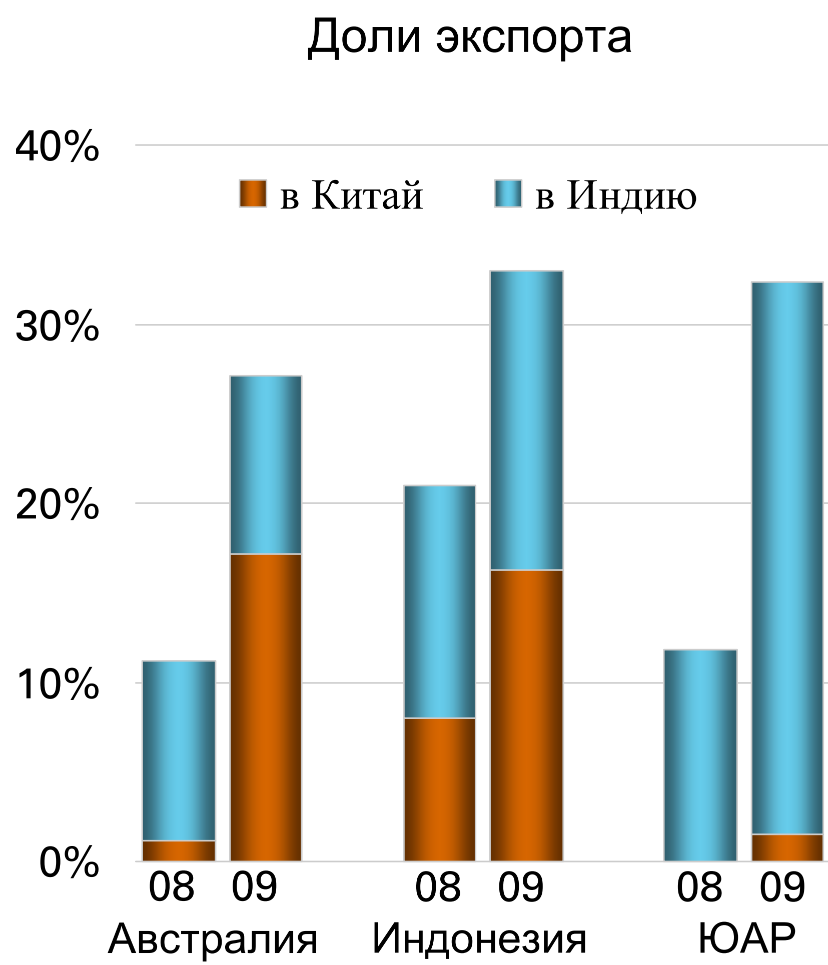


Изменения в импорте угля Европой



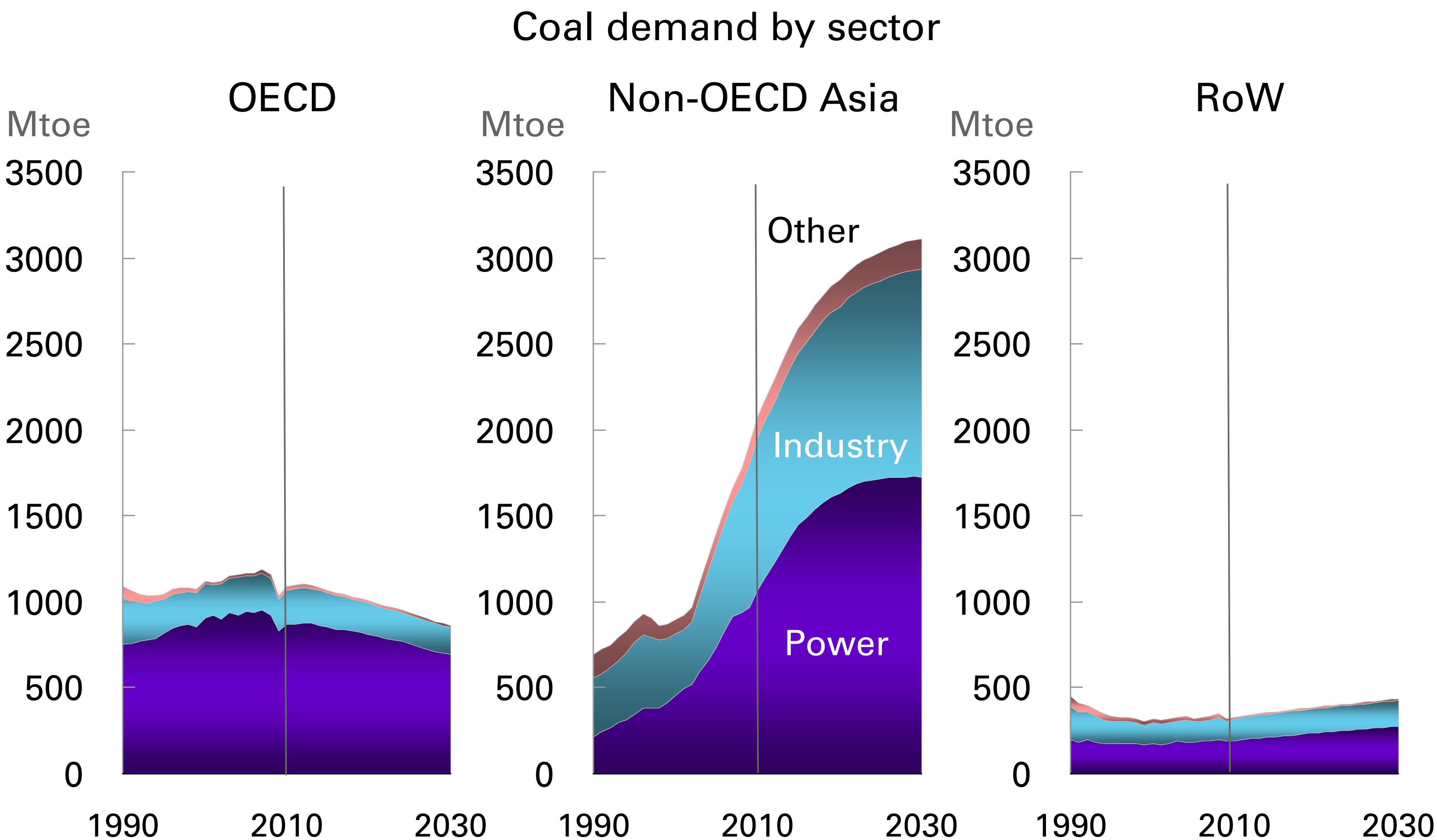
Цены на уголь и объемы экспорта в регионе Индийского океана в 2009 г.





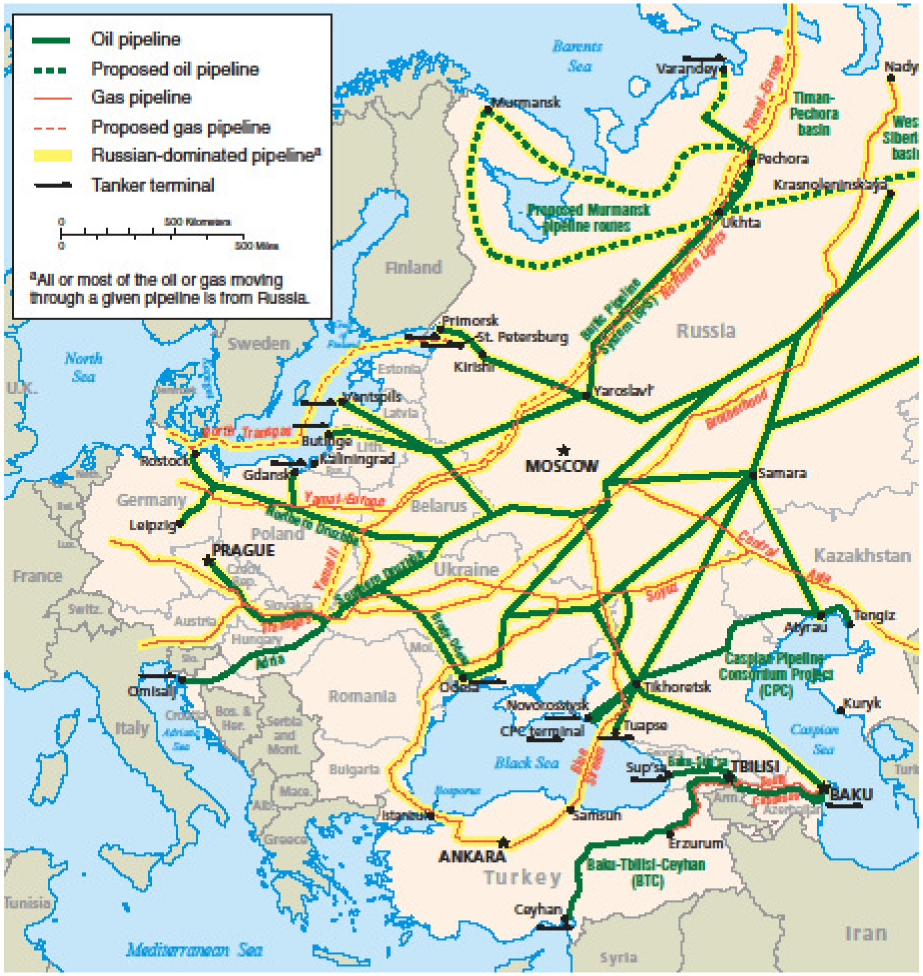
Источник: включает данные McCloskey, Platts и FACTS.

Coal continues to grow despite losing share in power…



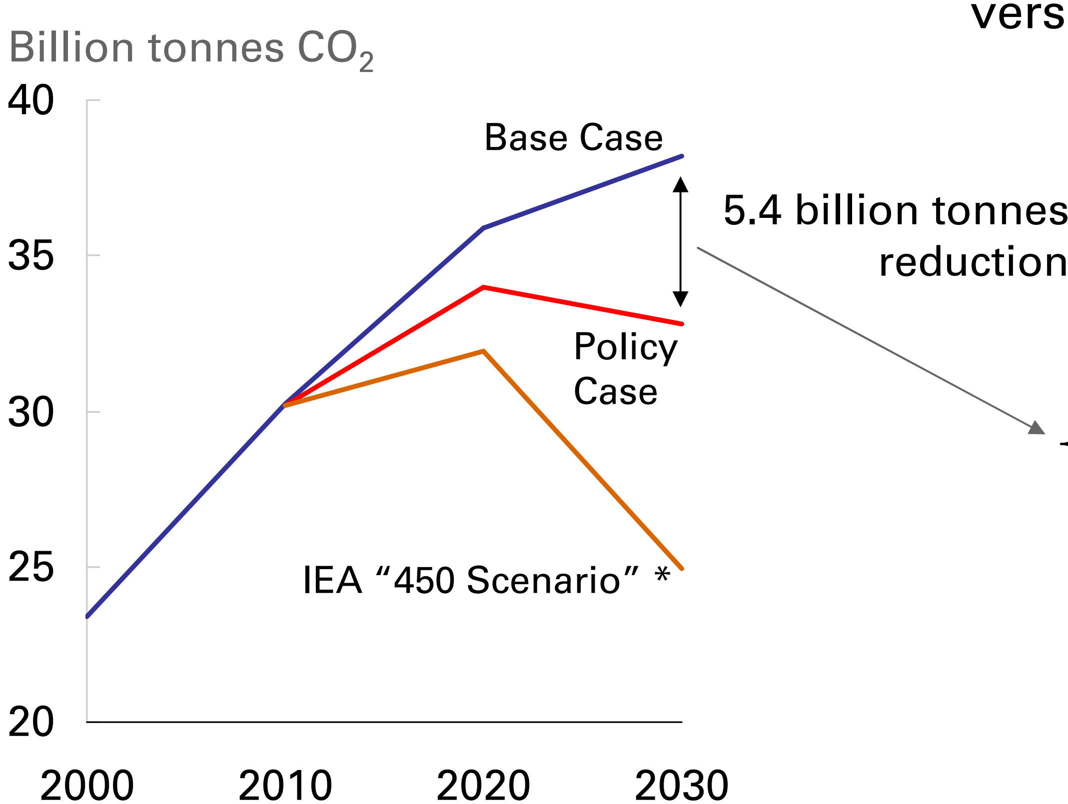
Europe's Dependence on Russia's Energy Exports

Russia		Share in EU27 net imports, %
Oil		36.8
Natural gas		27.7
Coal		30.7

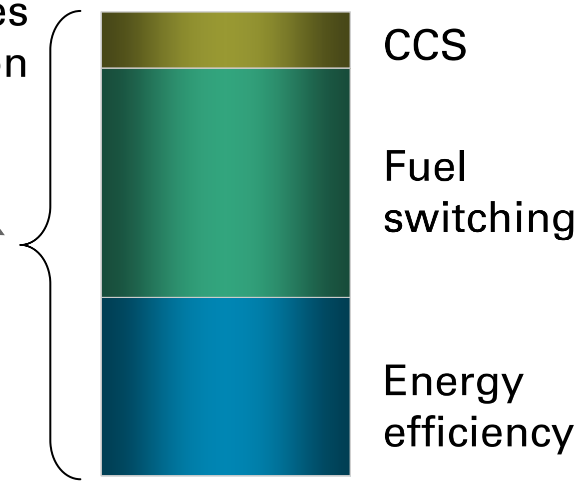


2. Stronger policy action on climate change…

CO_2 emissions from energy use



Sources of carbon abatement versus Base Case, 2030



* a back-cast which illustrates what is required to stabilise greenhouse gas concentrations at 450 ppm from IEA, *World Energy Outlook 2010*