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Energy trends: The emerging world at the centre of supply and demand

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Key take-aways

- Emerging economies will continue to drive global growth with center of gravity in Emerging Asia
- Rapid economic growth and higher purchasing power behind substantial increase in energy demand in the emerging world
- Efficiency gains will just soften -but not curb – huge demand pressure.
- Energy mix may change but demand will continue to be overwhelming for oil and gas
- Oil and gas production and, especially reserves, concentrated in emerging economies, which will increase institutional and business uncertainties
- Given supply and demand developments, energy security will become much more relevant in the Middle East –China sphere

Summary

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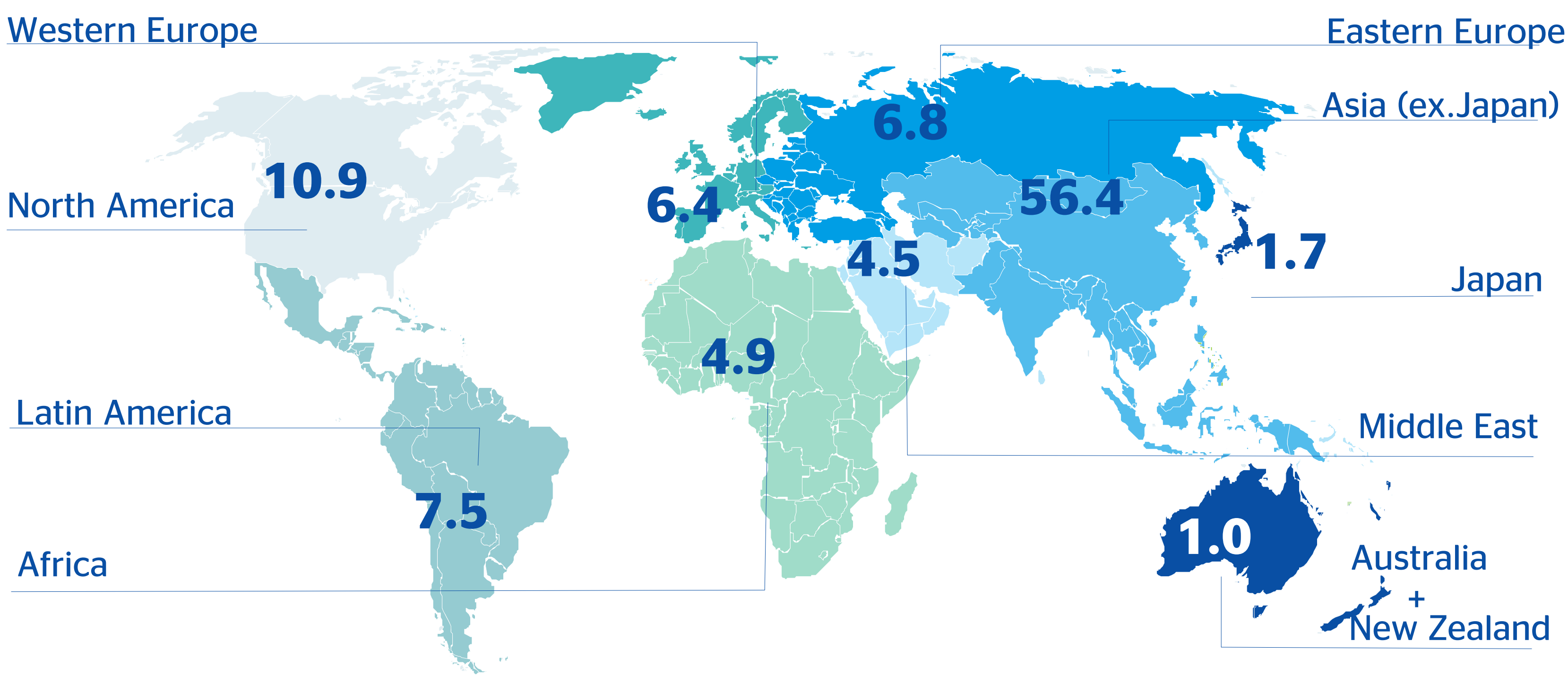
The changing map of world growth: BBVA EAGLEs

New economic activity focused on the Pacific connection: Asia and America

Incremental GDP between 2012 and 2022 by region (%)

Source: BBVA Research and IMF/WEO



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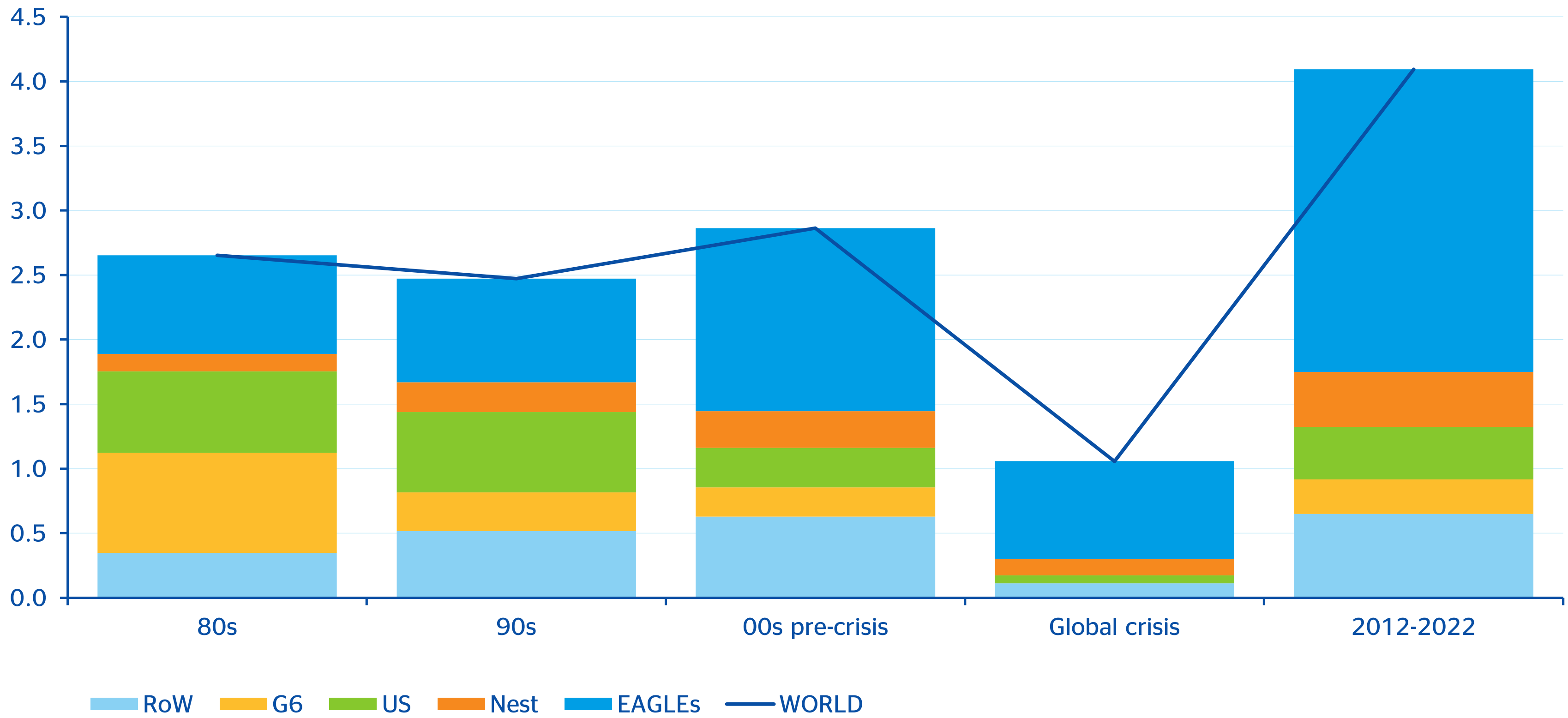
The changing map of world growth: BBVA EAGLEs

Summary: the emerging world to lead growth in the next decade

Contribution to GDP world growth
(percentage points) (over PPP-adjusted 2012 USD)
Source: BBVA Research and IMF/WEO

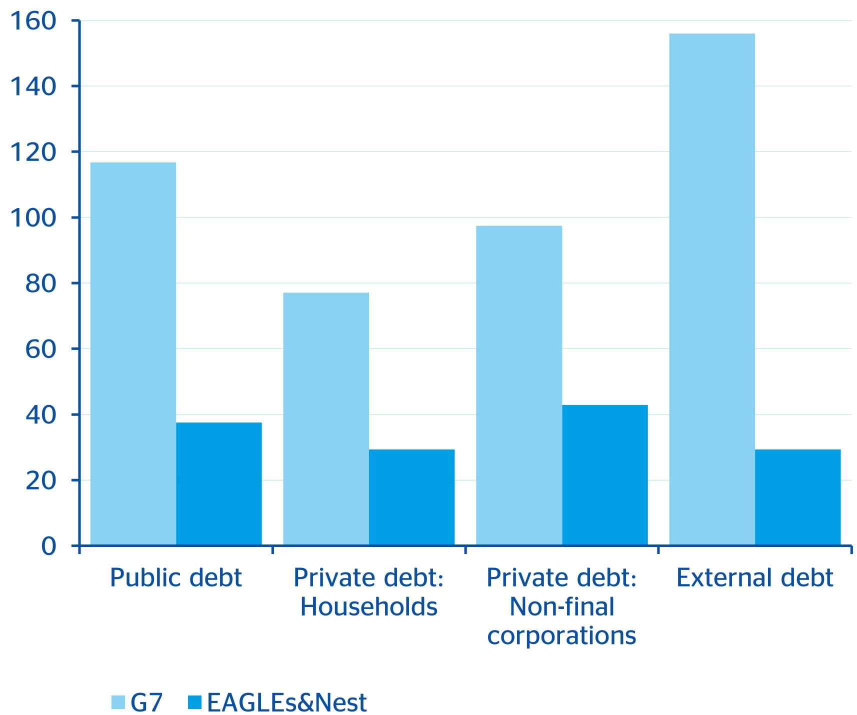


The changing map of world growth: BBVA EAGLEs

Vulnerabilities have also decreased substantially during the last decade

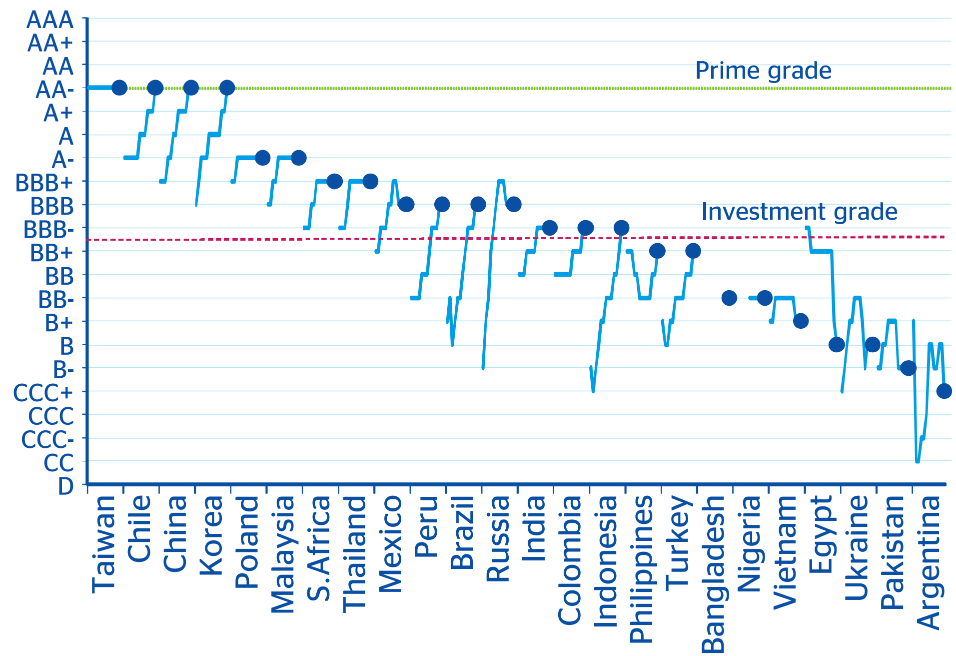
Public and private debt-to-GDP ratios

(2012)
Source: BBVA Research



Sovereign rating* for EAGLEs and Nest countries

(end of period) (2000-2012)
*Numerical average for Fitch, S&P and Moody's ratings, rounded-up to zero decimals
Source: BBVA Research and rating agencies



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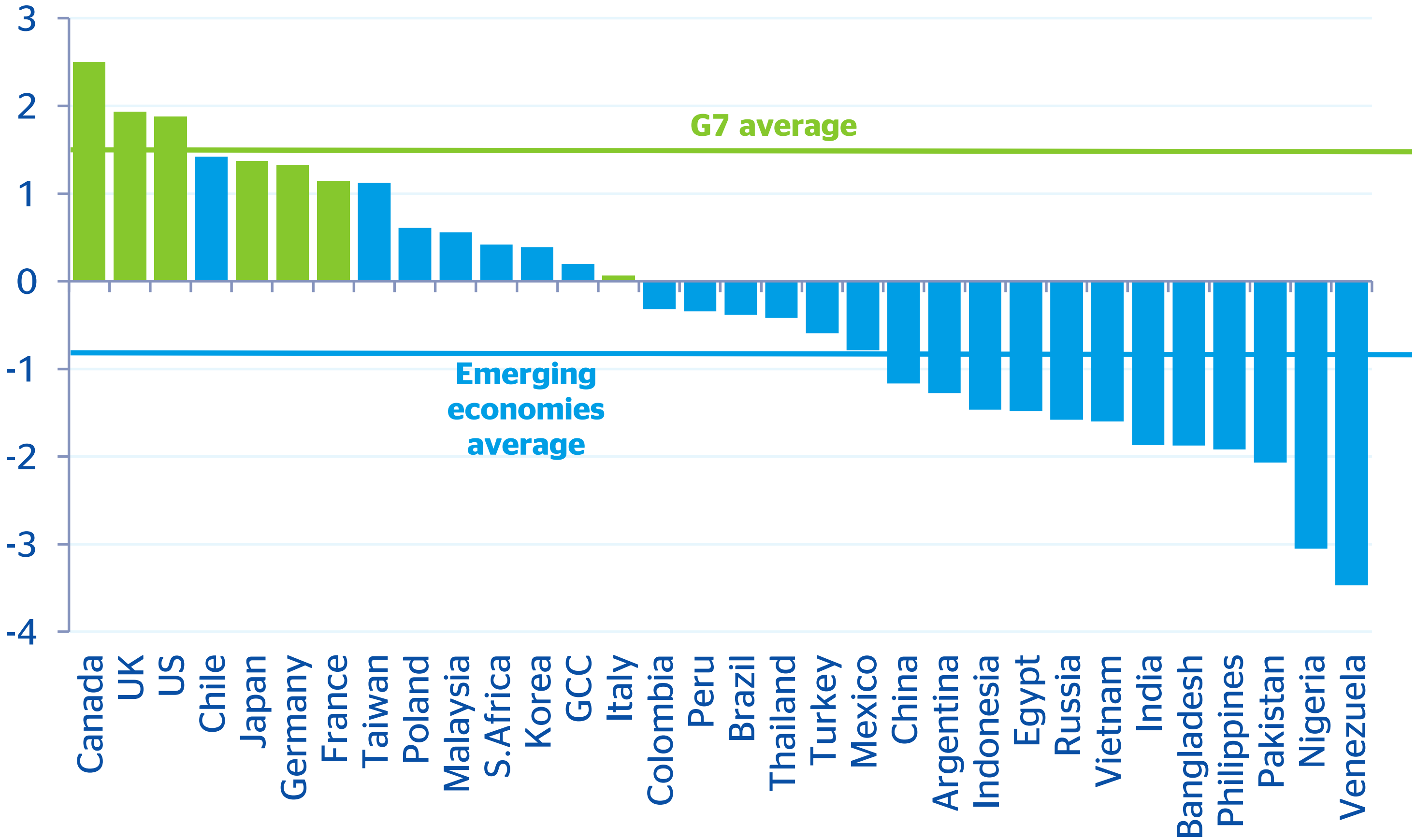
The changing map of world growth: BBVA EAGLEs

However, business conditions still have room to improve in some countries

Institutional indicator for advanced and emerging economies

Source: BBVA Research



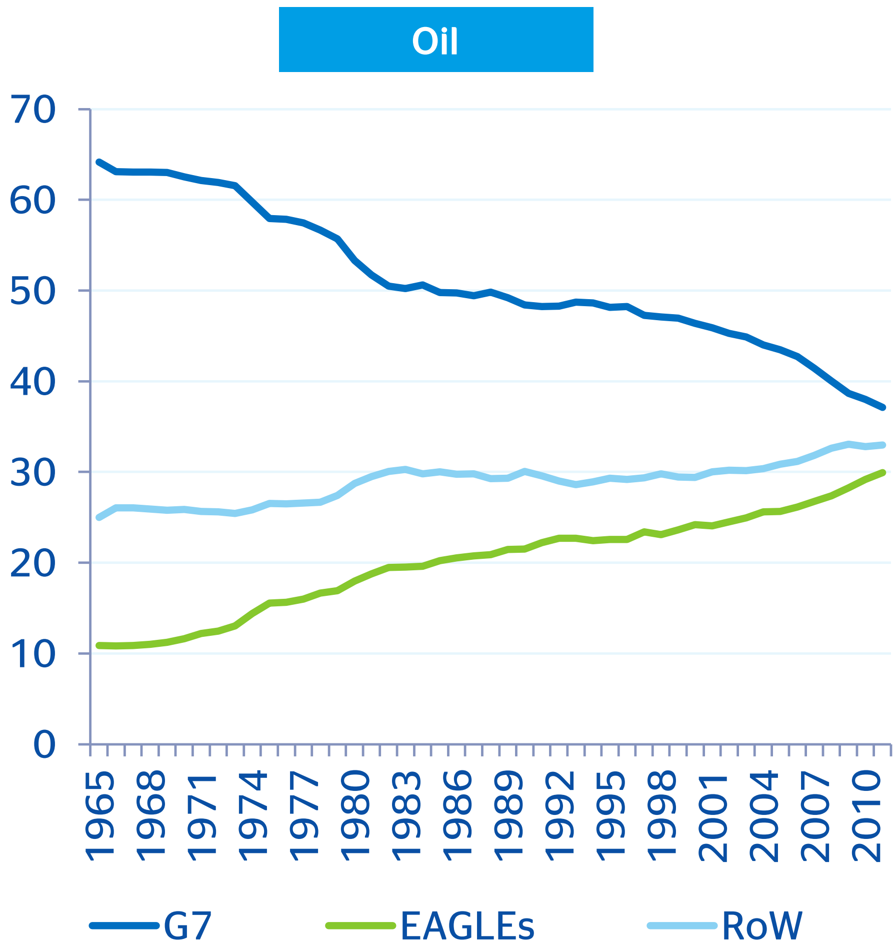
Summary

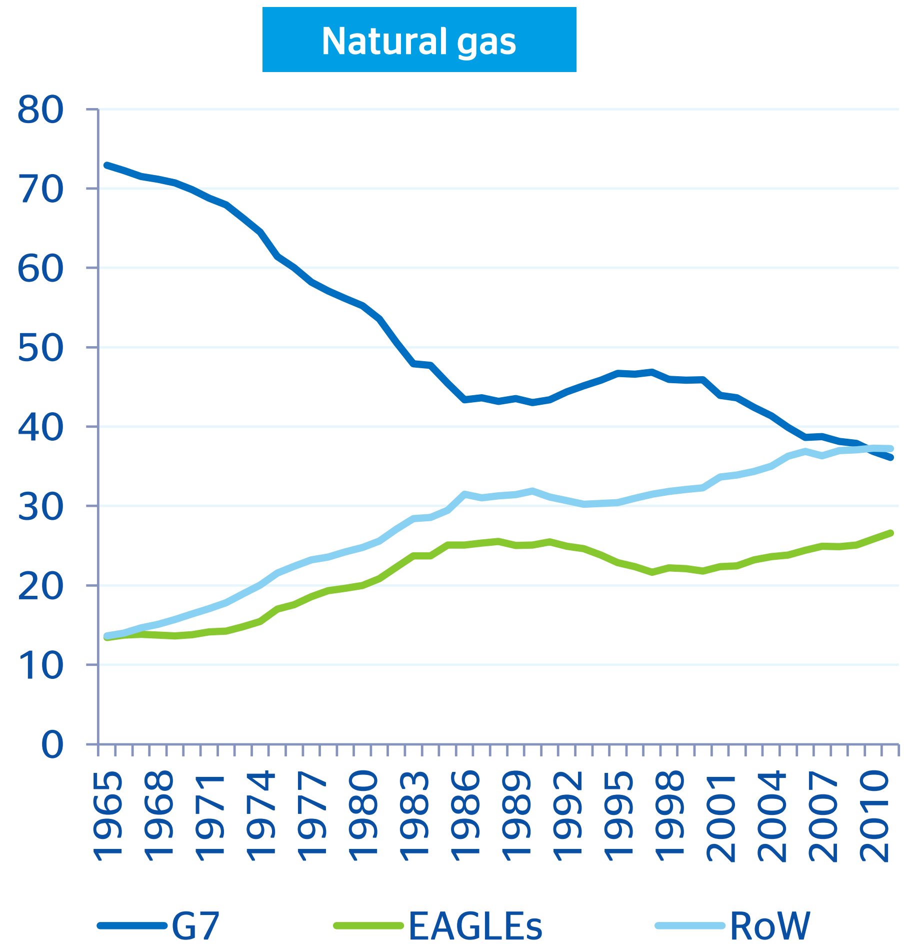
Consumption trends in energy markets

EAGLEs account at present for 30% of oil and gas world demand

Energy consumption in EAGLEs and G7 economies (% of world total) (1965-2011)

Source: BBVA Research and BP



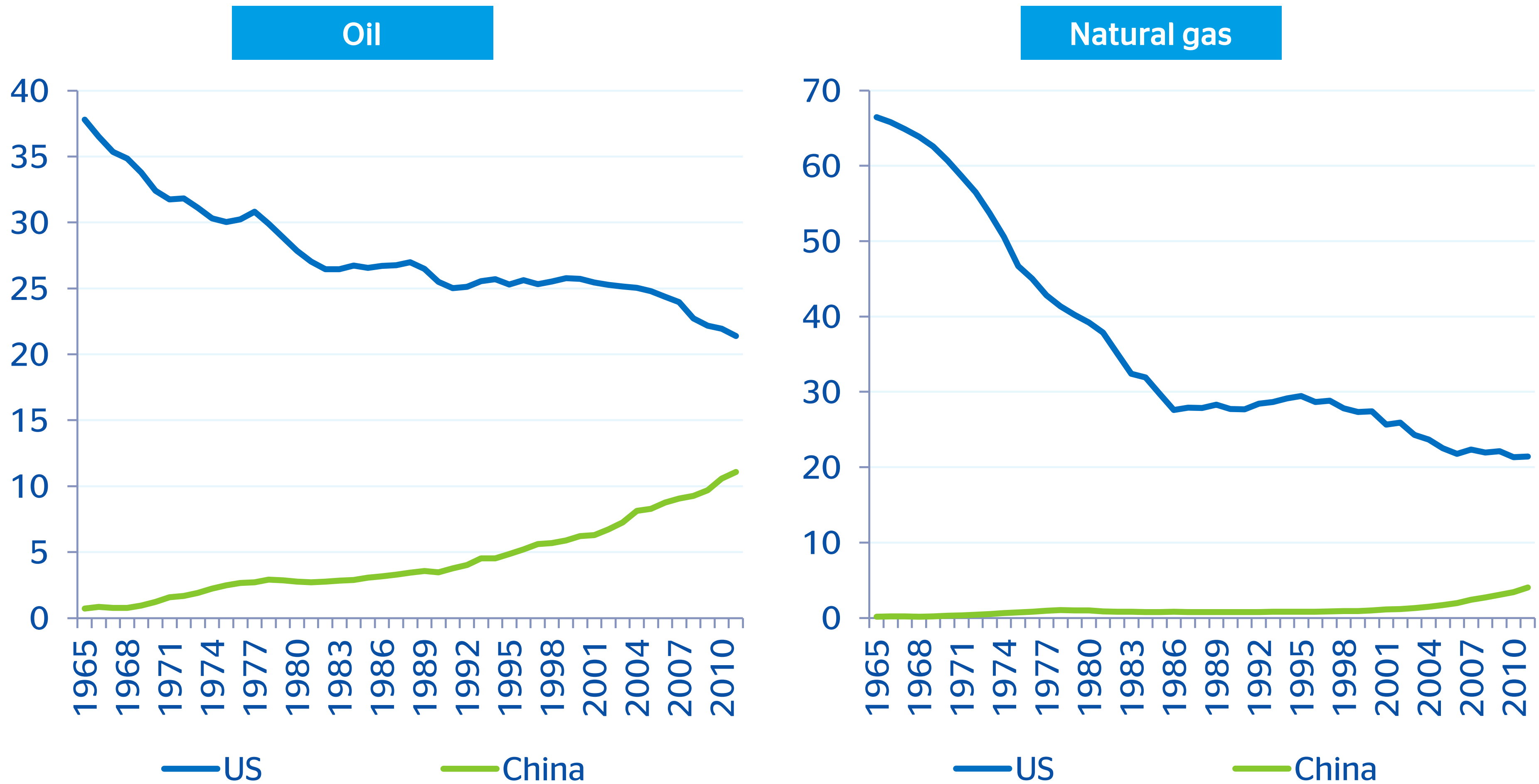


Consumption trends in energy markets

China has become a world key consumer in the oil market, while gas demand is also growing fast now

Energy consumption in China and the US (% of world total) (1965-2011)

Source: BBVA Research and BP



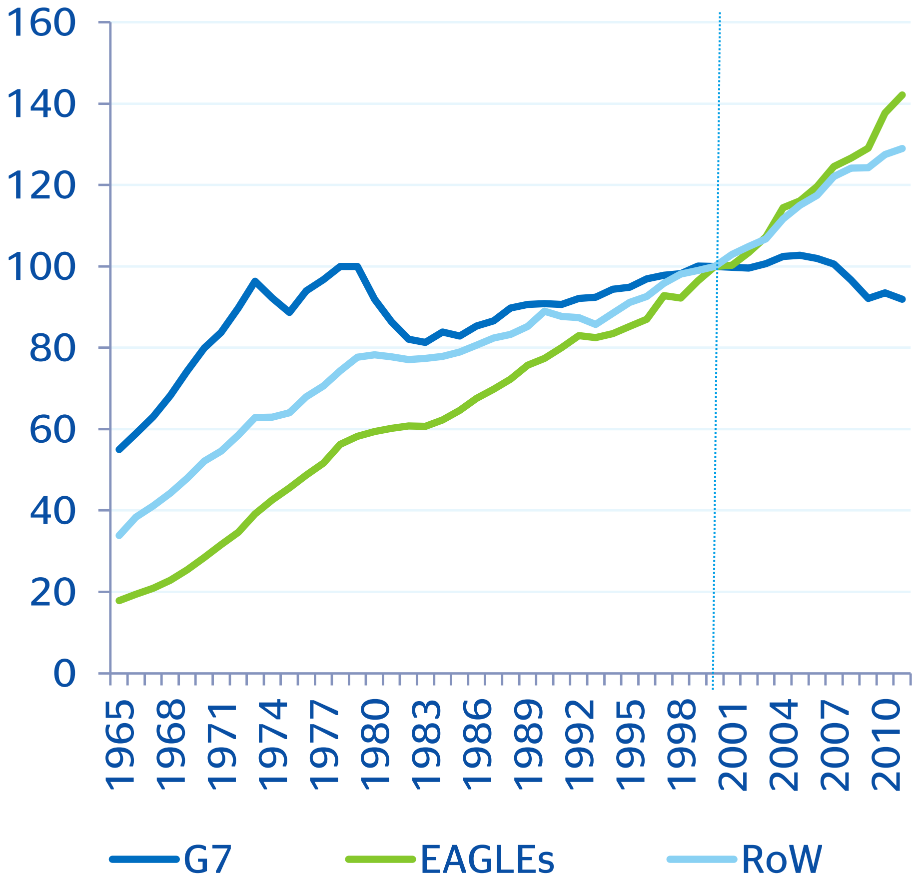
Consumption trends in energy markets

Oil and gas demand up by 40-60% in the EAGLEs since 2000 while flat or declining in the G7

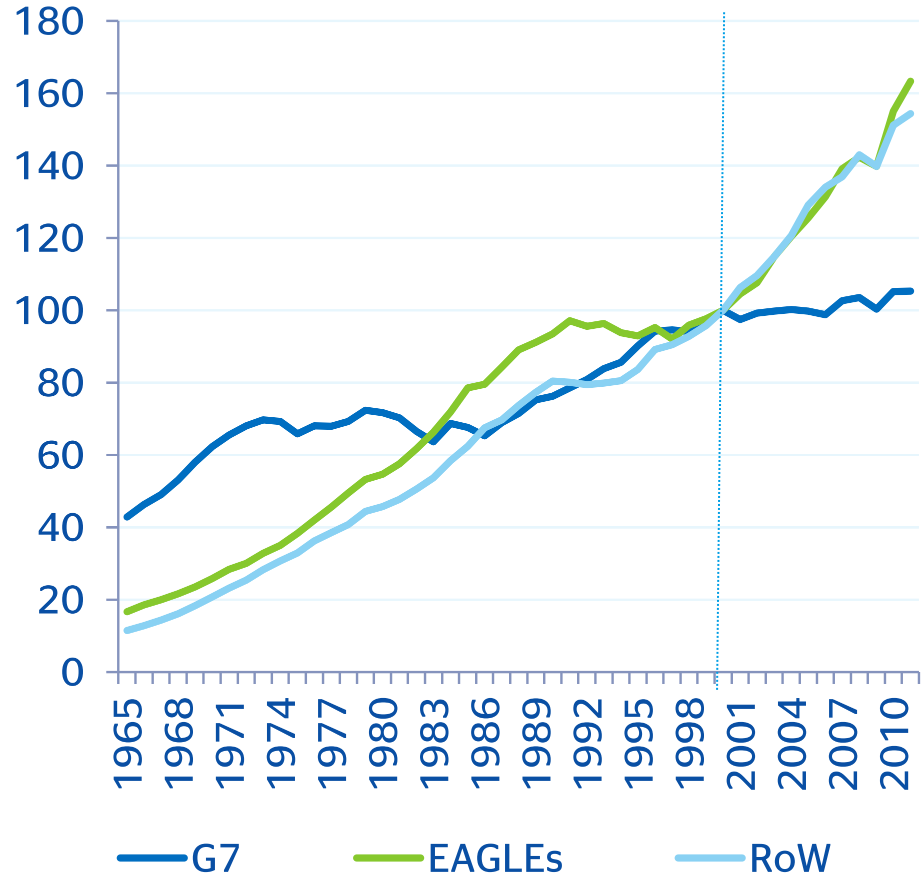
Energy consumption in EAGLEs and G7 economies (index 100=2000) (1965-2011)

Source: BBVA Research and BP

Oil



Natural gas

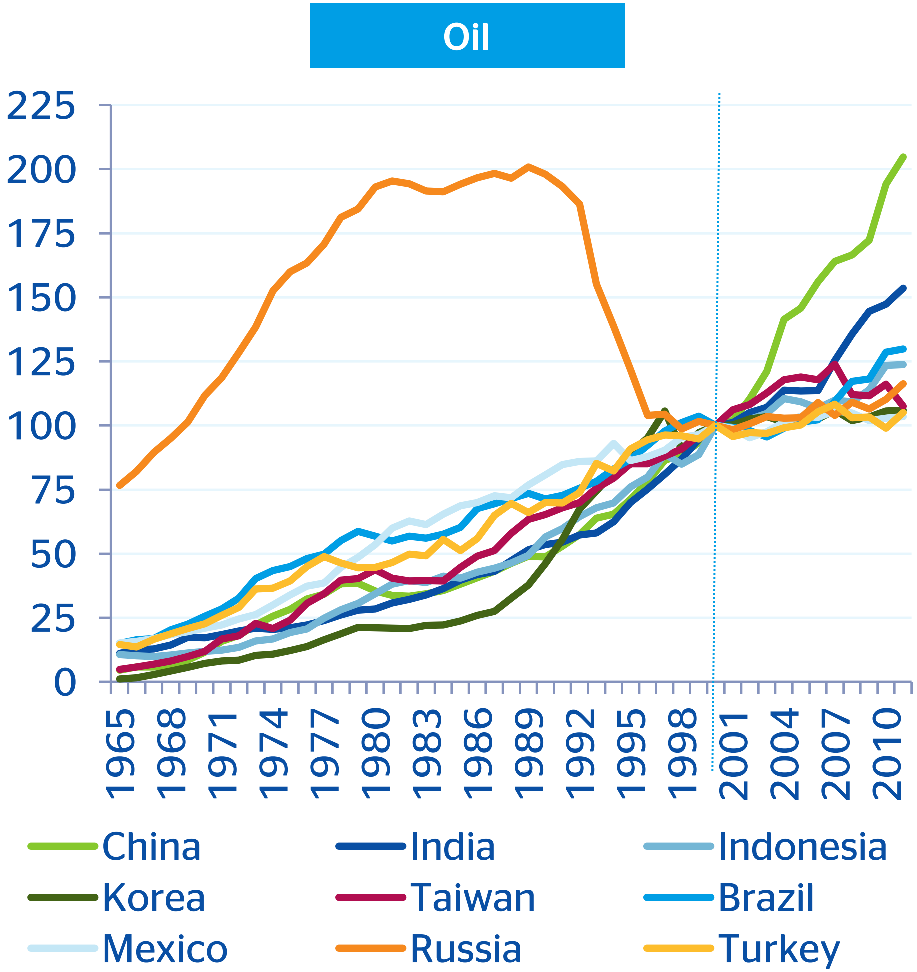


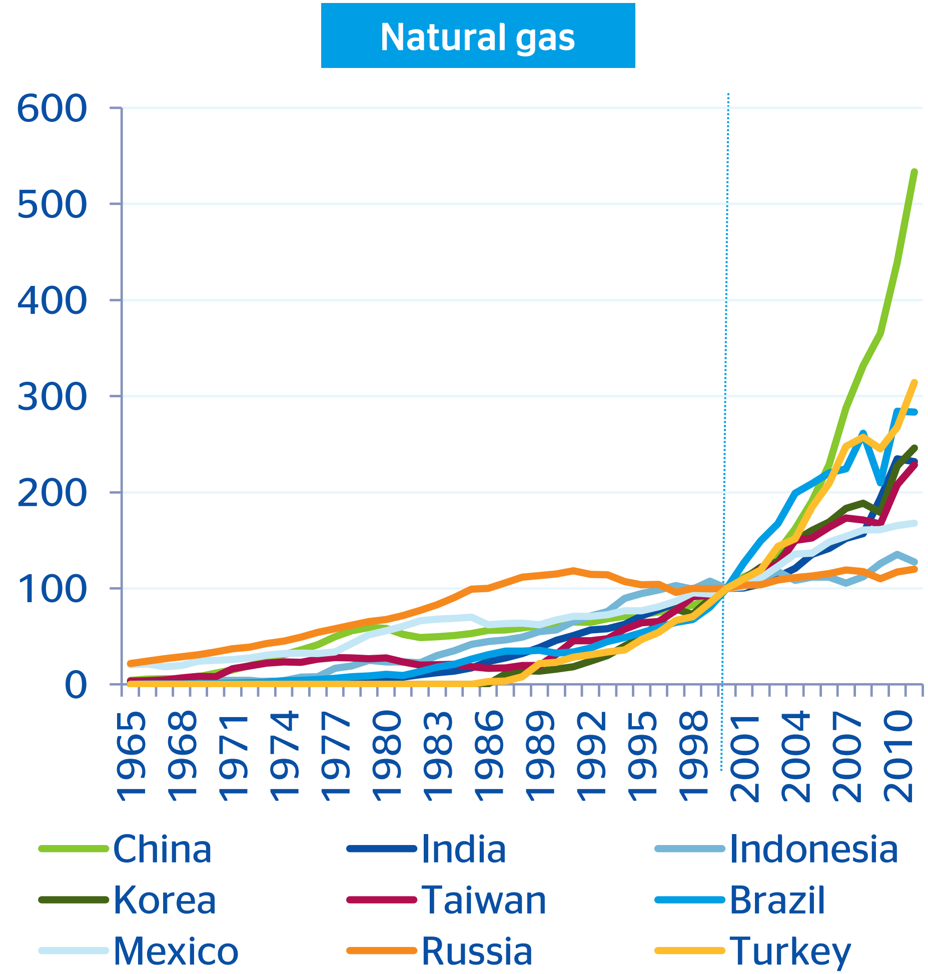
Consumption trends in energy markets

China leads the process, but demand is increasing fast also in other EAGLEs

Energy consumption in the EAGLEs (index 100=2000) (1965-2011)

Source: BBVA Research and BP





Consumption trends in energy markets

Energy trends linked to rapid growth in emerging economies but other key factors on the table

Key factors to shape demand elasticity and impact the energy mix

Rapid economic growth

Increasing GDP per capita

Increasing energy demand

Technological progress
Resources availability
New energy deposits
Energy intensity
Use efficiency
Relative prices
Policy options
Environmental issues

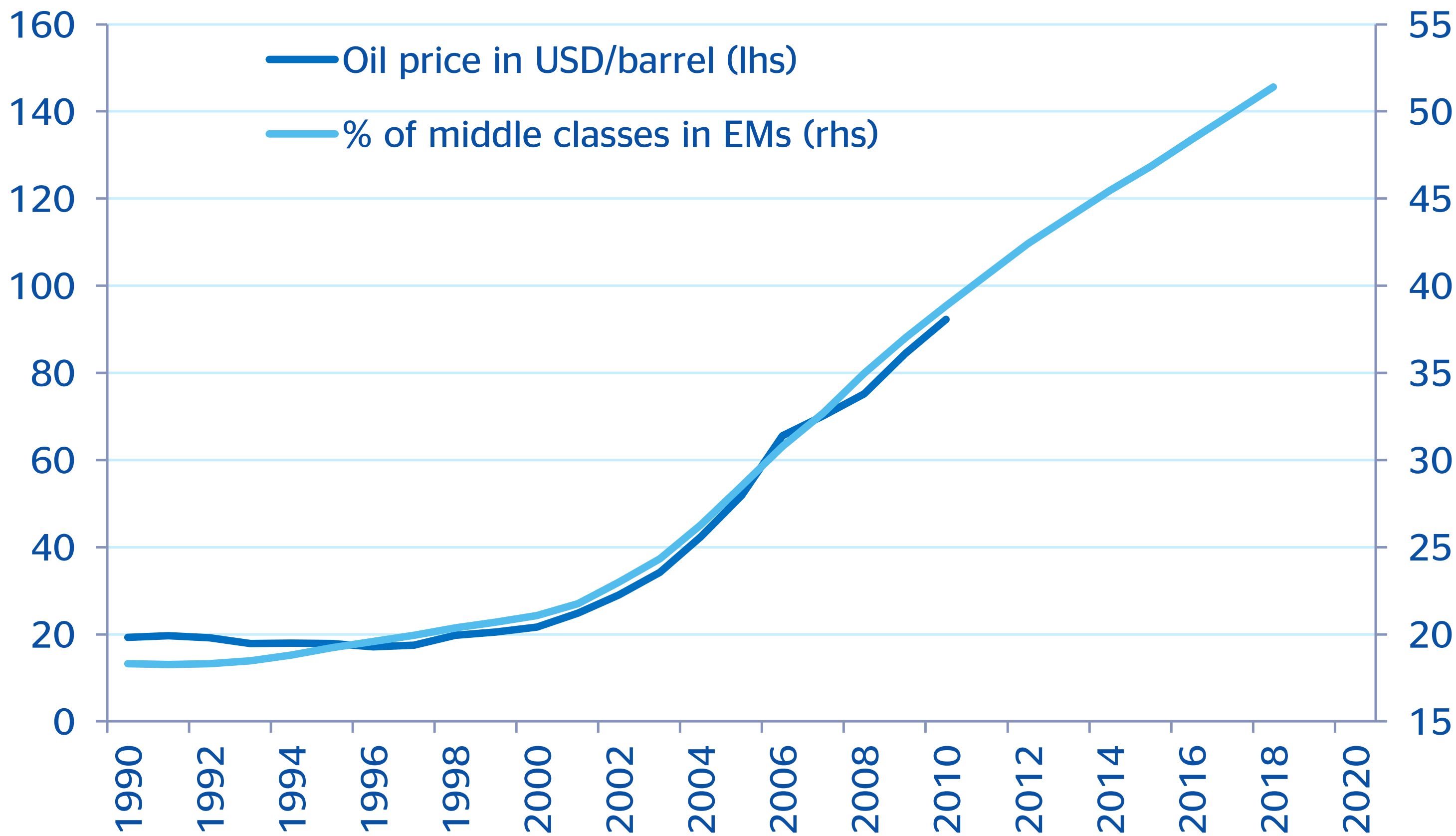
As emerging economies continue growing fast and converging to developed standards, pressure increases on natural resources and make energy security more relevant

Consumption trends in energy markets

Higher purchasing power (middle classes) is a very relevant source of new energy demand

Middle classes in emerging economies and oil price (centered 5yMA) (1980-2020)

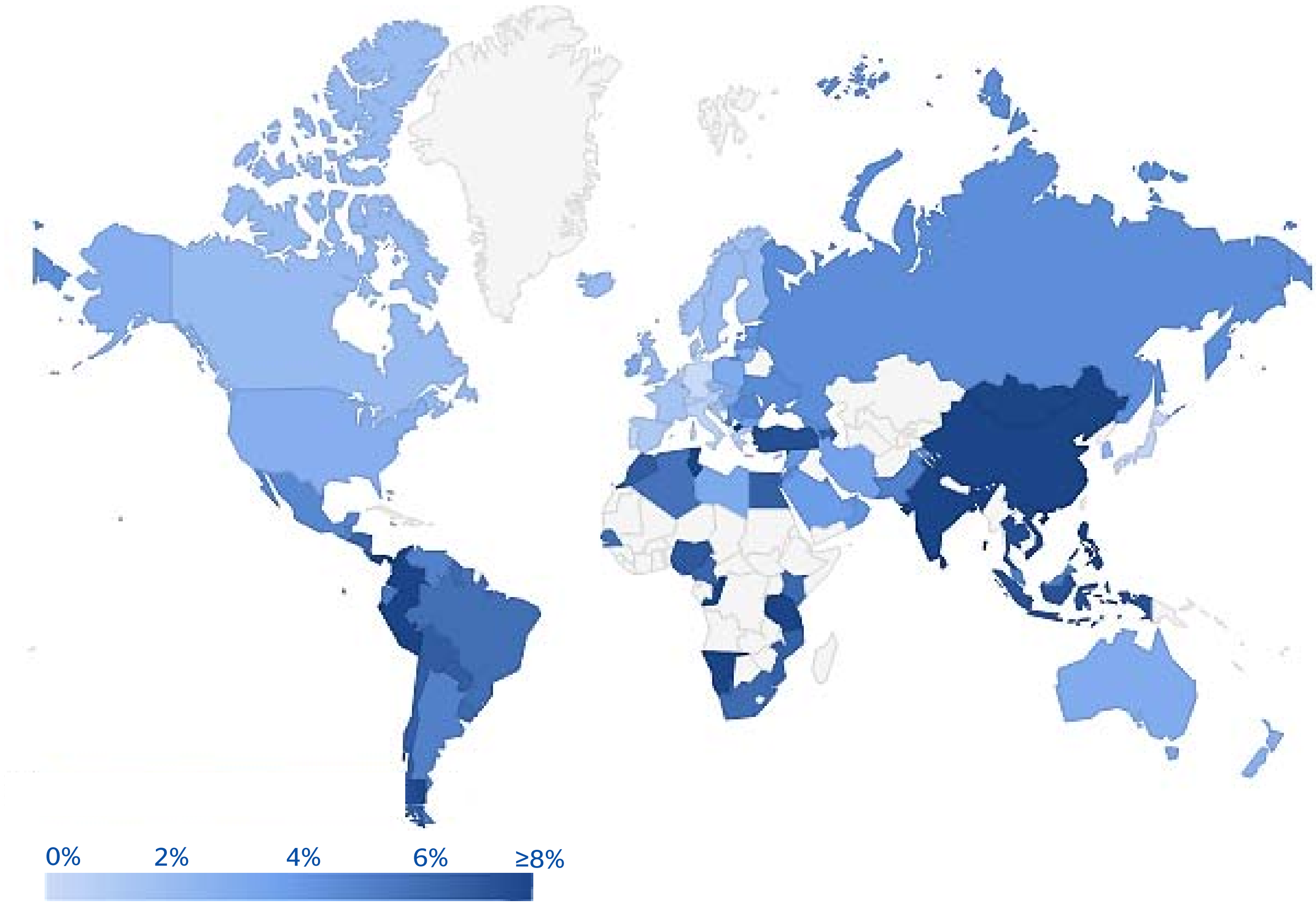
Source: BBVA Research and Haver



Consumption trends in energy markets

Boost in car fleet to increase energy demand for transport, but conditional on technology progress

World markets according to annual growth of the car fleet between 2010 and 2020
Source: BBVA Research

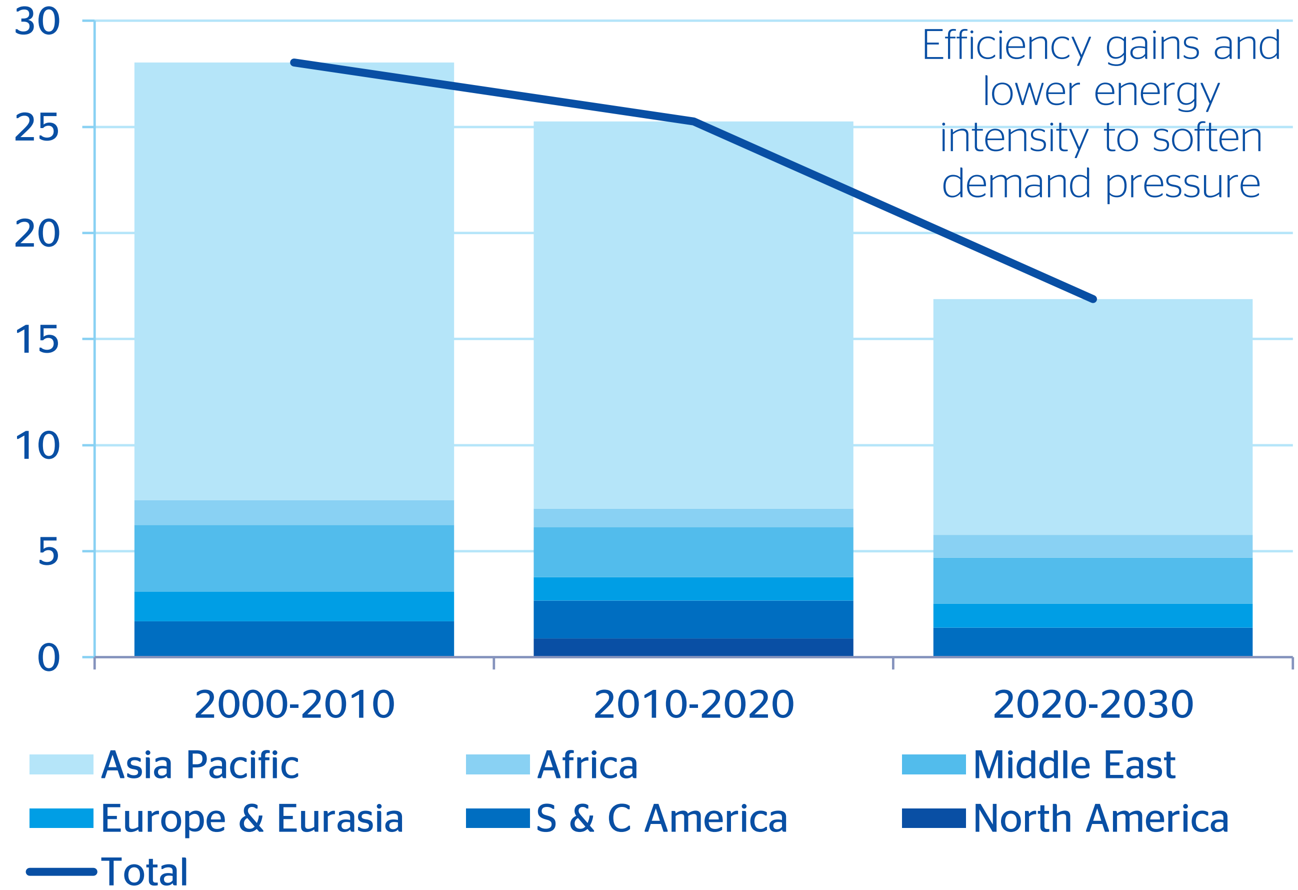


Consumption trends in energy markets

No big differences between growth and energy maps in the following years: Asia leads

Contribution to energy consumption growth by region (percentage points) (2000-2030)

Source: BBVA Research and BP



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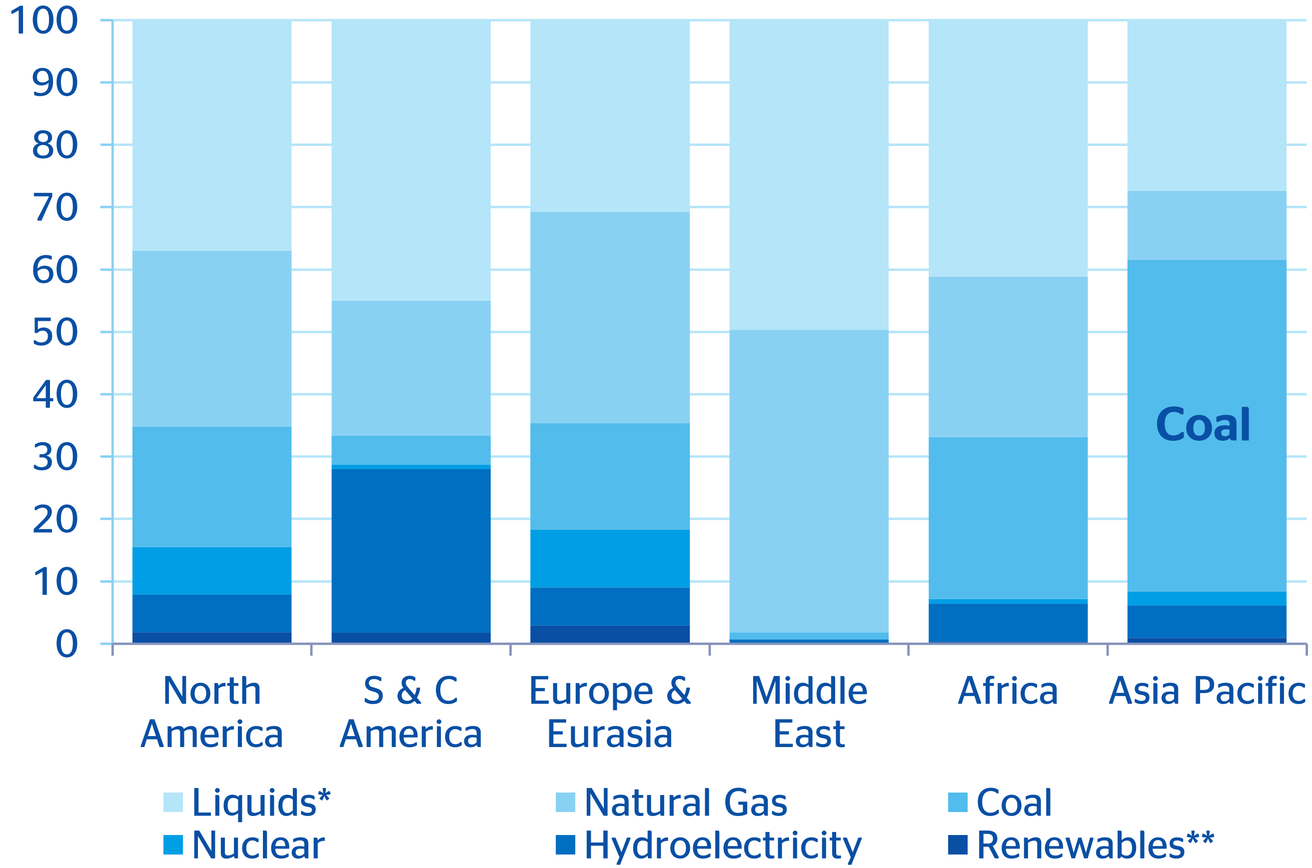
Consumption trends in energy markets

Regional energy mix: progressive substitution of coal in developing Asia

Energy consumption by fuel (in % of total) (2011)

Source: BBVA Research and BP



Natural gas and renewables also expected to gain share to the detriment of oil, especially in more developed regions

*oil, biofuels, gas-to-liquids and coal-to-liquids; **wind power, solar electricity and other renewables

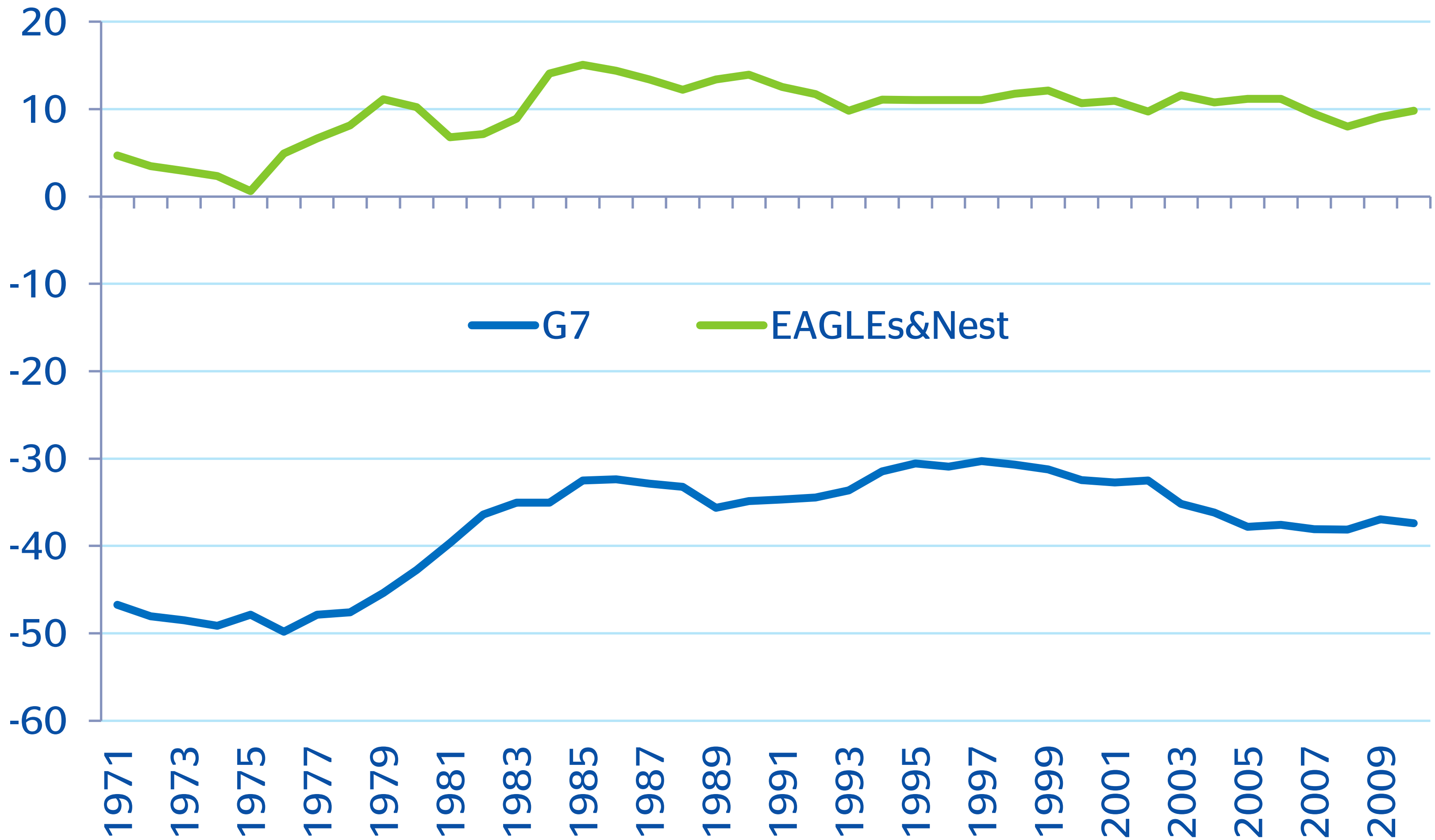
Summary

Energy dependency and supply factors

G7 economies have kept a significant reliance on external energy

Energy net exports (% of energy use; unweighted average by group) (1971-2010)

Source: BBVA Research and World Bank



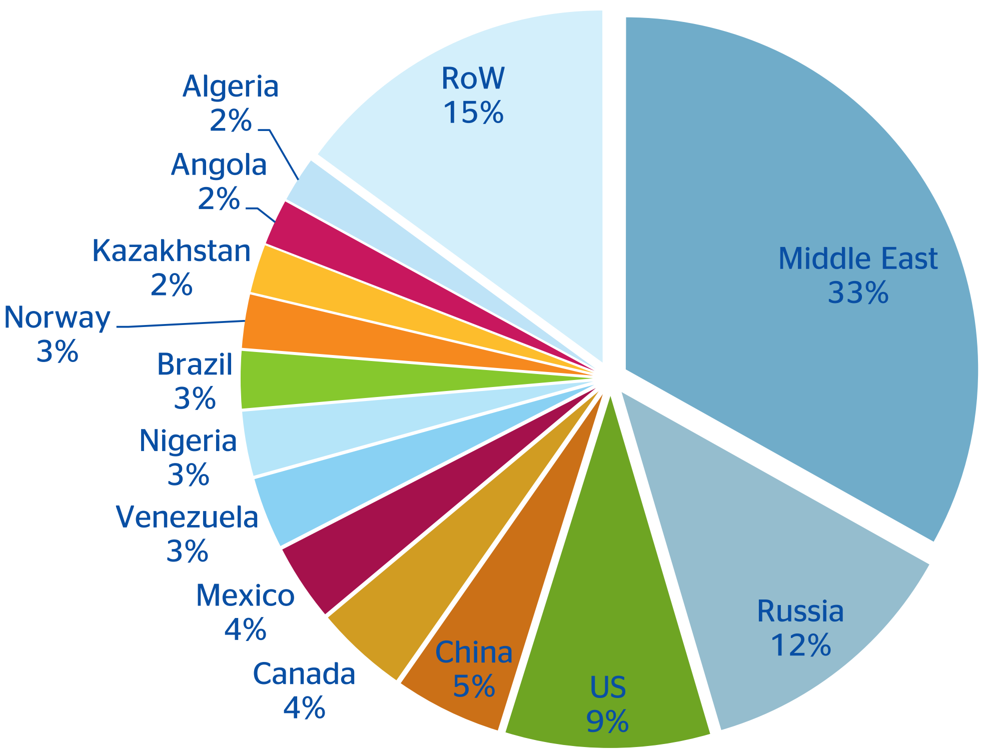
Energy dependency and supply factors

Most of the energy production remains in the hands of emerging economies

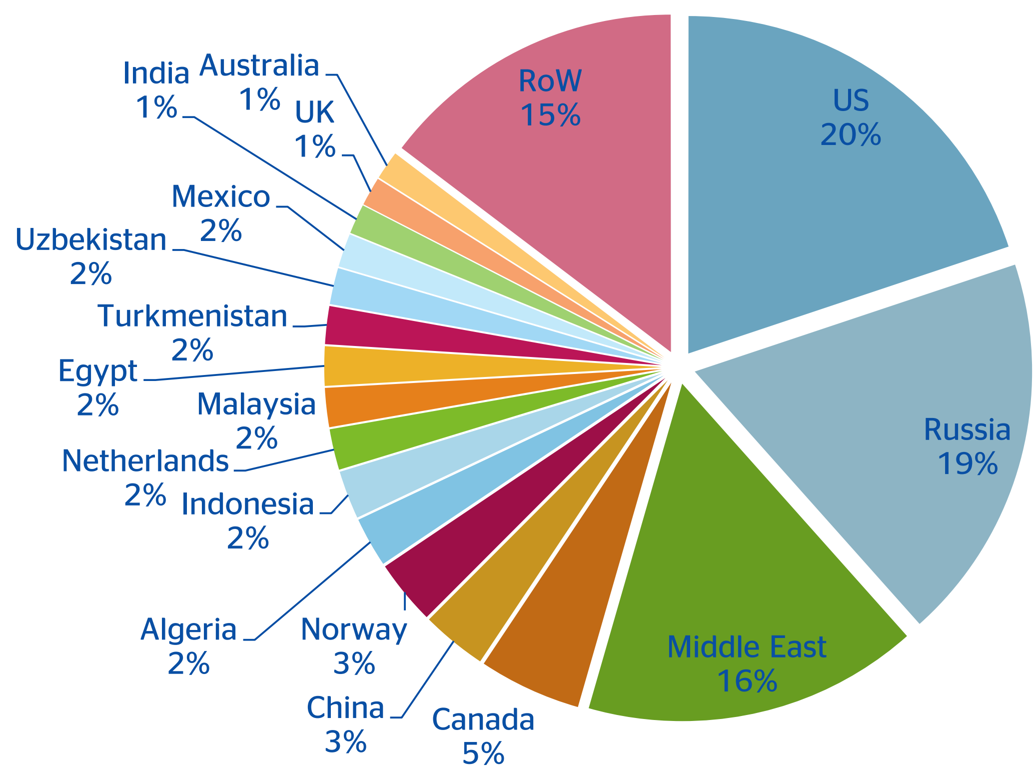
Production (% of world total) (2011)

Source: BBVA Research and BP

Oil



Natural gas



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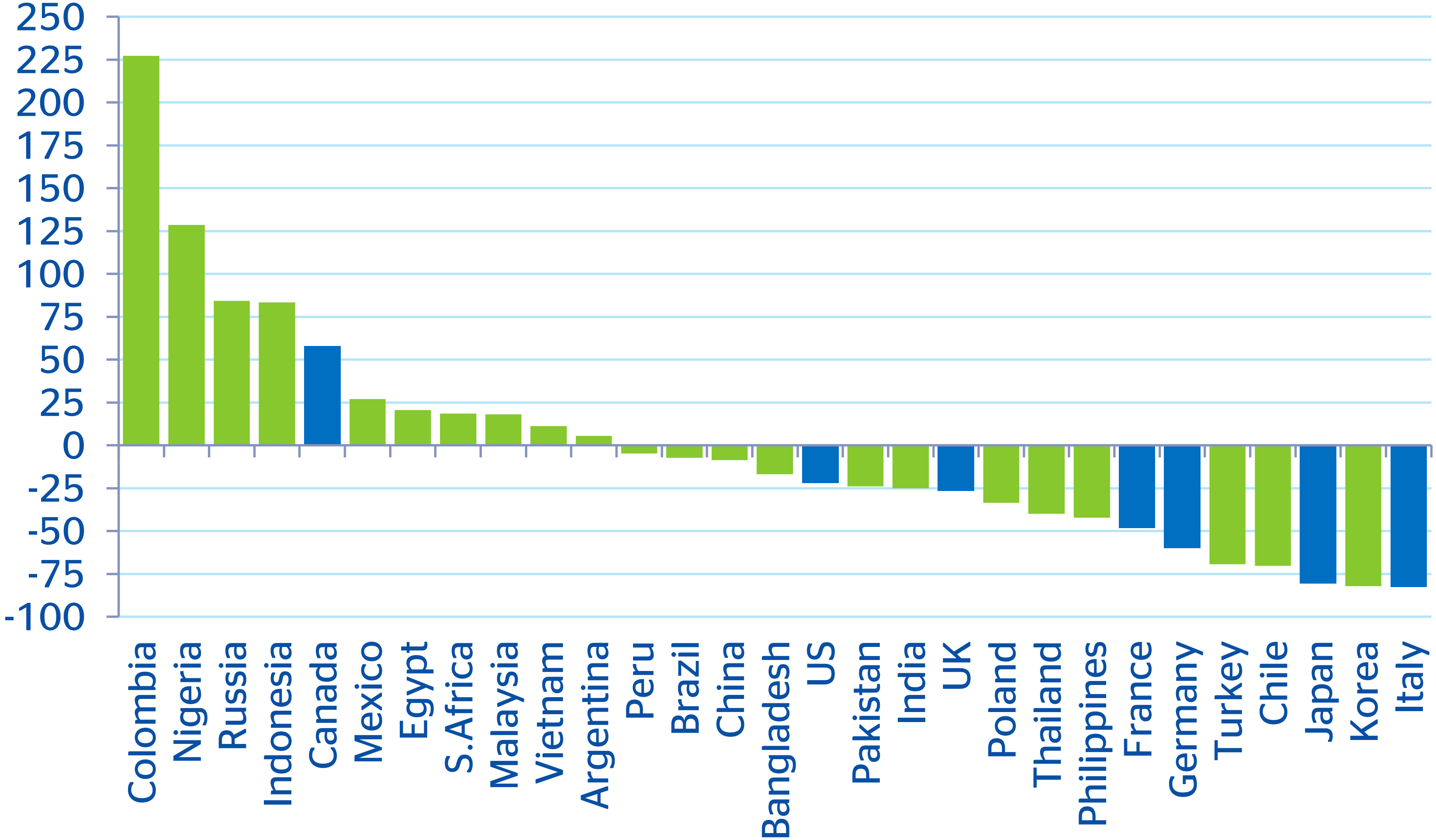
Energy dependency and supply factors

However, the energy balance of EAGLEs and Nest is quite diverse

Energy net exports (% of energy use) (2010)

Source: BBVA Research and World Bank

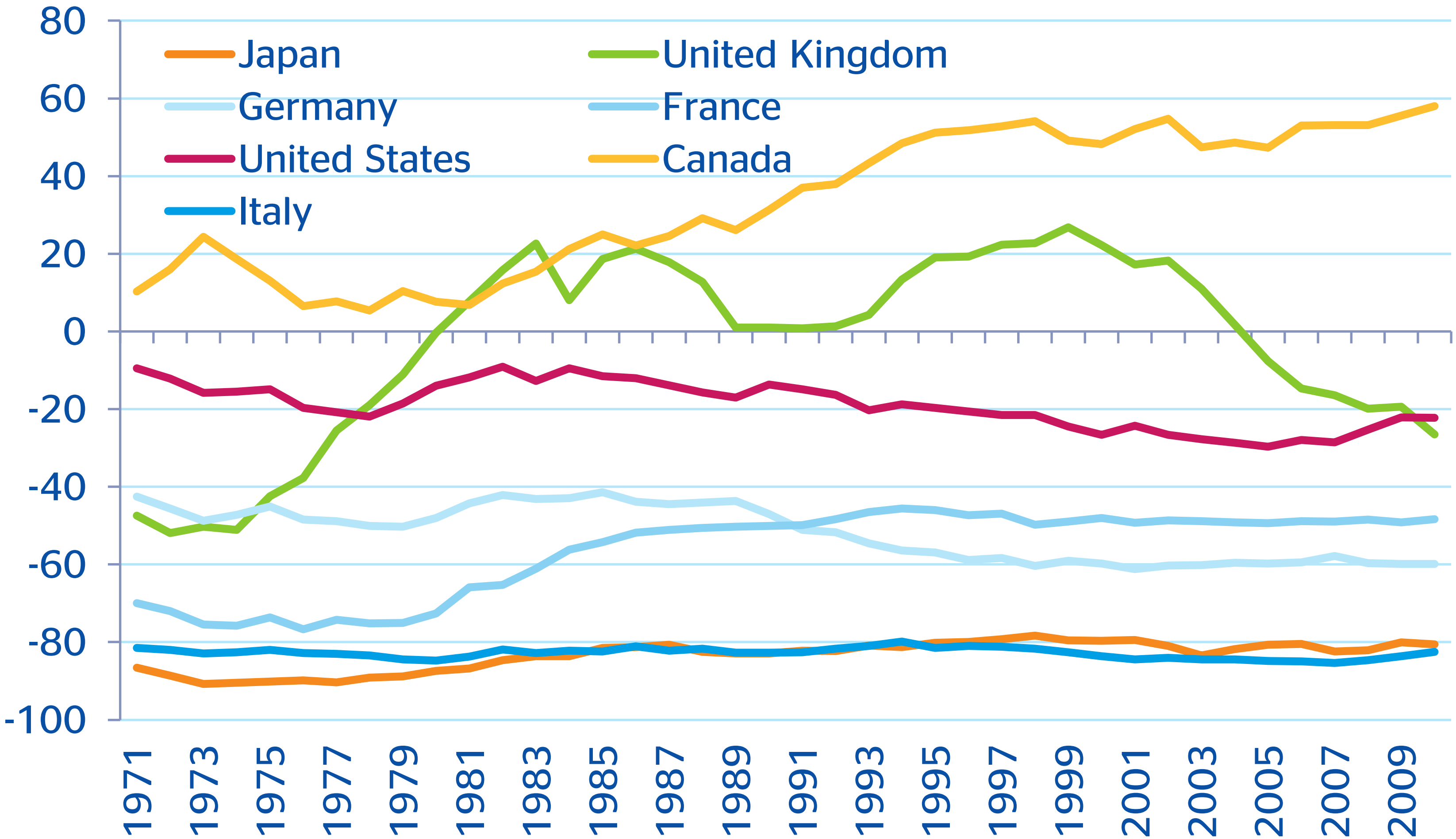


Energy dependency and supply factors

Canada is at present the only self-sufficient country among the G7

Energy net exports (% of energy use) (1971-2010)

Source: BBVA Research and World Bank

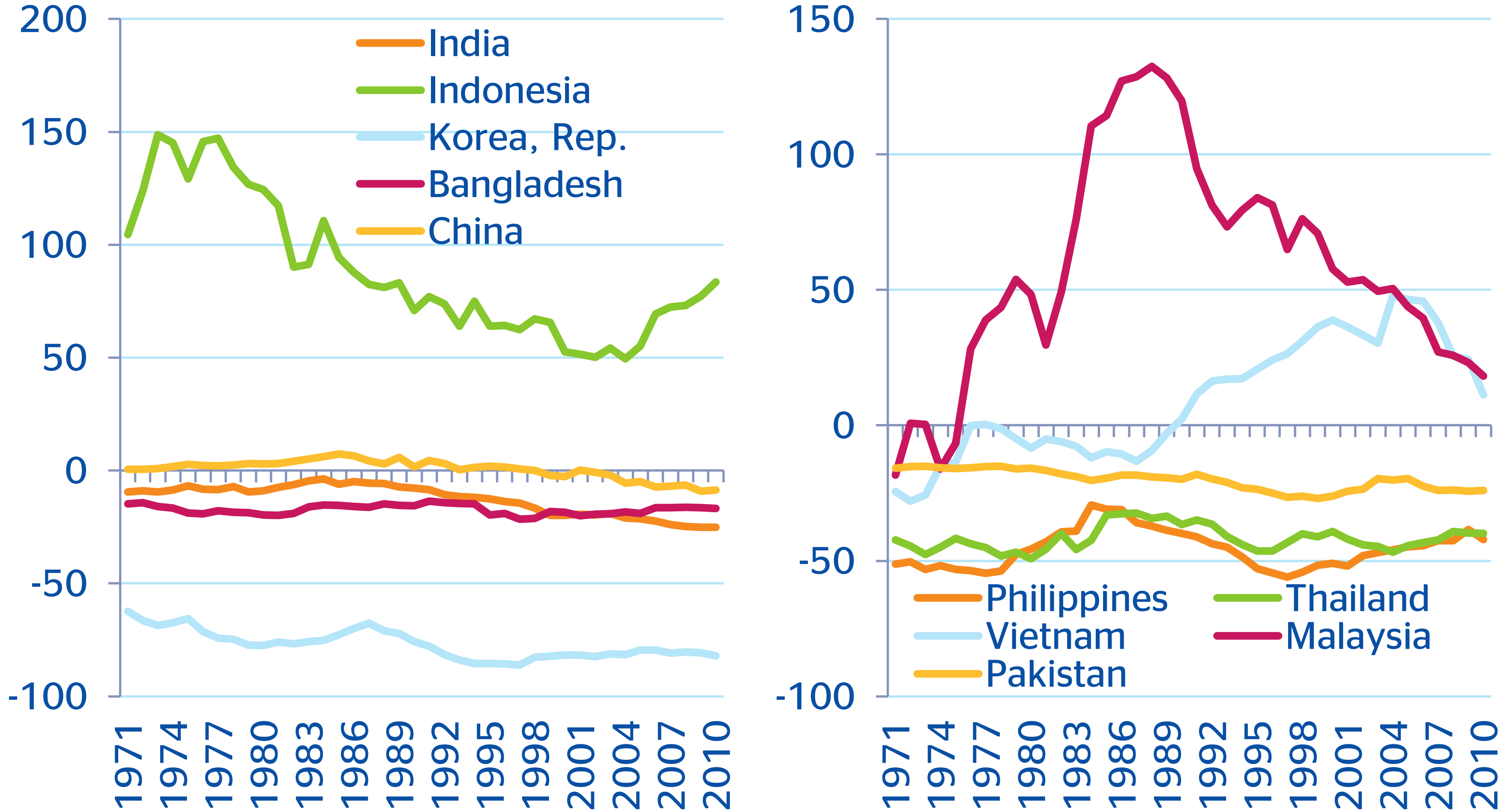


Energy dependency and supply factors

Korea is the most reliant Asian country on imports while Indonesia intensifies specialization

Energy net exports (% of energy use) (1971-2010)

Source: BBVA Research and World Bank

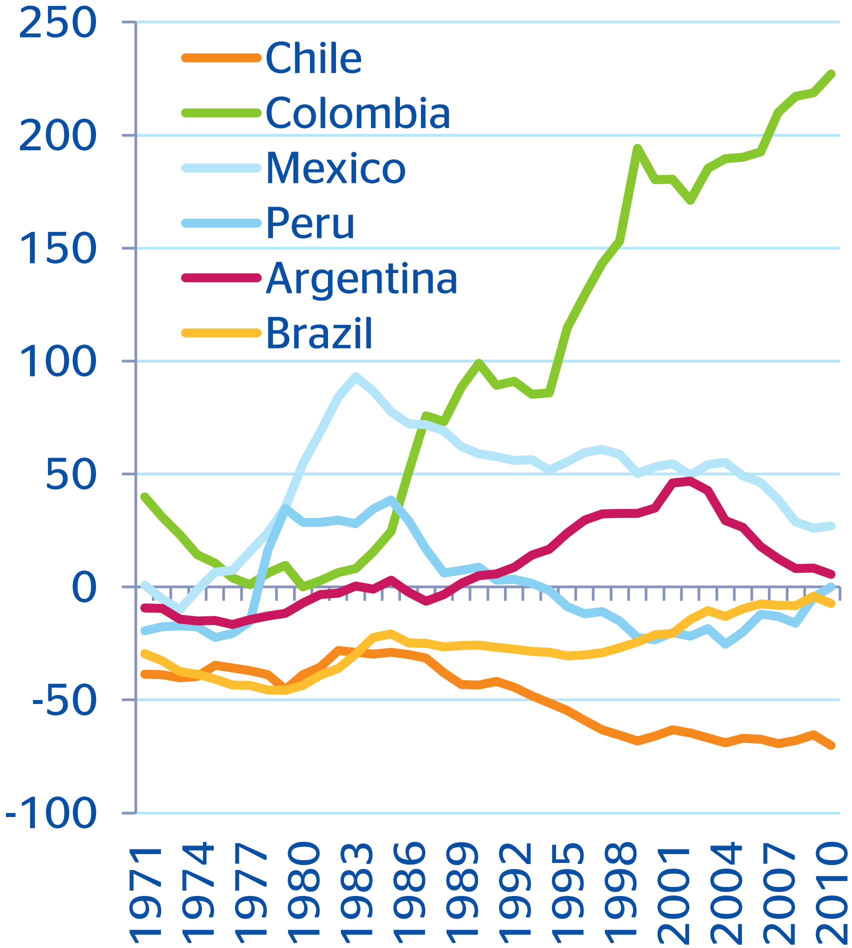


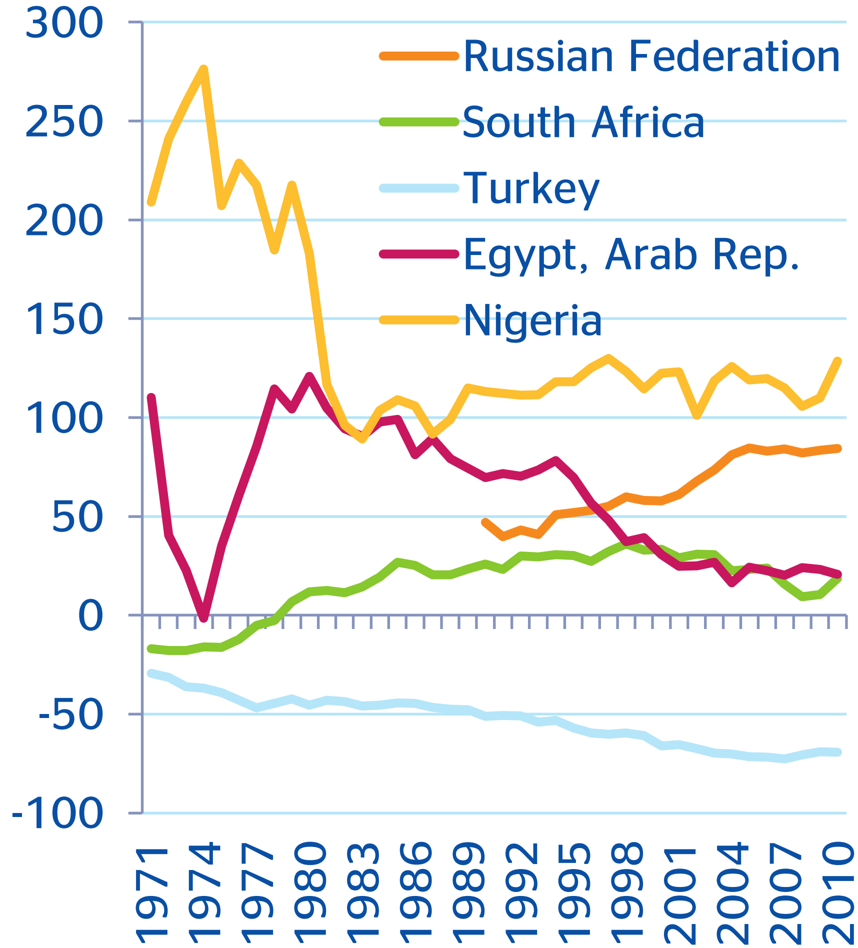
Energy dependency and supply factors

Brazil and Argentina show opposite trends, whereas growth pushes up net imports in Turkey

Energy net exports (% of energy use) (1971-2010)

Source: BBVA Research and World Bank





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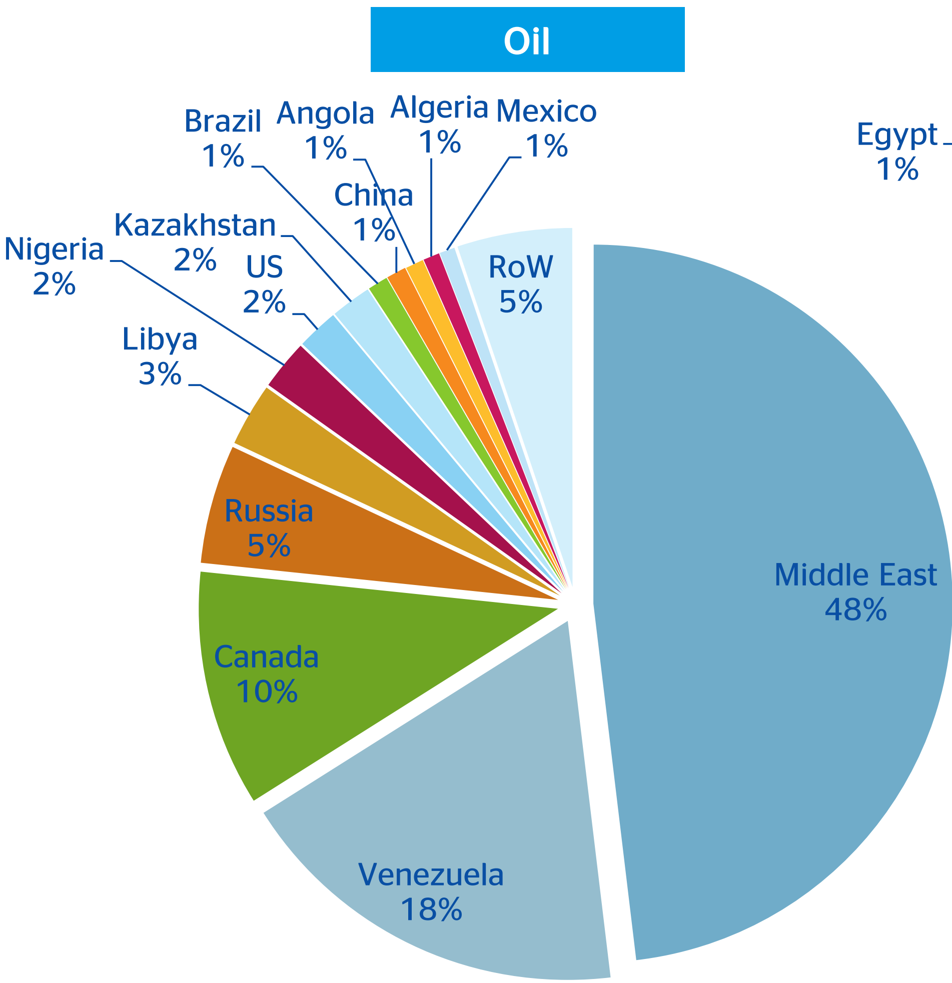
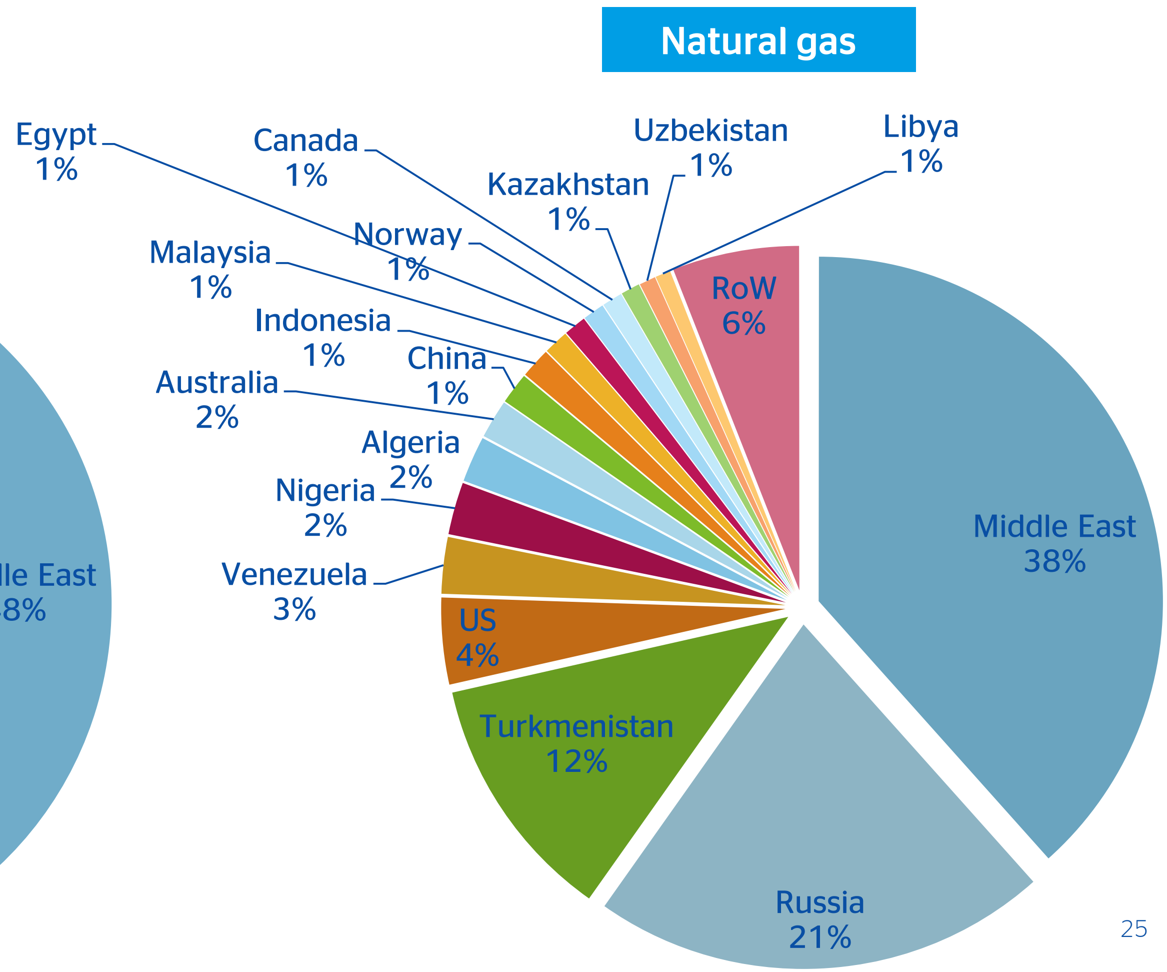
Energy dependency and supply factors

Oil and gas reserves are very concentrated, more than current production

Proved reserves (% of world total) (2011)

Source: BBVA Research and BP



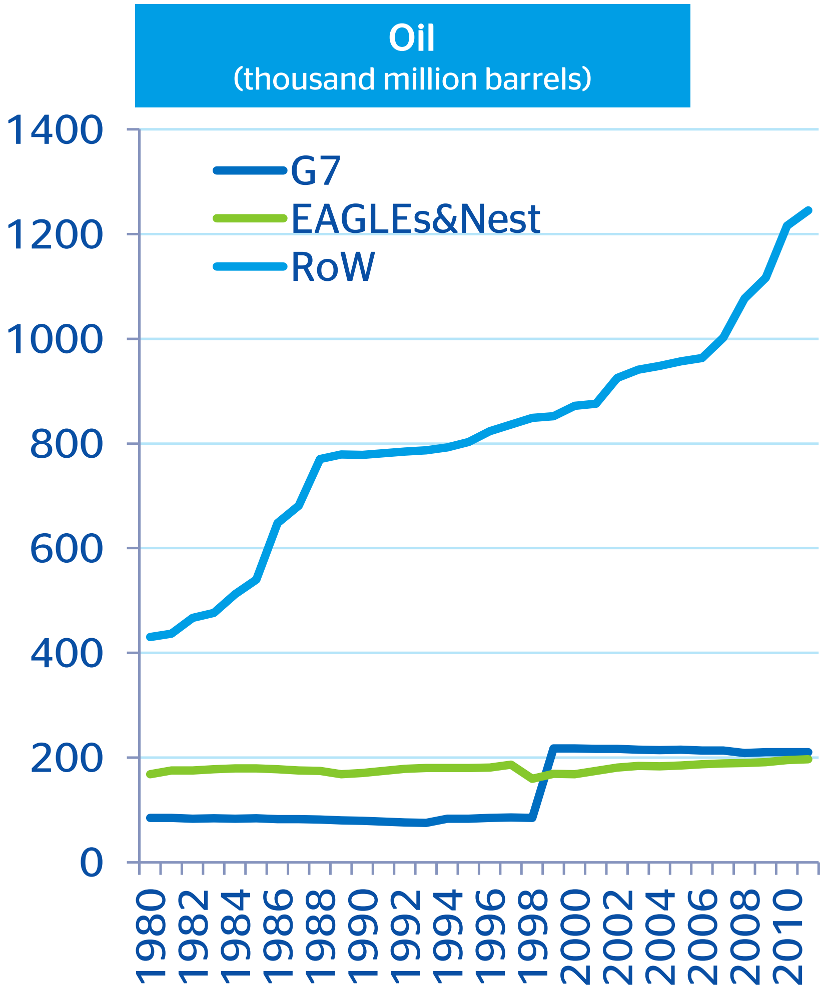


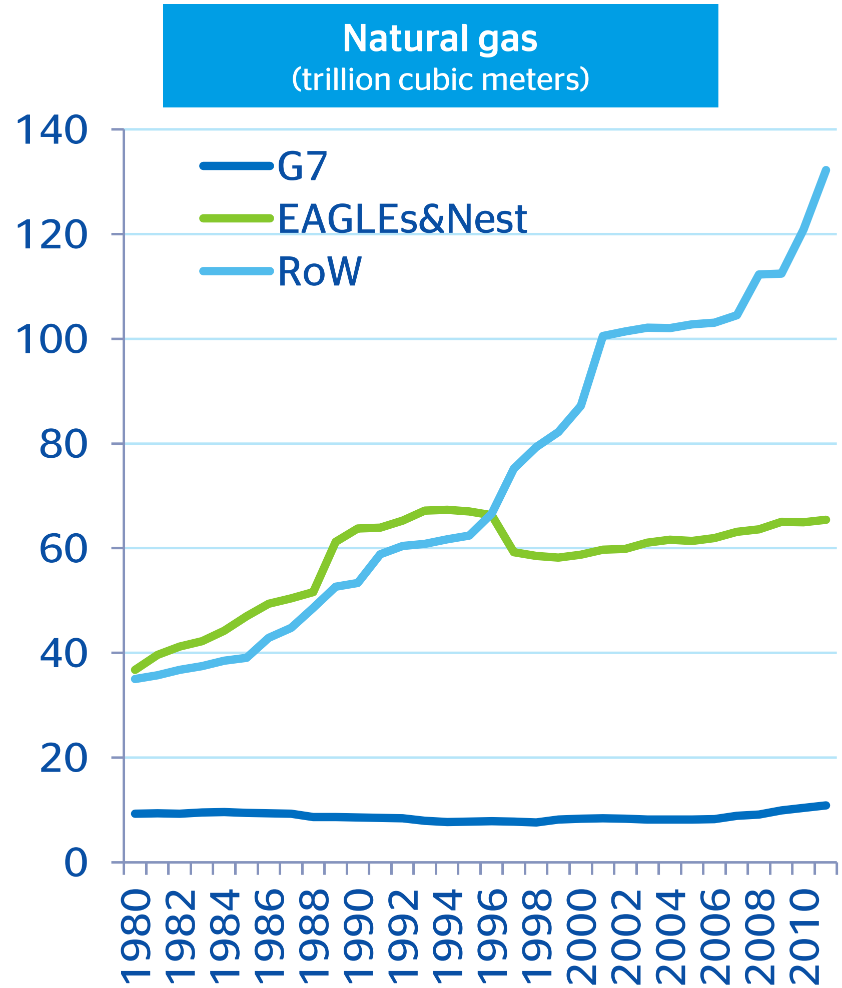
Energy dependency and supply factors

Changes in the last 25 years dominated by the higher share of OPEC countries

Proved reserves (physical units) (1980-2011)

Source: BBVA Research and BP



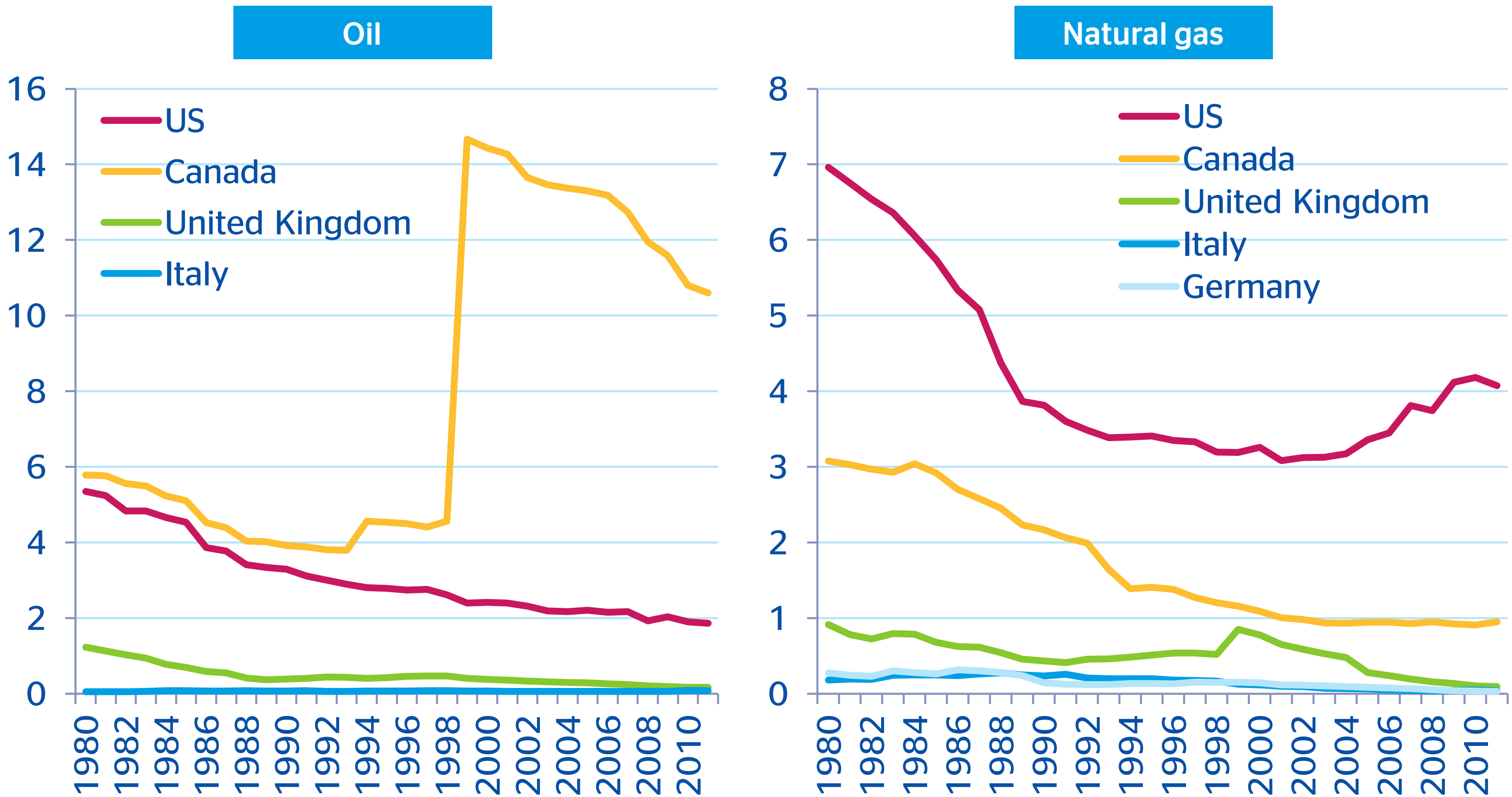


Energy dependency and supply factors

North America leads reserves building among the G7 economies: oil in Canada and gas in the US

Proved reserves (% of world total) (1980-2011)

Source: BBVA Research and BP



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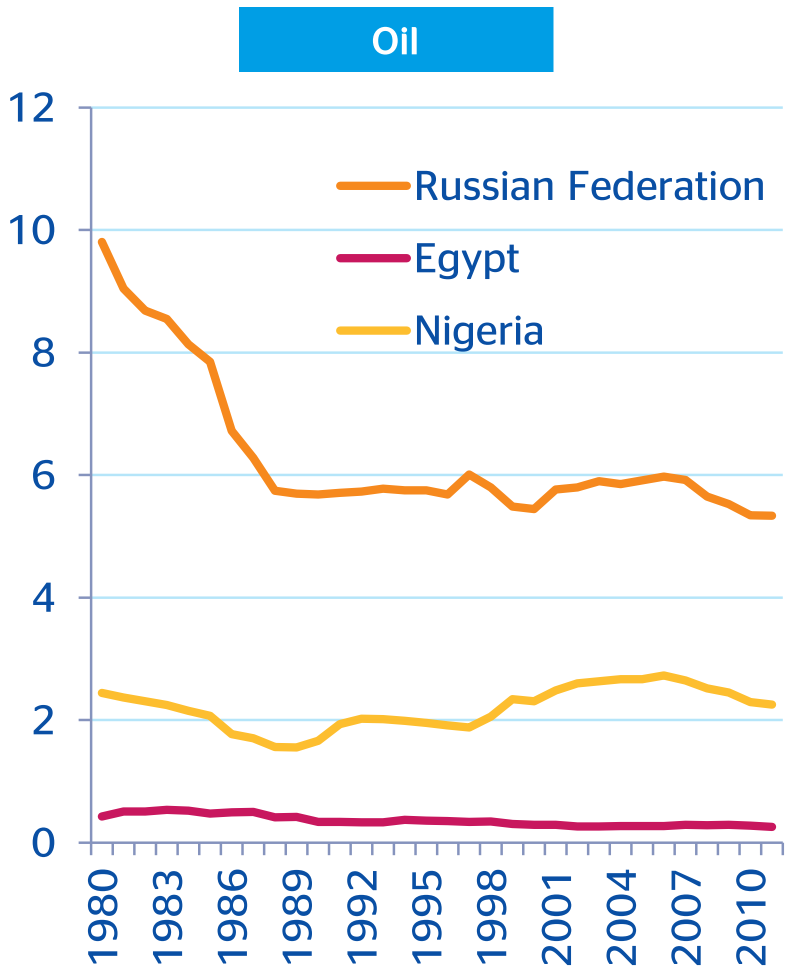
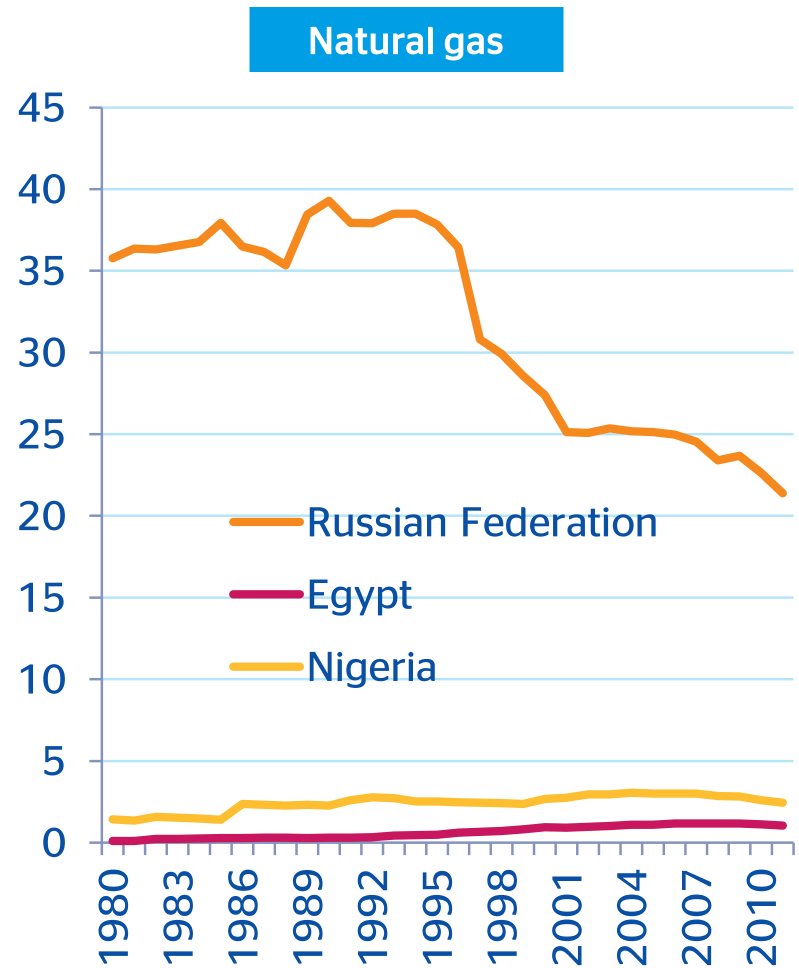
Energy dependency and supply factors

Russia stands out as a price driver in both oil and gas markets, while Nigeria dominates in Africa

Proved reserves (% of world total) (1980-2011)

Source: BBVA Research and BP



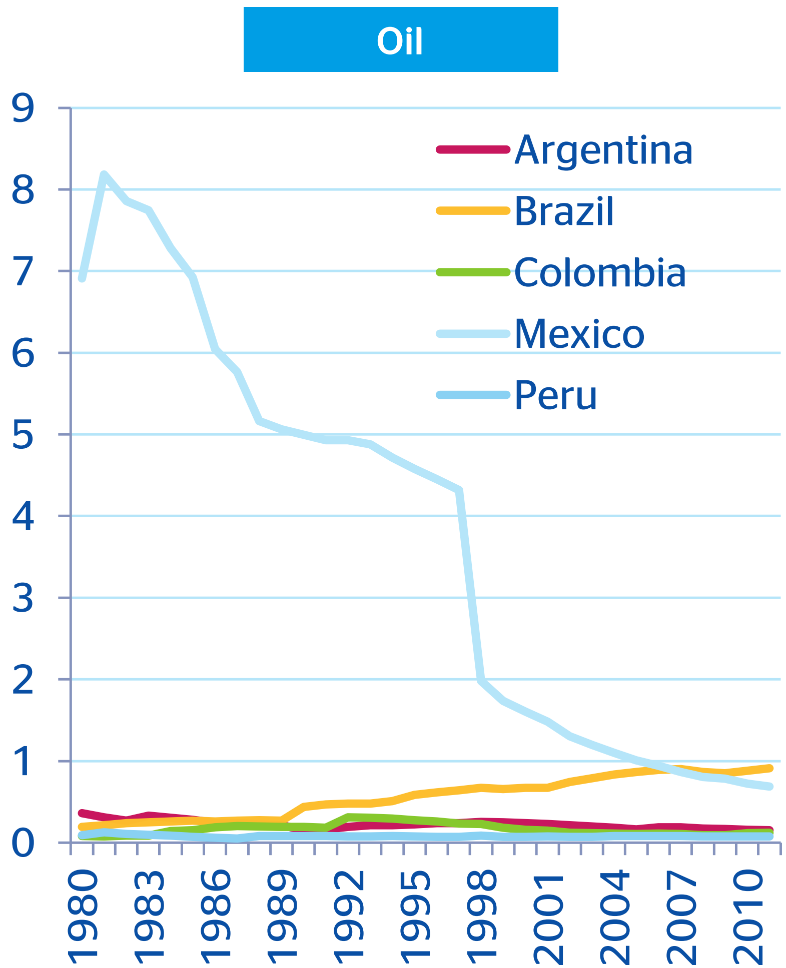


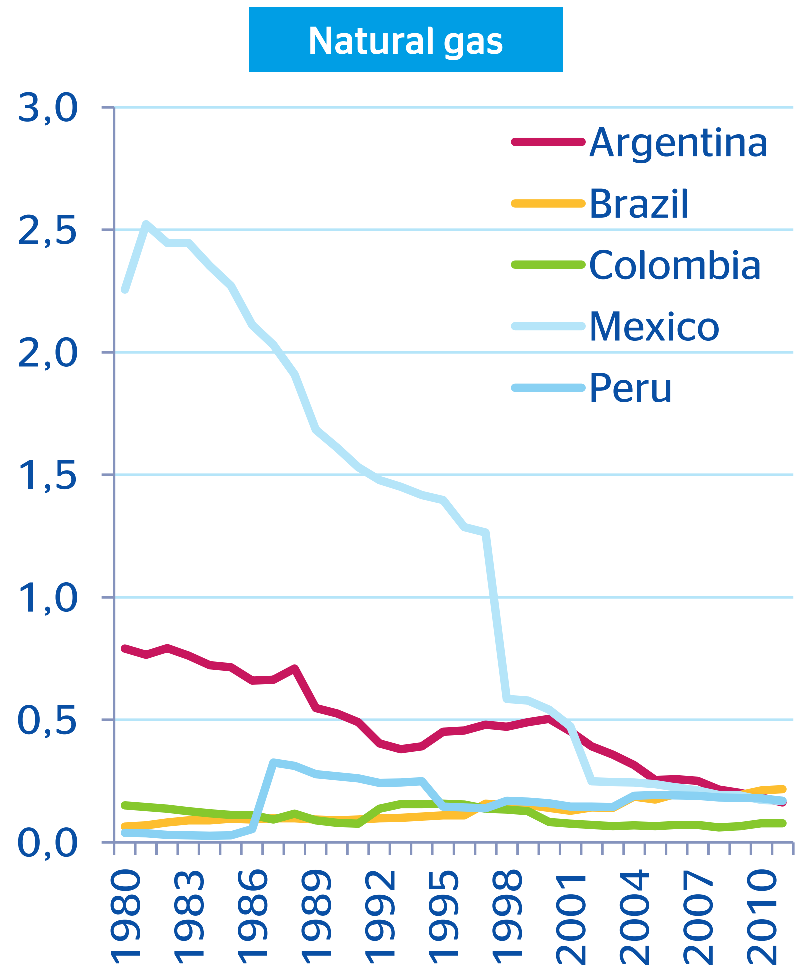
Energy dependency and supply factors

LatAm role has become almost marginal beyond Venezuelan oil, with a relevant increase in Brazil

Proved reserves (% of world total) (1980-2011)

Source: BBVA Research and BP





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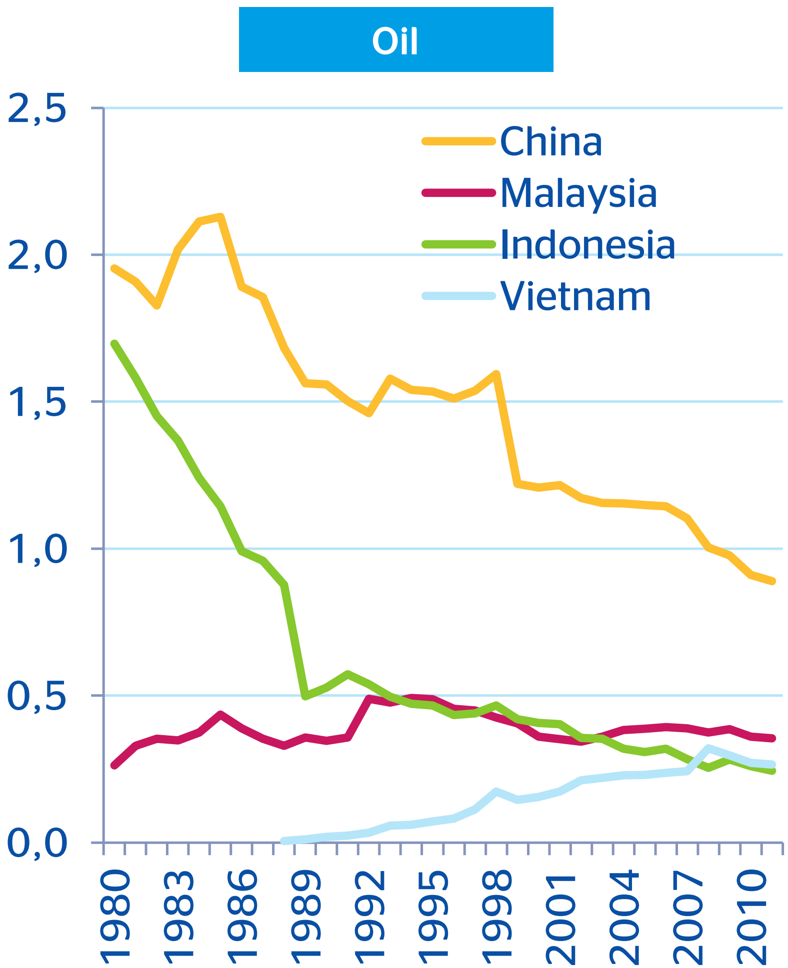
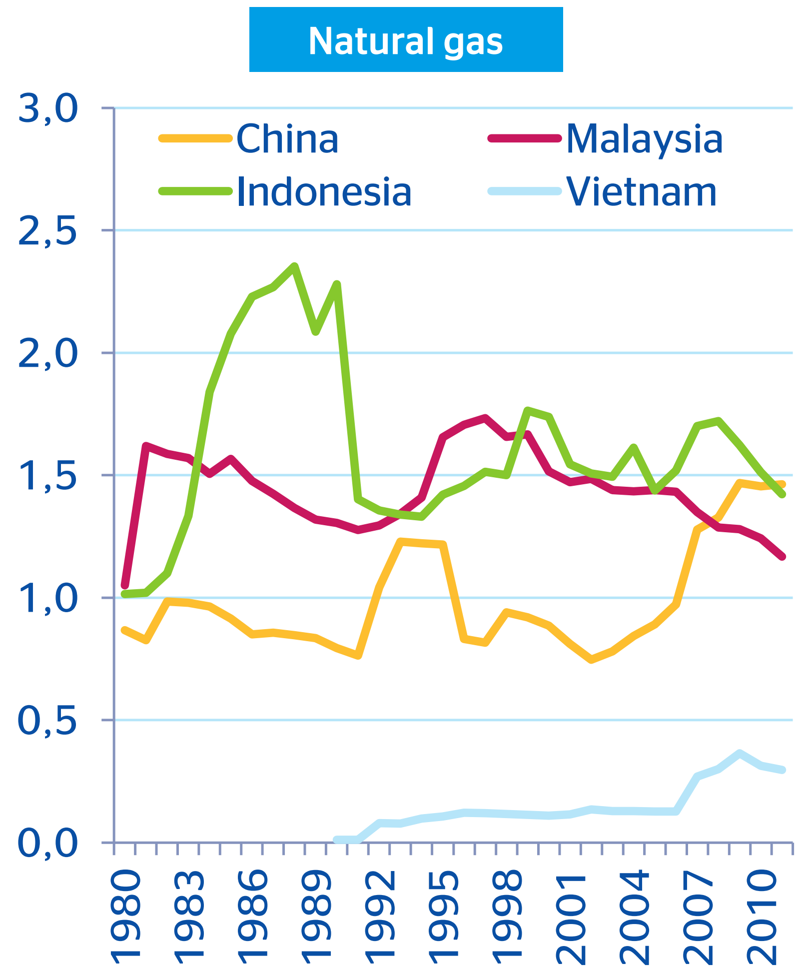
Energy dependency and supply factors

No world players in SE Asia, but oil and gas reserves rose faster than average in Vietnam

Proved reserves (% of world total) (1980-2011)

Source: BBVA Research and BP





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