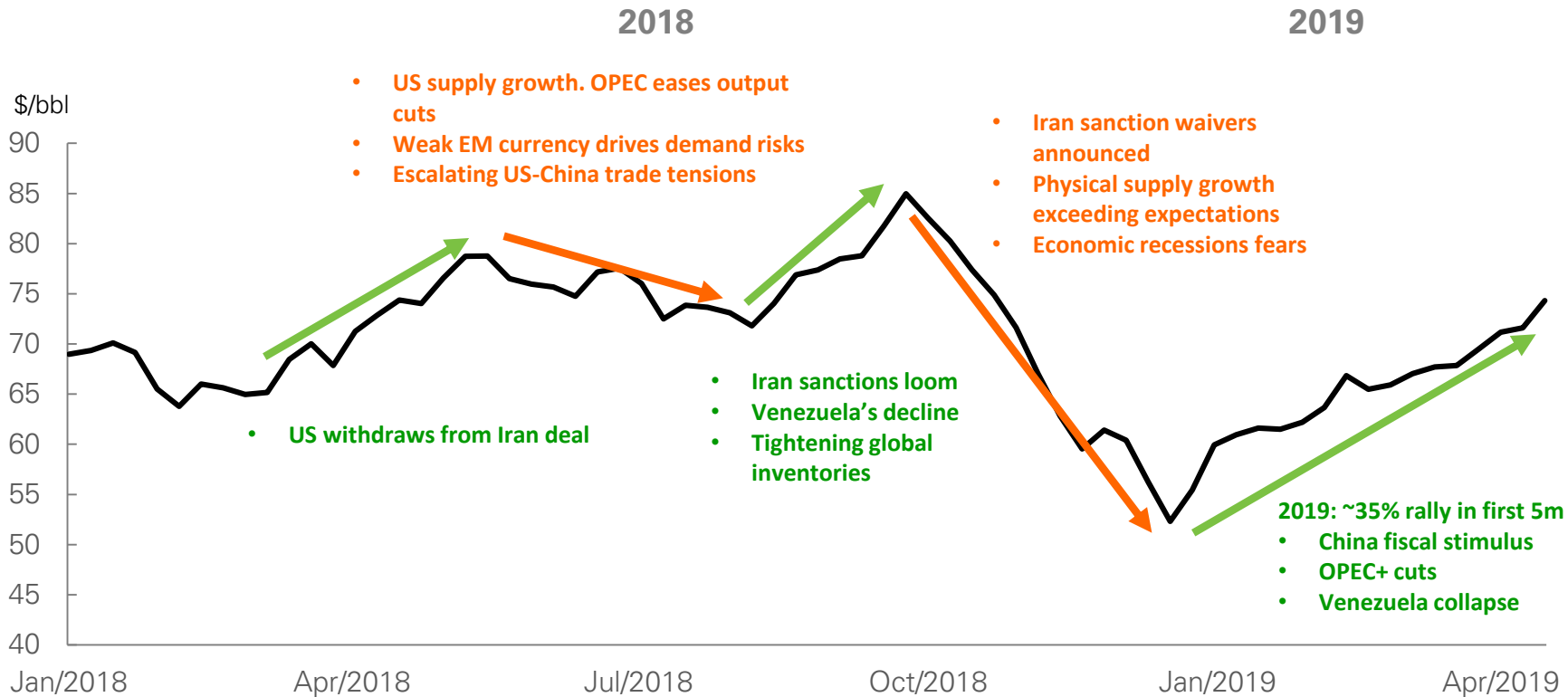


BP Energy Outlook
2019 edition

Anne-Sophie Corbeau
Head of gas analysis

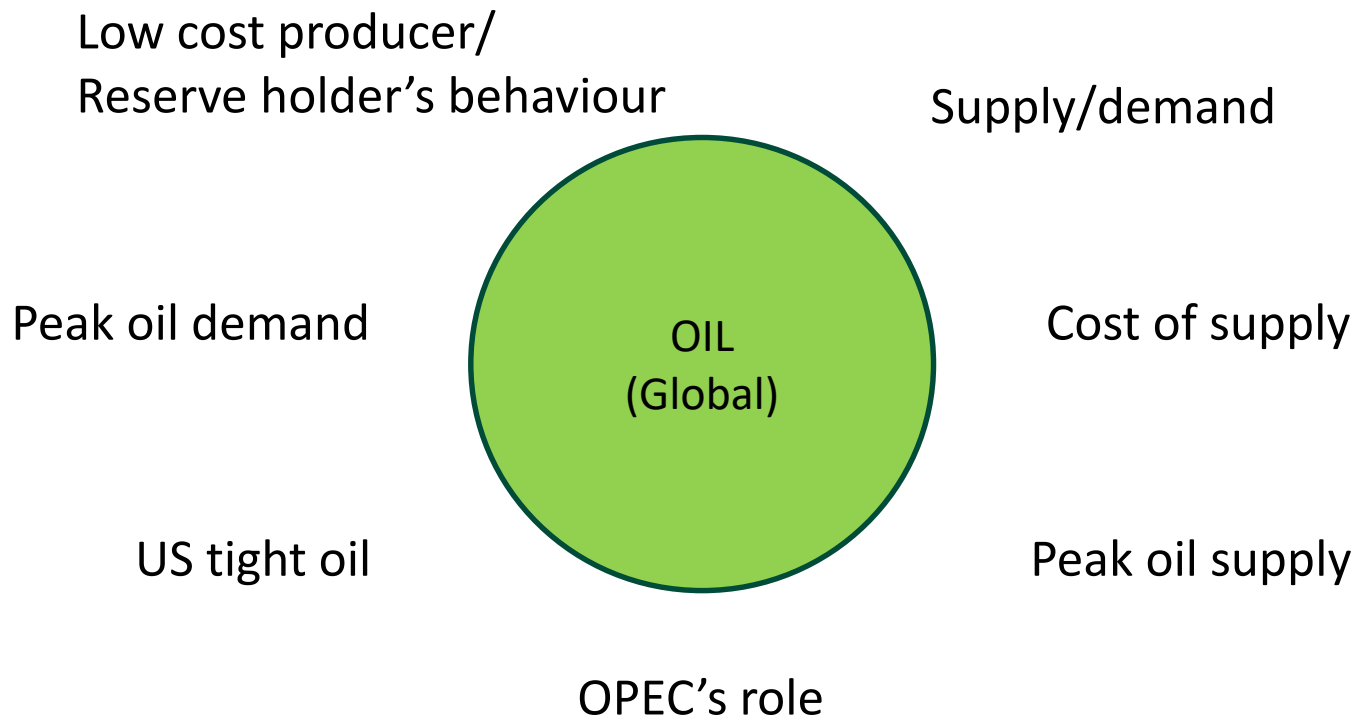


A look at the recent past: Oil prices in 2018-19





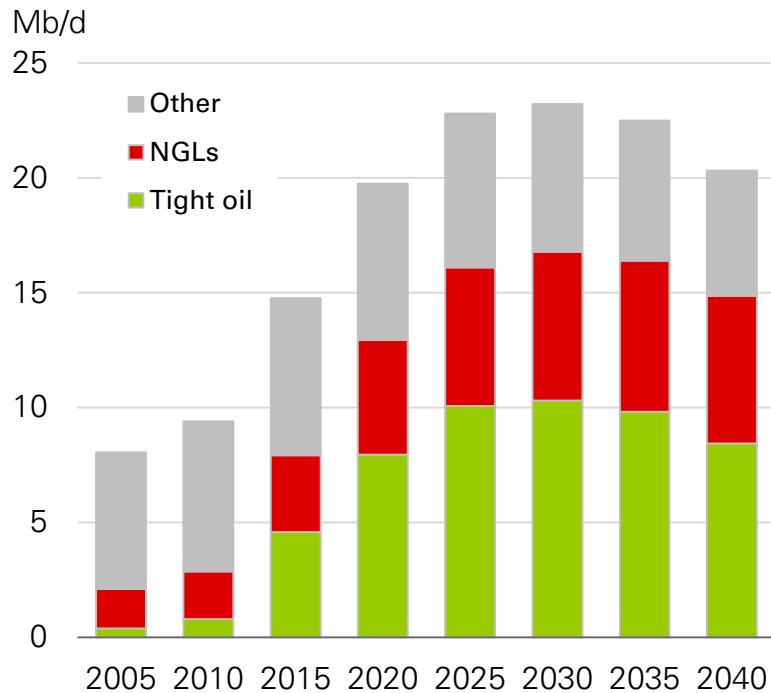
Long-term drivers for oil prices



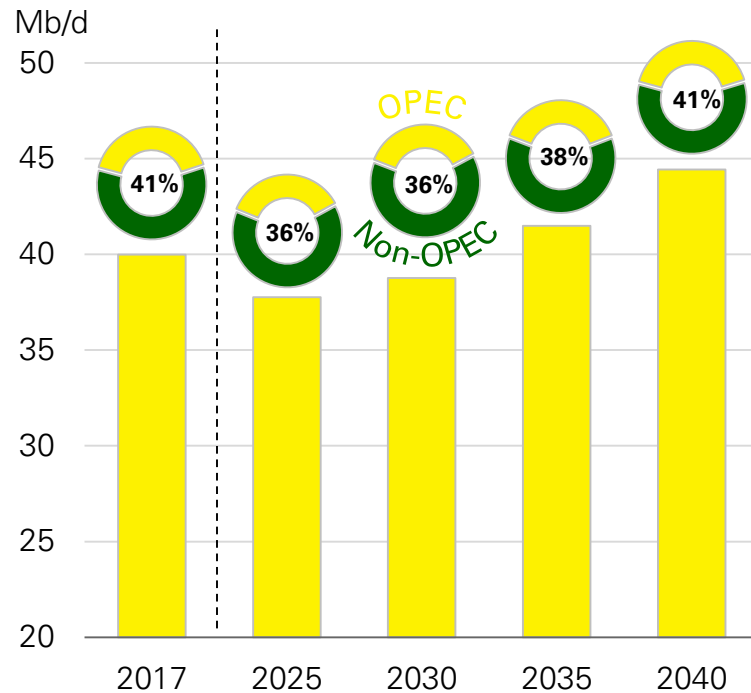


Medium term is dominated by the growth of US tight oil

US liquids supply



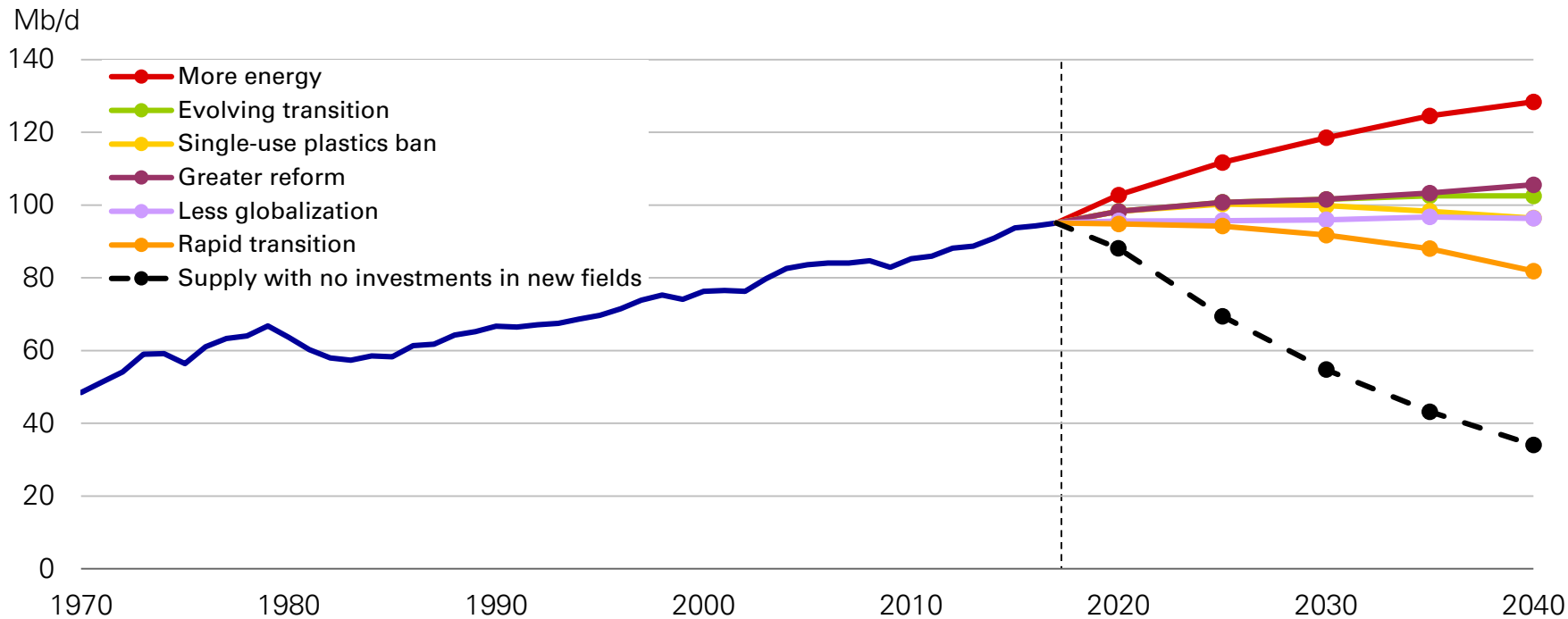
OPEC supply and market share



The outlook for oil demand is uncertain



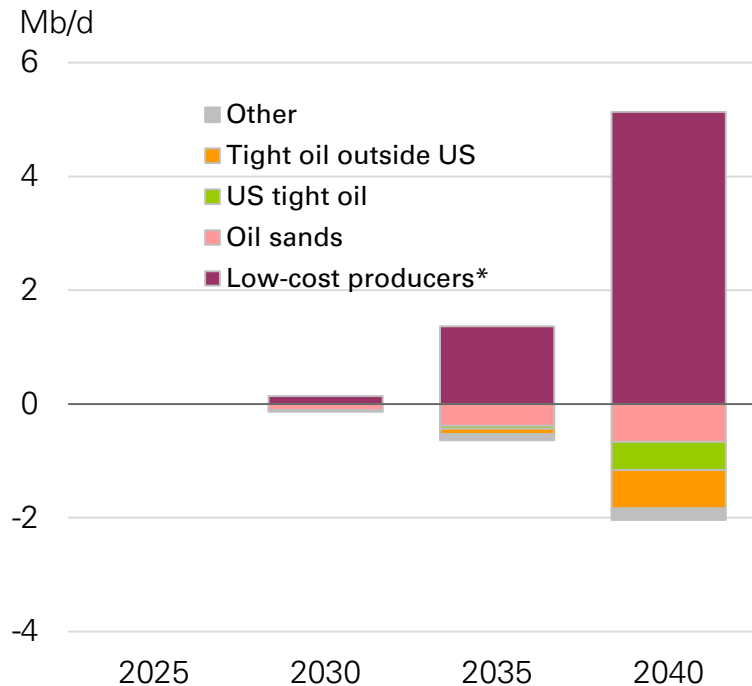
Demand and supply of oil



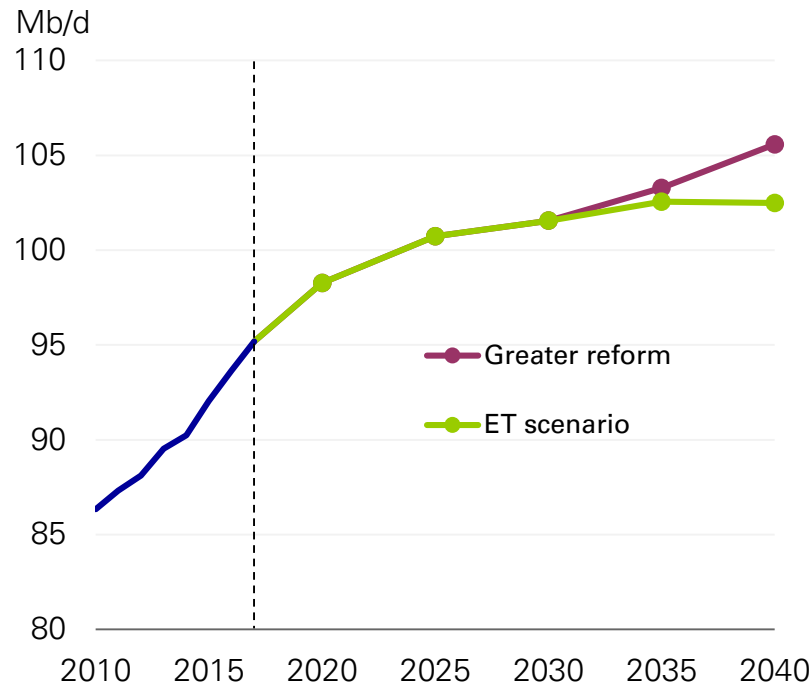
Alternative scenario: abundance could lead to a more competitive market



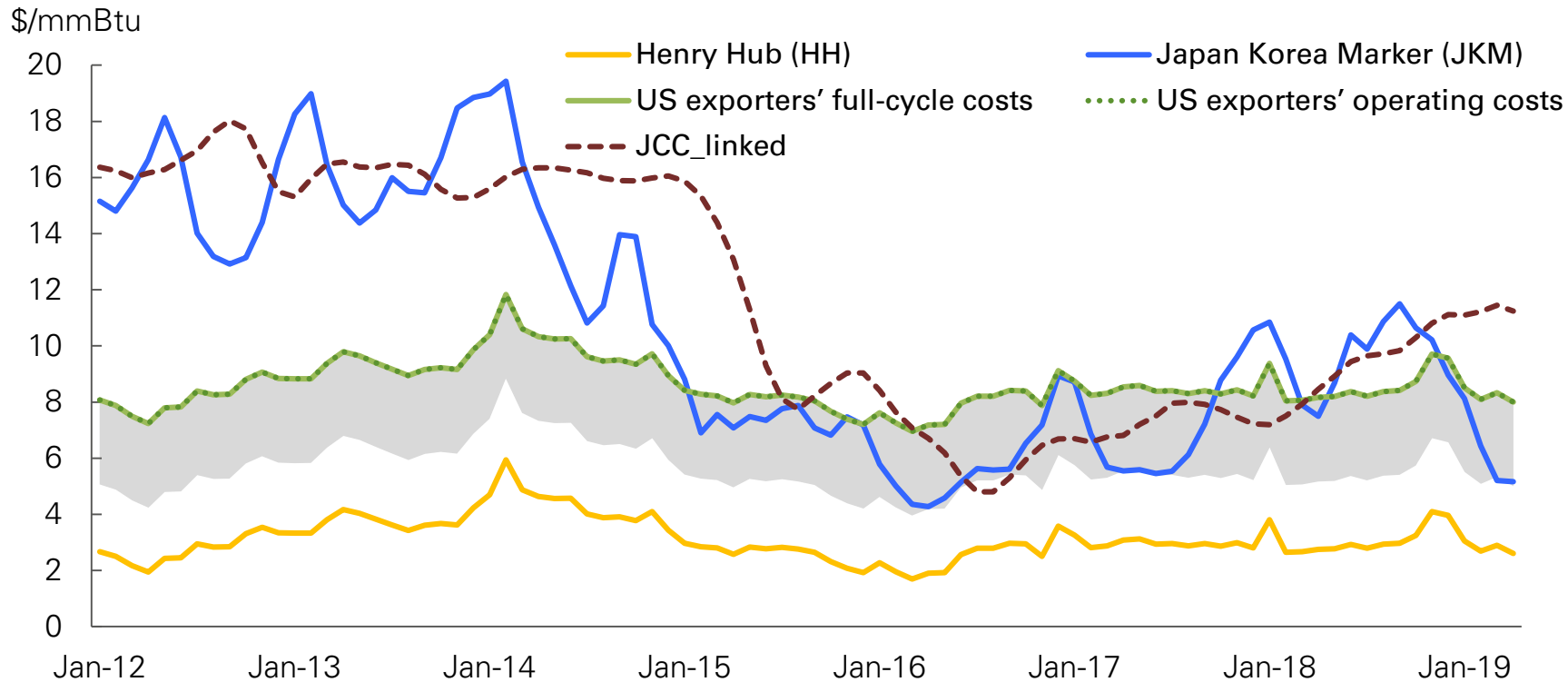
Change in oil supply (Greater reform vs. ET scenario)



Oil demand



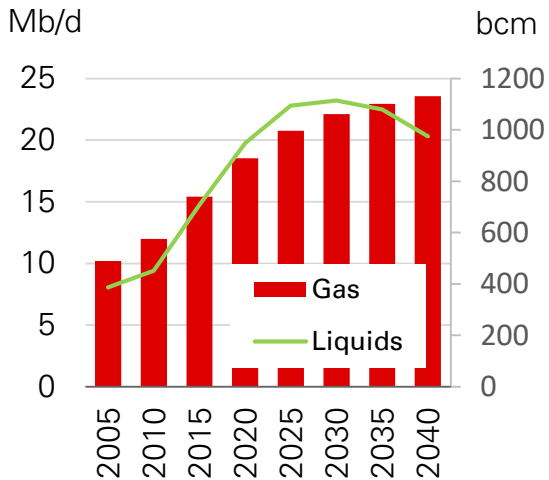
A look at the past: US LNG exporters' costs & Asian spot prices



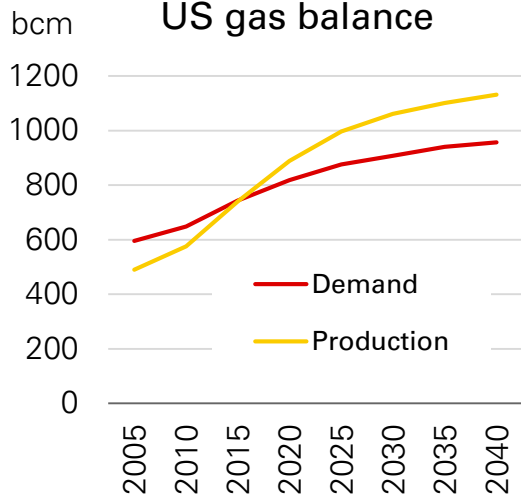


Long-term drivers for gas prices (US)

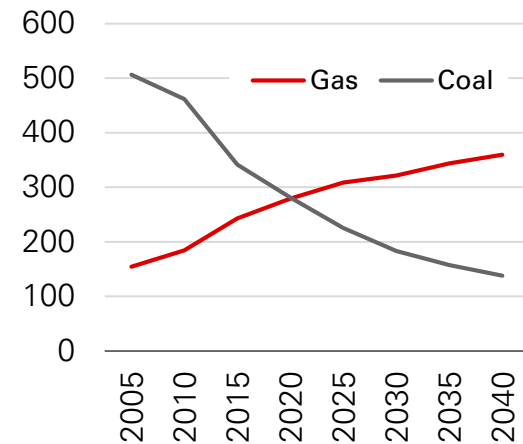
US liquids and gas output



US gas balance



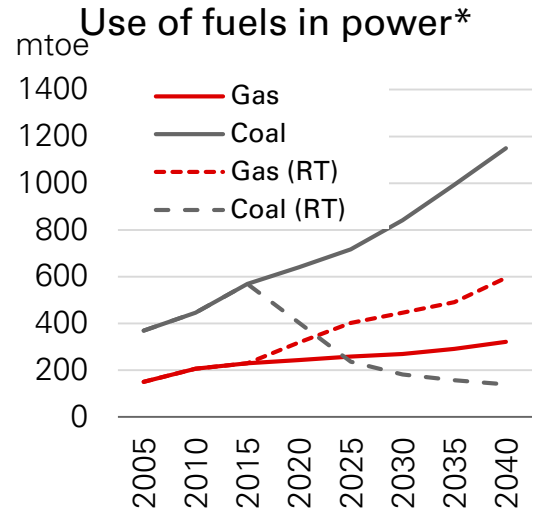
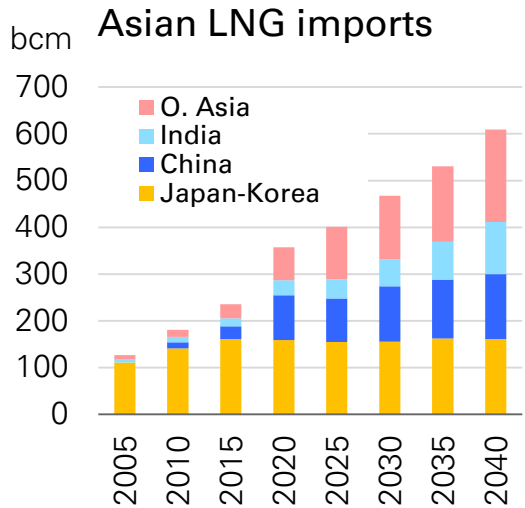
Use of fuels in US power



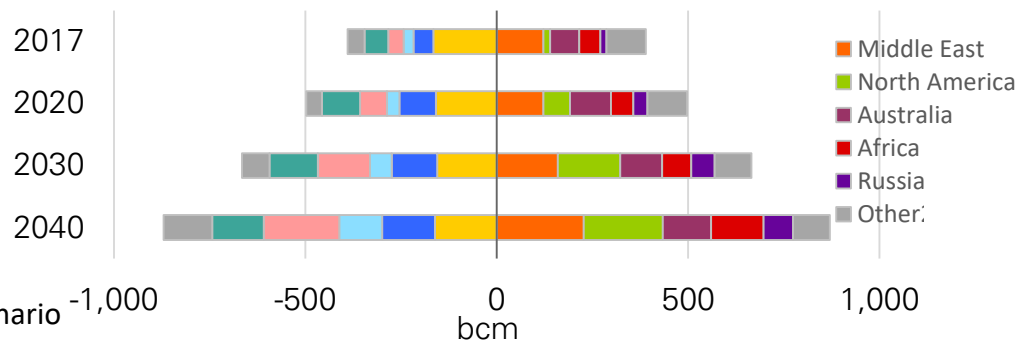
Source: Evolving Transition scenario



Long-term drivers for gas prices (Asia)



US as the marginal LNG supplier



*Includes OECD Asia, India and O. Asia

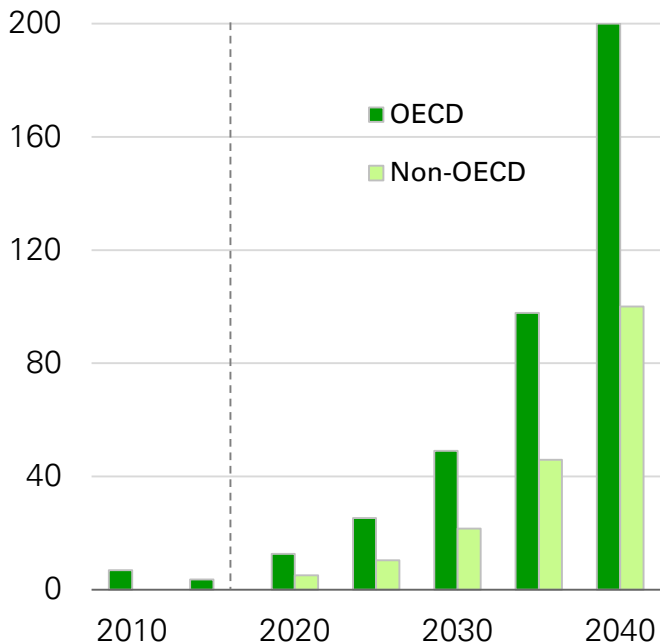
Source: Evolving Transition scenario

Alternative scenario: higher carbon prices key for low carbon scenario



Carbon prices

\$/t of CO₂



Other policy measures

Other measures:

- Conventional coal-based generation in OECD banned from 2030
- Worldwide bans from 2030 on new conventional coal- and oil-based generation
- Support for stronger deployment of nuclear and hydro power

Technology:

Higher R&D spending doubling pace of technological progress in renewables

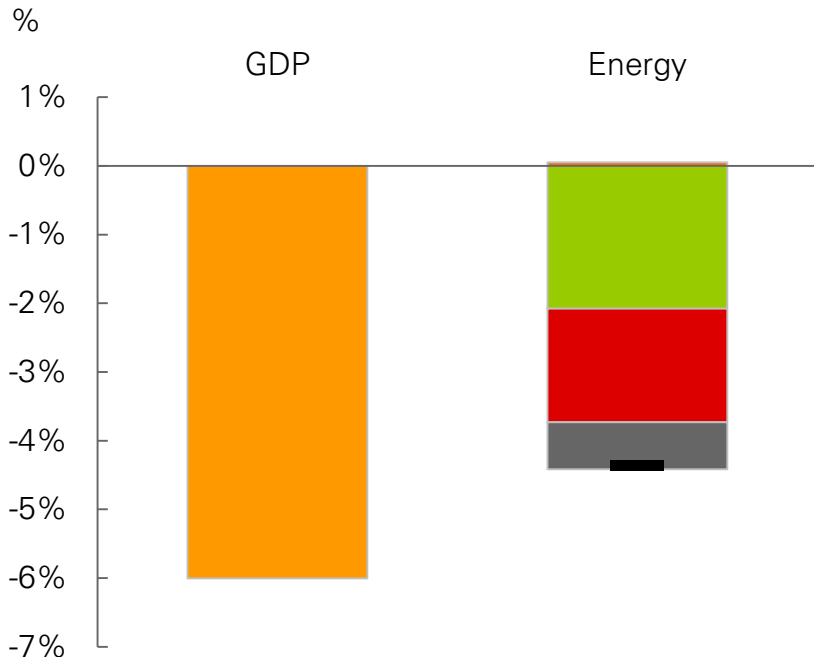
CCUS:

Incentivize investment for gas and coal

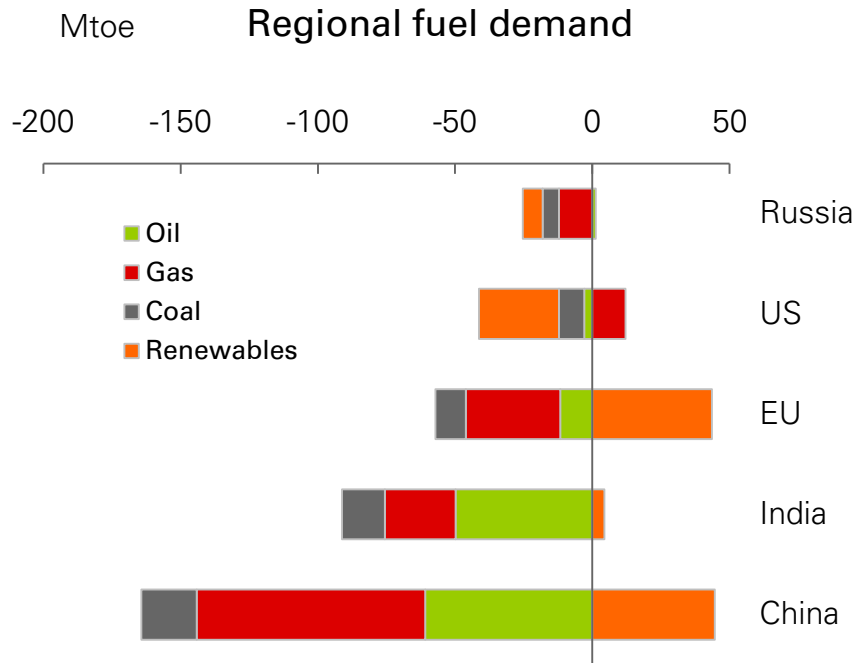


Alternative scenario: trade disputes could reduce energy trade...

Difference relative to ET scenario in 2040:

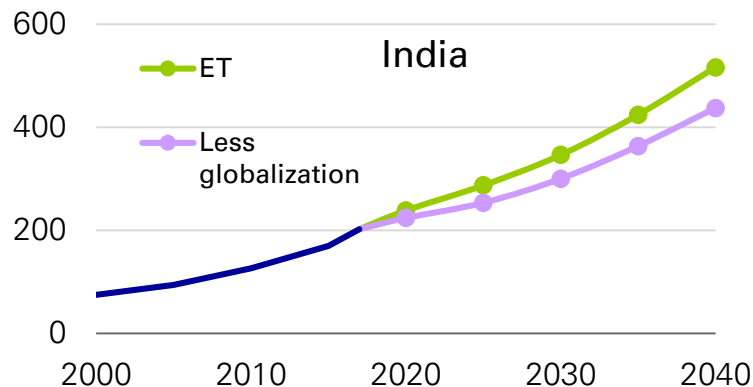
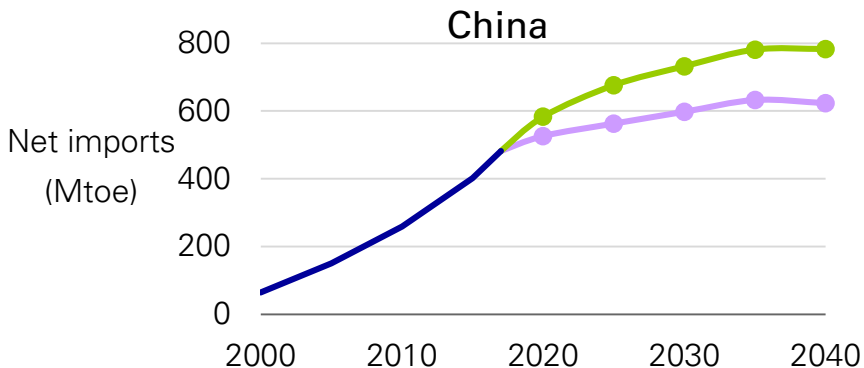
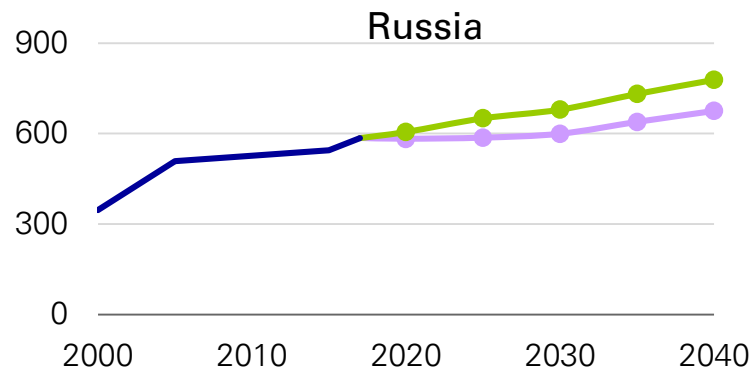
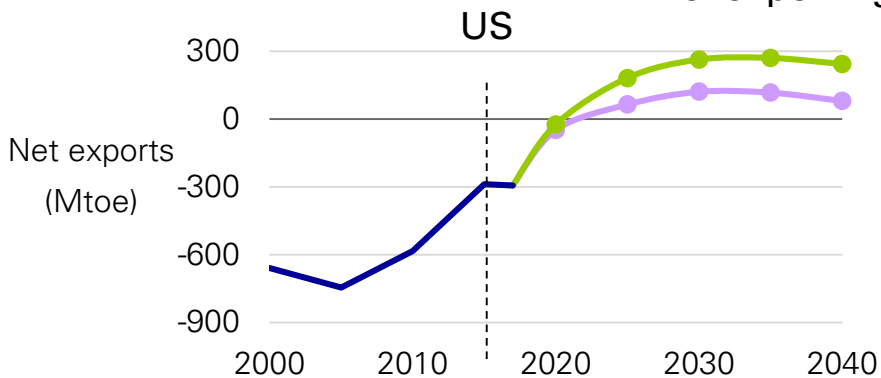


Global GDP and energy



...affecting oil and gas exports and imports in key regions

Net exporting/importing (oil & gas)





Thank you for your attention