



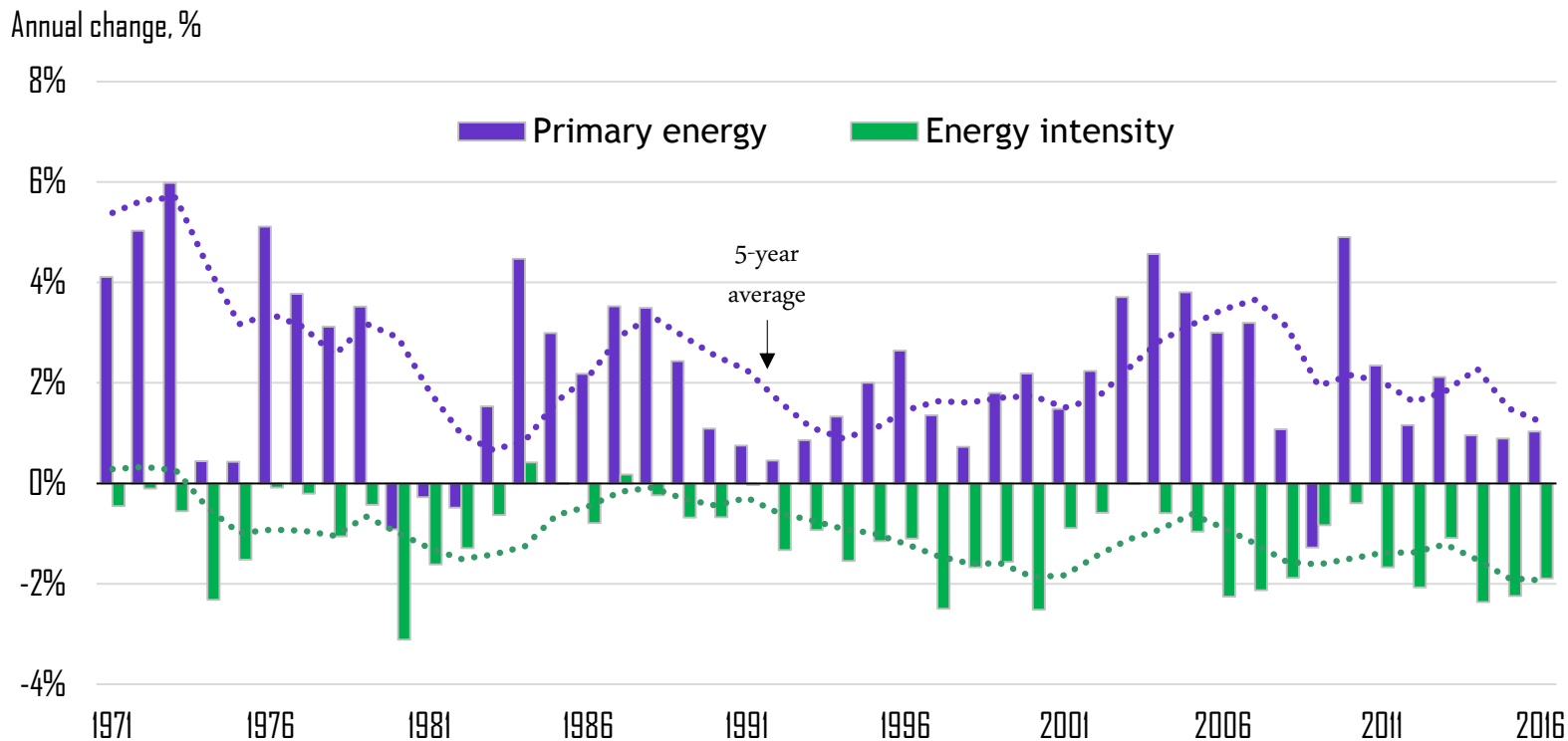
# BP Statistical Review of World Energy

June 2017

## Energy in 2016: short-run adjustments and long-run transition

Spencer Dale, group chief economist

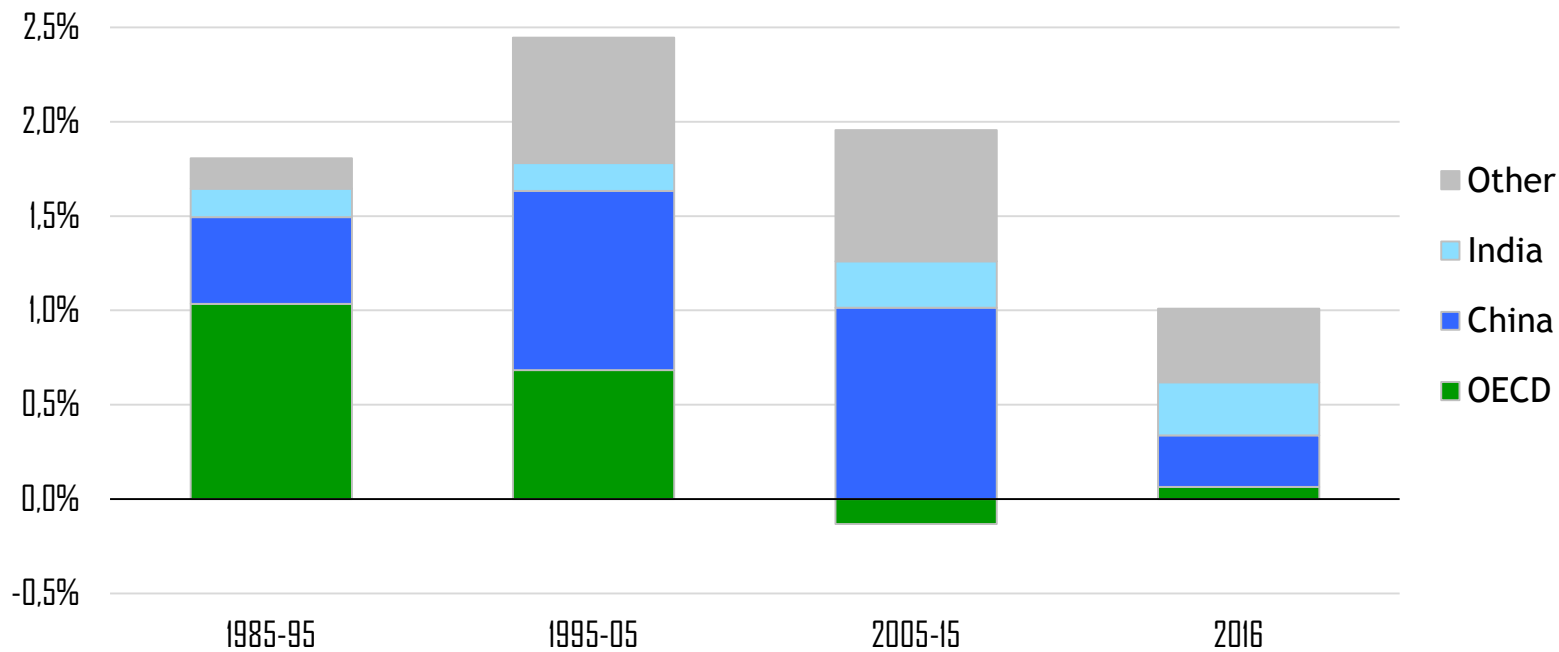
# Primary energy and energy intensity



# Energy consumption growth



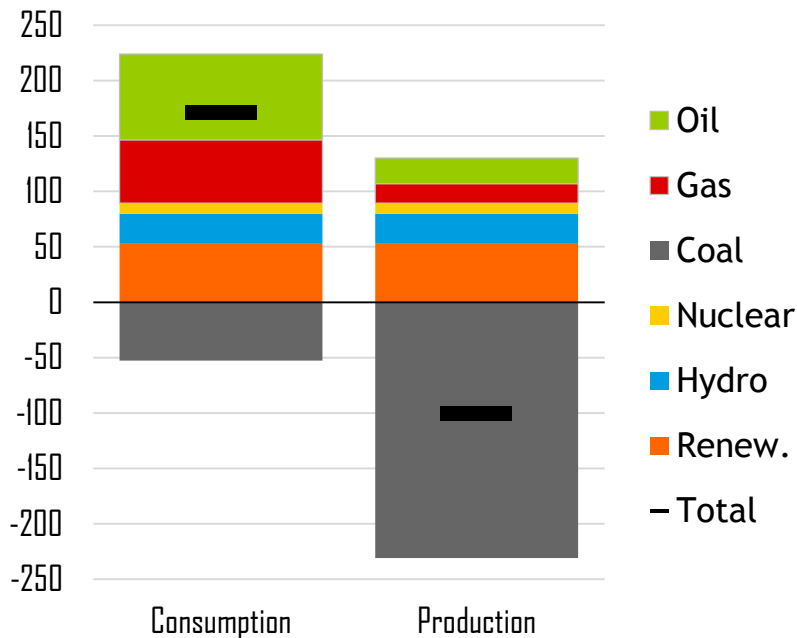
Contributions to annual growth, %



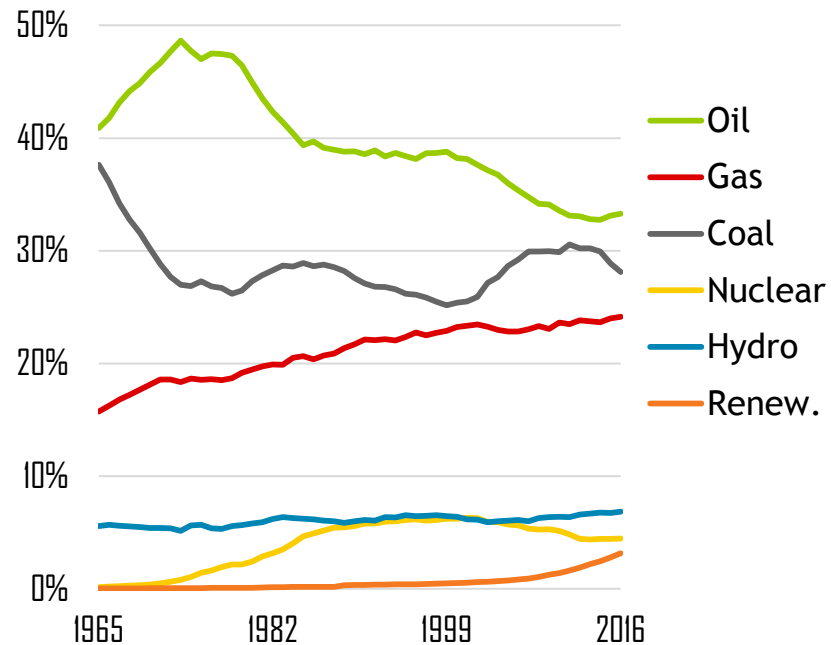
# Fuel mix: growth and shares in primary energy

## Growth by fuel

Annual change, Mtoe



## Shares of primary energy consumption





# Oil

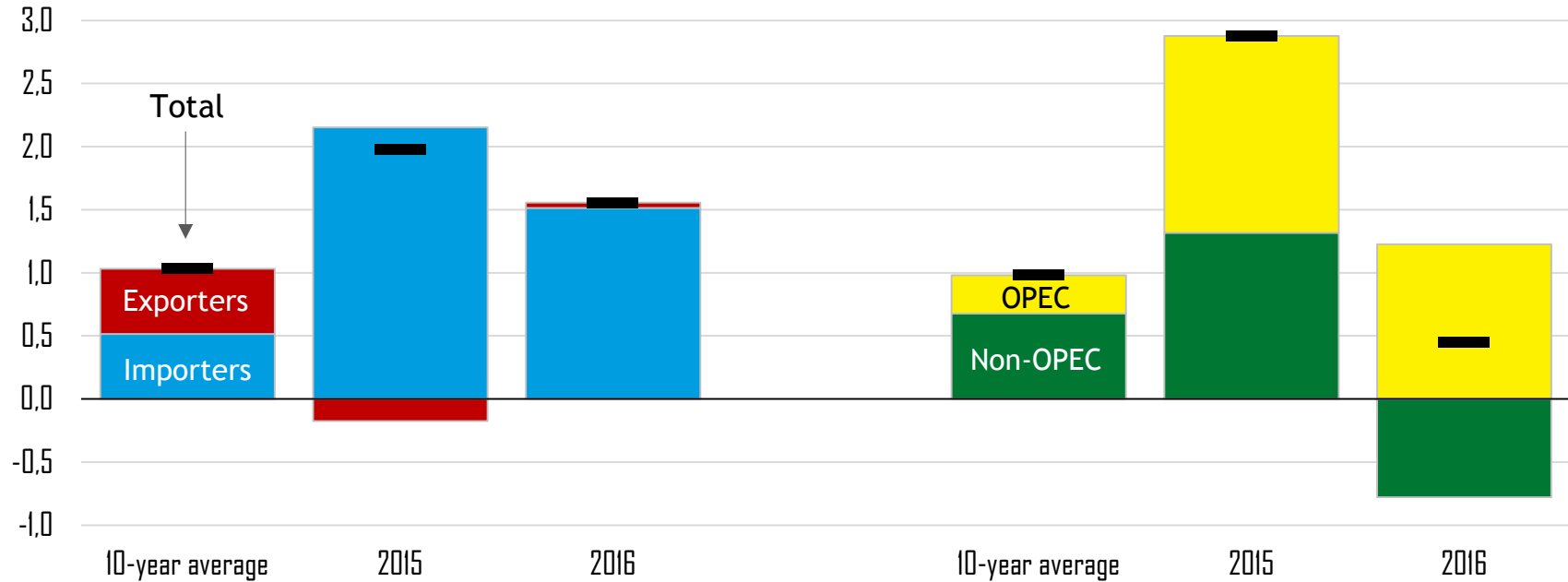
# Oil market in 2015 and 2016



## Consumption

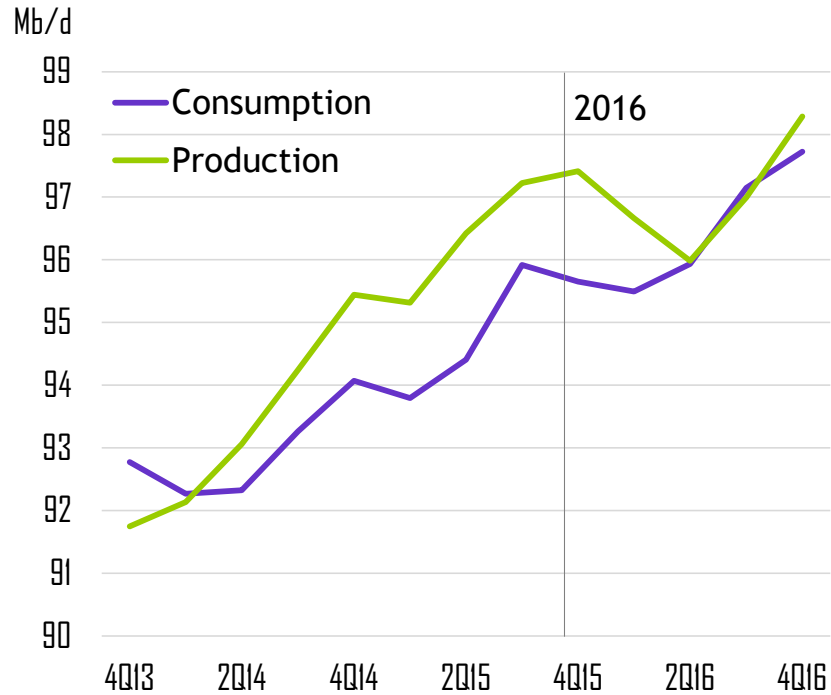
## Production

Annual change, Mb/d



# Oil market: balance and inventories

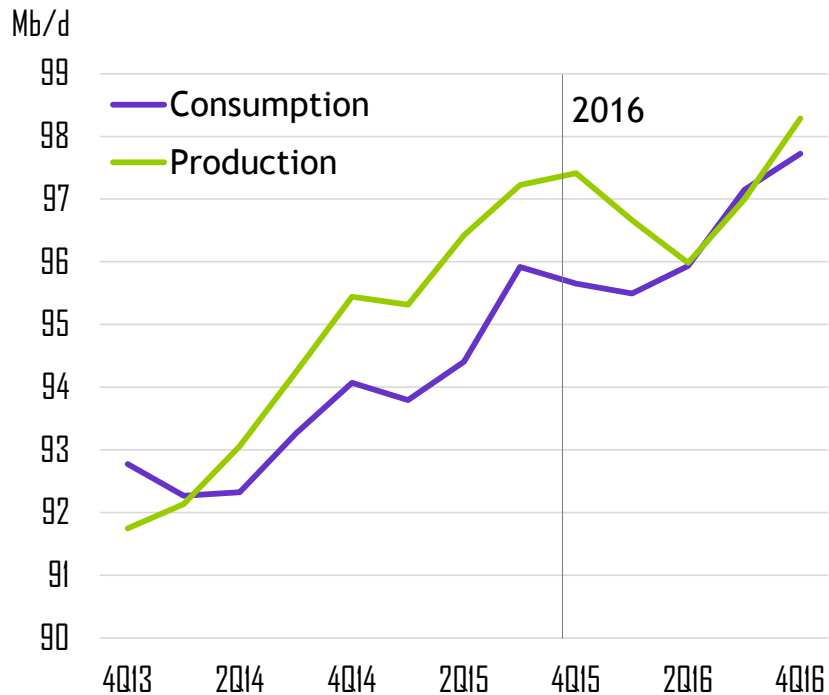
## Oil production and consumption



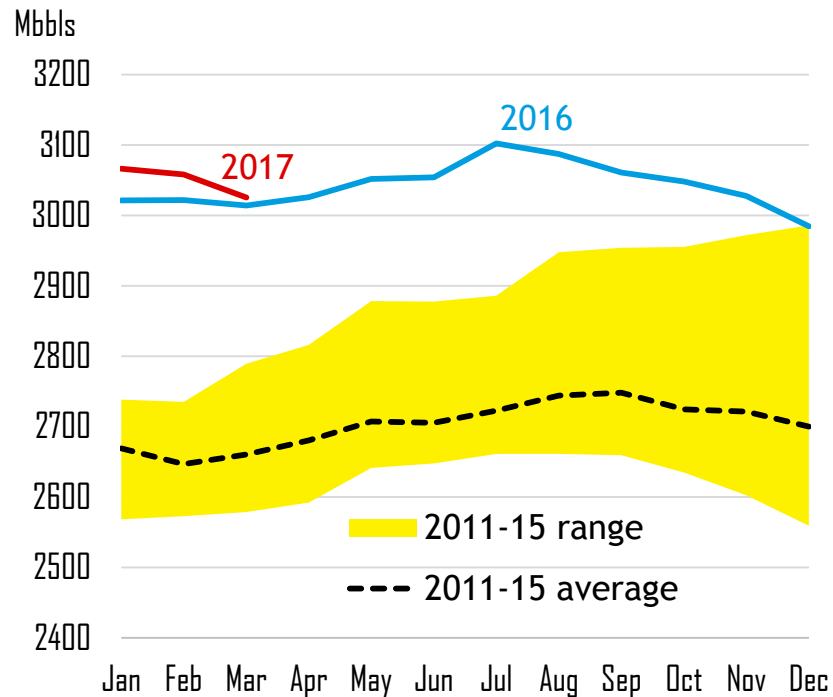
# Oil market: balance and inventories



## Oil production and consumption



## OECD commercial inventories





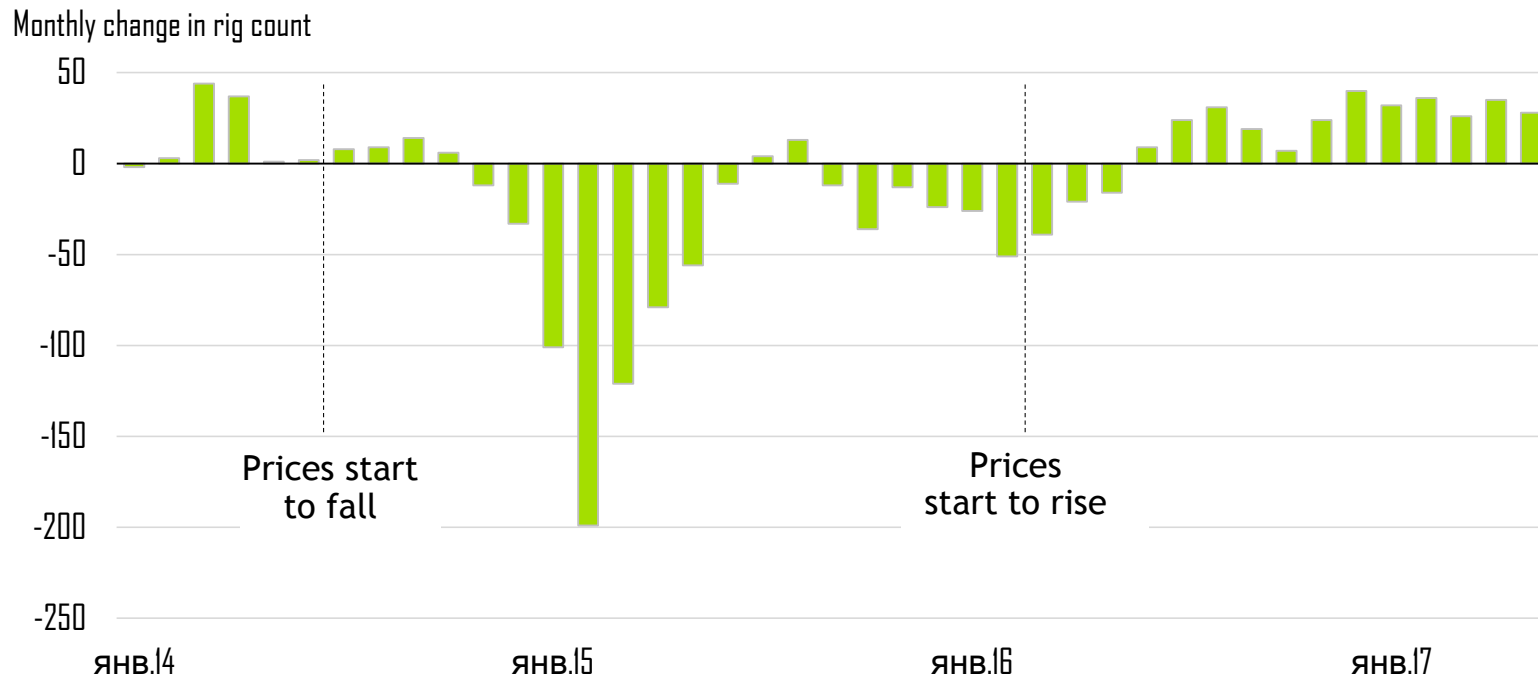


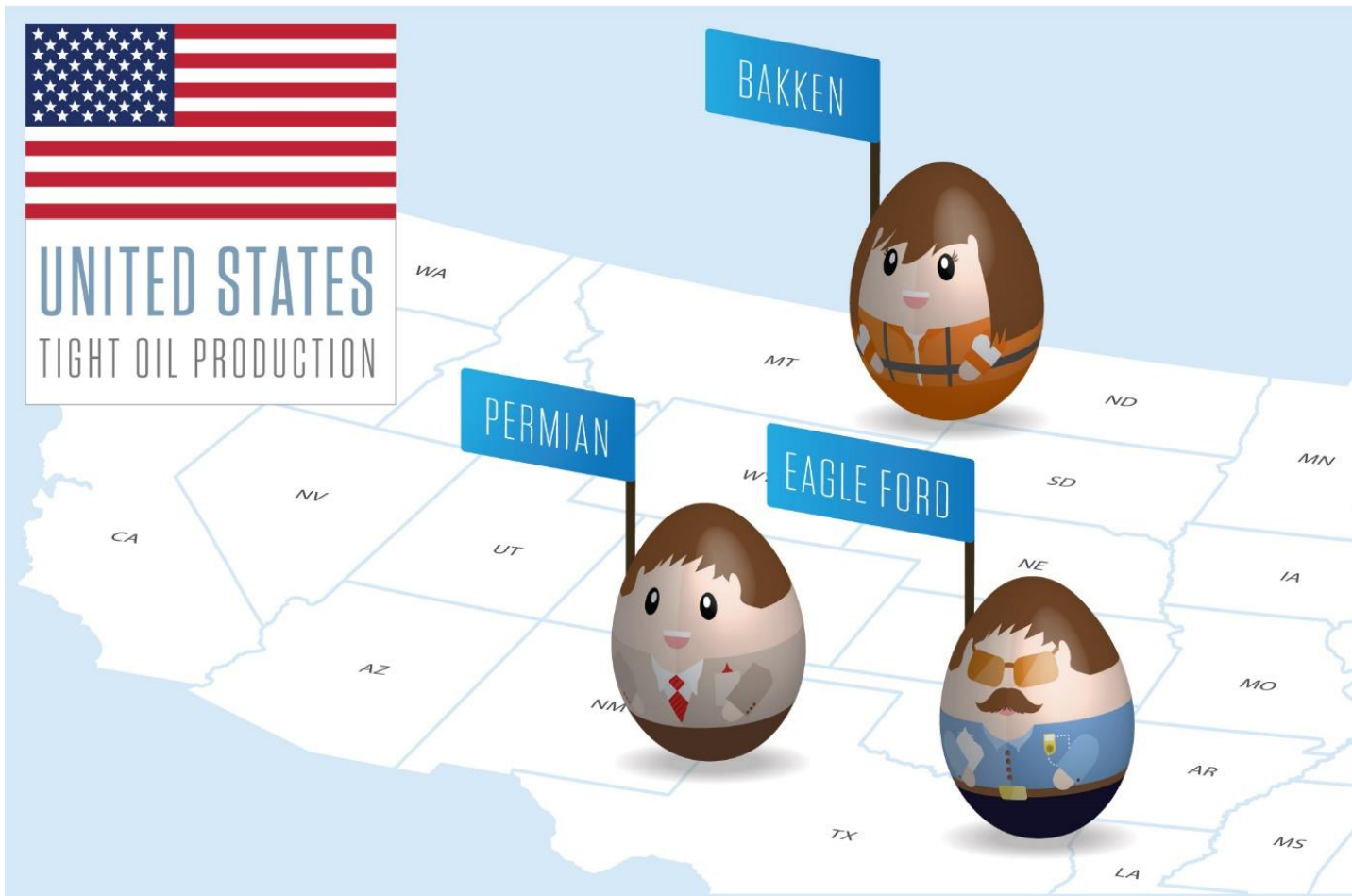
# US Tight Oil

# US tight oil rigs



## Change in US tight oil rig count







# OPEC

*“OPEC remains an important catalyst to the stability and sustainability of the market... but history has also demonstrated that intervention in response to structural shifts is largely ineffective... that’s why Saudi Arabia does not support OPEC intervening to alleviate the impacts of long-term structural imbalances, as opposed to addressing short-term aberrations....”*

HE Khalid Al-Falih

Minister of Energy, Industry and Mineral Resources, Saudi Arabia

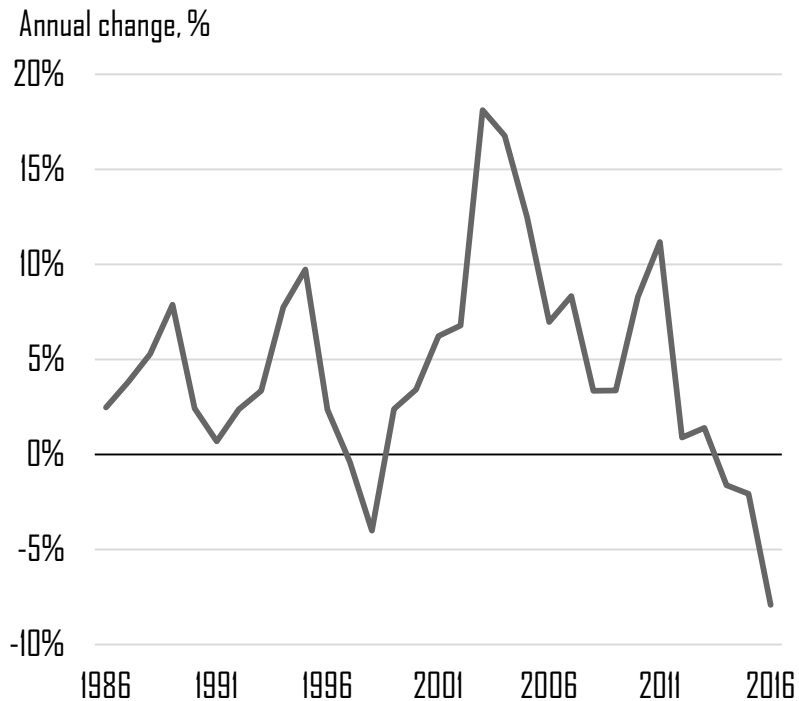
CERAWeek, March 2017



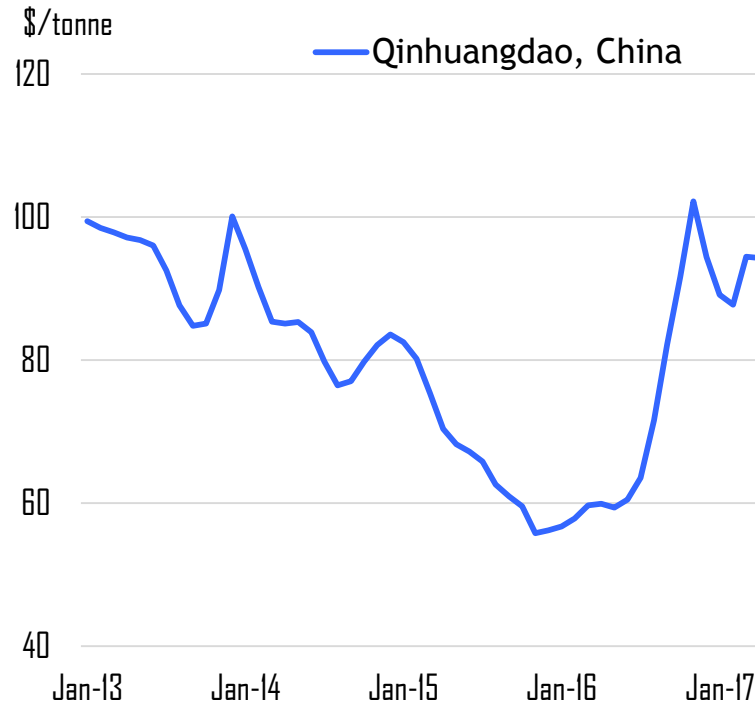
# Coal

# Chinese coal production and prices

## Coal production growth

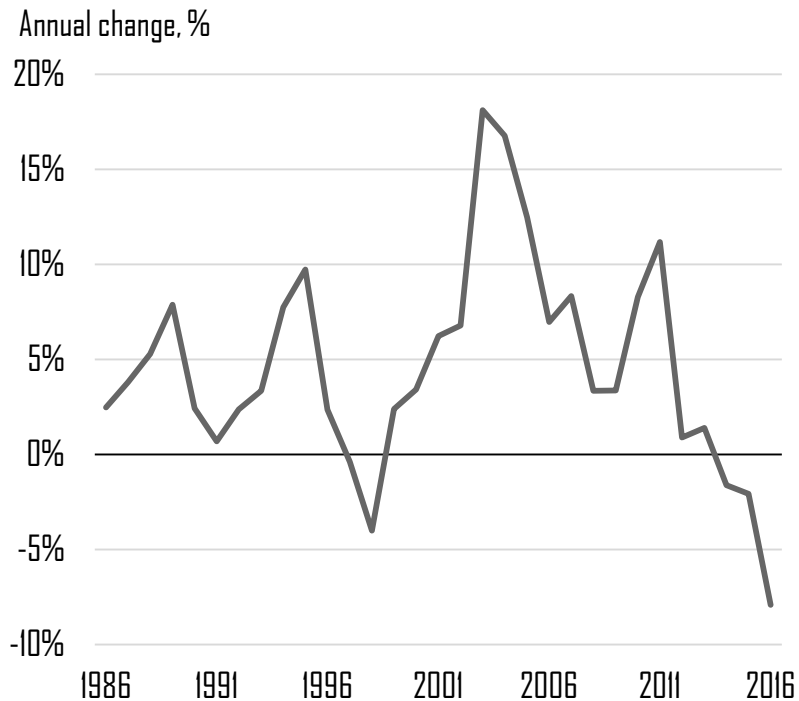


## Steam coal prices

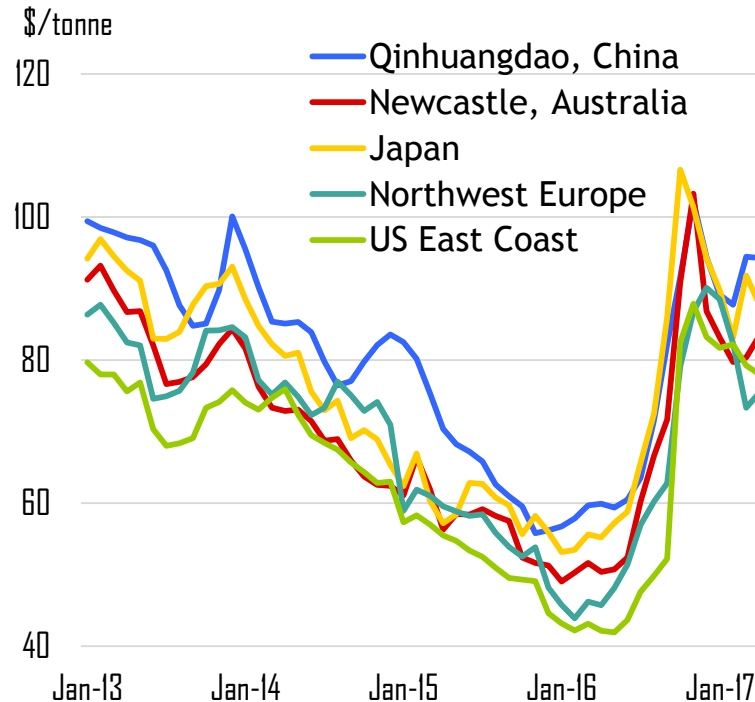


# Chinese coal production and global prices

## Coal production growth

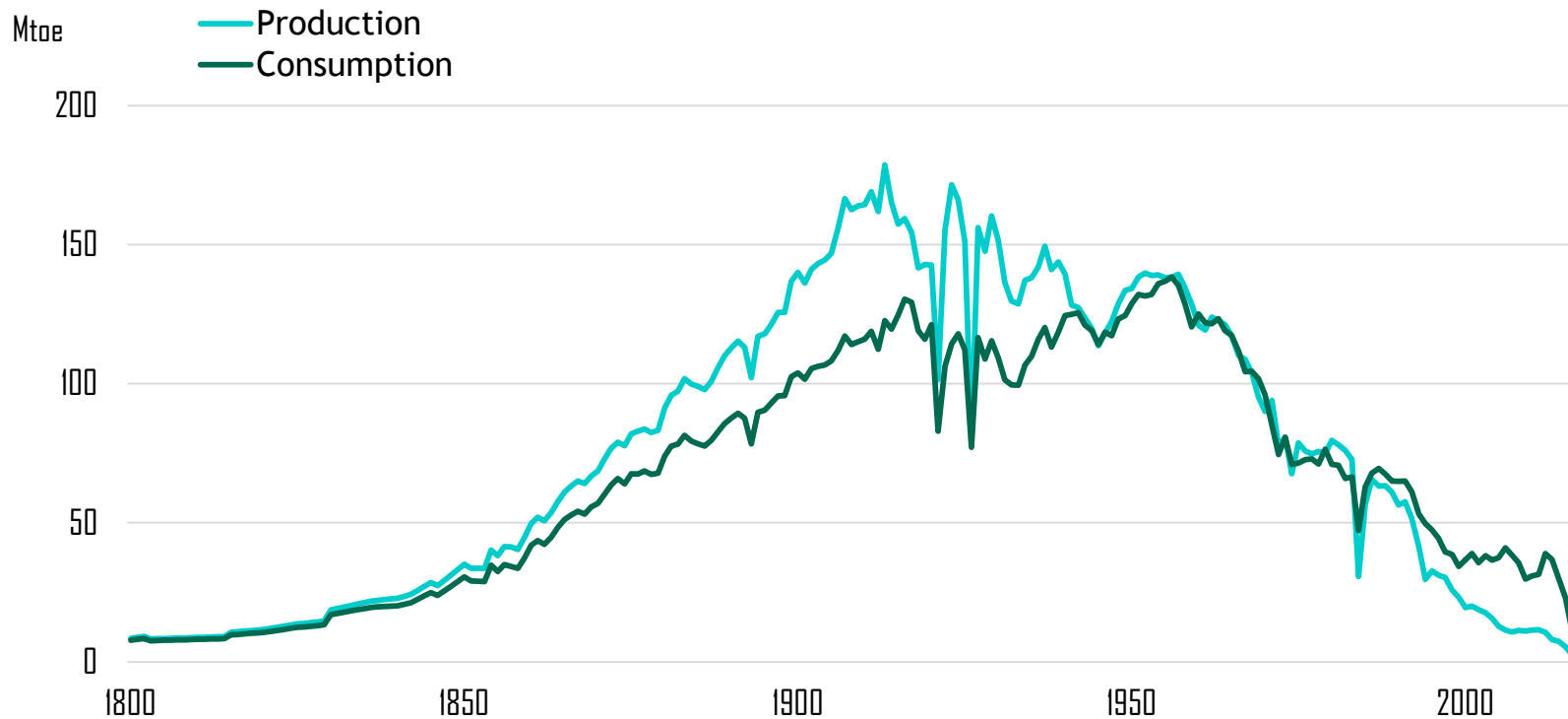


## Steam coal prices

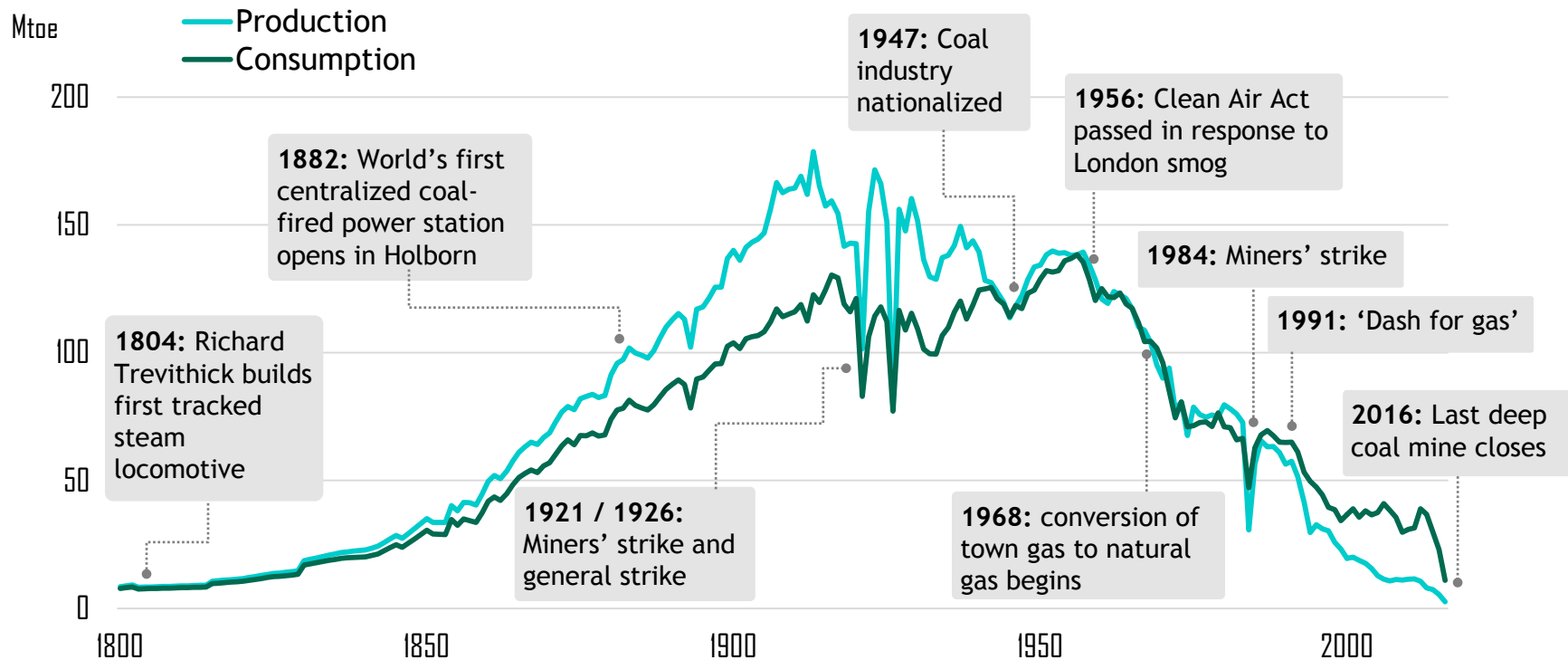




# UK coal



# UK coal

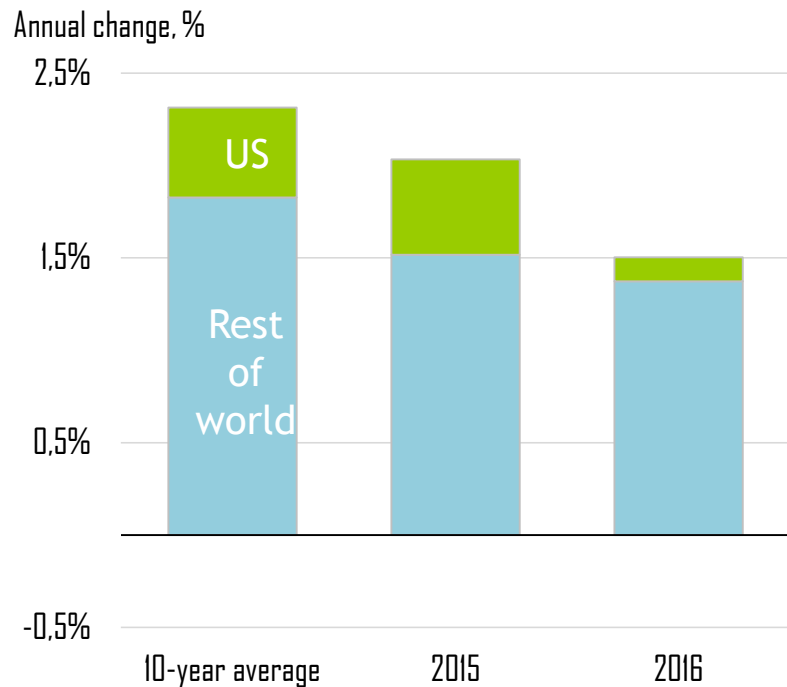




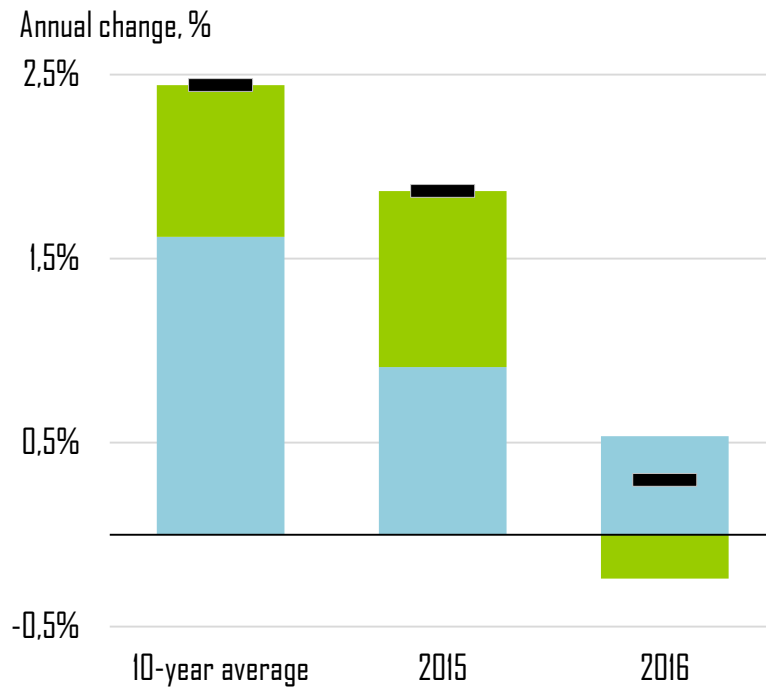
# Natural gas

# Growth in natural gas demand and supply

## Gas consumption



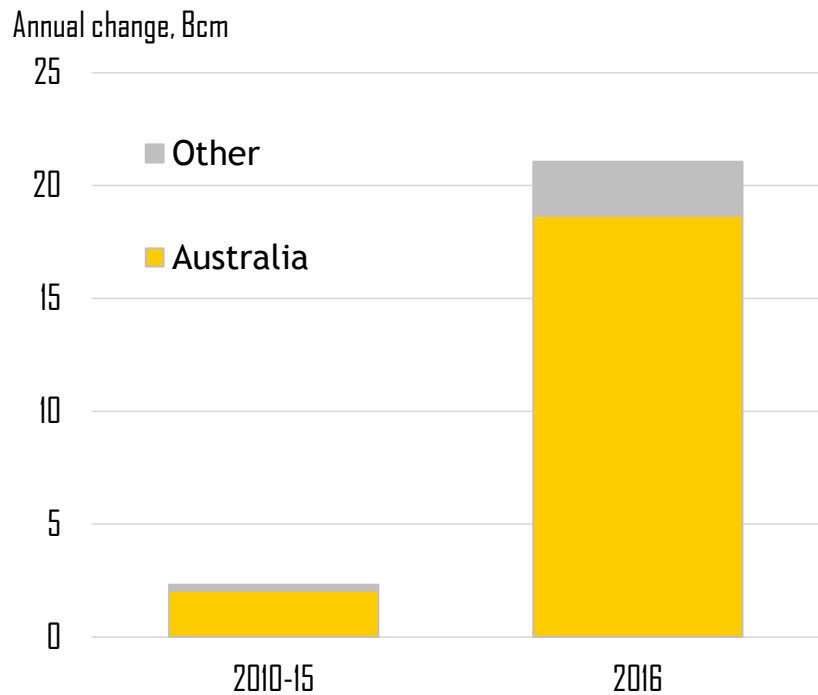
## Gas production



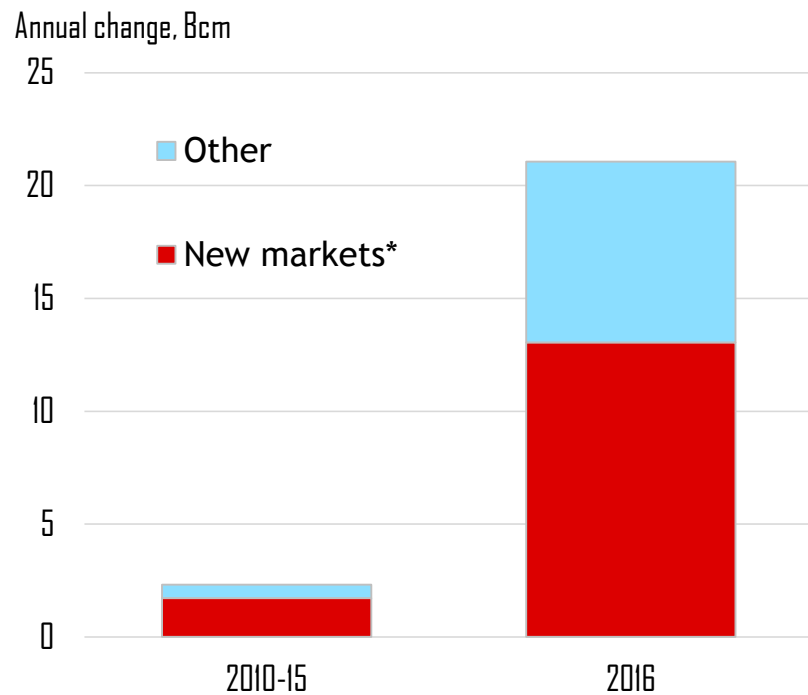
# LNG trade



## Exports



## Imports

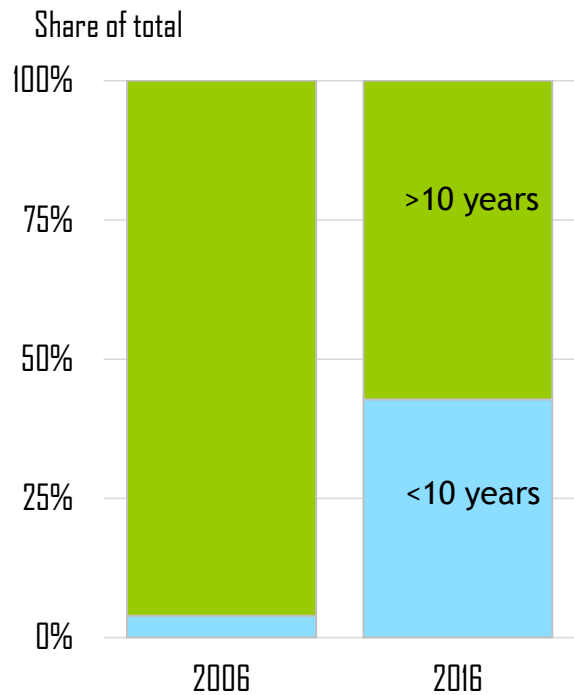


\* Includes Egypt, Pakistan, Poland, Jordan, Jamaica, Colombia and Lithuania

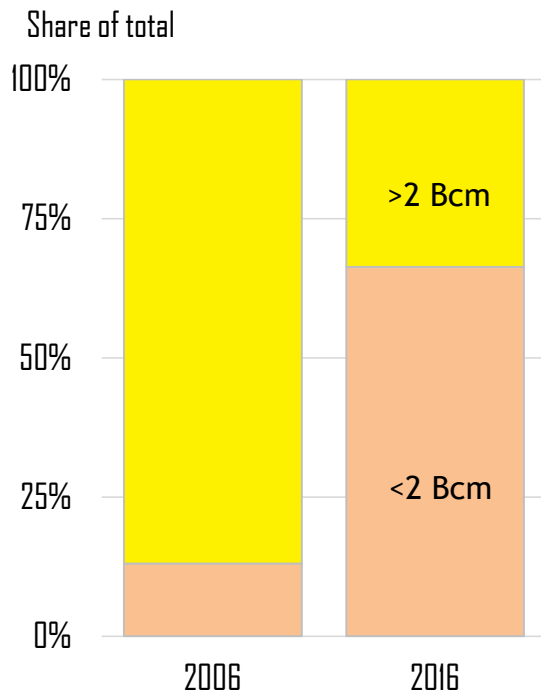
# LNG market characteristics



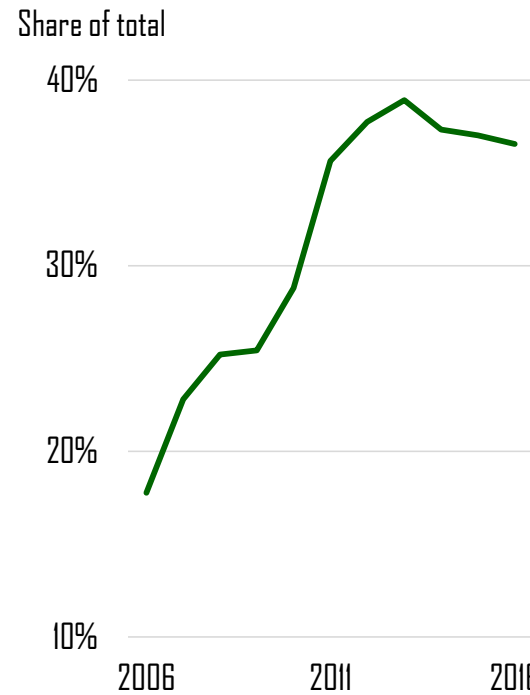
## Contract length



## Contract size

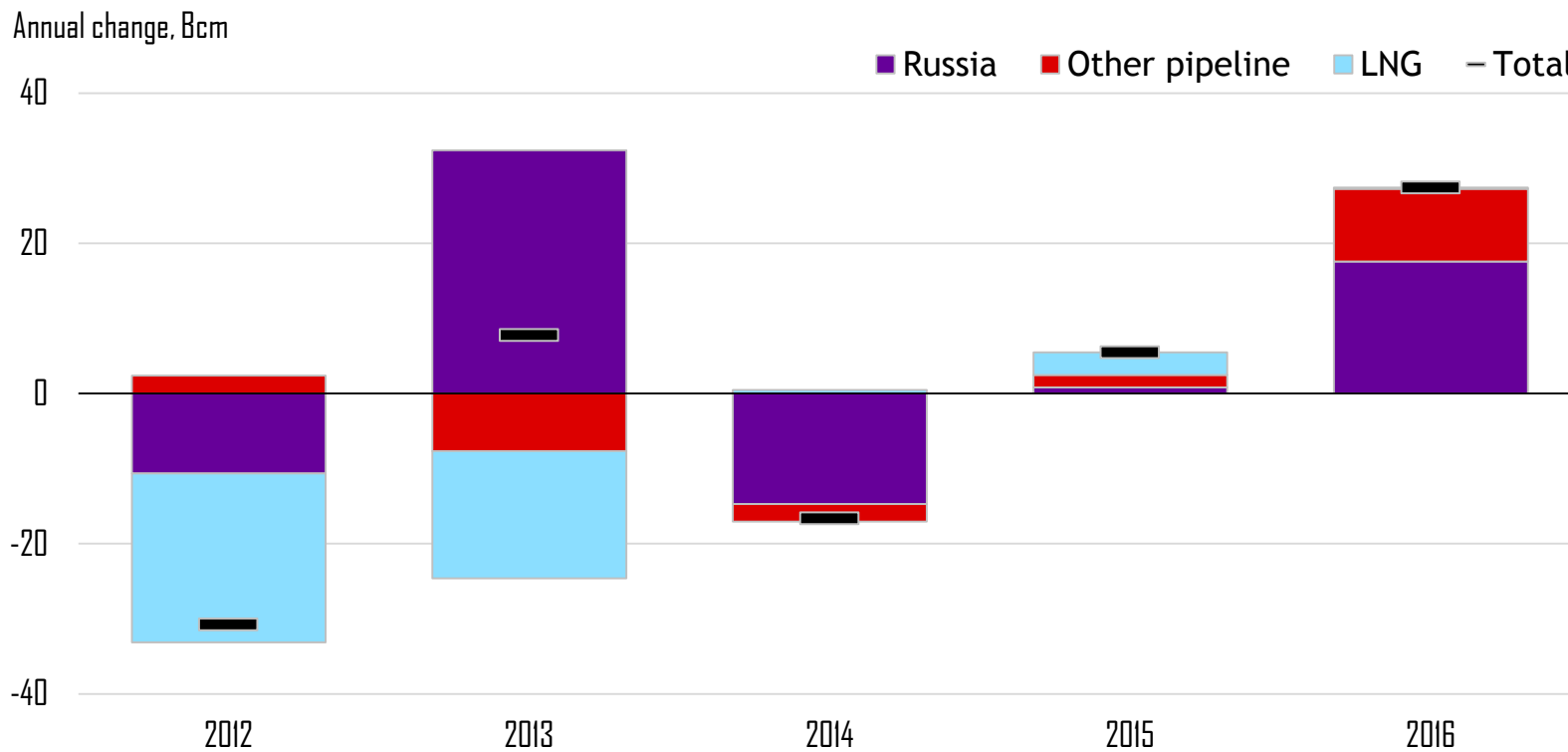


## Flexible supply\*



\*includes spot supply and supplies without fixed destination in the contract

# European gas imports



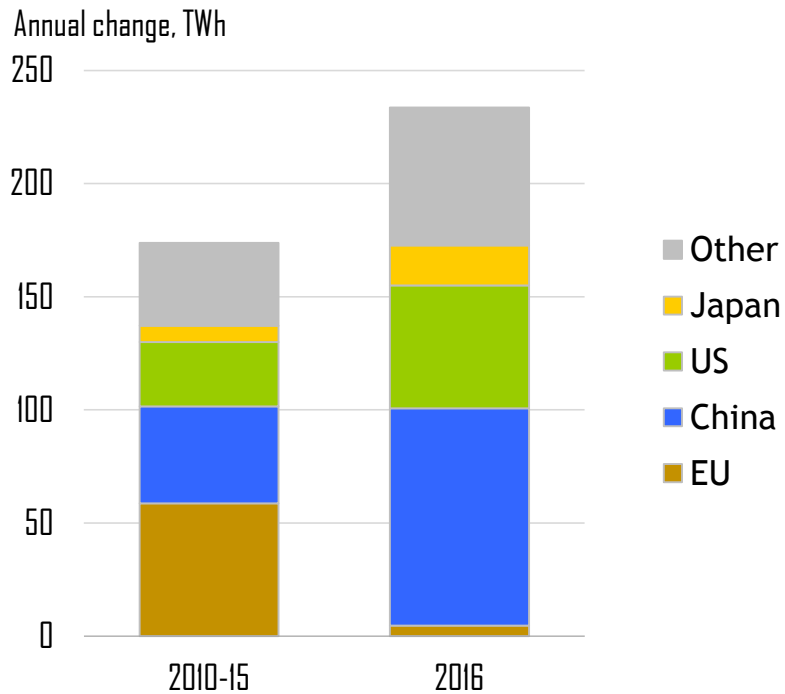


# Renewables



# Growth and diffusion of renewables

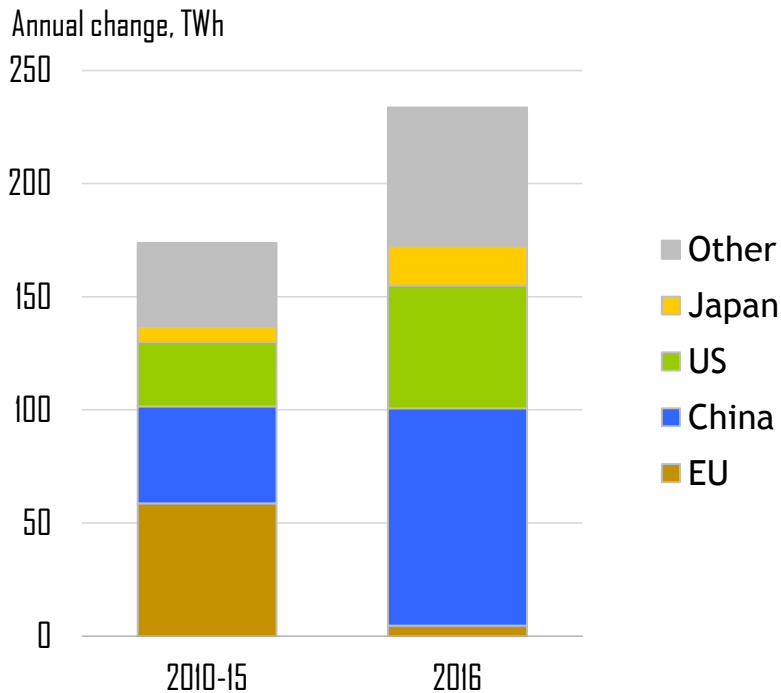
## Growth by country



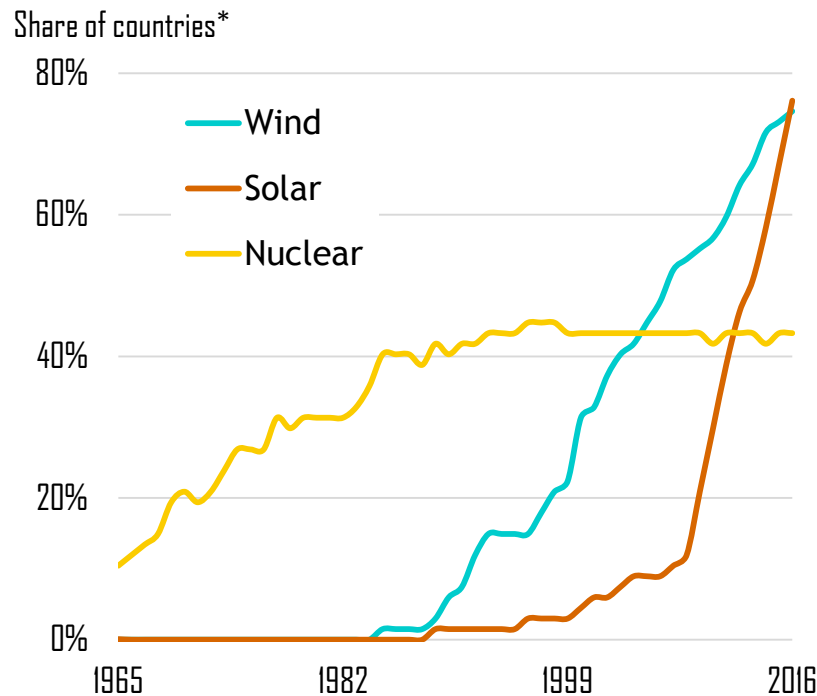
# Growth and diffusion of renewables



## Growth by country



## Diffusion of power technologies



\* The proportion of the 67 countries that are individually listed in the Statistical Review with power generation of at least 50 GWh from the specified technology

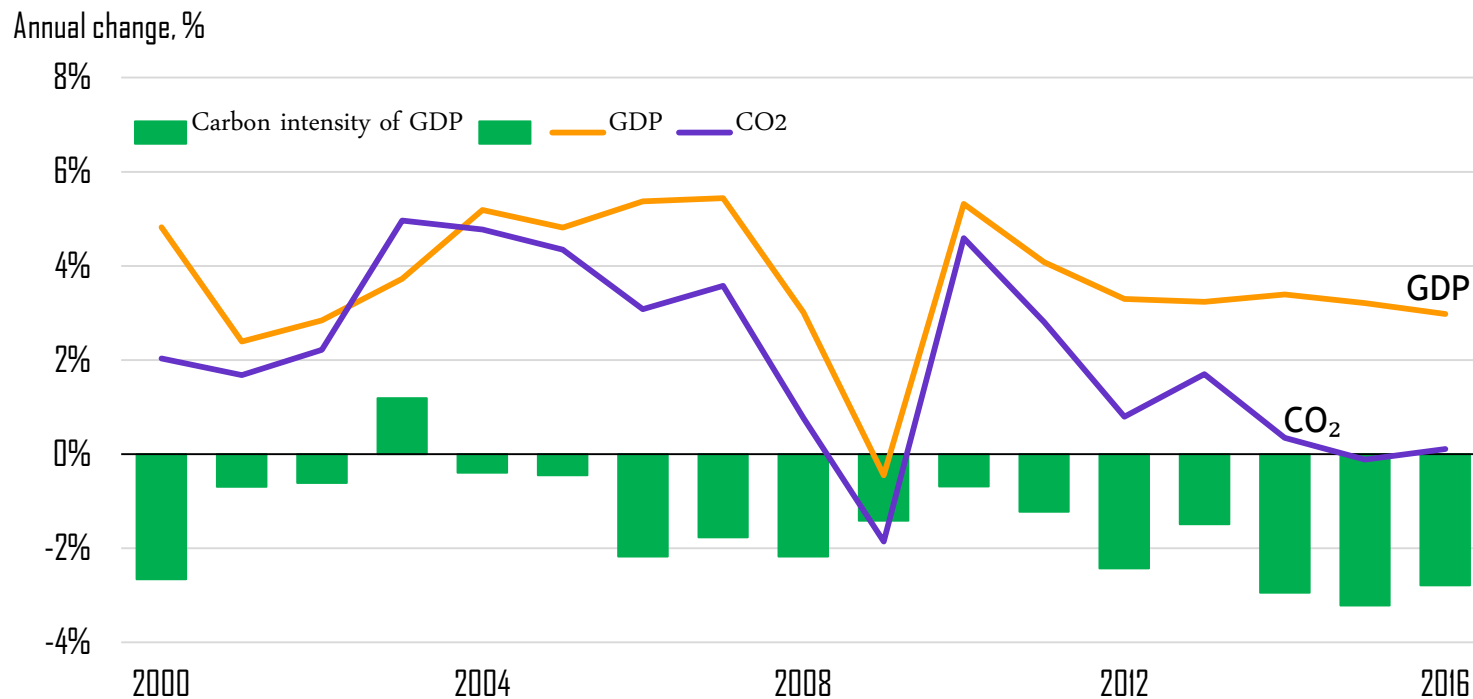


# Carbon emissions

# Growth in carbon emissions



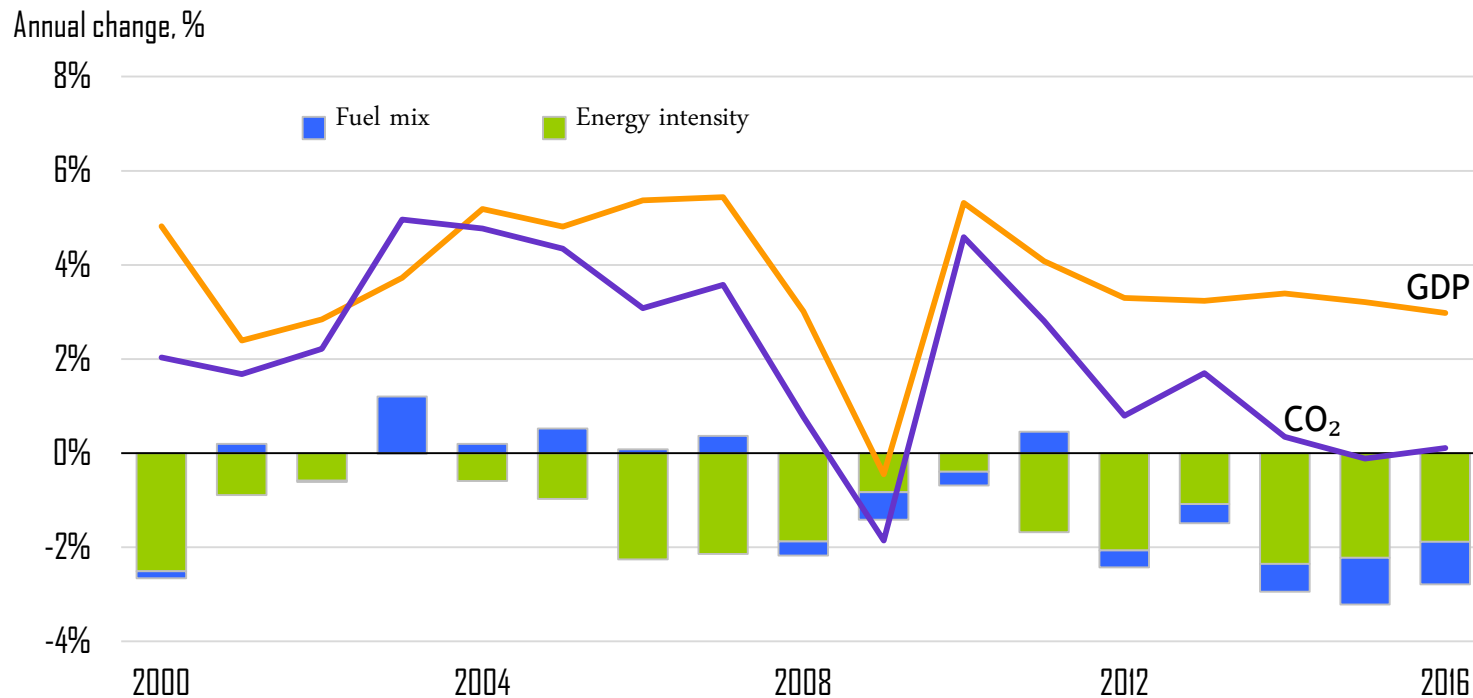
## Growth in GDP and carbon emissions



# Growth in carbon emissions

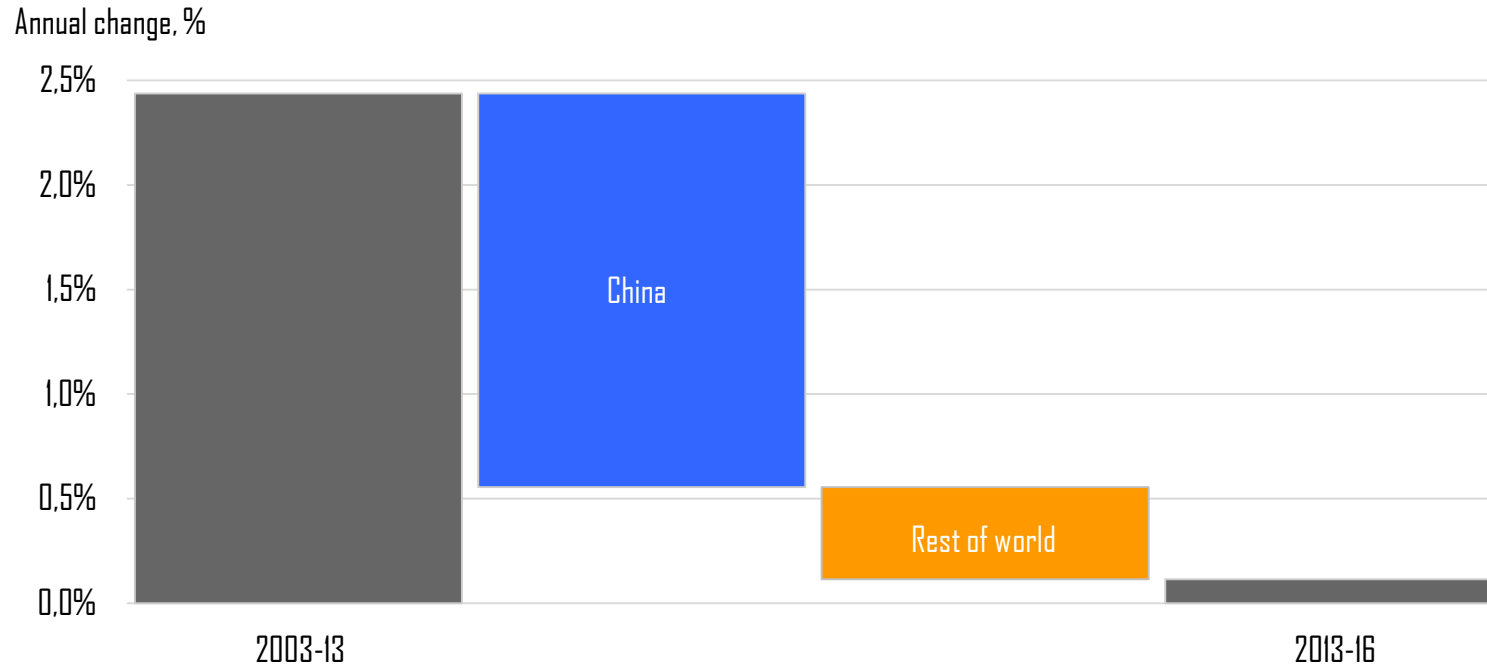


## Growth in GDP and carbon emissions



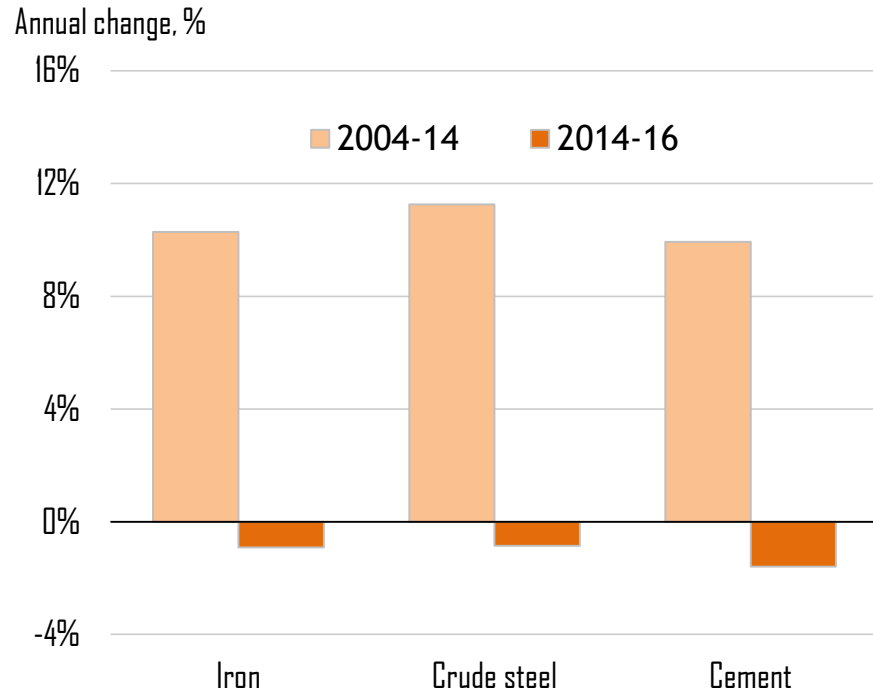
# Changes in growth in carbon emissions

## Factors slowing growth in CO<sub>2</sub>



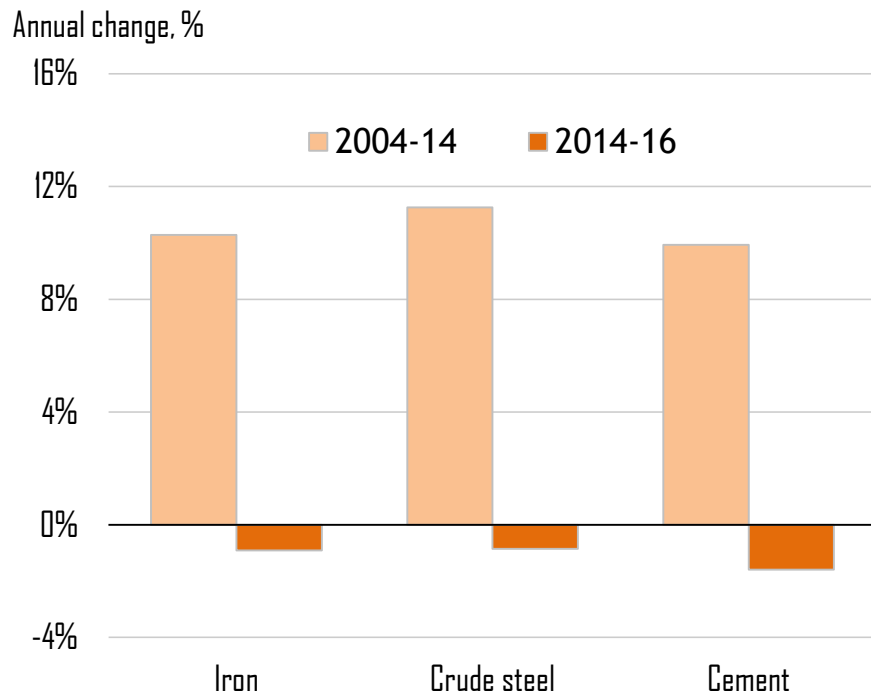
# China industrial output and energy demand

## Outputs of iron, steel and cement

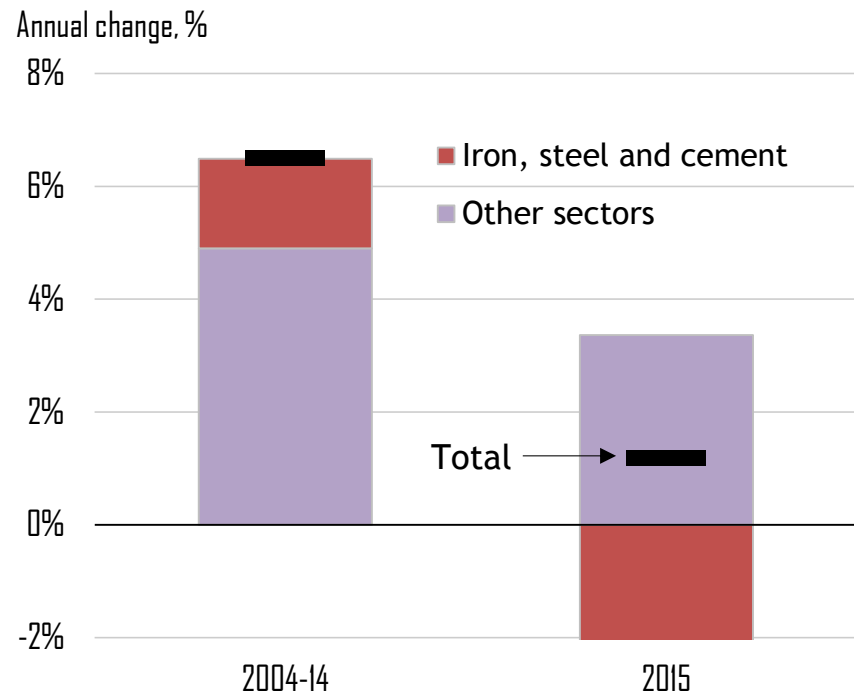


# China industrial output and energy demand

## Outputs of iron, steel and cement



## Contributions to energy demand growth





# Conclusions

## Energy in 2016: short-run adjustments and long-run transition

- weak growth in energy demand and carbon emissions driven by both factors
- strong growth in oil demand as market adjusted to excess supplies
- rapid growth in renewables and further falls in coal driven by energy transition



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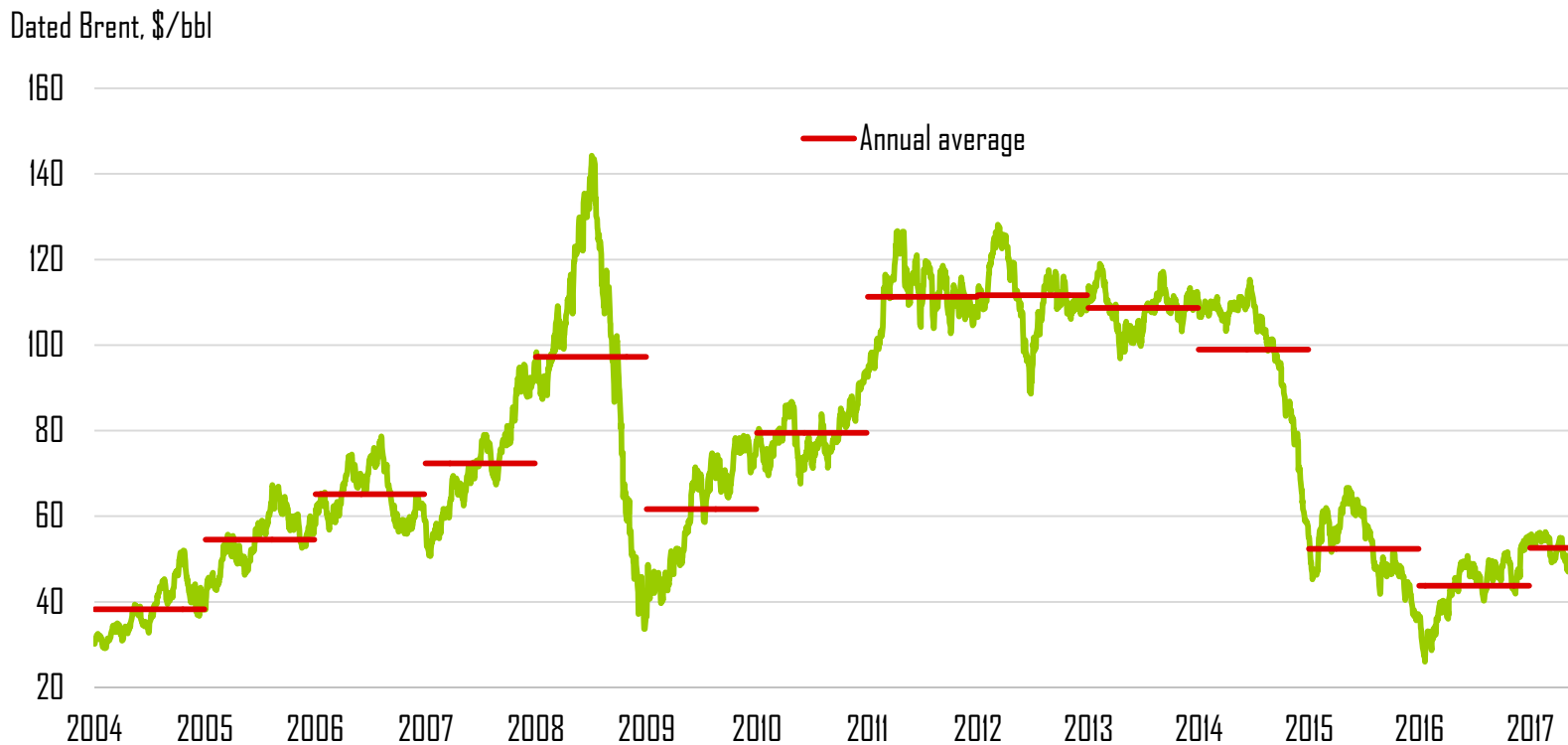
## Energy in 2016: short-run adjustments and long-run transition

Spencer Dale, group chief economist



# Backup slides

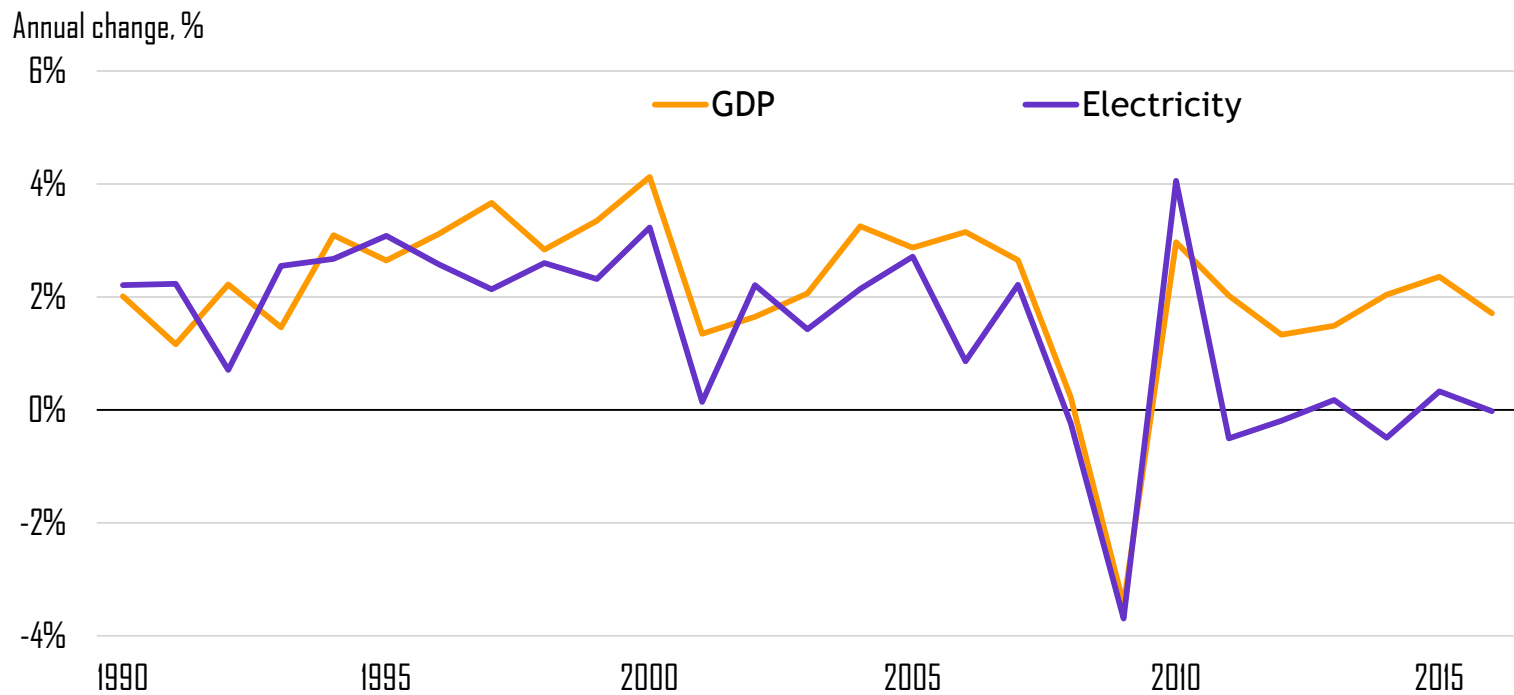
# Oil prices





# Power

# OECD GDP and electricity consumption



# Growth of power generation by fuel



Annual change, TWh

