



Putting energy
efficiency first



Demonstrating
global leadership
in renewables



ENERGY PRICES AND COST REPORT

Energy prices for European Energy Intensive
Industries: Analysing levels and drivers of costs
- Event organised by CEPS -



Delivering a
fair deal for
consumers

Manuel Rivas Rábago
Policy officer - Unit A4
DG Energy - European Commission

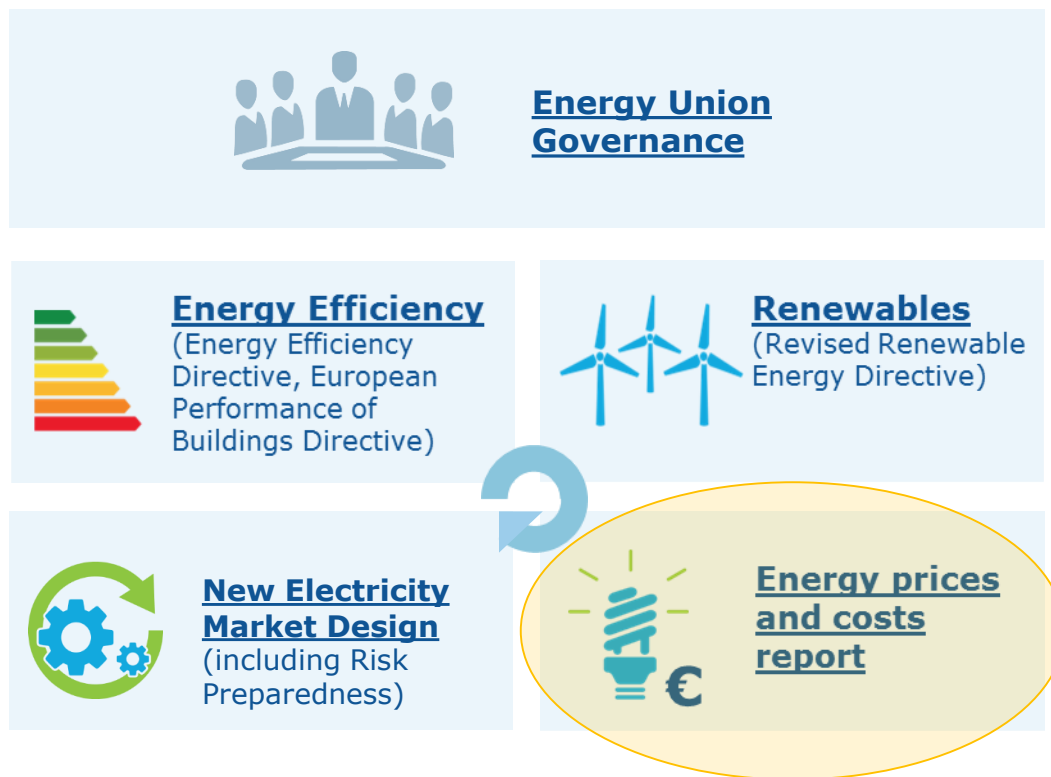


ELEMENTS OF THE PACKAGE

A SET OF COHERENT MEASURES

"In essence the new package is about tapping our green growth potential across the board"

Commissioner Miguel Arias Cañete (2016)



REPORT ON ENERGY PRICES AND COSTS

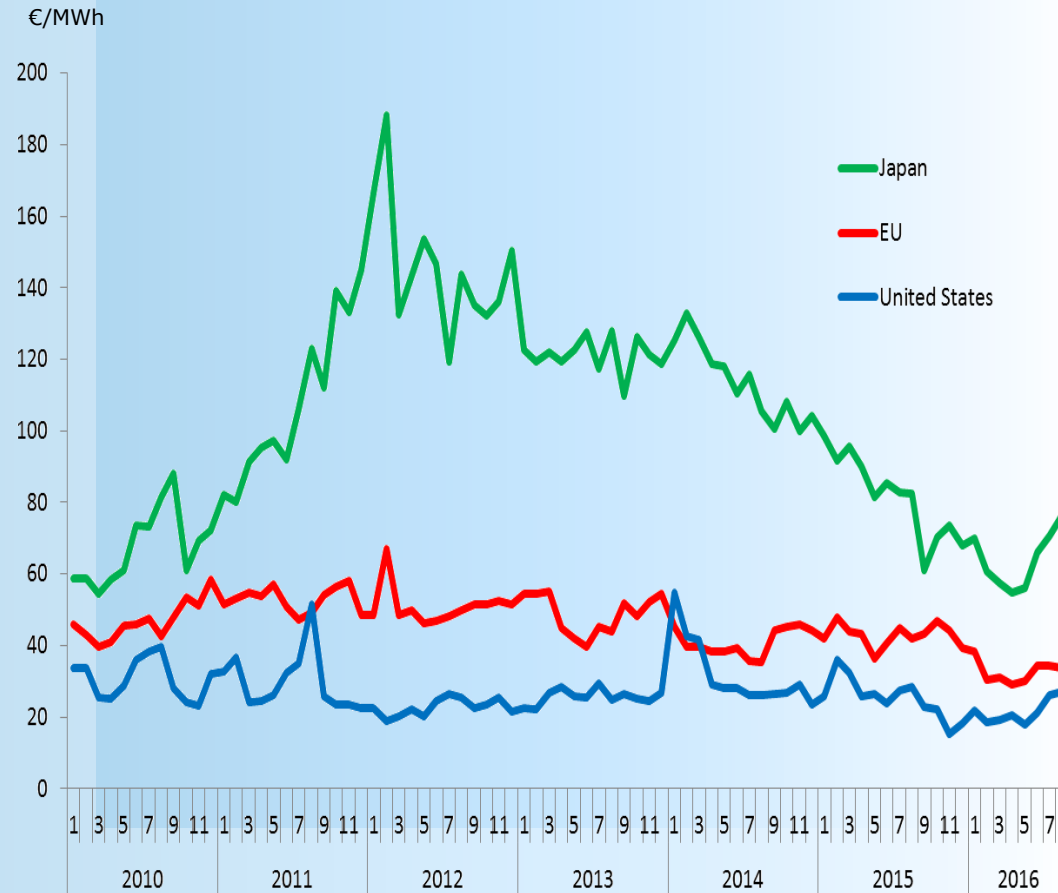
Key findings for the EU

- **Wholesale** gas, electricity and oil **prices have fallen significantly** since 2012;
- **Retail prices rose**: higher network tariffs and taxes and levies countered fuel price reductions;
- **Energy costs rose for households**: to 5.8% of household energy expenditure.

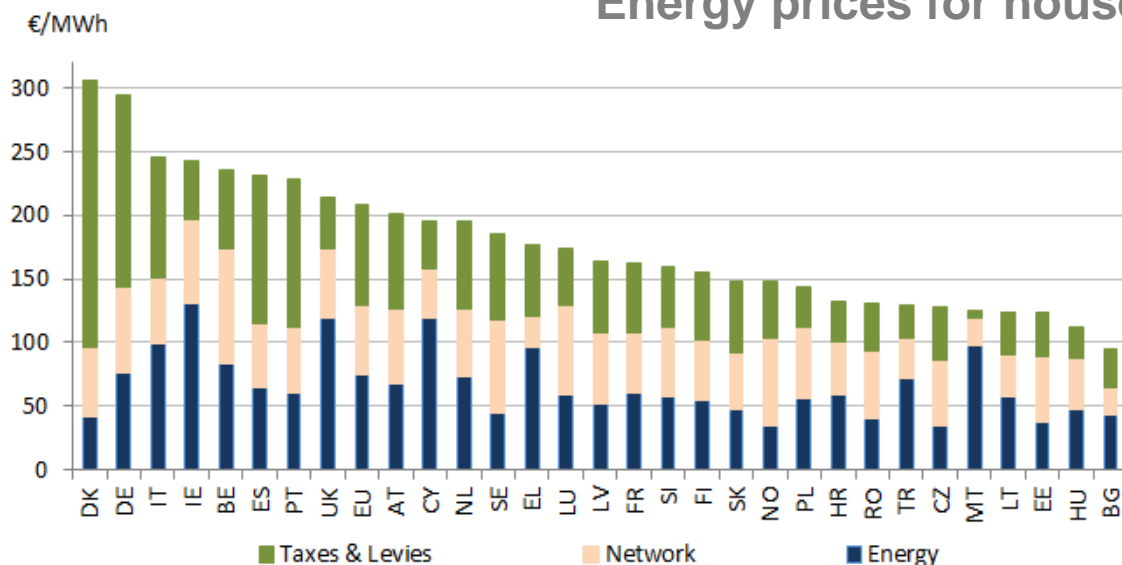
Key conclusions

1. Importance of a more competitive and efficient **internal market**;
2. Need for greater **clarity on network, tax and levy** components;
3. Rising household costs – importance of **energy efficiency**;
4. **Energy intensive industries** require particular attention.

International wholesale electricity prices

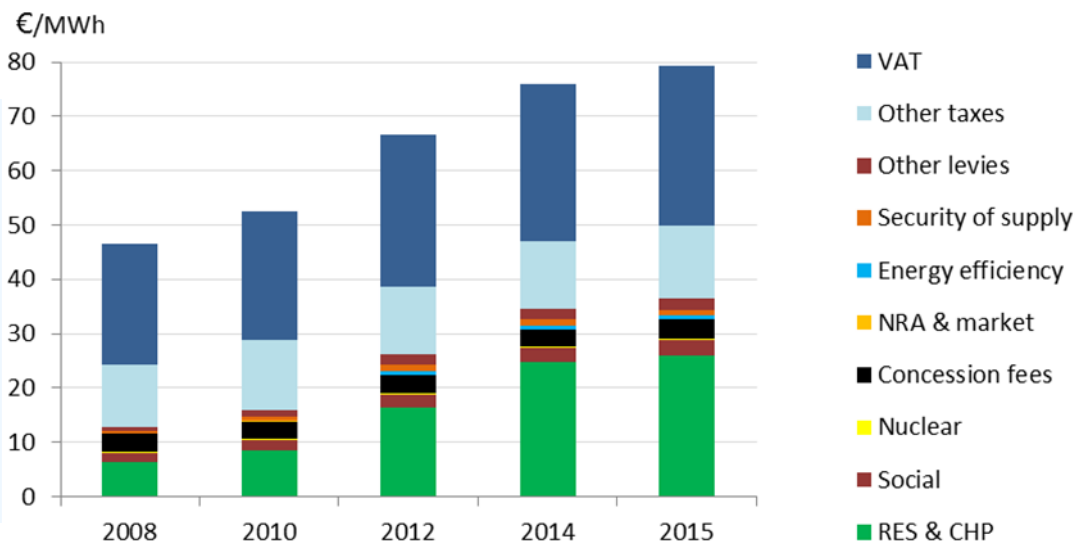


Energy prices for households



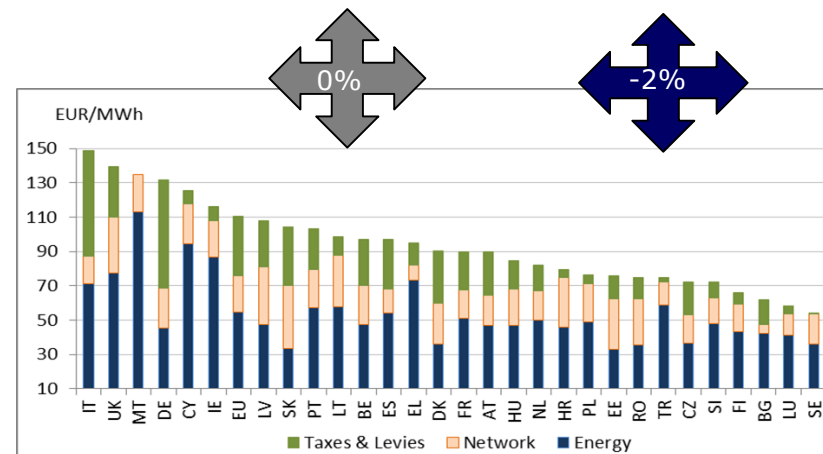
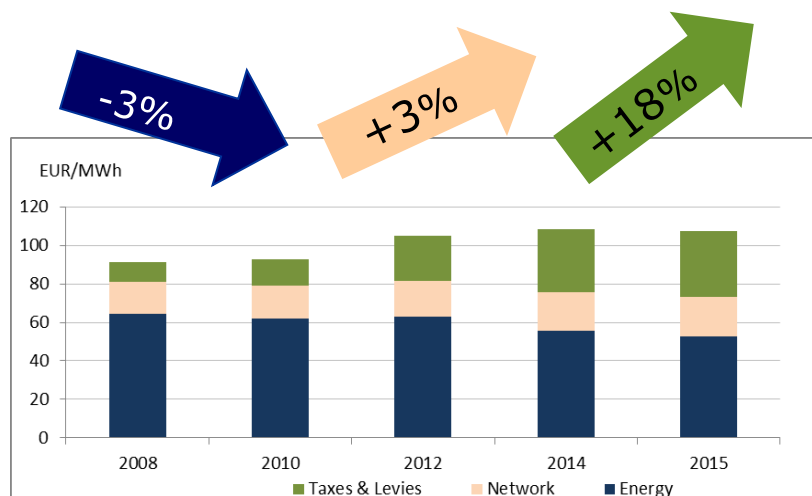
Significant national differences remain in 2015 electricity prices, driven by tax and energy components

New decomposition of household electricity prices: within "taxes and levies" Member State-identified increases occurred particularly in renewables/CHP levies.

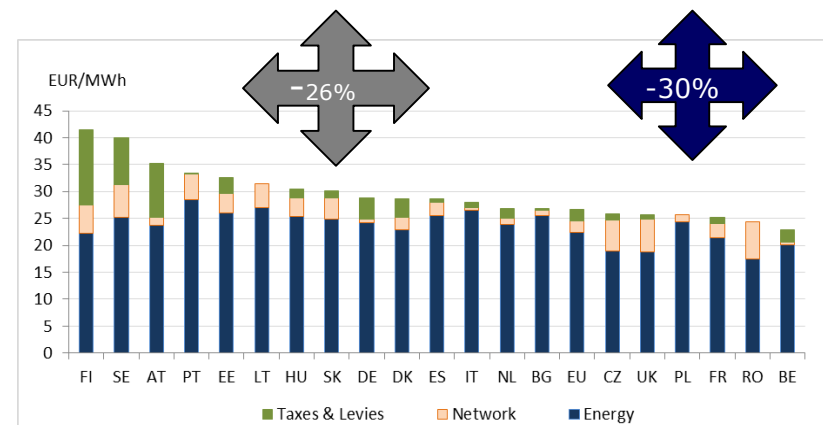
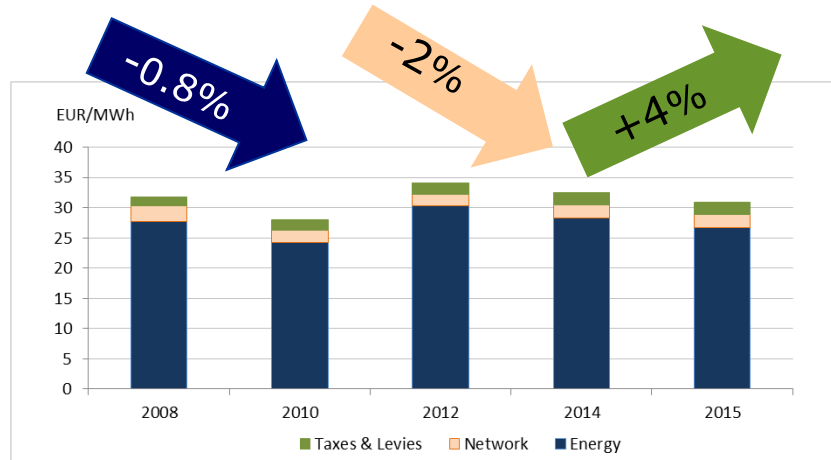


Retail electricity and gas prices for industry

Electricity



Gas



» Industrial gas prices decreased due to falling international commodity prices, which make up a large share of the total price

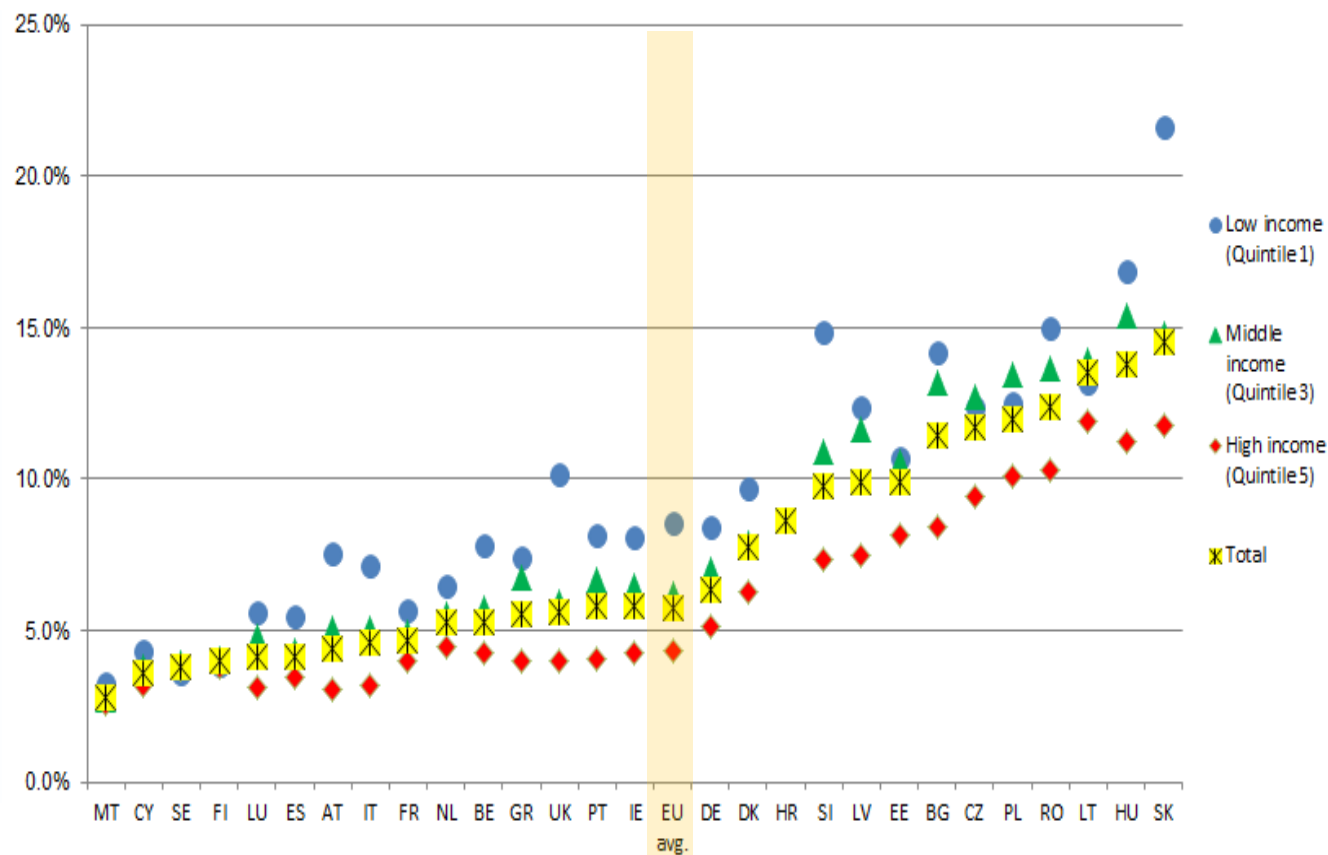
ENERGY COSTS FOR HOUSEHOLDS

Energy as a share of household income vary greatly across Member States - ranging from 4% in Malta to 14% in Slovakia

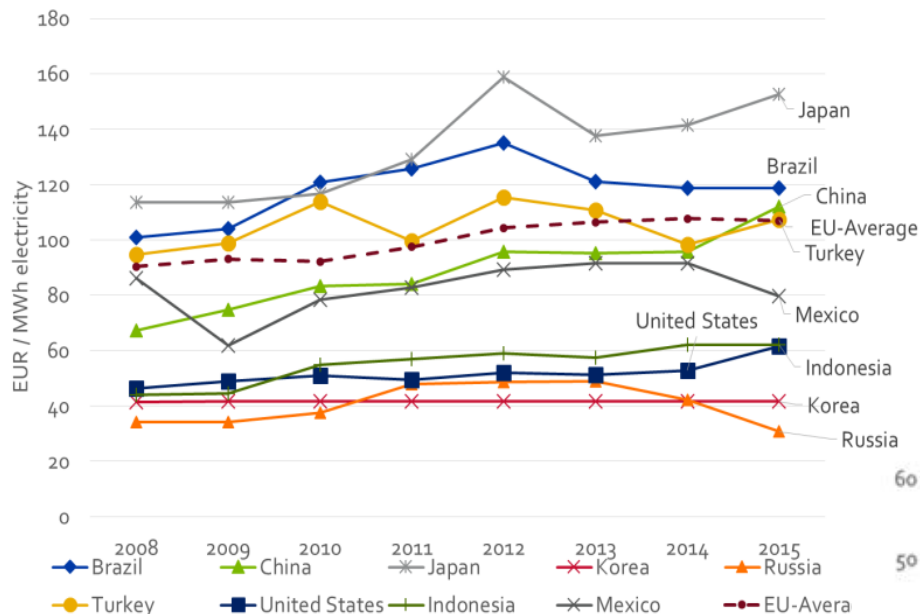
Average EU household expenditure on energy is 5.8%

Poorer households spend more on energy: 9% (4.5% - 22%)

Moreover the share for poorer households has increased more over time, compared to wealthier households.

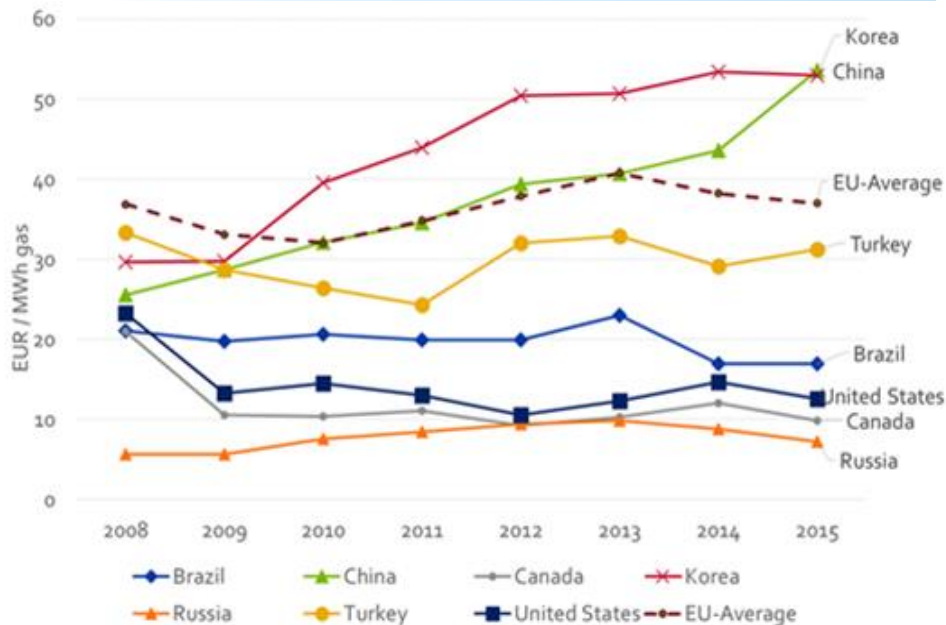


Energy prices for industry



EU electricity prices traditionally higher than US but lower than Japan's

Global gas prices vary and are volatile: Asian gas prices, including China, higher than EU prices, but US still significantly lower



Energy costs in the economy:
<2% for EU businesses on average

Share of energy-related costs in total production value, industry and services

Source: ESTAT, SBS and NA, own calculations

Broad Structure of NACE Rev. 2

Section	Title
A	Agriculture, forestry and fishing
B	Mining and quarrying
C	Manufacturing
D	Electricity, gas, steam and air conditioning supply
E	Water supply; sewerage, waste management and remediation activities
F	Construction
G	Wholesale and retail trade; repair of motor vehicles and motorcycles
H	Transportation and storage
I	Accommodation and food service activities
J	Information and communication
K	Financial and insurance activities
L	Real estate activities
M	Professional, scientific and technical activities
N	Administrative and support service activities
O	Public administration and defence; compulsory social security
P	Education
Q	Human health and social work activities
R	Arts, entertainment and recreation
S	Other service activities
T	Activities of households as employers; undifferentiated goods- and services-producing activities of households for own use
U	Activities of extraterritorial organisations and bodies

Calculation steps

Objective Calculate SEC(TPV),E as:

$$SEC(TPV),E = [SEC(TPV),I \times VA(I),E] + [SEC(TPV),S \times VA(S),E] / [VA(I),E + VA(S),E]$$

Step 1 Calculate SEC(TPV),I as:

$$SEC(TPV),I = PEP,I / ([GOS,I + PC,I] + TPQS,I)$$

 source: ESTAT SBS, [abs_na_ind_2]

Step 2 Calculate SEC(TPV),S as:

Hyp1: $TPV,I / TPV,S = SVA,I / SVA,S$

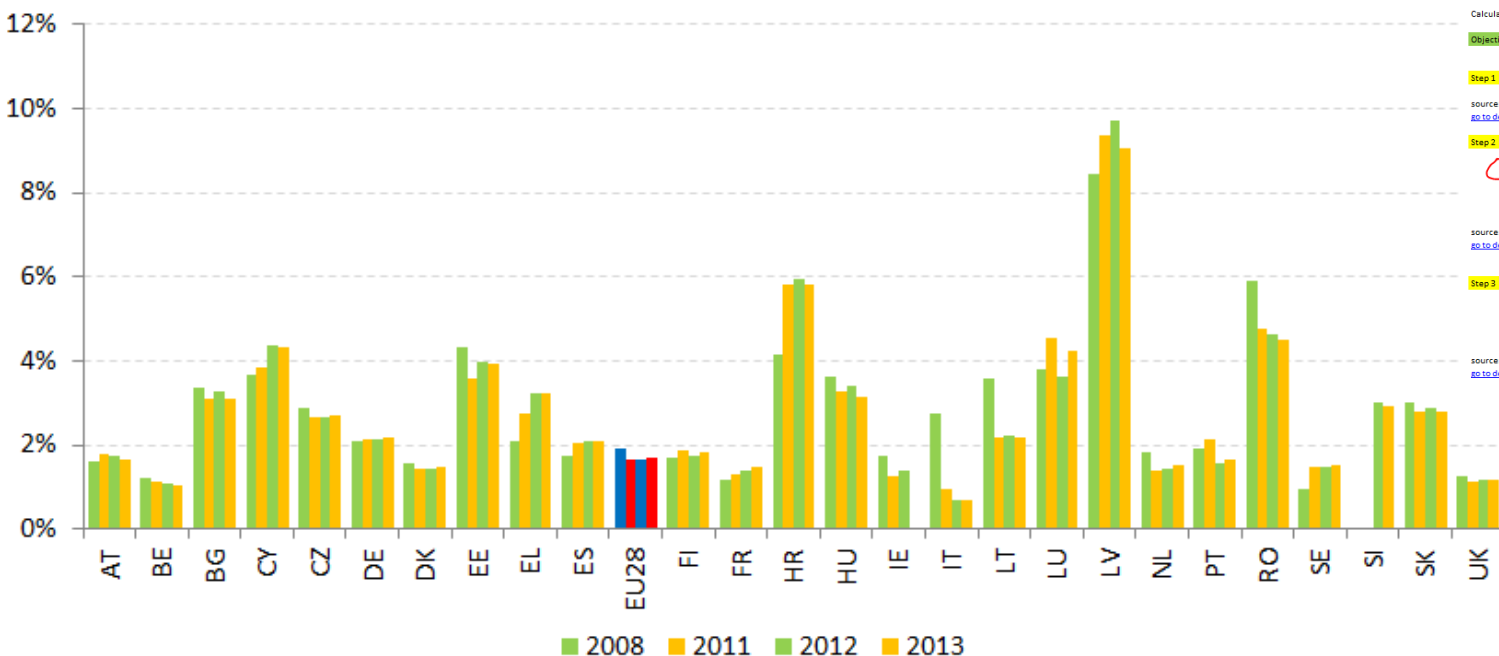
Hyp2: $SEC(TPV),I = ERPC,I / TPC,I$
 $SEC(TPV),S = ERPC,S / TPC,S$

source: PRIMES
 $SEC(TPV),S = A \times SEC(TPV),I$ where
 $A = [ERPC,S / ERPC,I] / [SVA,S / SVA,I]$
 go to details

Step 3 Calculate VA(I),E and VA(S),E as:

Hyp2:
 option1: $I = NACE[C]; S = NACE[G-U]$ DG GROW style
 option2: $I = NACE[B-E]; S = NACE[A, G-N]$ PRIMES style

source: ESTAT NA, [name_10_m64]
 go to details



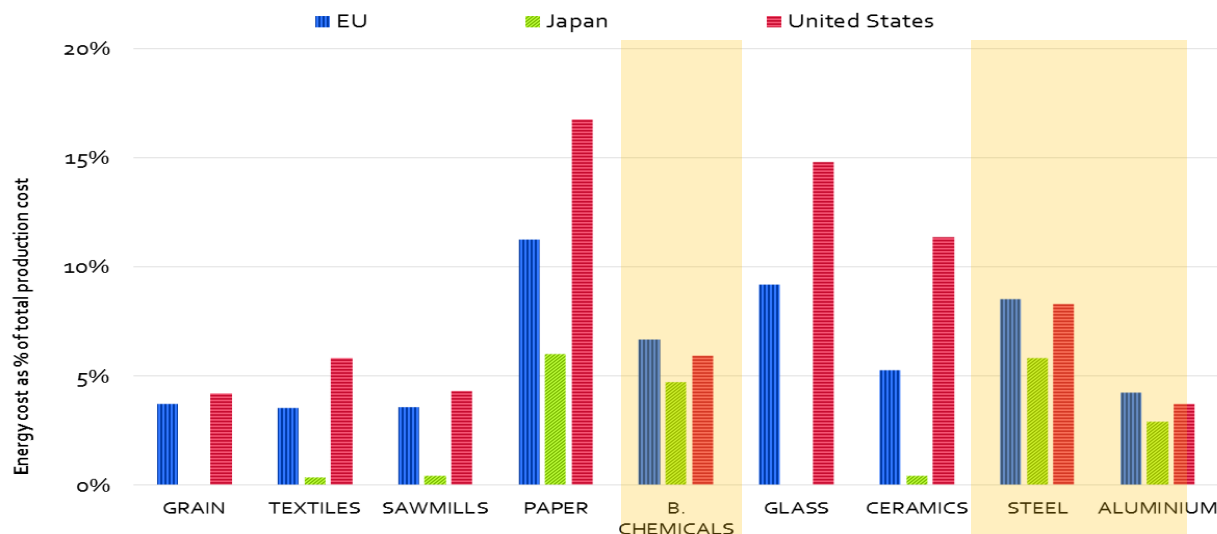
ENERGY COSTS FOR INDUSTRY



Source: Ecofys, Eurostat

Most energy cost shares are low, but energy intensive industries have higher exposure to higher prices

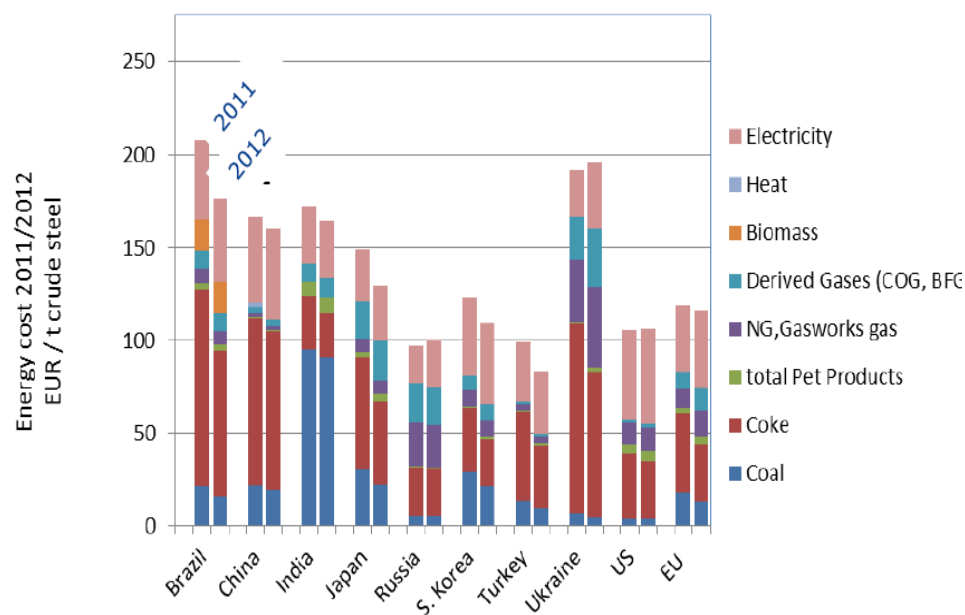
Costs for key industries facing international competition can and do receive support through tax and levy exemptions or other subsidies to compensate for unequal global competition



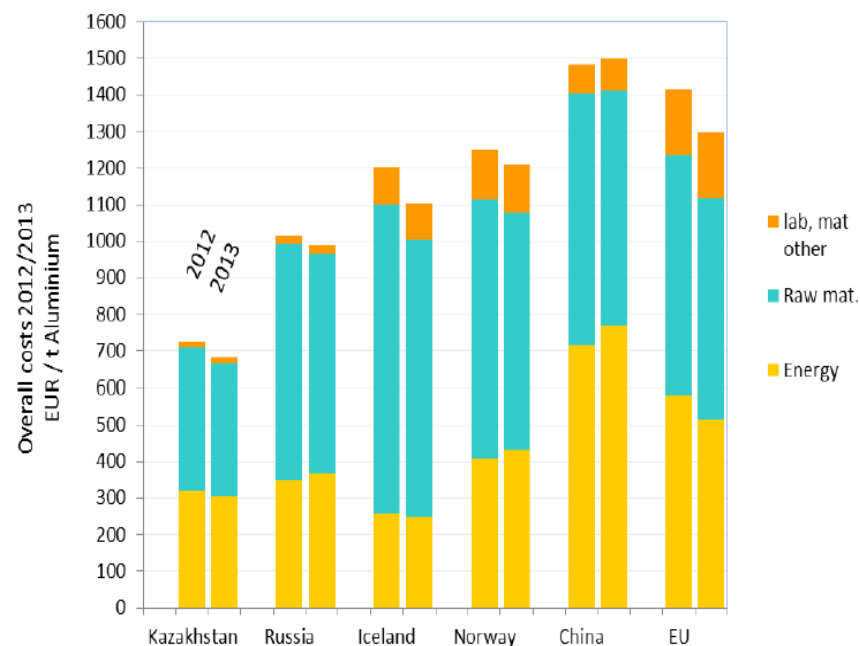
Source: Ecofys, Eurostat

*Comparing (all) energy costs with trading partners in selected industries in :
energy carriers and other production inputs also matter*

Iron & Steel



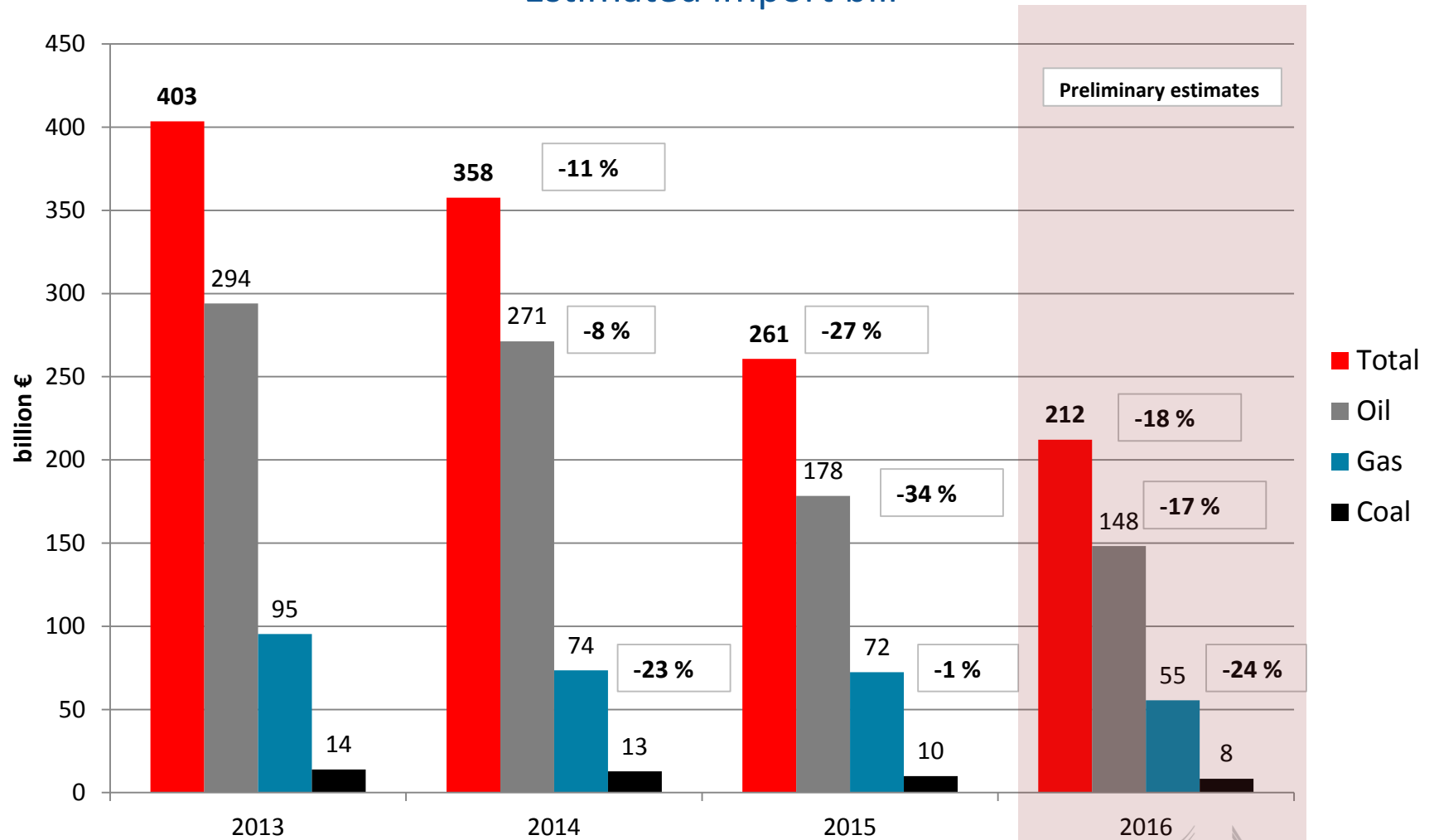
Aluminium



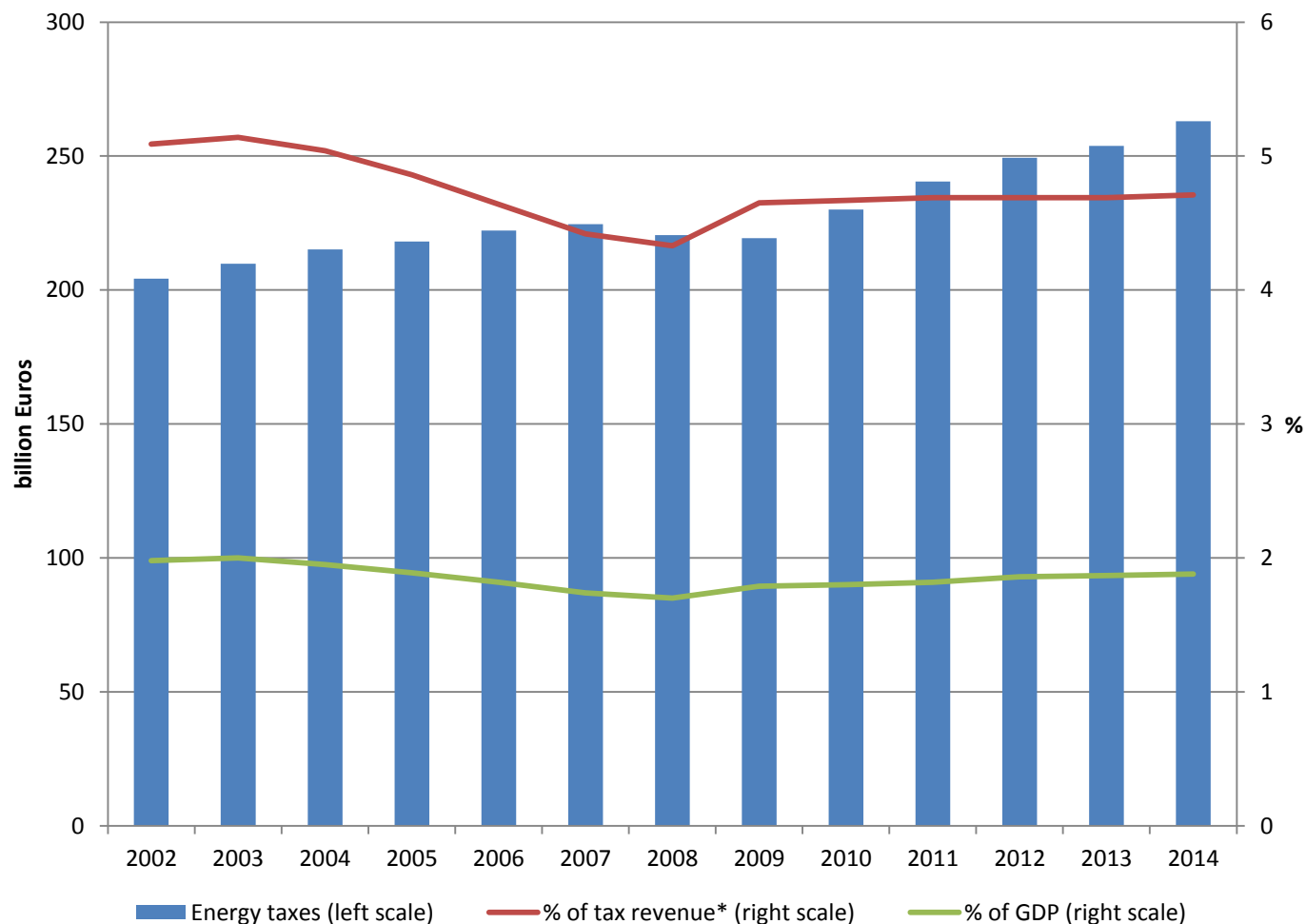
Source: JRC Report Production costs from energy-intensive industries in the EU and third countries, 2016

Energy costs for the economy: An import bill driven down by oil prices

Estimated import bill

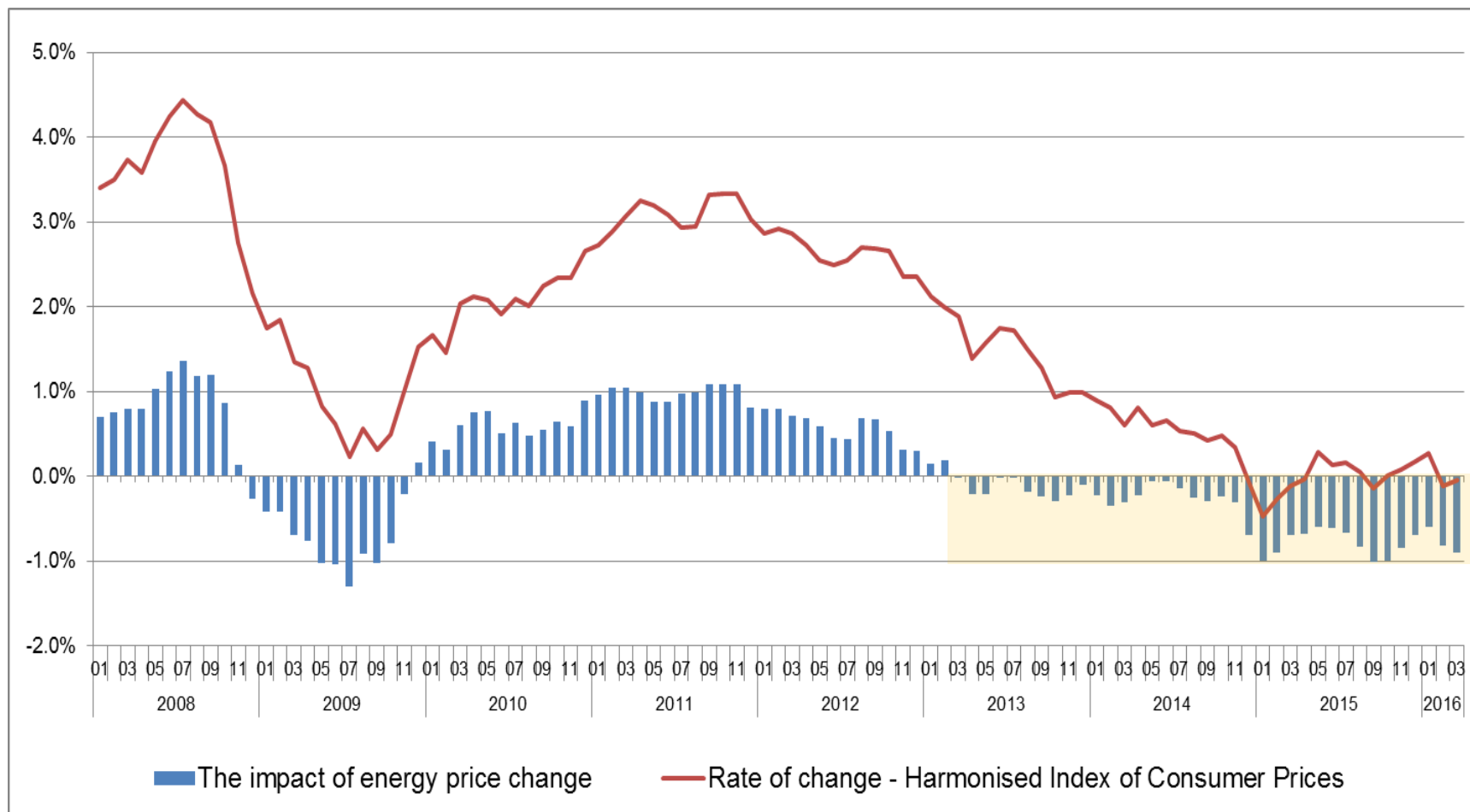


Energy taxes: a relatively stable share of both GDP and tax revenue



*Percentage of total revenues from taxes and social contributions (including imputed social contributions)

Energy and inflation Deflationary impact on consumer prices since 2013



MAIN MESSAGES

- ❖ Wholesale prices fell and reached 10-y lows in 2016
 - Commodity prices fell
 - Low energy demand (slow economic recovery)
- ❖ Retail prices increased
 - *Energy component* falling
 - Rising *Taxes and Levies* for fiscal and policy reasons
 - Rising *Network Costs*
 - But total retail prices slowing down
 - EU retail prices higher than US, lower than most of Asia
- ❖ Energy costs (Energy Intensive Industries)
 - Energy costs are falling
 - Energy costs can matter for competitiveness but other costs too
 - EU industry relatively energy efficient - Energy costs lower than US but higher than Japan
- ❖ NEXT ENERGY PRICES AND COSTS IN 2018
 - ❖ State of play (new studies + data collections)
 - ❖ Transparency- consultation
 - ❖ More detail/broader coverage

Thank you