

## Background

- EU has committed itself to ambitious GHG emission reduction targets (e.g. -40% in 2030)
- EU CO<sub>2</sub> emissions from industry and energy supply are regulated under the EU ETS
- GHG emissions from private households, transport and other small sources are regulated on MS level
- Minimum energy tax rates for the MS are defined in the 2003 Energy Taxation Directive
- Commission Proposal for New Energy Taxation Directive (COM/2011/169) with more emphasis on carbon content was not adopted (requirement of unanimity) and withdrawn by the EC in 2015

## Methods

- Review of energy tax rates by energy source and use category based on the EU's taxation reports
  - Focus on transport fuels
  - Assessment of the CO<sub>2</sub> component included in the taxes
  - Analysis of implications of differences in purchasing power
- Focus
  - Differences between fuels
  - Differences between Member States

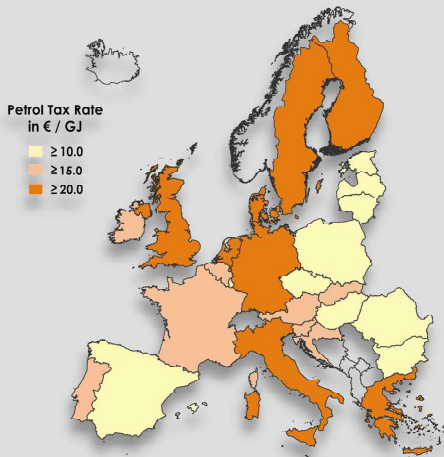
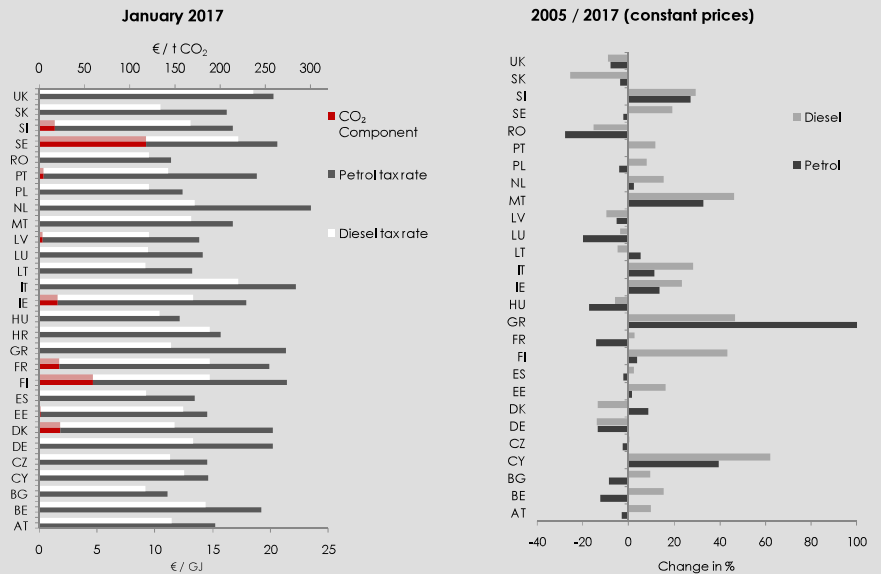
## RESULTS

Energy Tax Rates in EU MS in €/GJ

	Coal - Heating Business Use	Coal - Heating Non-business Use	Petrol	Gasol - Propellant	Gasol - Heating Business Use	Gasol - Heating Non-business Use	Gas - Propellant	Gas - Heating Business Use	Gas - Heating Non-business Use	Electricity - Business Use	Electricity - Non-business Use
AT	1.70	1.70	15.20	11.43	3.14	3.14		1.66	1.66	4.17	4.17
BE	0.41	0.41	19.16	14.34	0.50	0.50		0.28	0.00	0.53	0.54
BG	0.31	0.31	11.07	9.19	9.19	9.19	0.43	0.31	0.00	0.28	0.00
CY	0.00	0.31	14.60	12.52	3.47	3.47	2.60	2.60	2.60	1.39	1.39
CZ	0.31	0.31	14.49	11.27	11.27	11.27	0.70	0.31	0.31	0.29	0.29
DE	0.17	0.33	20.19	13.30	1.49	1.92	11.46	8.67	8.76	4.27	5.70
DK	9.62	9.62	20.19	11.67	9.11	9.11	11.55	8.74	8.74	0.15	33.97
EE	0.93	0.93	14.18	12.46	12.46	12.46		0.89	0.59	1.24	1.24
ES	0.15	0.65	13.42	9.21	2.36	2.36	1.15	0.15	0.65	1.42	1.42
FI	7.49	7.49	21.42	14.76	6.36	6.36	5.17	5.17	1.95	1.92	6.26
FR	2.78	2.78	19.84	14.76	3.31	3.31	1.53	1.63	1.63	6.26	6.26
GR	0.30	0.30	21.34	11.40	11.40	11.40	0.00	0.60	0.30	1.39	0.61
HR	0.31	0.31	15.68	14.74	1.57	1.57	0.00	0.15	0.30	0.14	0.27
HU	0.30	0.30	12.12	10.41	10.41	10.41	2.67	0.30	0.30	0.28	0.28
IE	1.89	1.89	17.92	13.32	2.84	2.84	2.60	1.03	1.03	0.14	0.28
IT	0.16	0.32	22.21	17.17	11.22	11.22	0.09	0.34	3.89	2.30	6.31
LT	0.15	0.30	13.24	9.18	0.59	0.59	6.56	0.15	0.30	0.14	0.28
LU	5.00	0.30	14.13	9.36	0.28	0.28	0.00	0.30	1.08	0.14	0.28
LV	0.35	0.35	13.29	9.48	1.09	1.09	2.67	0.46	0.46	0.28	0.28
MT	0.30	0.30	16.75	13.13	6.46	6.46		0.84	0.84	0.42	0.42
NL	0.54	0.54	23.47	13.48	13.48	13.48	4.57	2.55	7.16	11.43	27.99
PL	0.30	0.30	12.40	9.45	6.45	6.45	2.48	0.30	0.30	1.30	1.30
PT	0.59	0.59	18.83	11.18	9.53	9.53	3.13	0.59	0.59	0.28	0.28
RO	0.16	0.32	11.35	9.49	9.49	9.49	2.79	0.18	0.34	0.15	0.30
SE	12.89	12.89	20.57	17.19	6.36	12.02	6.40	5.87	8.89	0.15	8.66
SI	1.86	1.86	16.75	13.10	5.63	5.63	3.45	1.42	1.42	0.85	0.85
SK	0.31	1.00	16.24	10.49	10.49	10.49	2.60	0.37	0.37	0.37	0.00
UK	0.00	0.00	20.23	18.46	3.55	3.55	5.67	0.61	0.61	0.00	0.00
EU MED*	0.15	0.30	10.95	9.18	0.58	0.58	2.60	1.15	0.30	0.14	0.28

\* Minimum Excise Duty  
Note: Tax rates as displayed in the EU Excise Duty Tables (January 2017); country-specific exemptions

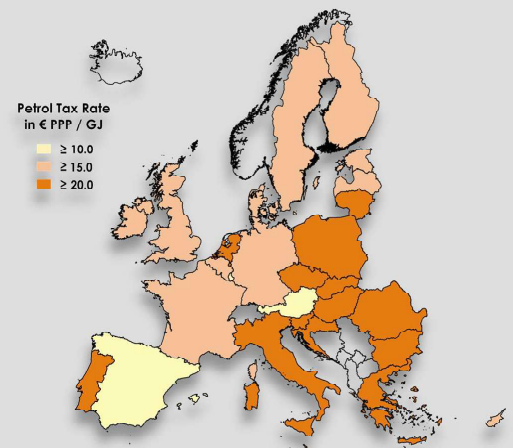
Petrol vs. Diesel Tax Rates in EU MS



Energy (and carbon) tax rates differ significantly between MS, use category (i.e. commercial / non-commercial, transport / heating / other) and energy source

Explicit carbon taxes exist only in one third of the EU MS

The comparison of petrol tax rates in € PPP substantially changes the results for the EU MS



## Summary and results

- Some climate change aspects have been included in Member States' energy taxation as a result of the EU Energy Taxation Directive 2003/96/EC
- Existing energy taxes serve mainly revenue raising, only in some cases an explicit carbon component is included
- Even in MS with an environmental tax reform, tax rates were determined according to the political feasibility and not according to the CO<sub>2</sub> content of the different energy sources (see e.g. Böhringer and Schwager, 2002)
- Better alignment of energy taxes with carbon content advisable in order to provide a uniform CO<sub>2</sub> price signal across fuels and sectors (see e.g. Kettner and Kletzan-Slamanig, 2017)
- For industry, interactions with EU ETS need to be considered

## References

Böhringer, C. and R. Schwager (2002). Die ökologische Steuerreform in Deutschland – ein umweltpolitisches Feigenblatt. ZEW Discussion Paper No. 02-14.

Council Directive 2003/96/EC restructuring the Community framework for the taxation of energy products and electricity.

EC (2011). Proposal for a Council Directive amending Directive 2003/96/EC restructuring the Community framework for the taxation of energy products and electricity. COM (2011) 169.

EC (2017). Excise Duty Tables – Part II – Energy Products and Electricity, January 2017, Brussels.

Kettner C. and D. Kletzan-Slamanig (2017). Carbon taxation in EU Member States: evidence from the transport sector. in: Weishaar S.E. et al. (eds.), The Green Market Transition – Carbon Taxes, Energy Subsidies and Smart Instrument Mixes. Critical Issues in Environmental Taxation Vol. 19, Edward Elgar, 17–29.