

# Environmentally related taxes Taxes on energy use

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Centre for Tax Policy and Administration

### Revenue from environmentally related taxes in Turkey<sup>1</sup>

As a share of GDP, Turkey has the 2nd highest environmentally related tax revenue among 34 OECD and 5 partner economies. In 2014, environmentally related tax revenues were at 3.83% of GDP, compared to 2.0% on average among the 39 countries.

In Turkey, taxes on energy represented 68% of total environmentally related tax revenue, compared to 70% on average among the 39 countries.

# Environmentally related tax revenue as a percentage of GDP, 2014 Motor vehicles Other

<sup>1</sup>Data from OECD.Stat include all OECD countries (except Latvia) and Argentina, Brazil, China, India and South Africa. Please see OECD.Stat for country specific notes.

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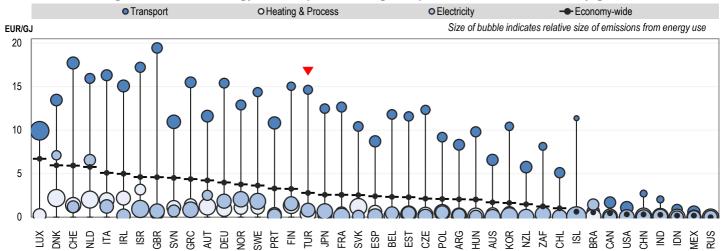
### Taxes on energy use in Turkey<sup>2</sup>

The OECD's Taxing Energy Use (2015) publication compares taxes on energy use (excise and carbon taxes) across 34 OECD and 7 partner economies. The chart below shows average tax rates, expressed in EUR per GJ, by sector across all fuels and the economy-wide average. The bubble size represents the weight of the sector in total energy use.

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- Turkey has higher average tax rates on transport fuels (14.64 EUR/GJ) than on fuels used for heating and process purposes (0.36 EUR/GJ) or electricity generation (0.81 EUR/GJ);
- Turkey has the 17th highest tax rate on energy on an economy-wide basis, at EUR 2.78 per GJ, compared with EUR 2.7 per GJ on a simple-average basis across the 34 OECD and 7 partner economies.

### Average tax rates on energy in transport, heating and process use, and electricity generation



<sup>2</sup>Data from Taxing Energy Use are for 2012 and include all OECD countries (except Latvia) and Argentina, Brazil, China, India, Indonesia, Russia and South Africa.

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# Effective Carbon Rates

Pricing CO<sub>2</sub> through taxes and emissions trading systems

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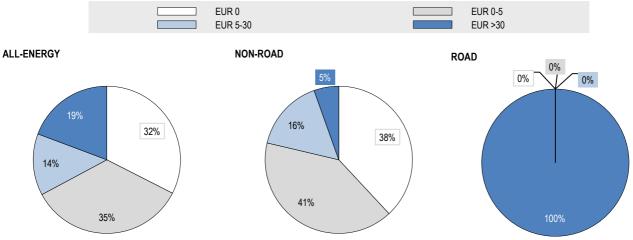
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# Effective carbon rates in Turkey

The OECD's Effective Carbon Rates (2016) publication presents the combined price signal on  $CO_2$  emissions from taxes on energy and emissions trading systems (ETS), or the effective carbon rate (ECR).<sup>3</sup> The charts below show shares of  $CO_2$  emissions subject to different price ranges, for road, non-road and all emissions from energy use. EUR 30 is a conservative estimate of the climate damage from one tonne of  $CO_2$  emissions.

- In Turkey, 32% of carbon emissions from energy use face no price signal at all; 33% face a price at or above EUR 5 per tonne of CO<sub>2</sub>; and 19% face a price at or above EUR 30 per tonne of CO<sub>2</sub>. This compares to a zero price for 60% of emissions across all countries, a price at or above EUR 5 per tonne for 30% and at or above EUR 30 per tonne for 10% of emissions.
- Excluding road use, 38% of carbon emissions from energy use in Turkey face no price signal at all; 21% face a price at or above » EUR 5 per tonne of CO<sub>2</sub>; and 5% face a price at or above EUR 30 per tonne of CO<sub>2</sub>. This compares to a zero price for 70% of emissions across all countries, a price at or above EUR 5 per tonne for 19% and at or above EUR 30 per tonne for 4% of emissions.

### Distribution of Effective Carbon Rates (ECR) on CO<sub>2</sub> emissions from energy use in Turkey



Figures shown in the charts may not add up to 100% due to rounding.

<sup>3</sup>Notes on the interpretation of effective carbon rates: Box 3.1 (p.38-40), OECD's Effective Carbon Rates (2016), or consult http://oe.cd/ECRinterpretation

### CO<sub>2</sub> emissions priced and average rates in Turkey

The table below shows the average price signals from taxes and trading systems, and the share of emissions priced by these instruments.

- » Turkey does not currently have an ETS.
- In total, taxes in Turkey price 68% of CO<sub>2</sub> emissions from energy use. The sectors with the highest tax coverage are road transport (100%) and electricity (100%).

Share of emissions priced and average price signals from tax, Turkey

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	CO <sub>2</sub> emissions by sector (in t CO <sub>2</sub> )	Tax		ETS			Emissions not
		Average price (in EUR/tCO <sub>2</sub> )	Share of emissions priced	Average price (in EUR/tCO <sub>2</sub> )	Share of emissions priced	Overlap of tax and ETS <sup>5</sup>	priced by tax or ETS
Agriculture & Fishing	11 572	41.1	98%	0.0	0%	0%	2%
Electricity	99 993	11.5	100%	0.0	0%	0%	0%
Industry	86 958	9.2	43%	0.0	0%	0%	57%
Offroad transport	3 459	26.0	66%	0.0	0%	0%	34%
Residential & Commercial	77 037	4.5	29%	0.0	0%	0%	71%
Road transport	47 812	218.6	100%	0.0	0%	0%	0%
Total <sup>4</sup>	326 831	38.4	68%	0.0	0%	0%	32%

Access the data for all 41 countries:

http://oe.cd/emissionsdata

<sup>&</sup>lt;sup>4</sup>Total average prices are weighted by the share of emissions in each sector that is priced in the country.

<sup>&</sup>lt;sup>5</sup>Tax and ETS can apply to the same emissions base. The overlap describes the percentage of emissions in a sector that is priced by both tax and ETS.