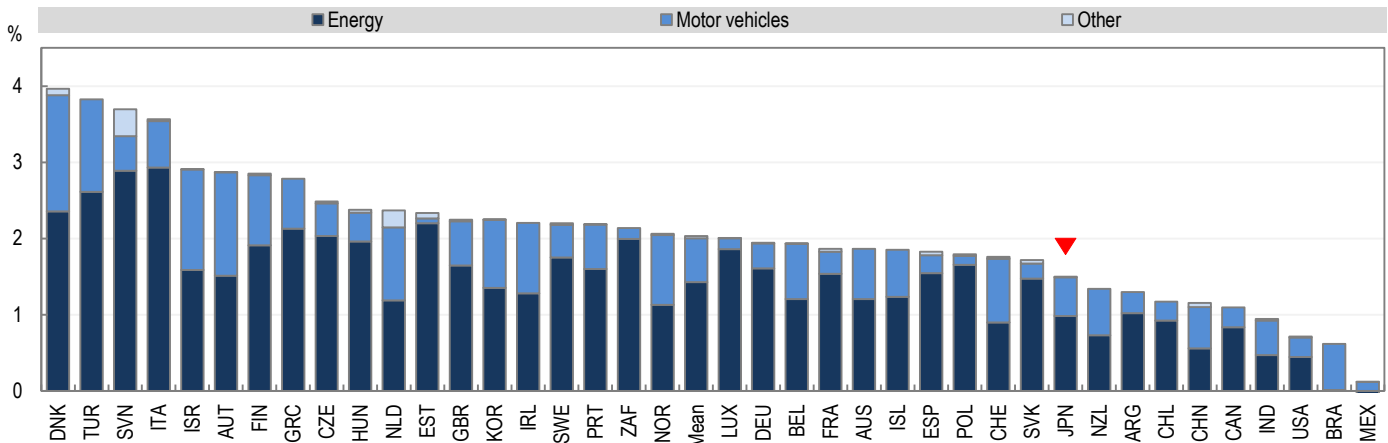


### Revenue from environmentally related taxes in Japan<sup>1</sup>

As a share of GDP, Japan has the 10th lowest environmentally related tax revenue among 34 OECD and 5 partner economies. In 2014, environmentally related tax revenues were at 1.5% of GDP, compared to 2.0% on average among the 39 countries.

In Japan, taxes on energy represented 65% 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



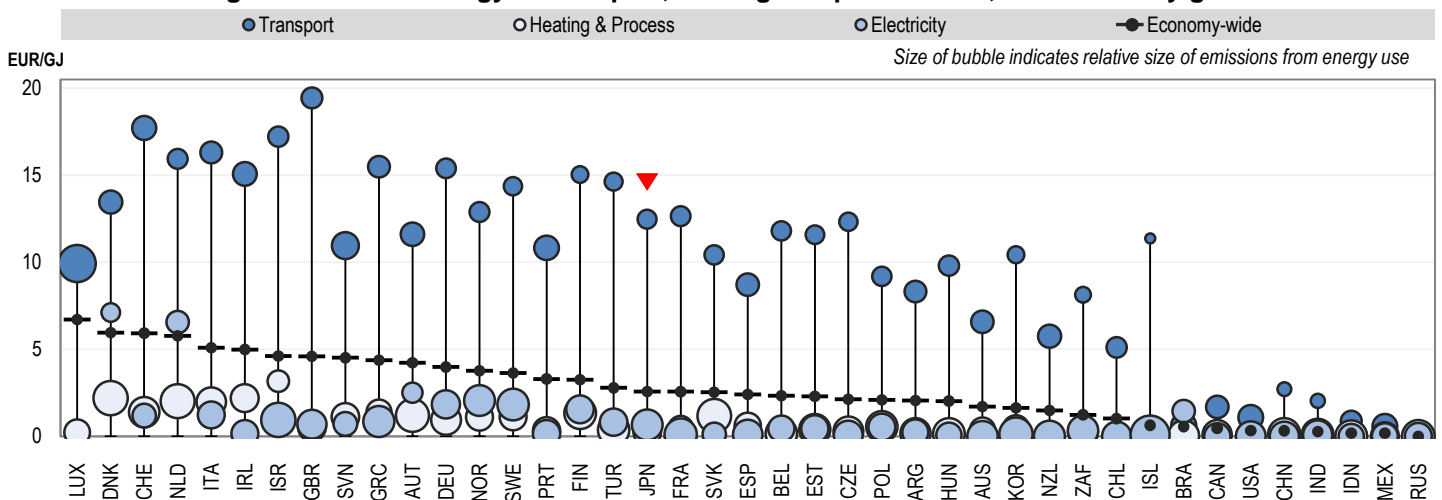
<sup>1</sup>Data from OECD.Stat include all OECD countries (except Latvia) and Argentina, Brazil, China, India and South Africa. Please see OECD.Stat for country specific notes.

### Taxes on energy use in Japan<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.

- » Japan has higher average tax rates on transport fuels (12.47 EUR/GJ) than on fuels used for heating and process purposes (0.25 EUR/GJ) or electricity generation (0.65 EUR/GJ);
- » Japan has the 18th highest tax rate on energy on an economy-wide basis, at EUR 2.57 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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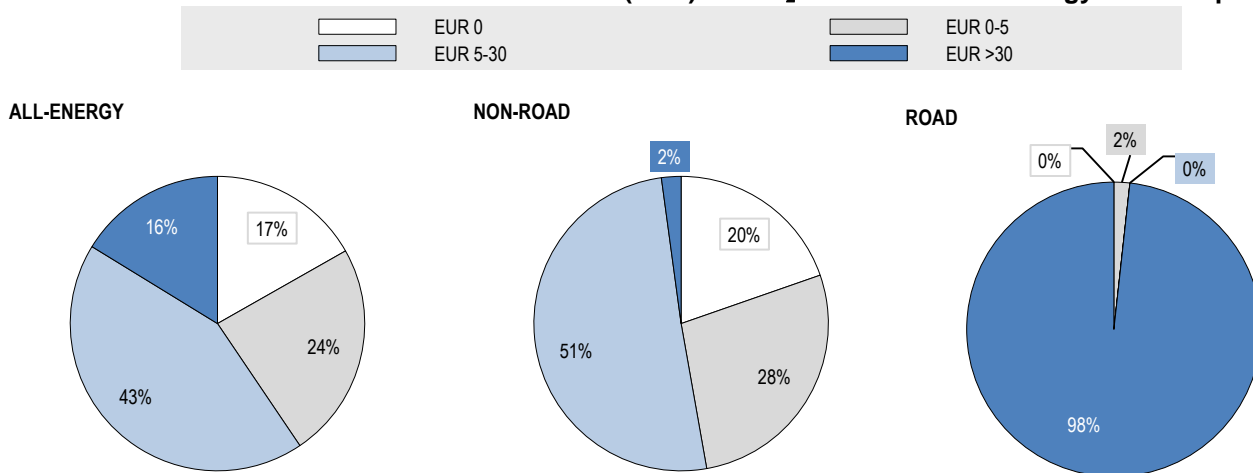
## Effective carbon rates in Japan

The [OECD's Effective Carbon Rates \(2016\)](#) publication presents the combined price signal on CO<sub>2</sub> 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<sub>2</sub> 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<sub>2</sub> emissions.

- » In Japan, 17% of carbon emissions from energy use face no price signal at all; 59% face a price at or above EUR 5 per tonne of CO<sub>2</sub>; and 16% 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, 20% of carbon emissions from energy use in Japan face no price signal at all; 53% face a price at or above EUR 5 per tonne of CO<sub>2</sub>; and 2% 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 Japan



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 Japan

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

- » There are two subnational ETS in Japan: Tokyo & Saitama, which had an average permit price of EUR 92.04 per tonne of CO<sub>2</sub> in 2012.
- » In total, taxes in Japan price 83% of CO<sub>2</sub> emissions from energy use; and the Tokyo & Saitama ETS cover 1%. The sectors with the highest tax coverage are road transport (100%) and residential and commercial (100%). The sectors with the highest price coverage by the ETS are electricity (2%) and industry (1%).

### Share of emissions priced and average price signals from tax & ETS, Japan

CO <sub>2</sub> emissions by sector (in t CO <sub>2</sub> )	Tax		ETS		Overlap of tax and ETS <sup>5</sup>	Emissions not priced by tax or ETS
	Average price (in EUR/tCO <sub>2</sub> )	Share of emissions priced	Average price (in EUR/tCO <sub>2</sub> )	Share of emissions priced		
Agriculture & Fishing	6.4	12%	0.0	0%	0%	88%
Electricity	9.3	93%	92.0	2%	2%	7%
Industry	4.2	62%	92.0	1%	0%	38%
Offroad transport	105.9	53%	0.0	0%	0%	47%
Residential & Commercial	5.1	100%	92.0	0%	0%	0%
Road transport	188.3	100%	0.0	0%	0%	0%
<b>Total<sup>4</sup></b>	<b>33.2</b>	<b>83%</b>	<b>0.9</b>	<b>1%</b>	<b>1%</b>	<b>17%</b>

Access the data for all 41 countries: <http://oe.cd/emissionsdata>

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

<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.