

## 2. SECTORAL AND ECONOMIC TRENDS OF ENVIRONMENTAL SIGNIFICANCE

### Environmentally related taxation

Prices and financial transfers (taxes, subsidies) provide important market signals that influence the behaviour of producers and consumers. Along with regulations, they can be used to address the environmental externalities of economic activity and to leverage more environment-friendly production and consumption patterns.

Environmentally related taxes are an important instrument for governments to shape relative prices. In the case of energy, changes in relative price affect substitution between various types of energy input and between energy and other production inputs. The level of taxation of energy relative to that of labour can influence the relative price of inputs, affect labour demand and stimulate the use of energy from cleaner sources.

#### Definitions

The indicators presented here refer to:

- Environmentally related tax revenue, expressed as percentage of GDP and as percentage of total tax revenue.
- The structure of the environmentally related tax base, i.e. energy products, motor vehicles and transport, and others (e.g. waste management, water management, ozone-depleting substances).

#### Overview

The use of environmentally related taxes to influence consumer behaviour and to internalise environmental costs is growing in OECD countries, but remains limited compared to labour taxes.

The revenue raised by environmentally related taxes represents about 1.6% of GDP, and 5.2% of all tax revenue. Both of these shares decreased slightly over the past decade, in part due to rising international fuel prices that triggered substitution away from motor vehicle fuels, some of the most heavily taxed products in the economy.

In OECD countries, the structure of environmentally related tax revenue is dominated by taxes on energy products, including motor vehicle fuels (69%) and on motor vehicles and transport (28%). Other environmentally related taxes, such as those on waste and water management and on hazardous chemicals – for which the price elasticities in many cases are larger than for energy and vehicles – represent a relatively low though growing share in current tax revenue (3%).

It has to be noted that governments also support fossil energy production and consumption in many ways, including by reducing taxes, intervening in markets or transferring funds. Such subsidies undermine the effectiveness of environmental taxation and of environmental policies more generally and encourage carbon emissions.

Additional information on taxation that is relevant from an environmental point of view can be found in the sections on energy prices and taxes and on road fuel prices.

#### Comparability

The indicators on environmentally related taxes should not be used to judge the “environment friendliness” of the tax systems. For such analysis, additional information, describing the economic and taxation structure of each country, is required. It should also be kept in mind that revenue from fees and charges, and from levies related to resource management, is not included, except for charges whose benefits are in proportion with their payment (e.g. wastewater charges).

For additional notes, see the Annex.

#### Sources

OECD (2014), “Environmental Policy Instruments”, OECD *Environment Statistics* (database), <http://dx.doi.org/10.1787/data-00696-en>.

OECD (2014), “Revenue Statistics: Comparative Tables”, OECD *Tax Statistics* (database), <http://dx.doi.org/10.1787/data-00262-en>.

#### Further information

OECD (2015), *Database on Instruments Used for Environmental Policy and Natural Resources Management*, [www2.oecd.org/eoicinst/queries/Default.aspx](http://www2.oecd.org/eoicinst/queries/Default.aspx).

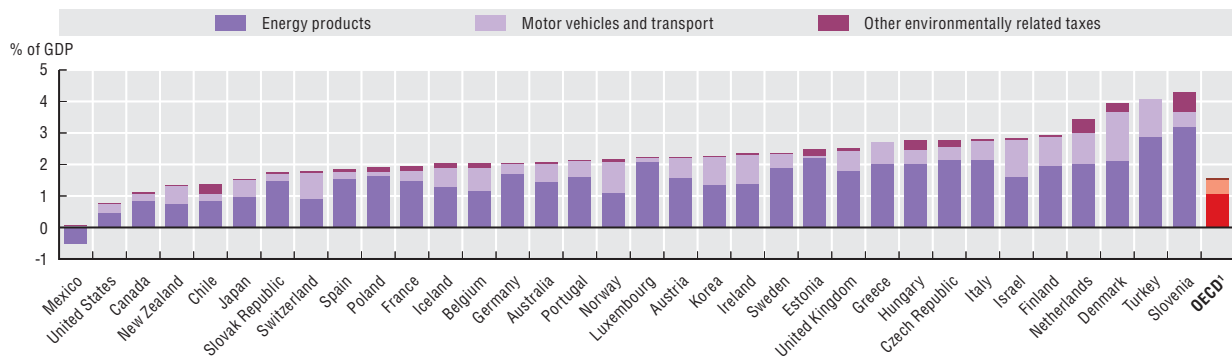
OECD (2014), “Green Growth Indicators 2014”, OECD *Green Growth Studies*, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264202030-en>.

Information on data for Israel: <http://dx.doi.org/10.1787/888932315602>.

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Figure 2.17. Environmentally related tax revenue



Note: Since 2000, Mexico has applied a price-smoothing mechanism. If petrol and diesel prices are higher than international reference prices, the differential effectively represents an excise duty, known as the *Impuesto Especial Sobre Producción y Servicios* (IEPS), otherwise the IEPS becomes an implicit subsidy.  
Source: OECD (2015), OECD Environment Statistics (database).

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Table 2.7. Environmentally related tax revenue

	Revenue from environmentally related taxes					Revenue structure, %			
	% total tax revenue		% GDP		Million USD 2013	% change since 2000	Energy products	Motor vehicles and transport	Other
	2013	% points change since 2000	2013	% points change since 2000			2013	2013	2013
Australia	7.47	-0.44	2.08	-0.33	18 642	27.6	70	28	2
Austria	5.26	-0.34	2.24	-0.12	7 087	14.8	70	29	1
Belgium	4.56	-1.12	2.04	-0.45	7 650	-3.1	57	37	7
Canada	3.68	-0.12	1.13	-0.22	14 935	8.0	74	23	4
Chile	6.81	-1.56	1.38	-0.19	3 969	53.0	62	17	21
Czech Republic	8.15	0.65	2.78	0.34	7 162	56.4	77	16	7
Denmark	8.10	-1.67	3.94	-0.76	7 298	-10.1	54	39	7
Estonia	7.81	3.07	2.49	1.02	633	171.5	89	2	9
Finland	6.65	-0.02	2.91	-0.14	5 094	12.7	68	31	2
France	4.31	-0.83	1.94	-0.27	39 750	1.7	77	15	8
Germany	5.59	-0.72	2.05	-0.24	60 150	1.9	83	16	1
Greece	8.09	1.34	2.71	0.47	6 101	17.8	75	25	0
Hungary	7.09	-0.59	2.76	-0.21	4 844	15.5	73	16	11
Iceland	5.69	-2.31	2.02	-0.87	246	-2.3	64	30	7
Ireland	8.34	-0.61	2.36	-0.40	4 078	11.8	59	40	2
Israel	9.26	1.61	2.83	0.16	6 711	63.3	57	41	2
Italy	6.49	-1.12	2.78	-0.31	45 334	-10.6	77	22	1
Japan	5.37	-1.10	1.54	-0.19	62 684	-1.1	64	35	1
Korea	9.25	-2.90	2.25	-0.36	35 021	45.1	60	40	0
Luxembourg	5.65	-1.46	2.22	-0.42	811	14.1	93	7	0
Mexico	-5.81	-13.72	-0.47	-1.78	-7 466	-147.3	114	-9	-5
Netherlands	9.22	-0.40	3.44	-0.11	22 219	10.3	59	28	13
New Zealand	4.16	-0.87	1.35	-0.34	1 627	10.8	55	44	1
Norway	5.37	-1.41	2.15	-0.69	5 261	-7.7	51	46	3
Poland	6.21	0.20	1.92	-0.04	13 803	55.8	86	6	8
Portugal	6.38	-2.15	2.13	-0.48	4 773	-17.6	75	24	1
Slovak Republic	5.89	-0.84	1.74	-0.52	2 062	30.9	85	12	4
Slovenia	11.64	2.28	4.28	0.86	2 163	57.6	75	11	15
Spain	5.70	-0.86	1.86	-0.33	22 878	1.6	83	13	4
Sweden	5.51	0.06	2.36	-0.31	8 204	12.9	80	19	1
Switzerland	6.57	-0.25	1.78	-0.11	6 060	18.8	50	48	2
Turkey	13.87	2.38	4.06	1.29	42 973	147.7	71	29	0
United Kingdom	7.63	-0.59	2.51	-0.34	55 926	8.6	72	24	4
United States	3.01	-0.39	0.77	-0.20	110 623	-0.7	61	35	4
<b>OECD</b>	<b>5.16</b>	<b>-0.65</b>	<b>1.56</b>	<b>-0.26</b>	<b>629 304</b>	<b>6.2</b>	<b>69</b>	<b>27</b>	<b>3</b>

Note: See the Annex for country notes.

Source: OECD (2015), OECD Environment Statistics (database).

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