Road fuel prices

Prices are a key form of information for consumers. When fuel prices rise relative to other goods, this tends to reduce demand for fuels, as well as for vehicles with high fuel consumption. This stimulates energy saving, and may influence the fuel structure of energy consumption. However, there may be a rebound effect whereby greater use of more fuel-efficient vehicles encourages greater vehicle usage.

Definitions

The indicators presented here relate to road fuel prices and taxes, notably the relative price and taxation levels of diesel fuel for commercial use and unleaded premium gasoline.

Information on energy consumption by road transport is given as a complement.

The indicators should be read in connection with information on the modal split of transport and on the structure of the vehicle fleet. They should further be complemented with information on congestion rates and air pollution from road traffic.

Overview

Energy consumption in road transport represents about 88% of total transport consumption and about a third of total final consumption. It has increased in conjunction with transport growth, but the overall energy intensity of transport has remained close to the 1990 level. This is partly due to the introduction of more fuel-efficient vehicles, which has partially offset emissions due to increased usage.

Differences across countries in energy intensity are more pronounced in freight than in passenger transport. Road transport almost entirely relies on oil.

OECD countries have deployed a mix of instruments to address the growing environmental pressures from car usage.

- Standards have been set for fuel economy and vehicle emissions, which have led to improvements in the amount of fuel required per unit of distance travelled, the quality of the fuel, and the resultant emissions.
- Market-based instruments have been applied such as taxes imposed on vehicles at the time of purchase and annually.
- The tax treatment of company cars and commuting also influence transport-related energy consumption.

The use of taxation to influence energy consumer behaviour and to internalise environmental costs is increasing in OECD countries. Many countries have introduced tax differentials in favour of unleaded gasoline and some have imposed environmental taxes (e.g. relating to sulphur or carbon content) on energy products. Many countries apply higher taxes for petrol than for diesel. Diesel-driven motors are more fuel efficient than petrol-driven motors and emit less CO_2 per km driven, but they are responsible for more air pollutants like NO_X and fine particulates ($PM_{2.5}$) and the related health impacts, than petrol-driven ones.

Variations in tax rates and the low levels of taxation on fuels with significant environmental impacts, suggest important opportunities for countries to reform their energy tax systems and achieve environmental goals more cost-effectively.

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 *environmentally related taxation*.

Comparability

Data on energy consumption by road transport and on road fuel prices should display a good overall level of comparability. Care should however be taken when comparing end-use energy prices, and the way that energy use is taxed. In view of the large number of factors involved, direct comparisons may be misleading. However, comparisons may be the starting point for analysis of differences observed.

Sources

IEA (2015), "End-Use Prices: Energy Prices in US Dollars", *IEA Energy Prices and Taxes Statistics* (database), *http://dx.doi.org/10.1787/data-00442-en*.

OECD (2015), *Energy Prices and Taxes*, Vol. 2015/1, OECD Publishing, Paris, *http://dx.doi.org/10.1787/energy_tax-v2015-1-en*.

Further information

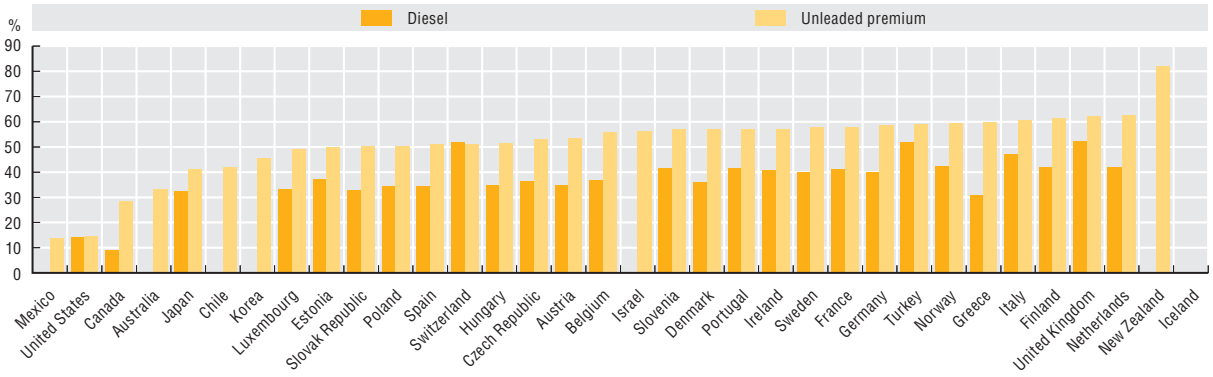
IEA online data service, *http://data.iea.org*.

OECD (2015), *Taxing Energy Use 2015: OECD and Selected Partner Economies*, OECD Publishing, Paris, *http://dx.doi.org/10.1787/9789264232334-en*.

OECD (2013), *Inventory of Estimated Budgetary Support and Tax Expenditures for Fossil Fuels 2013*, OECD Publishing, Paris, *http://dx.doi.org/10.1787/9789264187610-en*.

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

Figure 2.15. **Road fuel taxes as percentage of price, 2014**



Source: IEA (2015), *Energy Prices and Taxes* (database).

StatLink http://dx.doi.org/10.1787/888933262161

Table 2.5. **Road fuel prices and energy consumption**

In constant 2005 prices and PPP

	Diesel				Unleaded Premium (95 RON)				Energy consumption by road transport			
	Price		Tax		Price		Tax		% of total final consumption	Total	% change	
	USD/litre		% of price		USD/litre		% of price			Mtoe		
	2000	2014	2000	2014	2000	2014	2000	2014	2013	2013	2000-13	1990-2013
Australia	..	..	..	..	..	0.89	..	33.3	32	26,2	16	43
Austria	0.77	1.12	44.7	34.8	1.18	1.27	60.6	53.3	28	7,7	19	42
Belgium	0.80	1.01	44.4	36.6	1.29	1.48	65.8	55.8	19	8,0	0	30
Canada	0.46	0.78	15.9	9.0	..	1.01	..	28.4	25	49,1	5	25
Chile	..	..	..	..	1.11	1.86	46.5	41.7	28	7,4	31	140
Czech Republic	1.54	1.86	40.2	36.5	2.24	2.05	55.8	52.9	21	5,4	-2	-23
Denmark	0.71	0.82	45.3	35.9	1.07	1.19	66.3	57.1	27	3,6	-4	4
Estonia	..	1.61	..	37.3	..	1.78	..	50.0	23	0,7	17	-49
Finland	0.71	0.97	43.6	41.8	1.23	1.37	67.3	61.4	16	3,9	1	11
France	0.82	1.02	54.5	41.1	1.30	1.41	69.8	57.9	26	40,7	-3	10
Germany	0.85	1.21	54.7	40.0	1.26	1.54	69.3	58.6	23	51,6	-3	-7
Greece	0.94	1.16	43.3	30.6	1.27	1.90	52.8	59.8	32	5,0	-17	5
Hungary	1.48	1.99	46.6	34.7	2.40	2.18	60.0	51.6	20	3,3	-4	-20
Iceland	..	..	..	..	..	..	..	..	10	0,3	54	100
Ireland	0.61	1.19	46.4	40.5	1.05	1.34	58.9	57.2	33	3,4	-4	36
Israel	..	..	..	..	1.22	1.64	63.7	56.2	31	4,5	22	110
Italy	0.95	1.30	51.5	46.9	1.41	1.67	64.8	60.7	27	32,9	-6	5
Japan	0.46	0.93	57.1	32.3	0.78	1.23	56.6	41.3	21	64,9	-9	5
Korea	..	..	..	..	..	2.17	..	45.2	18	30,2	32	159
Luxembourg	0.74	0.91	42.2	33.0	0.97	1.11	55.7	49.0	57	2,2	17	37
Mexico	0.66	1.04	31.3	0.0	1.00	1.30	43.5	13.8	42	49,7	20	40
Netherlands	0.89	1.02	49.0	41.8	1.46	1.62	66.4	62.4	17	10,6	9	25
New Zealand	0.48	0.51	0.6	0.4	0.82	1.17	42.5	82.0	31	4,2	2	36
Norway	1.01	0.82	54.2	42.4	1.30	1.40	68.7	59.3	17	3,5	3	17
Poland	1.22	2.01	42.6	34.5	1.92	2.25	57.1	50.4	22	14,8	16	9
Portugal	0.98	1.53	48.3	41.6	1.48	1.92	49.4	57.1	32	5,1	-16	21
Slovak Republic	1.67	1.99	46.7	32.5	2.61	2.04	53.9	50.3	19	2,0	-5	-31
Slovenia	..	1.57	..	41.5	..	1.93	..	56.9	37	1,8	5	32
Spain	0.88	1.16	45.0	34.4	1.25	1.51	59.2	50.9	31	25,1	-5	34
Sweden	0.75	1.08	43.3	40.1	1.09	1.35	67.0	57.8	22	7,1	-8	1
Switzerland	0.72	0.84	63.2	51.9	0.84	0.95	60.3	51.0	28	5,6	5	11
Turkey	1.90	2.78	58.6	51.9	2.25	2.82	61.8	59.1	21	17,7	49	115
United Kingdom	1.16	1.35	69.9	52.1	1.42	1.50	75.5	62.1	28	36,6	-14	-7
United States	0.45	0.78	30.7	14.2	0.47	0.77	24.2	14.6	35	517,3	-3	16
OECD	**0.63**	**1.39**	**..**	**..**	**0.65**	**1.22**	**..**	**..**	**29**	**1 051,9**	**0**	**17**

Note: See the Annex for country notes.
Source: IEA (2015), *IEA Energy Prices and Taxes* (database).

StatLink http://dx.doi.org/10.1787/888933262412

From:

Environment at a Glance 2015

OECD Indicators

Access the complete publication at:

https://doi.org/10.1787/9789264235199-en

Please cite this chapter as:

OECD (2015), "Road fuel prices", in *Environment at a Glance 2015: OECD Indicators*, OECD Publishing, Paris.

DOI: https://doi.org/10.1787/9789264235199-18-en

This work is published under the responsibility of the Secretary-General of the OECD. The opinions expressed and arguments employed herein do not necessarily reflect the official views of OECD member countries.

This document and any map included herein are without prejudice to the status of or sovereignty over any territory, to the delimitation of international frontiers and boundaries and to the name of any territory, city or area.

You can copy, download or print OECD content for your own use, and you can include excerpts from OECD publications, databases and multimedia products in your own documents, presentations, blogs, websites and teaching materials, provided that suitable acknowledgment of OECD as source and copyright owner is given. All requests for public or commercial use and translation rights should be submitted to rights@oecd.org. Requests for permission to photocopy portions of this material for public or commercial use shall be addressed directly to the Copyright Clearance Center (CCC) at info@copyright.com or the Centre français d'exploitation du droit de copie (CFC) at contact@cfcopies.com.