

Government revenues from environmental taxes

Definition of an environmental tax

An environmental tax is defined as a tax whose base is a physical unit such as a litre of petrol, or a proxy for it, for instance a passenger flight, that has a proven specific negative impact on the environment. By convention, in addition to pollution related taxes, all energy and transport taxes are classified as environmental taxes. This definition has been agreed by international experts and adopted by the Statistical Office of the European Communities (Eurostat) and Organisation for Economic Co-operation and Development (OECD). It enables analysis to be based on the effects of taxes rather than the aims behind their introduction, i.e. the aim of a tax for raising government revenue rather than reducing environmental degradation does not preclude it from being defined as an environmental tax.

Nevertheless, the interpretation and use of measures of environmental taxes need care. In particular, the levels of revenues from environmental taxes do not necessarily indicate the relative importance or the success of environmental policy. High environmental tax revenues can result either from high rates of taxes or from high levels of environmental problems (e.g. pollution) leading to a large tax base. The broad measure of revenues can also fail to capture the effect of the differential rates that encourage a shift away from higher impact behaviour (such as the use of leaded petrol).

Taxes on energy products include duties on hydrocarbon oils used in road vehicles, the main ones being ultra low sulphur petrol and ultra low sulphur diesel. Taxes on energy products also include those used for non-transport purposes (such as industrial gas turbines and heating installations, with a reduced rate for energy saving materials). The **fossil fuel levy** was levied on sales of electricity from fossil fuels and was used to compensate companies producing electricity from non-fossil fuel sources such as nuclear or renewable energy.

The **climate change levy**, which is a tax on non-domestic use of energy, was introduced in April 2001. The levy applies to the suppliers of the following energy types: electricity, natural gas as supplied by a gas utility, petroleum and hydrocarbon gas in a liquid state, coal and lignite, coke and semi-coke of coal or lignite, and petroleum coke. The rates of the levy are based on the type and quantity of fuel supplied, with a range of relief and exemptions available.

VAT on duty is calculated as a fixed proportion (in most cases 17.5 per cent) of the duty paid on hydrocarbon oils. In practice much of this VAT will be reclaimed by business, but it could be argued that the total will eventually be paid when the final product or service is purchased.

Taxes on road vehicles include Vehicle Excise Duty, which keepers of motor vehicles can pay on either a six monthly or annual basis. There have been various changes to this duty over recent years. Most recently, as from 1 May 2002, private cars, taxis and light goods vehicles registered before 1 March 2001 with an engine size up to and including 1549cc are subject to a lower tax than cars with engine sizes greater than 1549cc. The same vehicle types registered on or after 1 March 2001 are taxed according to the level of carbon dioxide emissions. This is now pre-

sented broken down by payments from businesses and households. Car tax was payable on purchases of new cars, up until 1993 when it was discontinued.

Hydrobenefit was introduced in 1991 to protect energy consumers in remote areas, especially the Scottish Highlands and Islands, from excessive charges resulting from the increased costs involved in supplying those areas.

Air passenger duty was introduced on 1 November 1994. It applies to the carriage from a UK airport of chargeable passengers on chargeable aircraft at two different rates. The lower rate is charged where passengers are travelling to a UK destination or within the European Economic Area (EEA) and the higher rate applies in all other cases. On the year of introduction, the lower and higher rates of duty were £5 and £10 respectively. From 1 April 2001, standard rates of £10 for EEA destinations and £40 for other destinations have been applied. There are also reduced rates of duty for the lowest class of travel on any flights.

Landfill tax was introduced in October 1996 and aims to encourage waste producers to produce less waste, recover more value from waste e.g. through recycling or composting and to use more environmentally friendly methods of waste disposal. The tax applies to active and inactive (inert) waste disposed of at landfill sites. Generally when waste is committed to landfill it undergoes physical, chemical or biological transformations which then react with surrounding matter. Known as leaching, this process can give rise to environmental damage and harm human health. Waste classified as inactive has insignificant levels of leachability, pollutant content and ecotoxicity. Types of waste excluded from this tax include dredgings, disposals from mines and quarries and also waste resulting from the clearance of contaminated land. A standard rate of tax is levied on active waste, this was introduced at the rate of £7.00 per tonnes and has since risen to £14 per tonne in 2003-04. This rate will subsequently be increased each year until it reaches a medium to long term rate of £35 per tonne. A lower rate of tax is levied on inert waste, which has remained at £2.00 per tonne from the year of introduction.

The **aggregates levy** was introduced on 1 April 2002. The objective of this tax is to address the environmental costs associated with quarrying operations (noise, dust, visual intrusion, loss of amenity and loss to biodiversity), by reducing the demand for aggregate and encouraging the use of alternative materials where possible e.g. the use of waste glass and tyres in aggregate mixes. The tax applies to the commercial exploitation of sand, gravel and rock and includes aggregate dredged from the seabed within UK territorial waters. It is a specific tax, charged at £1.60 per tonne.

There is a wide range of exemptions for some quarried or mined products e.g. coal, metal ores, industrial minerals and for minerals used in the production of lime and cement and for exports of aggregates. Imports of aggregates are taxed upon first sale or use in the UK.

Environmental taxes breakdown by 13 industries are based on general government environmental taxes data and unpublished Input-Output data for taxes on products and production, that are informed by the latest available Supply-Use tables. From these sources it is possible to estimate allocations of environmental taxes to individual industries. A more detailed account of the methods used in this analysis is published in Economic Trends August 2004 edition.