

User charges

Introduction

Road user charge is a wide term encompassing all types of payments by road users which can be related to:

- fuel: fuel tax, levies
- the vehicle: registration, licences, taxes, vignette
- usage: tolls, parking charges
- regulation enforcement: fines, e.g. for overweight vehicles
- available road capacity: road pricing, congestion charging

An overview of types of road user charges including an assessment of some of their characteristics according to Heggie and Vickers can be found [here](#).

Two approaches, which are not necessarily mutually exclusive, can be applied for road user charges: a) they can be used primarily as source of revenue to be used for road investment; b) they can be used as tool for managing demand and internalising external costs.

Deliberations about the application of road user charges follow the recent transition to a more **commercial approach in the management of road networks** in many countries. Roads, being no longer considered 100% public goods, need funding based on usage and the cost of operation and maintenance, instead of funding solely coming from general tax revenues. This is for example the underlying principle for road tolls. Road user charges, like for example fuel levy, are often the main sources of revenue for Road Funds, as is the case with the Road Fund in Tanzania, where fuel taxes constitute 94% of total Fund revenues.



Source: New Zealand Transport Agency

Recently, road user charging- and more specifically road pricing and congestion charging - has gained in interest as a **tool for managing traffic demand**, as the options to extend road capacity to accommodate increasing travel demand reach their limits, especially in densely populated urban areas. Related to this is the use of road user charges to **internalise negative external costs** of road transport like the costs of congestion, accidents and air, noise and water pollution. Examples are the various congestion charging schemes in place around the world (see the [Road Pricing and Congestion Charging page](#) elsewhere on the GTKP website) and the controversial European Commission proposal for a **Heavy Goods Vehicle charge (Eurovignette) Directive**, where the debate concentrates on the choice whether or not to include external costs in the calculation of the charge and on what calculative base. Background information on the proposed Eurovignette directive can be found on the [Euractiv website](#).

Introducing road user charges can be a tricky endeavour; its public visibility and impact give it a high level of **political sensitivity**. Good communication about the proposed measures and a smart set of complementary policy measures are vital for successful implementation. An interesting example is the introduction of a

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fuel levy in China, which came into force 1st of January 2009. In order to increase the public acceptance of the levy, the Chinese government lowered the state-fixed fuel price substantively and abandoned an annual fee related to road maintenance. A news article explaining the scheme can be found [here](#).

Overview

A number of the specific types of road user charges are discussed in more detail below.

Fuel tax

A fuel tax or levy (both words are used interchangeably) is a tax imposed on the sale of fuel, like gasoline and diesel. In some countries, the fuel tax is a source of general revenue. In other countries the revenues coming from fuel tax are solely used for the purpose of financing transportation projects. The German Technical Cooperation Agency publishes a bi-annual survey on fuel price and taxes around the world, entitled International Fuel Prices. According to the GTZ experience, *"a tax of approx. 10 US cents per litre is sufficient to cover the long-term financing of the existing trunk road network. As another general rule of thumb, an additional 3-5 US cents per litre can yield a stable source of revenue for the financing of urban roads and public transport."*

In most countries the fuel tax is imposed on fuels which are intended for transportation only. Fuel used for non-road transport purposes, like agriculture, railways, construction or mining for example, should ideally be taxed at a lower rate or be exempted from it, since its use is not road related.

Vehicle registration fees, license fees and taxes

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Many countries have user charges in place which relates to the vehicle. For example in the United Kingdom, every registered vehicle must be taxed if used or kept on a public road. It is quite common to charge different rates according to the vehicle's age, weight and emissions, reflecting the cost they cause to the road network. The disadvantage of this type of user charges is that they are not related to the use of the vehicle but to vehicle ownership. No matter what mileage, you will pay a fixed amount.

Vignette

Vignette is a word used in several non-English speaking European countries for toll stickers. People have to purchase the sticker and affix it to their vehicle to be allowed to use designated parts of the road network, for example motorways. The toll sticker on a vehicle shows that the respective road toll has been paid. A vignette is often valid for a year and it is usually composed in a way to prevent that people use the same sticker on more than one car. Some countries diversify between types of vehicles and have different rates for heavy goods vehicles and private cars for example. It should be stated that, similar to the vehicle charges discussed above, the costs of a vignette do not relate to vehicle use.

Examples:

- [Slovakia](#)
- [Switzerland](#)

Tolls

Tolls can be considered for roads that generate sufficient traffic volumes. A rule of thumb coined by the World Bank is that traffic should be at least at a level of 10000



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vehicles a day for tolls to be economically viable. This has to do with the relatively high costs of collection and administration related to tolls. Their most important advantage over other user charges is that tolls are directly related to the use of the road.

Tolls can be applied on **private toll roads**, where a concessionaire is usually responsible for the design, construction, maintenance and operation of the road. Toll revenues are used by the concessionaire to cover these costs and allow for a profit margin. This is for example the case in the French motorway concession system.

Tolls can also be applied on **public tolls roads**, where the toll collection might be outsourced to a private company against a fee, but where the toll revenues go to the public authority. An example is the public toll roads of Orange County which are owned by the State of California and operated by a joint power authority, the Transportation Corridors Agencies, set up by communities and county.

Resources:

- Document: ASECAP, the European association of tolled infrastructure operators, keeps an overview of tolled infrastructure within its membership area, including legal frameworks and financing background information. Their latest update in English and French is from 2007 and can be

accessed here: [Tolled Infrastructures within ASECAP/Les infrastructures à péage au sein de l'ASECAP, Brussels, 2007.](#)

- Document: Queiroz, C., Rdzanowska, B., Garbarczyk, R. and Audigé, M., [Road User Charges: Current Practice and Perspectives in Central and Eastern Europe](#), Transport Paper No 23, World Bank, November 2008. This World Bank paper provides an overview of the application of road user charges, including tolls, in Central and Eastern Europe. It highlights important developments in tolling technologies as well.

For more detailed information about Road Pricing and Congestion Charging, please be referred to the [Road Pricing and Congestion Charging page](#) elsewhere on the gTKP-website.

Recommended Links:

- [Euractiv website](#)
- [The International Bridge, Tunnel and Turnpike Association \(IBTTA\) maintains a global overview of toll facilities on its website](#)
- [The most recent International Fuel Prices report of the German Technical Cooperation Agency \(GTZ\) is available on the GTZ-website](#)

For further information

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