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## **FINANCIAL AND FISCAL ASPECTS OF ROAD TRANSPORT**

### **Road Charging Policy: Reiteration of ECMT Position**

**4 July 2005**

## 1. Policy

Ministers have set out policy on the reform of transport charges and taxes in two ECMT resolutions:

- *Resolution 2000/3 on Charges and Taxes in Transport and Particularly International Road Haulage;*
- *Resolution 1998/1 on the Policy Approach to Internalising the External Costs of Transport.*

These promote a stepwise reform of charges and taxes to improve the efficiency of transport, avoid discrimination and distortion of competition and provide incentives to reduce the environmental impacts of transport and manage congestion. They underline the need for a comprehensive approach that covers all transport charges, including fuel taxes. They recommend gradually shifting the structure of taxation to increase the share of more territorially based charges, such as tolls, electronic kilometre charges and urban road pricing. These principles were reaffirmed in 2004 in a note and recommendations on Charging for the Use of Infrastructure CEMT/CM(2004)4.

### **Efficiency**

In 2003 Ministers adopted a report *Reforming Transport Taxes*, CEMT/CM(2003)3, that concluded that without more efficient charges and a more predictable framework for prices, investments to meet transport demands will frequently fail to deliver planned results. A predictable framework is particularly important in regard to competition between road, rail and other modes and for investments intended to promote modal shift.

The 2003 report answered key political concerns about adjusting transport taxes towards efficient levels: how large would changes in taxes and charges be; which classes of activity would be charged more, which less; how would the revenues that result compare with existing revenues; how might the approach to setting efficient taxes be affected by investment policy; how will more optimal pricing affect demand for investment in infrastructure. The results foresaw lower prices for the use of rural roads and substantially higher prices for the use of congested parts of the road network, especially in urban areas.

The report viewed the reform of transport taxes as part of a broader process of improving the efficiency of taxation throughout the economy. The analysis predicts higher revenues from more efficient charges, based on short run marginal social costs, and that these revenues will exceed expenditure on transport infrastructure. No cost recovery rule was applied, and generally revenues are expected to be below expenditure on peripheral and secondary parts of the road network, but substantially above expenditure on congested parts of the system where expansion of capacity is constrained (by costs or competition with other land uses). The report recommends that the revenues generated from charging for external costs be employed to substitute for taxes that distort the economy; either allowing such taxes to be cut or providing for increased public

expenditure without increases in traditional taxation. This implies no earmarking of revenues to expenditure on transport infrastructure. Nevertheless, channelling revenues to transport can be efficient on condition that the projects funded show positive returns under social cost-benefit assessment.

### ***Implementation***

The 2003 report analysed the theoretical results of charging all road and rail users through a hypothetical electronic km-charge (or equivalent instruments). The practical aspects of phasing in electronic charging systems for large numbers of road vehicles are important and there are significant trade offs to be made. Charging only trucks allows the fleet to be equipped relatively rapidly and limits data processing and billing costs, although small production runs keep the cost of on-board units high. More importantly the potential for congestion management is severely curtailed if passenger cars are not included in the charging system. Comprehensive charging systems, phased in to eventually cover all vehicles and including congestion management can probably be delivered most cost effectively by satellite based systems. But for partial schemes with limited goals, restricted for example to recovering costs from foreign trucks, simpler alternatives will be more cost effective. The trade offs will need careful evaluation by Governments planning to introduce only partial charging schemes.

The international dimension to cost-effectiveness is interoperability for both charging technology and billing systems. EU Directive 2004/52/EC provides the legal framework for achieving interoperable systems, with the details to be worked out over the coming years.

### ***Avoiding discrimination and distortion of competition***

Both discrimination and distortion of international competition arise from differences in the charges applied to domestic and foreign hauliers. Nationality based charges (annual taxes on the possession of a vehicle or for access to the road network) can be problematic as large differences can influence the international competitiveness of haulage businesses. This issue is discussed in detail in report CEMT/CS(2005)5.

The most common *domestic* nationality based charges are annual taxes on the possession of vehicles, or annual permits for the use of the road system. These have a potentially useful economic function<sup>1</sup> and can avoid discrimination if foreign registered vehicles are able to purchase entry to the system on a daily basis. In the European Union taxes on the possession of heavy vehicles are subject to a legal minimum rate in order to avoid tax competition (i.e. one country reducing rates to attract haulage business to re-locate).

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1. As fixed charges they do not have an impact on the intensity of use made of the network. In circumstances where a government seeks to charge roads according to the marginal costs of road use with a km charge or some other territorially based charge (including in combination with fuel taxes), but then seeks to recover higher revenues, it is less distorting to do this with a fixed charge than by increasing the rate of the km charge or fuel tax.

Transit charges, designed to obtain revenue from foreign vehicles as a counterpart to national vehicle taxes, can be discriminatory if they result in foreign hauliers paying more per trip than domestic hauliers operating in the same market. Even if the transit charge is relatively low it still increases the variable costs for foreign vehicles above those for domestic vehicles. To avoid problems of discrimination and distortion of competition, territoriality based charges (tolls, electronic km charges or Eurovignette type charges) can be used to substitute in part or in full for nationality based taxes, with transit charges abolished.

### ***Providing incentives to reduce environmental impacts***

Providing incentives to reduce the environmental impacts of transport requires, above all, differentiation of charges to promote technological and behavioural changes. Charges need to be differentiated in time and space as well as according to vehicle type. Only km charges and tolls lend themselves to differentiation in time and space and can be an important counterpart to differentiated vehicle and fuel taxes.

### ***Managing congestion***

Managing congestion also requires differentiation of charges in time and space. In urban areas this might be achieved through an area wide charge that operates during peak periods of the day. Over national road networks it requires a toll or km charge that varies with demand in time and place. The difference between peak and off peak charges needs to be flexible enough to stimulate the required demand response.

## **2. International legal framework**

The European Union's Directive 1999/62/EC on the charging of heavy goods vehicles for the use of certain infrastructures (the 'Eurovignette Directive') as amended by the EU Council decision of 21 April 2005<sup>2</sup> provides the current international legal framework for road charges. The Union sees policy on the charging of cars as a matter for Member States and has therefore not legislated in this area. The Eurovignette Directive is not entirely compatible with moving towards more efficient charges as set out above but the amendments are a significant step in enabling the development of more efficient charging systems.

The amendments provide welcome opportunities to differentiate charges according to location, albeit constraining differentiation too much to provide fully effective incentives to manage congestion in some places.

The Directive sets a maximum limit to charges for the use of infrastructure with the aim of preventing transport charges restricting access to markets. The theoretically appropriate basis for determining such a limit is efficiency, which would dictate setting

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2 Text highlighted in yellow will be added, or replace text in square brackets, if the Eurovignette amendments are adopted by the EU Transport Council meeting on 21 April 2005.

use-charges according to short run marginal costs<sup>3</sup>. The amendments instead provide a cap for km charges, tolls and Eurovignette type charges based on expenditure on infrastructure.<sup>4</sup>

The expenditure based cap, coupled with a recommendation, though not a binding requirement, to earmark revenues to transport infrastructure investment, is also designed to provide some linkage between congestion charges and expanding capacity in road or alternative infrastructure. And expanding capacity can increase efficiency so long as the investments show positive returns on social cost-benefit assessments.

Within the cap it will still be important for national governments to establish efficient charges. Outside congested areas, basing tolls or km charges on average rather than marginal costs could prevent some users from making economically beneficial trips. Basing these charges on expenditures could harm rural and peripheral economies<sup>5</sup> in particular.

Regardless of the cap legally adopted, for economic efficiency the yardstick for formulating charges within the cap is marginal costs. It would therefore be useful to develop international guidelines for the estimation of marginal costs to simplify the task facing administrations that have not yet developed their own methods.

### **3. Conclusions**

Pricing the use of roads intelligently is important. Inappropriate structures and levels of charges can result in unnecessary economic losses. High charges on un-congested parts of the network can suppress trade and economic activity. Failing to price congestion on over-crowded parts of the network burdens the economy through traffic delays and disruption and it can render investments in new road capacity ineffective. There are two main elements to an appropriate pricing strategy.

1. In order to price roads efficiently, charges relating to their use (km charges and tolls in combination with fuel taxes) should be based on marginal social costs, including the costs of congestion and environmental damage. Pricing on this basis seeks to charge traffic-dependent costs close to the point at which they are generated. This should be the main goal for fiscal policy in the transport sector in the long term.
2. Efficient use of existing infrastructure is not the only relevant criteria. Some governments make the political decision to fund a large part of total infrastructure expenditure from user charges rather than from general taxation. This will require higher charges on uncongested parts of the

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3. With a fixed charge, such as a tax on the possession of vehicles or an annual charge for access to the network, levied if necessary to increase cost recovery in the least distorting manner.

4. There are rules to define the relevant expenditures. The data required is not readily available and will require some estimates to be made.

5. Average costs are usually well above marginal social costs in such locations

network. The least economically damaging way to meet a cost recovery target when it exceeds revenues from efficient road use charges is to levy additional fixed charges in the form of annual taxes on the possession of vehicles or in the form of periodic access charges.

Cost recovery policies differ between countries and therefore some freedom in the way fixed charges are applied is required. Nevertheless, the European Union has adopted a minimum rate for vehicle taxes designed as a floor to prevent tax competition between its member countries<sup>6</sup> and there might be scope for extending the geographical coverage of the tax floor.

It is not appropriate, however, to levy transit charges on foreign registered vehicles as a proxy for national vehicle taxes, because of the discrimination that can result.

If cost recovery from international traffic is seen as important, the response should be to rely on higher territoriality based charges, such as electronic km charges, tolls or Eurovignette-type charges, with off-setting reductions in national fixed charges. This is likely to be consistent with reforming transport taxes for efficiency, particularly if the km charges or tolls are differentiated according to congestion.

Policies adopted in the European Union will have a major influence on the efficiency of transport throughout the ECMT region. It is therefore important that:

- a) As provided for in the Eurovignette Directive Amendments agreed by the EU Council on 21 April 2005, the price cap adopted is reviewed for efficiency.
- b) In the longer term, infrastructure use charges should be based on short run social marginal costs rather than expenditures and national governments should be free to differentiate charges<sup>7</sup> to reflect local costs, particularly in relation to congestion.
- c) International guidelines and default values should be established for estimating costs that are not easy for national and local governments to assess; this would greatly facilitate implementation of an efficient common road charging policy.

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6. That is seeking to attract haulage businesses to relocate through lower taxes.

7. At least to the extent that would result if all vehicles (not just trucks) were charged at optimal levels.