

PROJECT

## REVENUE

### Revenue Use from Transport Pricing

**Funding:** European (5th RTD Framework Programme)

**Duration:** Sep 2003 - Nov 2005

**Status:** Complete with results



#### Background & policy context:

While the determination of prices for the use of transport infrastructure has been the focus of much previous and some current European research, it has become obvious that how revenues from transport related taxes and charges could be used most efficiently is also highly relevant. Therefore, the REVENUE project focuses on analysing the efficiency and equity impacts of different options to use revenues from infrastructure charges, and deals also with the acceptability and feasibility of these options.

#### Objectives:

The REVENUE project was set up with three main objectives:

- to assess current practice for transport revenue use;
- to develop guidelines for good use of the revenues from social marginal cost pricing;
- to examine current practice and the use of the guidelines on a set of case studies.

The project developed theoretical guidelines on optimal use of revenues and their comparison with current practice and spending schemes which are proposed or under discussion in the EU countries. These were demonstrated in a series of case studies focusing on interurban transport - dealing with revenue use in road, rail, airports and seaports - and urban transport.

#### Methodology:

The objectives of the project have been achieved through a series of steps:

1) Setting the stage. A set of policy and research questions to be addressed were identified. An overview and background to REVENUE was provided and the rationale for addressing the research questions identified was justified.

2) Theoretical framework. A theoretically sound framework for integrating the efficient use of transport infrastructure in the short run, and the efficient provision of infrastructure in the longer run was developed. Central issues are how revenues should be used and how deficits are covered when investment needs are high.

3) Case studies specification. Specifications for an as far as possible harmonised implementation of the interurban and urban case studies were provided. These include:

- a review of pricing and revenue allocation/financing schemes currently introduced across Europe;
- a set of research questions for the case studies;
- a unified methodology for the case studies with regard to data collection procedures and analysis;
- an evaluation scheme to be applied in the different case studies.

4) Interurban and urban case studies. On the basis of the specifications produced in the previous activities, 7 interurban case studies (road financing in Finland, HGV tolls in Germany, Railway investment fund in Switzerland, French multimodal fund, Zurich airport, Ports of Rotterdam and Antwerp, Acceptability of HGV charges) and 4 urban case studies (Oslo, Warsaw, Edinburgh, Berne) were separately dealt with. The case studies results showed to what extent the schemes are efficient, equitable, technically, organisationally and politically feasible and acceptable/accepted.

5) Conclusions and recommendations. The findings of the previous activities were drawn together and summarised, and the project's overall conclusions and policy recommendations identified. The primary objective was to identify the most effective options for utilising revenues arising from pricing of the existing transport system for funding transport investments and subsidies/deficits or for reduction of other taxes, taking account of the need to achieve an efficient, equitable and acceptable outcome. The policy conclusions relate to the trade-offs between economic efficiency, public acceptability and equity associated with the use of revenues from trans

### **Parent Programmes:**

[FP5-GROWTH KA2 - Sustainable Mobility and Intermodality](#)

**Institute type:** Public institution

**Institute name:** European Commission, Directorate-General for Energy and Transport (DG TREN)

**Funding type:** Public (EU)

### **Partners:**

Belgium:

adpC; Katholieke Universiteit Leuven

Finland:

STRAFICA Ltd, Finland

France:

Centre Nationale et de Recherche en Analyse Socio-Economique (CERAS); Laboratoire d'Economie des Transports

Germany:

Universität Karlsruhe - IWW; Deutsches Institut Für Wirtschaftsforschung (DIW)

Italy:

Istituto di Studi per l'Integrazione dei Sistemi (ISIS) (Coordinator)

Norway:

Institute of Transport Economics (TØI)

Poland:

Politechnika Warszawska, Poland

Portugal:

TIS PT. Consultores em Trasportes Inovacao e Siestemas S.A.

Switzerland:

Ecoplan Economic Research and Policy Consultancy; INFRAS A.G.

The Netherlands:

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### **Key Results:**

The main results and conclusions of the REVENUE project are summarised, pointing to the most relevant questions that were addressed in the studies carried out to examine current practice and the use of the guidelines for good use of the revenues from social marginal cost pricing:

1. the merits of earmarking;
2. acceptability of charging and revenue use policies;
3. the institutional arrangements and assignment of responsibilities for charging and revenue allocation.

#### 1) The merits of earmarking

Although widely practised, earmarking remains controversial. It was seen that the circumstances in which complete earmarking of revenue for use within the mode on which it is raised could be theoretically justified were likely to be rare, and the case for earmarking is therefore more likely to rest on pragmatic grounds. The case studies identify circumstances in which revenues are best allocated to particular uses in which case earmarking the revenues for them is justified. This may entail returning the money to the facilities on which the charges are levied, or it may call for cross-subsidisation of other facilities or other modes. The case studies also report survey and other evidence that earmarking enhances acceptability. Earmarking may increase efficiency too if it deters politicians from making self-interested decisions that are socially wasteful. But earmarking can harm efficiency by preventing money from going to the most economically worthwhile uses. A clear example of this is the requirement in Britain that all revenue from urban congestion charges must be devoted to transport. In the case of Edinburgh, efficient charges would produce more revenue than can efficiently be used in the transport sector, and the opportunity to use this revenue to reduce other distorting taxes is prevented by this requirement. In some circumstances earmarking may in fact channel revenues to both economically efficient and publicly acceptable uses. Yet, even well-targeted earmarking schemes will be undermined if funds from other sources are reduced in an offsetting way.

#### 2) Acceptability of charging and revenue use policies

There is now abundant evidence from various countries that acceptability is a *condicio sine qua non* of transport policy reform. Acceptability appears to have been a major consideration in the design of the pricing and revenue use p

## Technical Implications

None

## Policy implications

Transport charging appears to be both efficient and politically feasible only if accompanied by an acceptable revenue-use plan and an effective information/marketing campaign.

The theoretical case for earmarking revenue for use either in the transport sector as a whole or in the mode or region in which the revenue is raised rests on assumptions that are unlikely to be often realised in practice. Moreover, where earmarking is practiced it risks forcing the authority in question to use money inefficiently or (as in Edinburgh) to hold charges inefficiently low. Thus if governments could be relied upon to act efficiently earmarking would be at best pointless and at worst damaging.

However, earmarking may play a part in achieving an acceptable, fair and even efficient outcome. Moreover it must be remembered that the application of a systems dynamic model to Germany produced a stronger case for earmarking than the other studies, which used static models. This may be a result of particular circumstances or assumptions, or it may reflect the fact that long-term dynamic behaviour brings into play factors not considered or modelled in other case studies. It is therefore necessary to take a pragmatic approach, treating each proposal for earmarking on its merits.

What is also clear from the REVENUE case studies is that whilst in general a move to marginal social cost pricing will improve efficiency, there is often a case for charging more than this for the use of transport infrastructure, where Social Marginal Cost Pricing (SMCP) pricing will leave a need to meet deficits on existing infrastructure or investment needs from distorting taxes elsewhere in the economy.

Thus in conclusion the REVENUE project sees a need for earmarking, but considers it necessary to design schemes carefully to ensure an acceptable trade-off between efficiency, equity and acceptability. The REVENUE project also sees an argument for multimodal infrastructure funds which permit cross financing and take detailed decision taking away from politics to more independent bodies. And finally it sees a case for mark-ups over and above marginal social cost provided that these are designed to minimise distortions and to fund deficits or investment projects that are the result of efficient and equitable decisions on pricing and investment.

Documents:

 [Synthesis and Policy Conclusions \(Other project deliverable\)](#)

**STRIA Roadmaps:** Infrastructure

**Transport mode:** Multimodal transport

**Transport sectors:** Passenger transport, Freight transport

**Transport policies:** Societal/Economic issues

**Geo-spatial type:** Other