



Indicator Fact Sheet

TERM 2006 23 Transport subsidies

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☺ Transport Subsidies are significant. More than 270-290 billion Euro of annual transport subsidies have been identified in Europe. Almost half of this is related to road infrastructure. Transport subsidies may have considerable environmental impacts. External costs of transport even exceed the size of transport subsidies.

The EEA aims to contribute to the discussion of how to estimate the actual amount of subsidies that goes to the transport sector. This has been carried out in a study named “Size and distribution of transport subsidies”. As an illustration of the methodology developed and the data retrieved, the report identifies subsidies worth EUR 270 to 290 billion a year. This figure only includes direct transfers and tax deductions. It does not include more difficult to calculate issues such as value of privileged regulation, land-use policy, etc. The report is a first attempt to quantify the transport subsidies using a narrow definition specific to the aim of comparing all transport modes. Readers should take this into account when using the figures. The study does not distinguish between environmentally beneficial and environmentally harmful subsidies.

- Of the total, road transport receives EUR 125 billion in annual subsidies; most of which takes the form of infrastructure subsidies.
- Aviation is subsidised mainly via preferential tax treatment (exemptions from fuel tax and VAT). A total of EUR 27 to 35 billion per year was found.
- Rail is subsidised to the sum of EUR 73 billion per year. The financial benefit to the sector is split almost equally between infrastructure subsidies and fare reduction subsidies.
- Finally, water-borne transport receives EUR 14 to 30 billion.

The numbers given in this study have been derived mainly from literature and expert consultations. They represent an indicative estimate. Not all types of subsidies in all Member States are covered.

The total value of European transport subsidies remains unknown, and collection of all relevant data goes beyond the scope of this report. A complete evaluation of all transport subsidies in the EU would require a detailed analysis of the budgets of all Member States and municipalities as well as estimates of those subsidies that do not appear in public budgets.

Transport users tend to be unaware of the full cost of using transport. This is due to two factors. Firstly, transport systems are partly financed via public budgets. Secondly, external costs (e.g. environmental damage, congestion, etc.) are not fully internalised in the transport charges levied on the users. Several studies have addressed these external costs, but fewer attempts have been

made to estimate the flow of money into the transport sector via public investments, direct operational support, tax exemptions, etc. Therefore the European Environment Agency (EEA) commissioned a study to summarise and structure data on transport-related subsidies available in existing international studies and literature.

The aim of this report is threefold: to increase knowledge, to contribute to the discussion and to add to the **transparency** of the monetary flows in the transport sector. Therefore the report also includes numbers on a range of elements (e.g. external cost, total fuel taxation, etc.) that fall outside the definition of the subsidies used in the study. This will allow users of the data to apply different definitions if relevant in different contexts.

The study looks mainly at the relative treatment of different transport modes. Therefore differences in treatment of different modes (e.g. on fuel taxation) are of primary importance.

Transport subsidies

The study focuses on subsidies which are paid directly from public budgets or affect public budgets via lower tax returns and where there is no direct service in return. The subsidies included are:

- Provision of infrastructure (direct infrastructure charges - e.g. bridge tolls - are subtracted).
- Other direct transfers that appear in public budgets (e.g. direct support to operators, alleviation of past debts, pension contributions, etc.).
- Differences in fuel taxation which constitute a subsidy because modes with lower fuel tax are granted a relative advantage compared to other modes.
- VAT exemption for certain segments of the transport market.

Transfers made to public transport operators which allow them to operate in more remote regions, at night or provide lower fares for special groups, such as children or the elderly are not included. This is due to the fact that there is a direct service in return, i.e. a transport service. Such payments are seen as a 'social subsidy' to specific groups.

Data on other economically relevant privileges, such as the existence of externalities or uneven regulation, are not included in the definition used in this study as the focus is on aspects of direct relevance to public budgets. Given this definition and incomplete data collection the estimates reported are likely to be conservative.

Findings

Table 1 summarises the subsidies found broken down by subsidy type and transport mode. The total value of subsidies that appear directly in public budgets (229 billion annually) greatly exceeds the value of tax and VAT exemptions (40 to 65 billion).

Table 1. Overview of total annual subsidies found by incidence and mode (billion 2005 EUR)

	Infrastructure subsidies (only EU-15)	Other budget transfers	Fuel-tax exemptions	VAT exemptions	Total
Road	110	7	0	9	125
Rail	37	33	0-1	3	73
Air	0	1	8-16	18	27-35
Water	10	1	3-19	0	14-30
Multiple modes		30			30
Total	156	73	11-36	29	269-293

NB: Numbers may not add up to totals shown, due to rounding. Infrastructure subsidies equal the infrastructure costs minus infrastructure charges. For fuel-tax exemptions, low and high estimates are provided (based on minimum excise rate for diesel fuel and average CO₂ price in the European Emission Trading System in 2006); for road transport the tax rate for fuels exceeds the rates selected as references to calculate subsidies. This table is based on incomplete data. Therefore the total value of European transport subsidies remains unknown. In general data cover EU-25 (subject to data availability) except for infrastructure subsidies (only EU-15). However data availability in EU-15 is generally better than in the new Member States.

- More than two-thirds of the subsidies found in public budgets are for infrastructure. Infrastructure subsidies, however, only make up one half of the total subsidy.
- Around two-thirds of the infrastructure subsidy goes to road transport.
- Rail is the main recipient of other direct transfers.
- Fuel-tax and VAT exemptions are the most relevant subsidies for air and to some extent also waterborne transport.
- EUR 30 billion annually could not be assigned to one specific mode (e.g. support for multi-modal projects) and is therefore listed in the 'multiple modes' category.

In general, environmental objectives are not significant motivators for the bulk of subsidies. Rail transport subsidies however represent an exception, as they are sometimes justified on the basis of the better environmental performance of rail compared with road and air transport.

Transport subsidies in context

Transport has significant environmental effects, including air pollution, climate change, ecosystem fragmentation, loss of natural habitat and increased levels of noise. The total cost to society of transport external cost not borne by the infrastructure users (albeit not defined as a subsidy in this report) has been estimated at EUR 650 billion.

It should be underlined that there are examples of environmentally friendly subsidies in the transport field, e.g. where subsidies allow for the construction of rail links that directly compete with air transport and thus reduce the external costs.

Transport subsidies mainly affect the environment by:

- influencing the **environmental performance** of vehicles;
- affecting **transport management** decisions about volume and composition of vehicle fleets, load factors, route planning, etc;
- stimulating a **modal shift** from or to less environment friendly transport modes;

- inducing additional **transport demand**, for example by increasing the number of trips and their distances.

As subsidies can affect the environment on more than one level, a closer examination is needed before the environmental utility of the subsidy can be properly assessed. Furthermore, subsidised transport may also have some indirect and long-term impacts, for example on urban sprawl and health. A detailed assessment of the environmental impact of each subsidy (and thus the overall effect of the subsidies found) goes beyond the scope of this EEA study.

Transport is subsidised and causes significant external effects, but there are several other economically relevant aspects that affect both the volume of transport and the balance between modes:

- Transport depends on a historic **infrastructure network**. Although this network is not considered a subsidy today in this study, it has been predominantly financed by public budgets in the past and still shapes present transport patterns. No financial effect of that has been included in the study.
- Transport is favoured by privileged **regulation and land-use policy**, e.g. in the allotment of attractive and easily accessible parking sites in cities as well as the deregulation and liberalisation of transport markets. No financial effect of that has been included in the study for two reasons. Firstly, it was impossible to find enough of this information in the literature. Secondly, it is very difficult to calculate such off-budget subsidies.
- Private transport (predominantly road) however contributes to public budgets via significant tax revenues (more than EUR 200 billion). This revenue, which is comparable in size to the infrastructure subsidy, is in this study seen as a general contribution to public budgets, not as payment for the use of infrastructure.

References

EEA, 2007. Size, structure and distribution of transport subsidies in Europe, EEA Technical report 3/2007, http://reports.eea.europa.eu/technical_report_2007_3/en