

# The Current EU Transport Policy in Perspective<sup>1</sup>

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This paper is not an analysis of the EU transport policy. It is a presentation of some of the basic facts and figures about transport in Europe. Surprisingly enough, many of these facts and figures, that should constitute the foundations of policies, are often unavailable, ignored or distorted. The estimates provided relate to Euro-15, the 15 oldest member States of the Union, for statistical reasons. For the sake of brevity, we will limit ourselves to three points.

**1) Present transport policies have massive public finance impacts** – Most, if not all, EU policy documents (such as the *White Paper*) ignore completely the budgetary implications of present transport policies or policy proposals. Yet, these implications are massive, as evidenced by Table 1.

**Table 1 – Estimates of the Impact of Transport on Public Finance, Euro 15, by Mode, 2002**

	PF impact (billion €)	/Public budgets (%)	/GDP (%)
Road	+107	2.3	1.2
Rail	-68	1.5	0.7
Air	"	"	"
Total	+39	0.8	0.4

*Sources and notes:* data for France multiplied by 6. Road impact refers to *specific* road usage taxes (not total taxes paid by road transport, which are much larger) minus expenditures on roads. Rail impact is total cost of rail transport minus fares paid by users. Urban public transport, which is also a heavy drain on public finance, is not included.

Globally, transport is a net contributor to public finance: more transport, less deficits. But the situation

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varies greatly from mode to mode. Public finance is about neutral relative to air and maritime transport.

Rail is heavily subsidized. Users pay about half the total cost of providing the service: the balance consists of subsidies (often hidden) or of loans that will never be repaid. Total subsidies to rail transport are nearly equal to the EU budget. If we add subsidies to urban public transportation, which covers an even lower share of its costs, total subsidies to public transportation are definitely greater than the entire EU budget. There is every reason to believe that rail subsidies are proportional to rail output. More rail transport, more public finance deficits.

Road transport is heavily taxed (fuel is taxed at rates of 300%-400%, much higher than the rates applied to alcohol or tobacco). The proceeds of *specific* road usage taxes are nearly twice as important as public expenditures on road construction, maintenance and operation. More road transport, less public deficits.

Admittedly, reducing public finance deficits is not the only objective of economic policy. Nevertheless, in view of the present public finance situation of many EU countries, it is an objective that cannot or should not be ignored entirely.

This differential treatment of the various modes also raises a competition issue. As is well-known, in all other sectors, be it publishing or chemistry, the Economic Commission fights vigorously competition distortions and subsidies. In the area of transportation, it encourages it.

**2) Transport is overwhelmingly road transport** – Most of the numbers produced on the relative importance of the various modes are in physical quantities: in tons or ton-km for goods and in trips or passenger-km for passengers. This is an obsolete fashion of measuring transportation, as if other attributes such as speed, tracking, comfort, etc. did not count. Until the mid-20<sup>th</sup> century, the activity of all sectors was also measured in physical quantities (in tons of steel, bushels of grain or yarns of cotton). This has long been abandoned and in all sectors, but transportation, activity is measured in money terms, in sales or in value-added. To compare heavy chemistry (fertilizers, SO<sub>4</sub>H<sub>2</sub>, etc.) with light chemistry (perfumes, pharmaceutical, etc.), nobody would think of measuring the output of the two sub-sectors in tons produced. Table 2 presents the relative importance of the various transport

modes in terms of sales, that is in terms of what people and enterprises pay to see their persons or their goods transported.

**Table 2 – Relative Importance of the Various Transport Modes, Europe-15, 2004**

	Road	Air	Rail	Water	Total
Passenger transport					
Sales (billion €)	764	82	38	-	883
Share of total (%)	87	9	4	-	100
Goods transportation					
Sales (billion €)	299	10	13	37	359
Share of total (%)	83	3	4	10	100
Total					
Sales (billion €)	1063	92	51	37	1243
Share of total (%)	86	7	4	3	100

*Sources and notes* : Data for France multiplied by 6. Urban transport not included.

Transport in Europe consists of road transport for more than 85% –and of rail transport for about 4%. This pre-eminence of road transport is not the result of pro-road policies, as is often claimed. We have just seen that the opposite is true. Road transport is discriminated against by heavy taxes, and rail transport favoured by heavy subsidies. It is not *because* of policies, but *in spite* of policies, that road transport developed the way it did. The reason for the success of road transport is that in most cases it meets better than other modes the demand of households and enterprises, in terms of cost, speed, flexibility, reliability and comfort. This modal split has two fairly obvious implications.

One is that it is illusory to think that modal transfers from road to rail could significantly reduce the importance of road transport. It is easy to figure out that a doubling of rail transport –which would imply yearly subsidies equal to 2% or 3% of GDP, if it were at all feasible– would reduce road transport by only about 5%, its increase in two or three years.

A similar conclusion is reached by an examination of road and rail traffic in vehicle-km terms, as shown in Table 3. Let us assume a doubling of goods transported by rail at the expense of goods transported by heavy goods vehicle (leaving aside the question of how and at what cost such a modal shift would be feasible). This would reduce heavy goods vehicle traffic by about 5%, total vehicles traffic by 0.3%, and total vehicles traffic in car-equivalents by about 0.8%.

**Table 3 – Vehicles Movement, Euro-15, by mode, 2002**

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	In billion vehicle*km	In billion equivalent car*km
Rail :		
Goods wagons	11	33
Road :		
Heavy goods vehicles	200	600
Light trucks	500	1,000
Cars	2,600	2,600
Total	3,300	4,200
Total	3,311	4,233

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*Sources and notes* : Union Internationale des Chemins de Fer for rail. For road : French data x 6. A railway goods wagon can be assimilated to a heavy goods vehicle. To compare road use of different types of vehicles, it is assumed that 1 HGV = 3 cars and 1 light truck = 2 cars.

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The preeminence of road transportation has another implication. Doing something for transportation in Europe means primarily doing something for road transport. Conversely, doing something against road transport by introducing additional taxes and constraints (in the vain hope of inducing modal shifts) means doing something against transportation in Europe. It implies an increase in transport costs in general, which in turns restricts the movement of goods and persons that was and still is one of the main objectives of an economic union. Twenty years ago, the Commission prepared an important report (known as the Cechini Report) on the "costs of non-Europe", that analyzed in detail what Europe could gain from the abolition of barriers to trade between member States. Transport costs function just like custom duties. All the arguments of the Cechini Report could be used to analyze the "costs of non-transport".

**3) The much talked-about externalities do not weight much** – It is true that transport in general, and road transport in particular, create serious problems that are legitimate cause for concern and call for public intervention, such as congestion, accidents, air pollution, noise, CO2 emissions. But it is not true that all these problems deserve to be called "externalities", and that that those that do weight much in money terms. Let us examine them briefly.

*Congestion* – Congestion reflects the inadequacy of the road system to road demand. It is an externality only within the road system. Congestion is not a cost that road users impose upon the rest of society and for which they should pay: they already pay this cost entirely, in the

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form of reduced speeds (that nevertheless remain generally higher than the speed of alternative modes).

*Accidents* – In spite of impressive declines, road accidents remain a dramatic issue in Europe. But here again, accidents are not really an externality. Most of the victims are road users. The costs of accidents are already borne by road users, in the form of suffering and of compulsory insurance premium. The argument that casualties inflict a cost upon society, in terms of "production forgone", is not credible. If it were true that one person less "costs" society one million euros, then one person more –one immigrant, for instance– would "add" society one million euros, and the "external benefits" of immigration would be twenty times greater than the external costs" of accidents –a rather unrealistic conclusion. Certainly, much more should be done to accelerate the decline in accidents. But calling accidents an externality, estimating the costs of accidents, and making car users pay these costs a second time will not contribute to this worthy objective.

*Air pollution* – Toxic pollutants emitted by motor vehicles (CO, SO<sub>2</sub>, HC and VOC , NO<sub>x</sub>, particulates, etc.) create damages that are indeed externalities imposed upon society at large by road users. These damages and their costs are difficult to know. Using a French official policy report, the Boiteux Report, that provides very generous estimates of these costs (in euros per vehicle km, distinguishing between urban and rural areas), one arrives for Europe-15, at a cost of less than 25 billion euros per year.

The cost of this externality, however, is declining rapidly. Largely thanks to the constraints imposed by the EU, to-day's vehicles reject 10 to 30 times less pollutants than the vehicles manufactured 20 years ago. As a consequence, total automobile-related pollution decline rapidly: over the past 10 years, it has declined by more than 40% for NO<sub>x</sub>, by 70% for CO and VOC, by 80% for SO<sub>2</sub>, by 90% for particulates –and by infinite for lead which has disappeared. And it will automatically continue to decline in the coming decade, as old polluting cars are replaced by clean cars. The 25 billion externality will therefore be cut by half in less than 10 years.

*Noise* – Noise is similarly an externality, which is associated with all transport modes. Road noise damage can be estimated at 6 billion euros per year. It is also declining, although less rapidly than the air pollution externality.

CO<sub>2</sub> – CO<sub>2</sub> is a greenhouse gas that contributes to global warming and to the associated damages. As such it certainly creates an externality, and a global one. In addition, CO<sub>2</sub> emissions generated by road transport do not decline rapidly: the reduction per vehicle-kilometre is about of the same order of magnitude as the increase in vehicle-kilometres. The contribution of European road transport to CO<sub>2</sub> emissions, however, should not be exaggerated. It represents about 3% of total anthropogenic CO<sub>2</sub> emissions, and 2% of greenhouse gas emissions. The 5% decrease in road transport associated by a doubling of rail transport discussed above would therefore lead to a 0.1% decrease in greenhouse gas emissions.

The cost of this externality can be estimated. There is now a market for CO<sub>2</sub> emissions. As of June 21, 2005, it is 23 € per ton. This puts the cost of road usage CO<sub>2</sub> emissions in Europe-15 at about 17 billions euros. Note that this price exaggerates, perhaps by a large amount, the real cost of this externality. The real cost consists of the increase in global warming damages over the course of the coming century, and is poorly known. The market price results of quota allocations determined by political decision-makers.

According to these very generous estimates, the three road transport externalities of air pollution, noise and CO<sub>2</sub> emissions amount to 48 million euros, and are declining. It is justified that road transport pay for these externalities by means of specific taxes. But, it already pays much more. As we have seen, road users pay 107 billions of euros in specific taxes in excess of public expenditures on roads. Externalities therefore provide a very poor justification for the massive taxation of road transport and the massive subsidization of rail transport.

This paper has tried to put the EU transport policy in perspective, by providing quantitative estimates of (i) the impact of present policies on public finance, (ii) of the relative economic importance of the various modes, and (iii) of the externalities generated by road transport. It can be summarized in a stylized fashion by the numbers presented in Box 1.

**Box 1 – Implications of a Massive Modal Shift**

Consider a modal shift from road to rail massive enough to **double** the importance of rail. Assuming such a shift were feasible (a very unrealistic assumption), it would automatically :

- reduce road transportation by about 5%;
- reduce road-transport related externalities by 2.5 billion €;
- increase rail subsidies by more than 68 billion €;
- decrease road-transport related taxes by 5.3 billion €.

In reality, such a shift would probably require a substantial increase in the *rate* of road-transport taxation, that would increase transport costs at large, thereby reducing intra and international trade and its associated benefits, at a high social cost.

The numbers produced here remain fragile and tentative, and it is to be hoped that the Commission will produce better numbers on these matters. The orders of magnitude arrived at, however, are unlikely to be drastically changed, and as they are, they probably provide a useful starting point to discuss EU transport policy, and to find out whether it strangles or liberates Europe's potential.