Trends in the Transport Sector

By Ioannis Bakas, Copenhagen Resource Institute (CRI)

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The use of transport services is growing in the EU, following the developments in the GDP. Both passenger and freight transport is increasing, causing various environmental problems such as air pollution and noise. Also, particular transport indicators are increasing, such as the European car fleet and infrastructure. On the other hand, the modal split into modes of transport remains relatively stable through the past years.

Introduction

Eurostat provides with data on the development of the Gross Value Added (GVA) for transport and on total GVA for EU-27. The data shows that these two developments from 2000 to 2008 are parallel and the two parameters' growths coincide, namely the transport sector follows closely the total GVA growth except for the last two years when transport grows even faster.

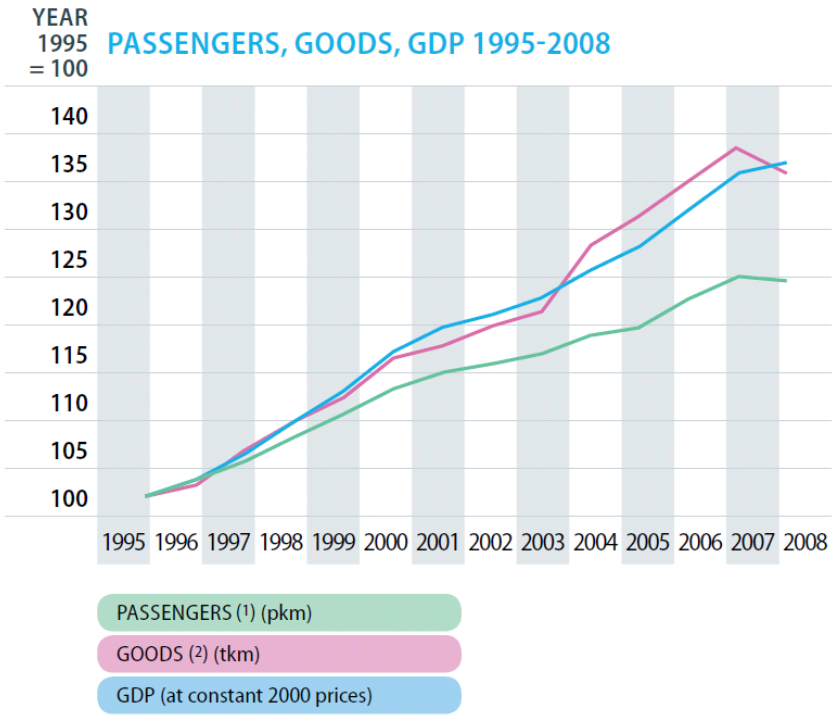
In terms of household consumption, households are spending currently 13.2% of their total final consumption in transport services (2009). This percentage does not change significantly through the years (same number for 1995), only minor fluctuations are observed. This means that the transport expenditure is increasing on one hand, but in line with the total increase of household consumption.

From another perspective, transport is increasing also if freight and passenger transport are examined separately. Freight transport has increased by 16.9 % between 2000 and 2008 (measured in tonne-kilometers) showing increased transboundary trade, while passenger transport by 10.2 % in the same period (measured in person-kilometers) which means that Europeans travel more and more. However, between 2007 and 2008 there is a slight decrease in both types which might be caused by the economic downturn (Fig. 2).

If transport is divided into freight and passenger transport, freight transport is growing slightly faster than the economy, particularly because of the increase in road and air freight transport (43 % and 35 % from 1997 to 2007 respectively), since rail and inland waterways decreased. Passenger transport is also growing but slower than the economy. The main driver for growth is air travel within the EU with a 48 % increase from 1997 to 2007.

In 2008, the total passenger transport in the EU was measured as 6,527 billion passenger kilometres, namely 13,138 km per person, excluding non-motorised means of transport (see also KU on key sustainability issues of mobility).

Fig. 2 Passengers and Goods transport development in comparison to GDP in the EU



1 Passenger cars, powered two-wheelers, buses and coaches, tram and metro, railways, intra-EU air, intra EU-sea.

2 Road, rail, inland waterways, oil pipelines, intra-EU air, intra EU-sea.

Source: EC, 2010, page 96

Modal Split

The modal split trend of both transport types can be seen in Tab. 1 and 2. In freight transport, the split remains relatively stable except for a slight gradual increase in the road transportation. On the other hand, the split for passengers presents a small increase in air transport while the other modes remain relatively stable. The slow changes of modal split with time indicate that, although people and goods travel more and more, the choice of mode is stable. Therefore, the increased transportation does not happen only in one mode, but it is distributed over the modes according to the traditional split. For goods, the extended road network (see chapter below on infrastructure) fits well with the slight increase in the road mode of transport. On the other hand, the passengers prefer more and more to travel with planes due to the boom of the air travel in 2000 (which lead to decreased prices) and the higher speed of travel.

Tab. 1 Modal split for freight transport in % of total[1]

YEAR	Road	Rail	Inland Waterways	Pipelines	Sea	Air
2000	43.4	11.5	3.8	3.6	37.5	0.1
2001	43.9	10.9	3.7	3.8	37.6	0.1
2002	44.5	10.6	3.7	3.6	37.6	0.1
2003	44.5	10.7	3.4	3.6	37.7	0.1
2004	45.2	10.8	3.5	3.4	37.0	0.1
2005	45.5	10.5	3.5	3.4	37.0	0.1
2006	45.5	10.8	3.4	3.3	36.9	0.1
2007	45.8	10.8	3.5	3.0	36.7	0.1
2008	45.9	10.8	3.6	3.0	36.6	0.1

Source: EC, 2010, page 108

Tab. 2 Modal split for passenger transport in % of total[2]

YEAR	Passenger Cars	P2W	Bus and Coach	Railway	Tram and Metro	Air	Sea
2000	73.0	2.3	8.8	6.3	1.3	7.7	0.7
2001	73.3	2.3	8.7	6.2	1.3	7.5	0.7
2002	73.8	2.3	8.6	6.0	1.3	7.3	0.7
2003	73.7	2.3	8.5	5.9	1.3	7.6	0.7
2004	73.4	2.3	8.5	5.9	1.3	7.9	0.7
2005	72.8	2.4	8.4	6.0	1.3	8.4	0.6
2006	72.9	2.4	8.2	6.1	1.3	8.5	0.6
2007	72.7	2.3	8.3	6.0	1.3	8.7	0.6
2008	72.4	2.4	8.4	6.3	1.4	8.6	0.6

Source: EC, 2010, page 118

Fuel Consumption

Tab. 3 shows that there is a stable increase in energy consumption for transport purposes, while the type of energy consumption represents a gradually higher percentage of total energy consumption, around 31 %. Although data does not exist on the import of transport fuel alone, imports of the sum of kerosene and motor spirit are increasing the last few years with a 13 % increase from 2000 to 2008,

[1] Air and Sea: only internal EU transport. Road: National and international haulage by vehicles registered in the EU.

[2] Air and Sea: only internal EU transport. P2W: Powered 2-wheelers.

which indicates an increased dependency of EU on countries abroad for the energy (and possibly transport) consumption.

Tab. 3 Final energy consumption in transport sector in EU-27

YEAR	Consumption – Transport (Mtoe[3])	Final energy consumption (Mtoe)	Transport / Total consumption
2000	341,003	1,117,232	30.5 %
2001	344,196	1,142,972	30.1 %
2002	347,636	1,128,875	30.8 %
2003	352,457	1,165,853	30.2 %
2004	362,131	1,181,198	30.7 %
2005	364,711	1,182,403	30.8 %
2006	372,191	1,186,125	31.4 %
2007	376,826	1,164,833	32.4 %
2008	374,269	1,168,635	32.0 %

Source: Eurostat (http://epp.eurostat.ec.europa.eu/portal/page/portal/energy/data/database)

Infrastructure

Infrastructure trends can be examined and monitored by observing the density of transport networks. The total length of road motorways was 65,100 km in 2007 in EU-27, an increase of 19 % compared to 2000 levels. The total road network was 5,595,600 km in 2006 in the EU and the –relatively scarce – data show an increase of 6 % between 2004 and 2006. Railway network's density, on the other hand, is decreasing slightly over a long time period (-12.3 % between 1970 and 2005), but a shift to high speed rail transport is observed since countries are investing on the high speed rail network which has increased by 130 % between 2000 and 2009. In marine transport, the number of major ports increased by 4 % from 2003 to 2006 while the increase in the main airport during the same time period was double (8 %).

Personal Transportation

According to the 2007 Eurobarometer, personal mobility consists primarily of motorized individual transport (53 %), followed by non-motorized individual transport (23 %), while public transport takes the last place (21 %). There are large differences among EU member states as, for example, in the Netherlands and Denmark non-motorized transport is very popular.

Motorized private transport is the main transport mode and the amount of cars is increasing in Europe. In 2008, every 1,000 Europeans owned 470 (12.7% more than in 2000). Their renewal rate was 6.7 % in 2006 which remained relatively stable during the last years before.

[3] Mtoe: million tonnes of oil equivalent.

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