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**RELATIONSHIP BETWEEN TRANSPORT
AND ECONOMIC DEVELOPMENT***

Addendum 7

Transmitted by the Government of Hungary

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1. The change of the transport performances and the economic development in Europe

One of the main purposes of all the transport policies is the sustainable mobility. In the past the performances of the passenger transport exceeded the development rate of the GDP for a longer period, whilst the freight transport increased to a smaller extent, than that of the GDP. But during the nineties the growing rate of freight transport exceeded the growing rate of the GDP in the European Union (Table 1.).

Table 1

Annual growth rates in Hungary and in the EU countries

HUNGARY	1980-90	1990-97	1998	1999	2000
<i>GDP</i>	1,1	-0,9	4,9	5,2	3,8
<i>Passenger transport</i>	0,5	1,1	0,5	0,72	1,0
<i>Freight transport</i>	-0,7	-3,7	4,7	1,1	4,8
EU Fifteens	1980-90	1990-97	1998	1999	2000
<i>GDP</i>	2,4	1,8	2,9	2,5	~
<i>Passenger transport</i>	3,1	1,7	2,0	3,0	~
<i>Freight transport</i>	1,9	2,6	3,7	3,6	~

The transport demand is influenced by several factors. The demand for the passenger transport is influenced in addition to the economic capacity of the country first of all by the characteristics of the settlements (population density, size of the towns and their quantities), by geographic and climatic factors, and by the transport services offered as well. The demand of the freight transport is influenced in addition to the economic capacity of the country among others by its structure, (heavy industry, agriculture, service sector), by the producing and consuming structures (e.g. concentrated production, and concentrated consumption as e.g. in the steel industry, or concentrated production and split up consumption, as e.g. in the food industry), the development level of the logistics systems, the transit and international relations and the efficiency of the E-commerce and after all the efficiency of the transport organisation itself.

In spite of those several factors the connection is the closest at macro-economic level between the transport performances and the GDP.

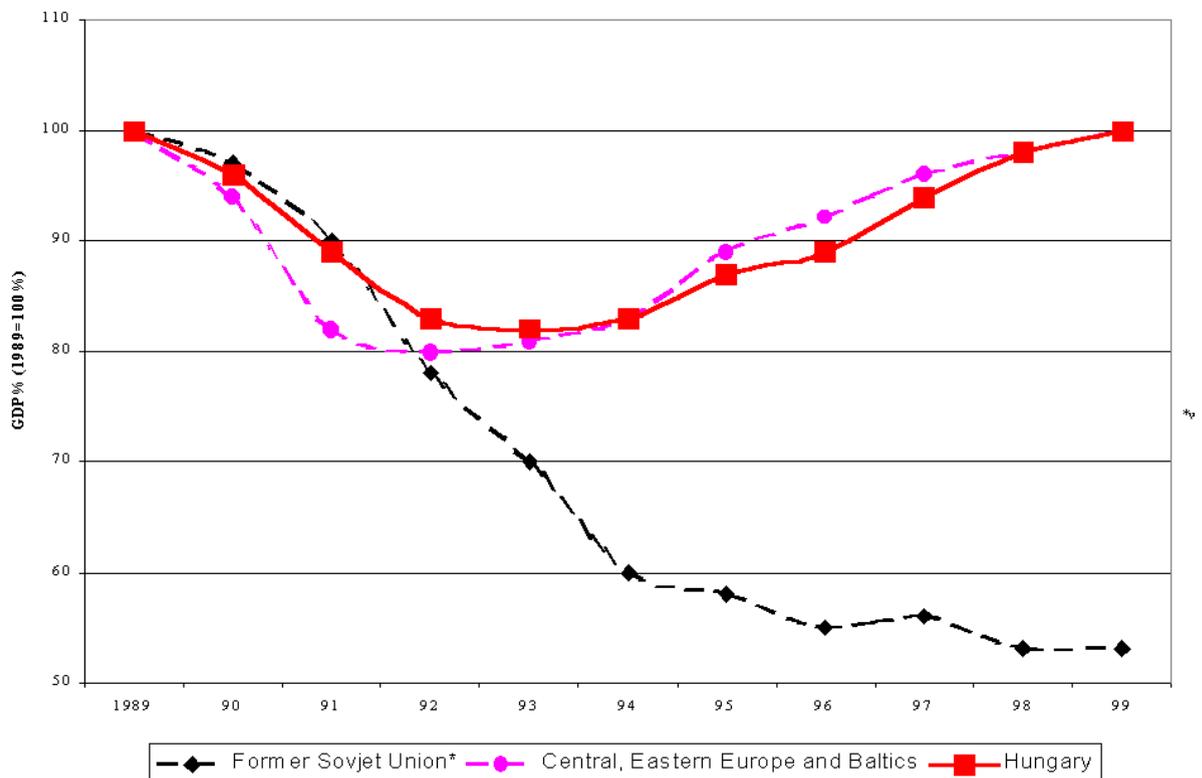
The economic restructuring of the Central and Eastern European countries has gone hand in hand with the important decrease of the national gross product (Figure 1.). The decrease of the GDP going hand in hand with the change of regime has also reduced the traffic demands to an important extent. Whilst the performances of the passenger traffic (Pkm) have increased with a value of 16 % in the European Union between 1990 and 1997, the decrease has reached the value of 20 % in the Central and Eastern European countries. During this period the freight transport (tkm) has increased with a value of 221 %, but at the same time a diminution of 32 % has been experienced in the Central and Eastern European countries.

The huge reduction of the freight transport performance was caused by two main factors. The first factor is that the per capita freight tonkilometer performance was higher with a percentage of 71.7 % in 1980 in the Central and Eastern European countries, than in the Western European countries. In addition to the fact that the population density is lower in the Central and Eastern European

countries as the average value prevailing in the Western European countries – which results in the higher freight transport demand – the high values of Eastern Europe have been caused first of all by the not cost-sensitive economic structure, the imperfect logistics systems, the backward industrial and agricultural structure and last but not least by the missing economic relations, and the inefficiency of the network. When Hungary has changed into the market economic system, as a result of the impacts enforced by the economic competition, as in other Central and Eastern European countries, as well as under the effect of the industrial and agricultural structure changes the specific freight transport performances have started to be improved. The market economy, particularly in Hungary, has brought a spectacular development in the field of the logistics systems.

The second important factor was the change in the trading directions. The foreign trade has diverted in Hungary from the Central and Eastern European countries toward the European Union (Table 2.)

The change of GDP in the reform European countries



*without the Baltic states

Fig. 1

Table 2

Value of external trade by groups of countries

(current prices, million HUF)

Year	Total	Of which			
		Developed countries	within it EU countries	CEECs	Developing countries
	Import				
1990	544 921	289 895	169 110	196 358	54 027
1998	5 511 511	4 116 466	3 533 736	831 740	461 354
	Export				
1990	603 636	327 229	194 467	217 858	49 108
1998	4 934 502	3 962 885	3 600 236	782 817	160 135

Source: KSH (Central Office for Statistic of Hungary)

The export-import turnover of the Central and Eastern European countries with the countries of the European Union is about 70 %, and the Hungarian foreign trade has exceeded with some percentage this value. This change in the trading direction has caused a dramatic reduction in the railway transport performances. The Central and Eastern European countries have lost 49.9 % of their railway transport performances between 1989 and 1997.

For longer terms the air traffic and the road traffic are before a dynamic increase within the transport sector, whilst the performances of the waterway shipping and the railway transport will stagnate in the Central and Eastern European countries, including Hungary as well.

As a consequence of all those circumstances the public transport has preserved relatively important positions in the Central and Eastern European countries – and so in Hungary, too – in the passenger transport and in the freight transport of the rail (Figures 2-3.)

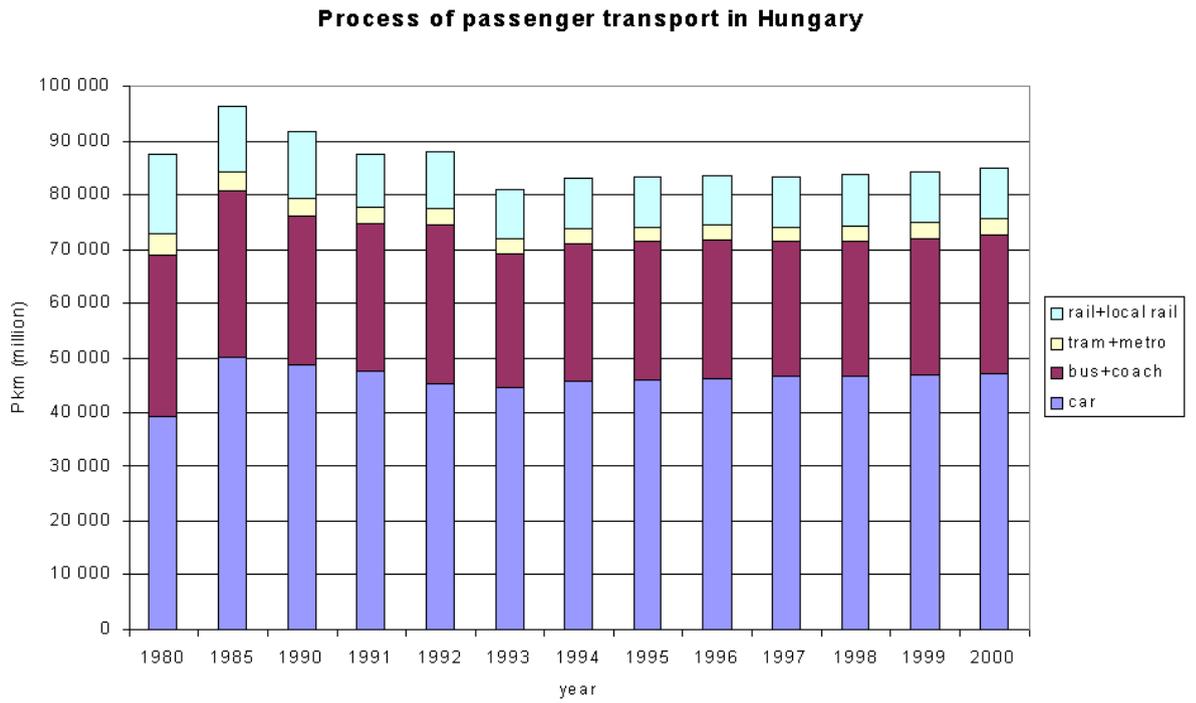


Figure 2

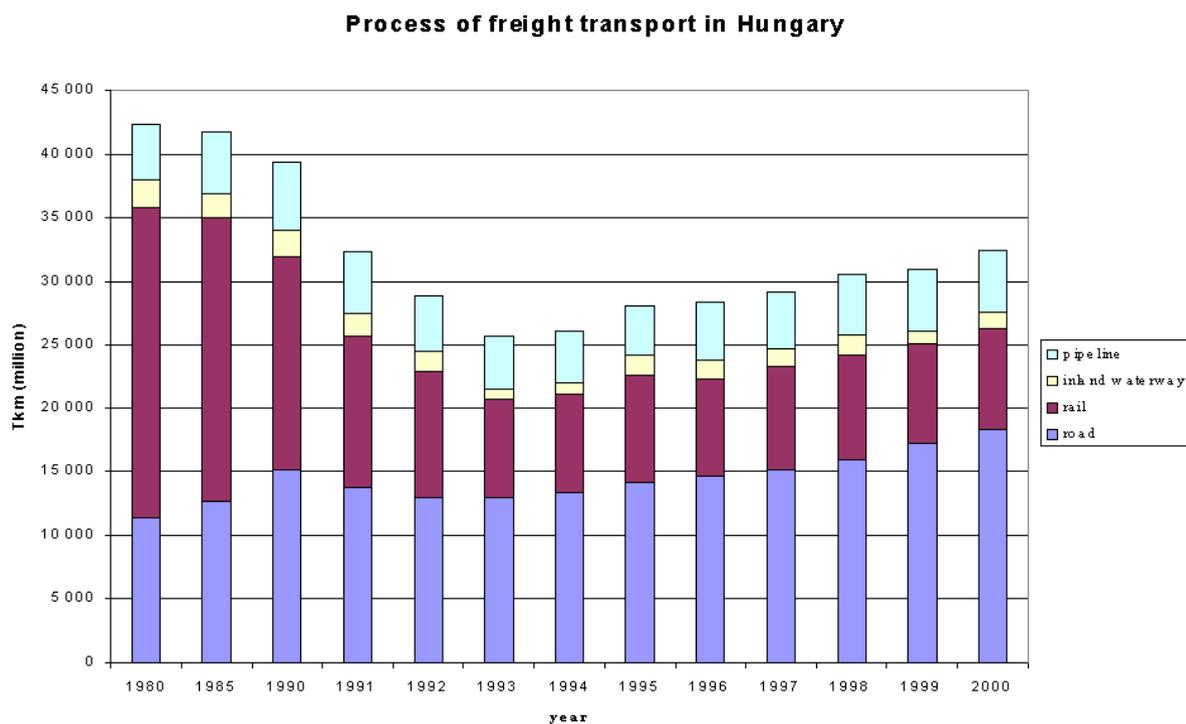


Figure 3

2. The development of the Hungarian transport

The conversion of the Hungarian Society and of economy into the market economy has exerted an important effect on the structure of the transport and on its performance since 1990.

In Hungary the GDP decreased altogether with about 20 % between 1990 and 1993 and in spite of the somehow accelerating increase the GDP of the country reached the value of the year 1990 only in 1998. The share of the transport (=transport, storage) in the production of the GDP has diminished continuously from the 6.2 % in 1990 to 4.5 % in 1997 during the economic restructuring.

The performances of the passenger transport have diminished to a smaller extent, than those of the GDP, whilst the performances in the freight transport decreased to a more important extent (Figure 4.)

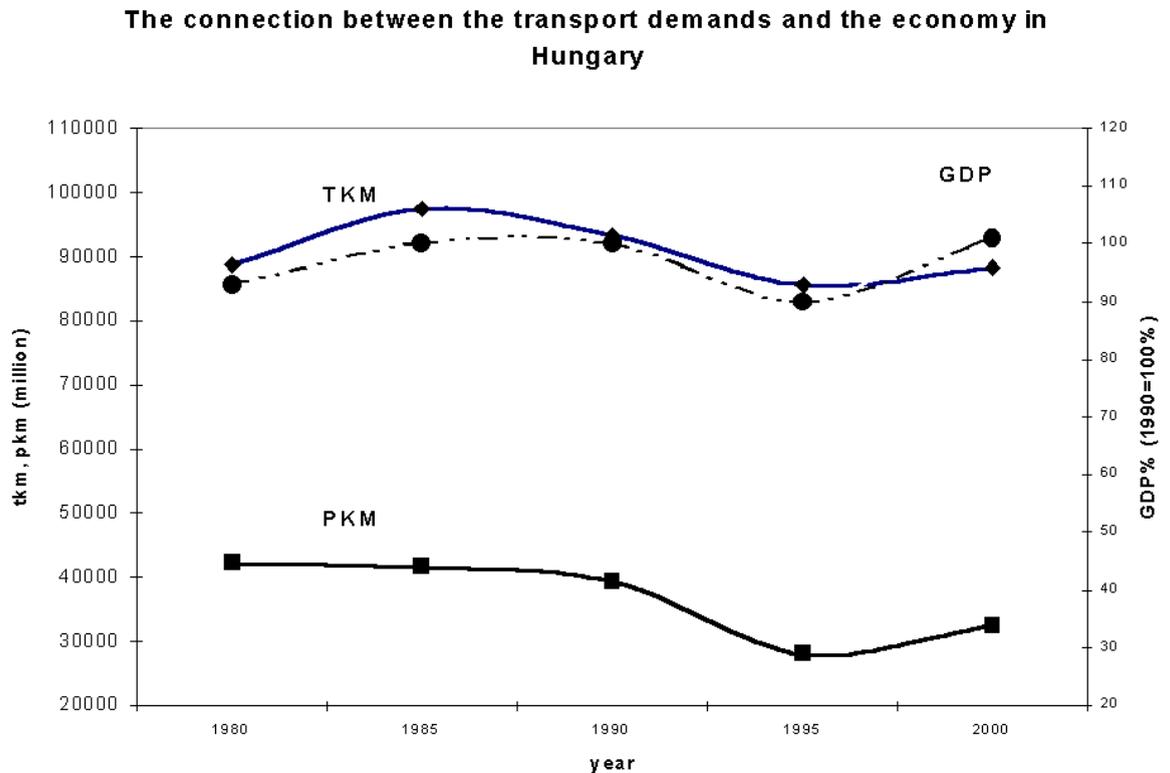


Figure 4

In 1998 the performance of the passenger transport measured in passenger-km was lower with a value of 7.2 %, than in 1990. In the field of the freight transport (calculated in freight ton km) the performances diminished with 22.4 % between 1990 and 1998. The modal split has been also changed to a greater extent in the field of the freight transport (Figures 5-6).

Beside the decrease of the public passenger transport the number of the passenger cars and their share in the transport have increased, despite the fact that the quick increase of the expenditures of using automobiles has diminished the average running performance of the passenger cars. The increase of the demand for the public transport with about 10 % is in connection with the increase of the motorization, and with the great tariff-increase in relation to the solvency. In the division of labour in the field of the passenger transport the values were – calculated in passenger-km – in 2000 (in parentheses the value of 1990): passenger cars 53.2 (52.3), bus 29.1 % (29.3), rail 10.4 % (13.1), air traffic 3.9 % (1.8), tramway and metro 3.4 % (3.5). In the field of the freight transport an important rearrangement was made in the division of labour: road transport 56.2 % (38.6), rail 24.4 % (42.7), inland navigation 4 % (4.5). pipelines 15.1 % (13.4).

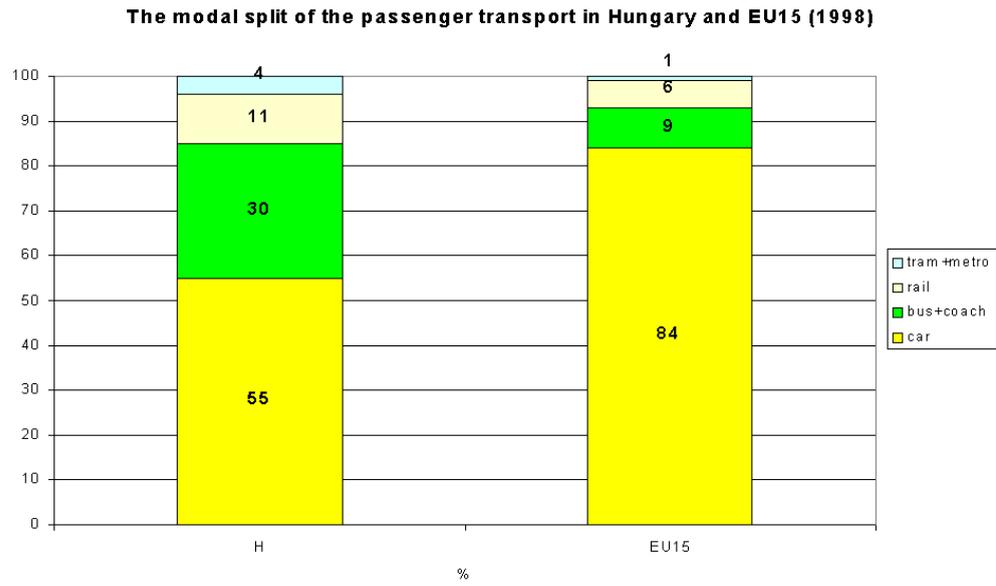


Figure 5

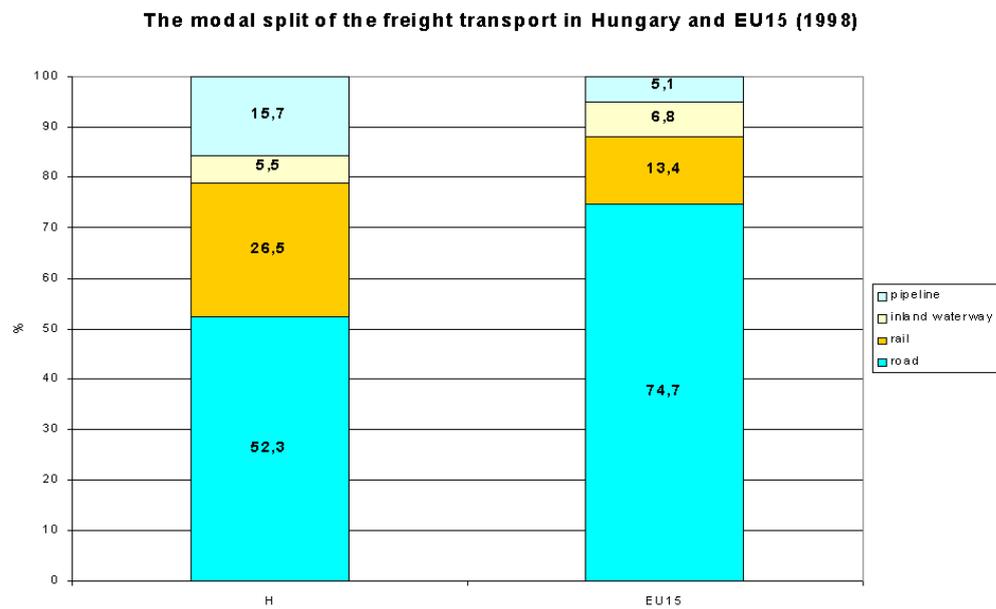


Figure 6

The Institute for Transport Sciences KTI share company in co-operation with the NEA and using the data of the long term forecast elaborated under the leadership of the NEA-INRETS-IWW* shows a further important change for a longer period till 2015.

The fundamental factor in this forecast is that Hungary will be the member of the EU at the beginning of 2005, the decrease of the number of the population will be continued, the GDP will increase in the average with 3.8 – 5.5 % yearly between 1996 and 2015, and the KTI has rejected a smaller lower value. In the division of labour in the transport sector Hungary will become more and more similar to the present EU member states, but the share of the railway transport and the performance of the public transport will be higher, than the average values prevailing in the European Union.

The air transport market has developed dynamically among the transport branches, the road transport will increase to a smaller extent and the rail and inland navigation will essentially stagnate.

According to the forecasts (Figures 7-8.) the performances of the passenger transport will exceed the performances of the year 1990 with about 27 – 39 % in 2015. The performances in the field of the freight transport will reach the value of the year 1990 expectedly in 2005 and they will exceed this with a value of 4.25 % in 2015.

There are big differences in the growing rate among the transport sub-sectors, the road freight transport will increase expectedly with 71 – 97 % between 1997 and 2015 and the road passenger transport will increase with 42 – 52 %. The performances of the rail passenger transport will practically not change between 1990 and 2015, but in the field of the freight transport a decrease of about 35 – 50 % can be forecasted in relation to 1990, but this can mean an increase of 15 31 % in relation to 2000.

3. The transport investments and the GDP

On the basis of the data of the forecasts it can be seen that the development of the transport system is founded not only by the lack of capacity in the aggregated capacity value, but the change in the division of labour in the transport and the technically obsolete rolling stock and tracks, i.e. the quality deficit. On the basis of the Table 3. it can be seen that the density of the Hungarian railway network exceeds to a great extent the average prevailing in the European Union, it is valid to a smaller concerning the road network as well, but the density of the motorway network is more than twice smaller, than that of the European Union (Table 3.).

* Traffic Forecast on the Pan-European Transport corridors of Helsinki-PHARE contract No: 98-0225.

**The change of passenger transport performance in Hungary
(1980-2015)**

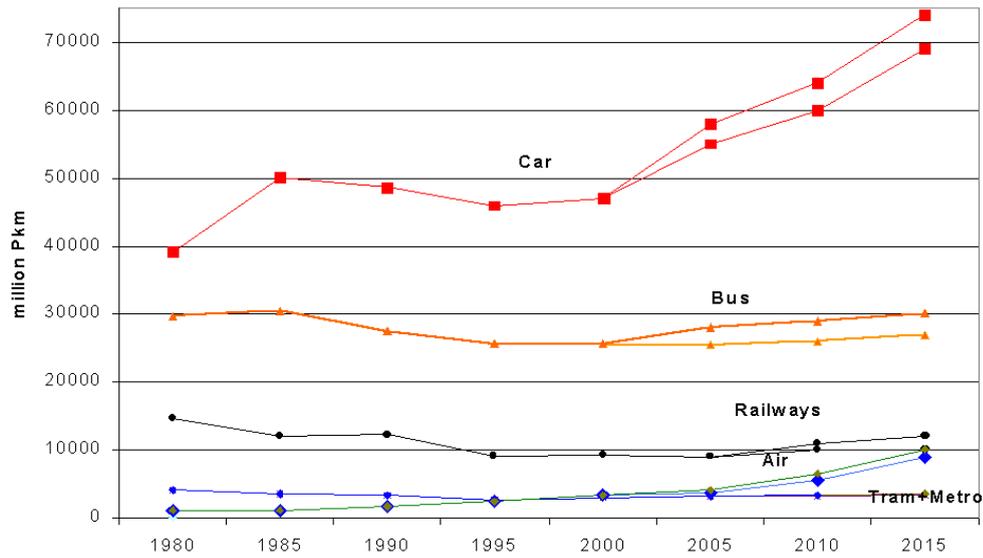


Figure 7

**The change of freight transport performance in Hungary
(1980-2015)**

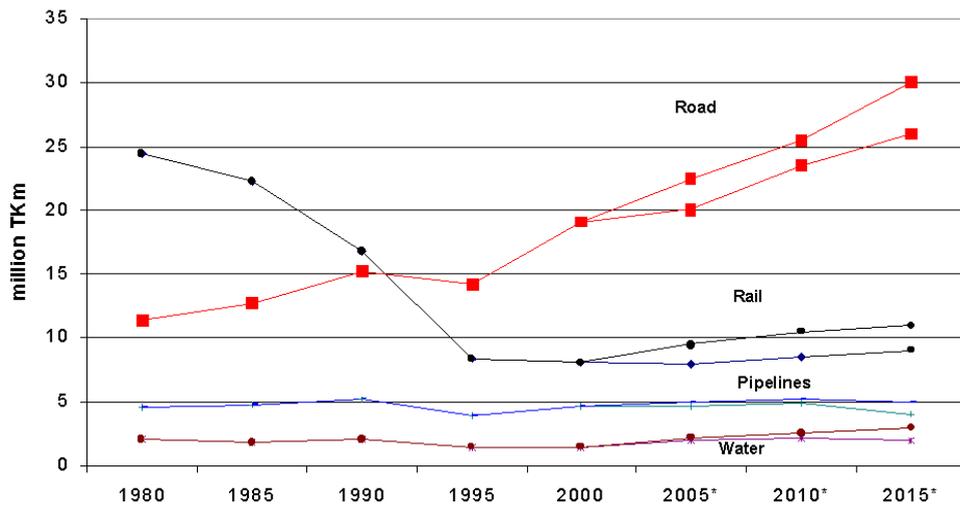


Figure 8
Source: KSH
Forecast: KTI, under the leadership of NEA-INRETS-IWW

For Hungary the modernisation of the railway backbone-network is an important and of the rolling stock, the construction and modernisation of the express way network and the development and maintenance of the national public road network are important tasks in the case of the network fixed in the TINA project.

Table 3.

Transport network supply in the EU member countries and in Hungary

	Length of the expressways* (km)	The relation of the expressways in relation to the population (km/10.000 inhabitants)	The ratio of the expressways in relation to the size of territory (km/1000 km ²)	The ration of the roads [?] in relation to the size of territory (km/1000 km ²)	The ratio of the railways** in relation to the size of the territory (km/1000 km ²)
EU15	47633	12,7	14,7	1080	47,6
H***	562	5,6	6,0	1172	76,3

* - 1997

** - 1999

*** - 2000. January.

? - Total: motorways, national (state) highways, municipal roads

Source: EUROSTAT, KTI

At the same time it is to be seen that under the present conditions (Tables 4.-5.), the country is not able to spent more, than 1,5-1,7 %-of the GDP permanently from its own resources for the transportation. For the acceleration of the closing up about 2 – 2.5 % of the GDP should be spent for the development of the transport infrastructure, but this value could be kept only for a shorter period – with an enforced investment – or it could become utilisable for a longer period as well, with a greater EU support.

In the case of a permanently and dynamically growing economy – with an eventually not to be repaid support – the development could be accelerated with the involvement of the private capital. But in the case of involving the private capital its should be avoided that the charges to be paid should not be so high that an important part of the traffic should be diverted from the motorway thereby. It is in the case an important viewpoint, if we consider that the EU-directives support the user shall pay principle. Today about in the half of the EU member countries there are no tolls.

Table 4.

**The value of the road and rail infrastructure investments
in Hungary**

(million ECU)

Denominations	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Road	70	95	80	167	229	265	133	118	126	154
Rail	62	47	63	41	38	75	86	98	101	102
Total	132	142	143	208	267	230	219	216	227	256

Table 5.

The ration of the transport investments in relation to the GDP

Denomination	1995	1996	1997	1998	1999	2000
Transport investment* (Billion HUF)	91,9	102,4	147,8	170,0	153,7	256,7
GDP* (Billion HUF)	5614	6894	8541	10100	11400	~
Transp. investment/GDP (%)	1,6	1,5	1,7	1,7	1,4	~

* at current prices

Source: KSH

4. The importance of the Pan-European transport network, and the ownership-policy in the Hungarian transportation

For Hungary the construction of the Pan-European transport corridors and networks is particularly important because of its central geographic position and extremely open foreign trade oriented economy.

The corridors passing through the Hungarian territory, the corridors IV. and V. as well as their branches toward Rijeka, Ploce and Beograd, as well as the corridor VII. Danube corridors and the corridor 10. touching the country (Figure 9.)

The Hungarian transport policy and the various resolution at higher level deal with the continuous development of the Hungarian section of the Pan-European corridors as a priority, and the realisation of the missing expressway sections and railway sections are also of importance. On the basis of the state prevailed in 1998 the costs of the complete network development with new construction, enlargement and renewal is 10.2 billion Euro, which means 1,181 km roads, 1,584 km railway track, one airport, six river ports and 16 terminals. The Government accepted in 1999 and later with some modification once again the development plan for the expressway network, which can accelerate the development of the public roads.

The road sections V. V./b with the renewal and enlargement of the existing motorway M7 and with the construction of the missing sections (Croatian, Slovenian sections) starting from the national boundaries were started after the preparatory works made in 1999 with some phases of the construction in 2000. Similarly the further construction of the motorway M3 on the Hungarian Eastern section of the corridor % toward Ukraine, the section between Füzesabony-Polgár will be also inaugurated soon.. The construction of the further section of the corridor V. will be also continued. The

construction of the expressway in the corridor V./c. will not be performed, because of the lack of financial resources in the near future (2008).

A great change has occurred in the ownership relation of the Hungarian Transport (state, municipal ownership) during the last years. The ownership relations are essentially EU-conform. Before several EU member countries we have involved the private capital as a new element of financing in the construction of motorways since 1994 and in connection with this the toll roads have been also introduced since 1996. Altogether it can be said that in Hungary

- ✂✂ the whole road freight transport is privatised,
- ✂✂ within the road passenger transport the greater part of the non-scheduled passenger transport is privatised,
- ✂✂ in the local and inter-urban public passenger transport the number of the private companies is small.

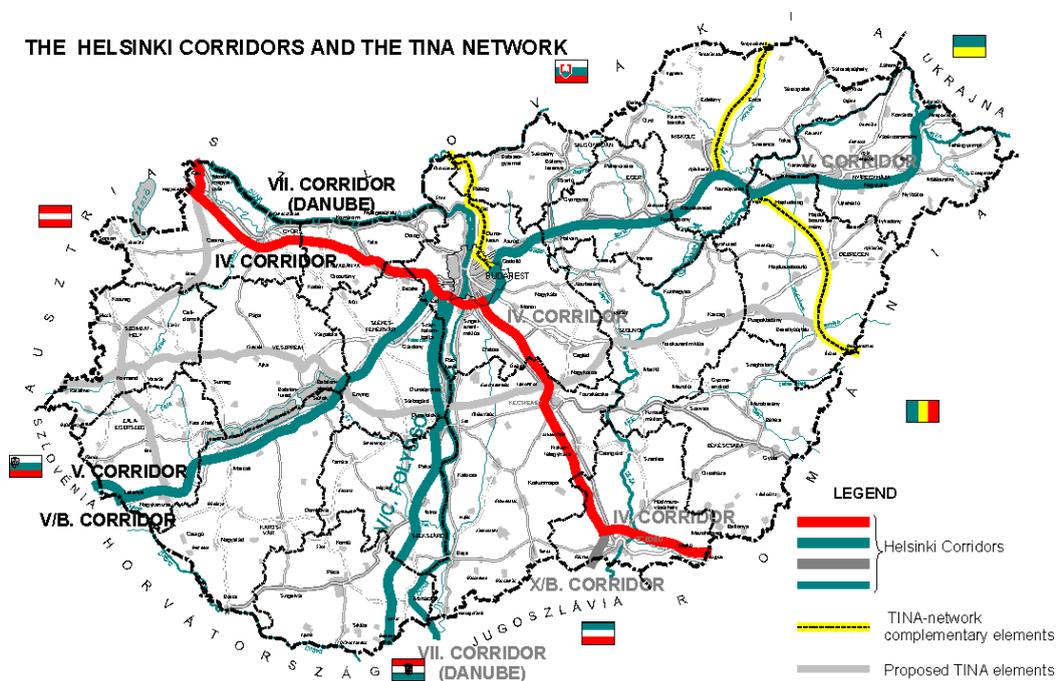


Figure 9

5. Summary

In Hungary we have experienced the dramatic decrease of the GDP and the consumption of the population in the first half of the nineties as a consequence of the social-economic regime changes and parallel to this both the demand for the freight transport and the performance of the public transport has diminished to a great extent. After the placement of the society and of the economy onto a new track, corresponding to the new, streamlined market economy the increase of the GDP has been started and afterward the demand for transport performances has increased as well. Comparing with the development of the European Union it can be stated that the transport demands have increased parallel to the development of the economy. The rate of increase of this has been, however, smaller according to the investigations made during the last years, than that of the growing of the economy, which shows the altered role of the economic and transport sectors (Figures 10-11).

During the integration in the European Union the structure of the Hungarian transport sector, its division of labour will be harmonised more and more with the transportation system of the European Union. Therefore – despite all the efforts of the transport policy – the share of the road transport will increase further and the share of the urban public transport will decrease.

All those tendencies will be taken into consideration by the Hungarian government and will be enforced in the elaboration of the transport political concept and in the preparation of the admission to the European Union.

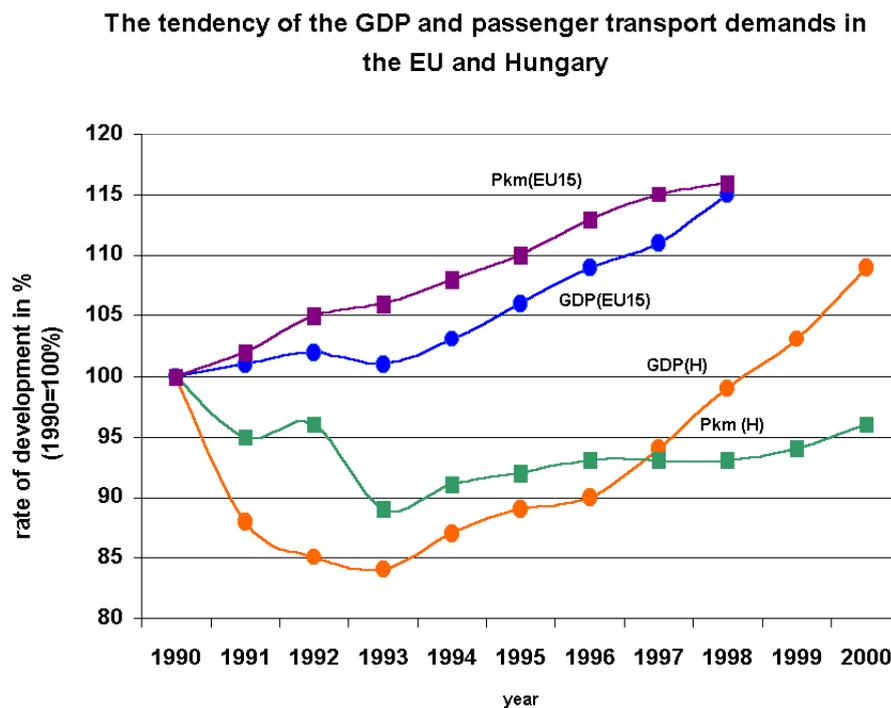


Figure 10

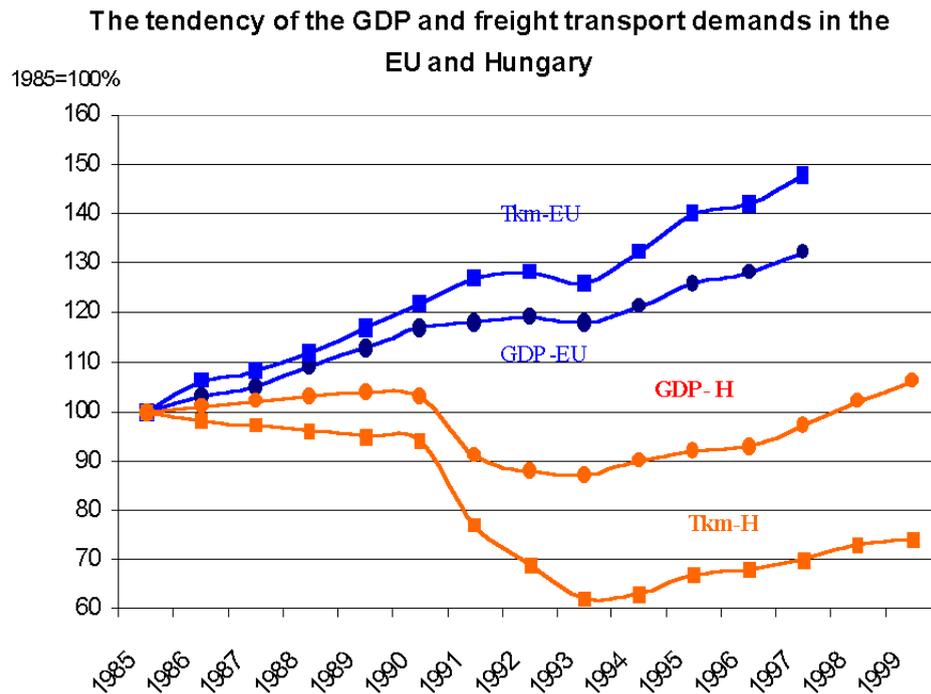


Figure 11

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