

ANALYSIS OF STATE INTERVENTION EFFECTIVITY IN THE RAILWAY TRANSPORT WITH BENCHMARKING METHODS

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Abstract

The present paper uses business process benchmarking to compare the German and Hungarian railway reform and benchmarking of the effects on main business goals to evaluate the efficiency of the government contributions in the railway sector.

Keywords: benchmarking, railway reform, government contribution.

1. Introduction

Governments grant considerable financial resources to subsidy railway services in every European country. All of them try to use the taxpayer's money as effectively as possible, therefore the analysis of expenses to the railway sector is actual. Benchmarking was chosen for this purpose. Following the principles of Business Process Benchmarking – handled by R. C. Camp – two alternative methods are available [1]:

- Process benchmarking is to discover the similar processes, which are comparable with each other. For this purpose the German and the Hungarian railway reforms are to be analysed between 1993–2002, starting from the objectives and evaluating the issues.
- The basis of the benchmarking should be the effect on the main goals instead of performance and process. In this context the subvention paid for a railway transport unit will be compared in some European countries.

2. Process Analysis: Railway Reform

The German railway reform was preferred like best practice for the business process benchmarking. The first year of the examination is 1993, since the first step of the railway reform in Germany was taken effect in 1994. In Hungary the decrease of the transport demand terminated before this date, the railway act came into force also in 1993. The length of the period analysed is 10 years.

2.1. Objectives and Political Measures

The German railway reform had two basic objectives [2]:

- to increase the transport performance of the railways,
- to reduce the government expenditure.

To meet the targets the following measures were taken into account:

- organisational restructuring of the German National Railway Company (DB).
- to split the public functions between the federal and the regional governments.
- to introduce market competition in the railway transport.
- harmonization of the rules of competition between the different modes of transport.

To ensure the legal background the constitution was amended, five new acts were adopted and 130 regulations were modified.

As far as the Hungarian railway reform was concerned, two main political objectives could be followed up:

- to adopt the European legislations,
- to reduce the government expenditure.

In the period discussed several government decrees were issued, which had some identical measures:

1. Increase the efficiency of the MÁV company, i.e.:
 - (a) to write off the old debts (to assume them by the state),
 - (b) to reduce the number of employees.
2. Rationalization of the network.

There was not declared any need for increase of the transport supply, as most of the decrees contained measures for reducing the network, and at the same time all official forecasts predicted a decrease in the railway transport. As rationalization faced the resistance of the citizens based on real or thought interests, the railway services were terminated only on a five km long section. Furthermore, on a 141 km long section the railway passenger service was replaced by coaches, which is still operated by the Railway Company.

Different decisions aimed at the structural transformation of MÁV, but finally the integrated company form still exists due to the high transformation cost. The internal structure of the company followed step by step the European organizational, administrative and accounting models, its detailed configuration was mainly the responsibility of the management [3]. After clearing the activity-portfolio and fulfilling the employment reducing requirements 100 subsidiaries were established.

In the analysed period one new act was adopted and 12 decrees were issued or modified [4]. In the sensitive political period the government's aim was to fulfil the European requirements on a minimum level, that means, it preferred as few legislations to be changed as possible to avoid political debates. As far as railway liberalization is concerned the fundamental EU requirements were adopted in the national law, but no further steps were taken to exploit the railway's economical benefits. The management of the MÁV forwarded the requirements of increasing the efficiency (cutting the costs) in the same form and size to the business units, and this lawn-mower principle did not encourage the technology and business process development.

2.2. The Effect of the Reforms on the Transport Performances

In the case of Germany the decreasing of the railway passenger services stopped, market share of the railway started to grow in the analysed period. The basis of the growth was the regional passenger transport. The performance of freight increased after a long stagnation period; although its growth rate could not reach that of the road transport [5].

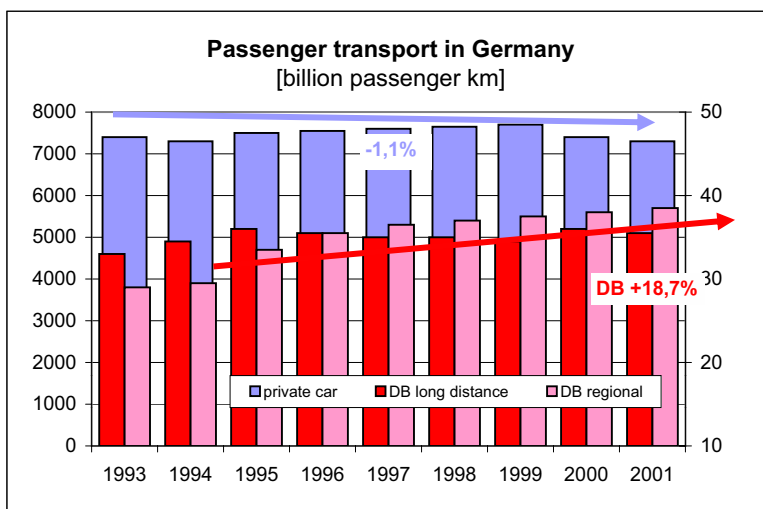


Fig. 1.

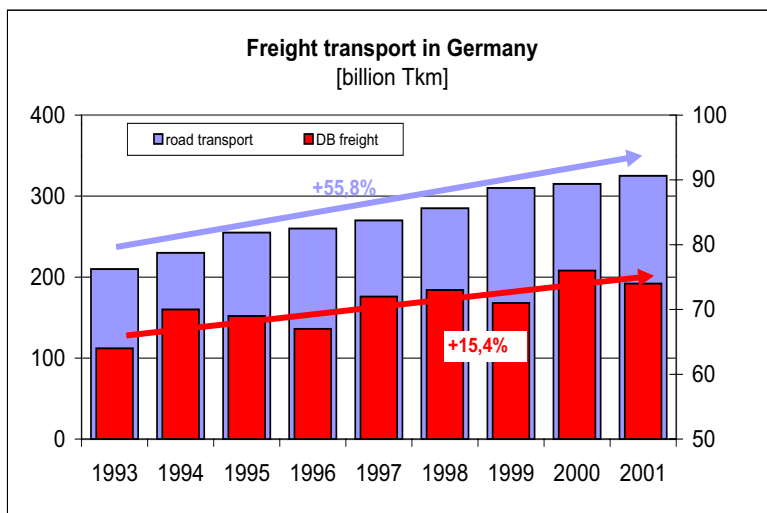


Fig. 2.

In the case of Hungary the dramatic fall in the transport demand stopped after the political change, in the middle of the analysed 10 years period a slight increase began in the passenger transport. The railway freight transport was not able to increase the volume, therefore its market share is decreasing [6].

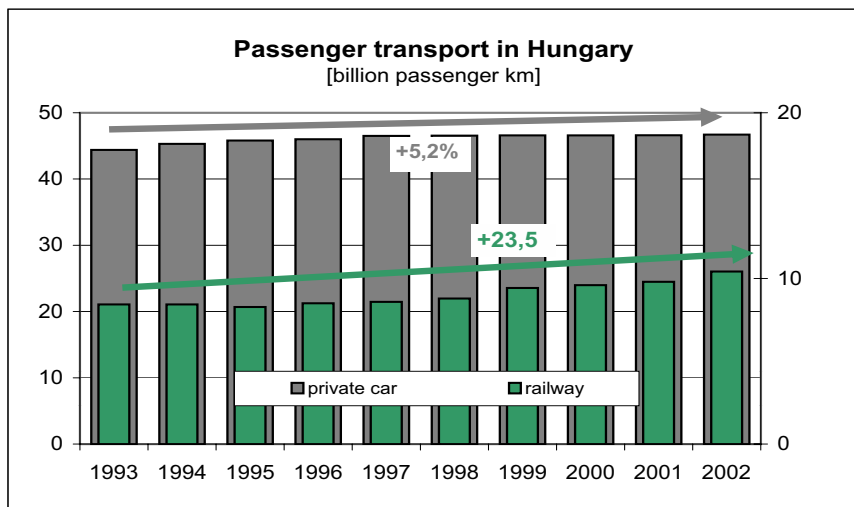


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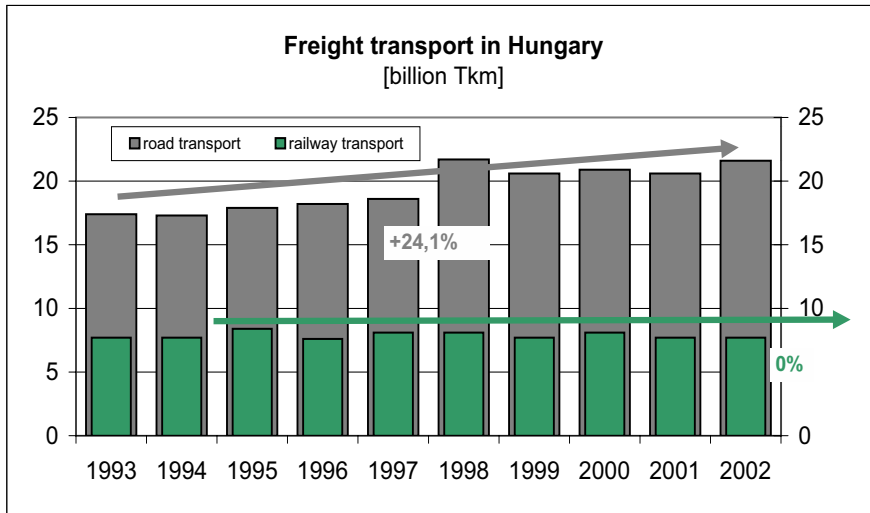


Fig. 4.

2.3. The Effect of the Reforms on the Budget

Simultaneously with the reform conception in Germany; the forecasted government expenditure was calculated without the effects of the reforms and the expected savings due to the reforms. It is obvious that the effect on the budget exceeded the expectations since the government spent less than foreseen for the subsidization of DB. It can be seen that the budget had a large decision space every year, the favourable figures were probably based on a small reduction of investment.

The Hungarian government expenditures tended upwards in current value; for the sake of comparison the strongly variable inflation must be taken into account [7]. The expenses are calculated in real value regarding the year 2002. The presented figures contain all government expenditures on the MÁV including the write off of the debt. The trend of the figures shows that the expenditure kept the fluctuation around a stable level, therefore its real value did not decrease.

2.4. Adaptation of the European Legislations

The railway reform in Hungary was successful in the legal aspect, as the chapter, transport, of the negotiation of accession was managed to close before the end of 2001, the legal harmonization was completed till the joining. The Hungarian Government received a transitional period till December 2006 to introduce some measures regarding liberalization.

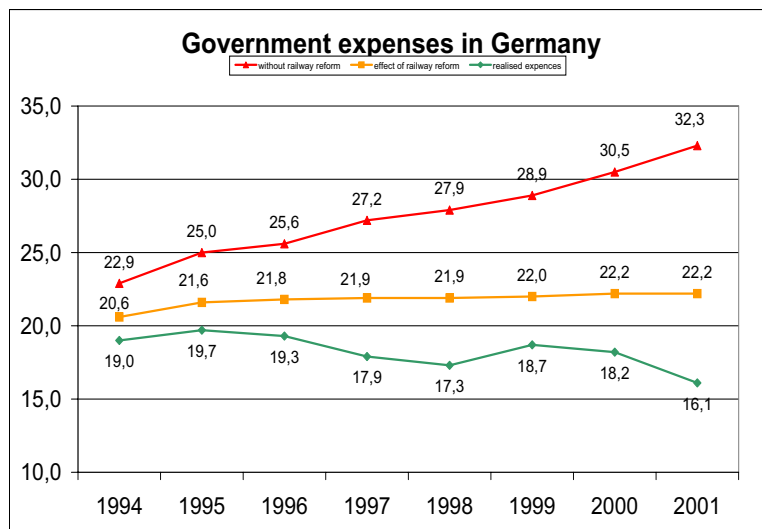


Fig. 5.

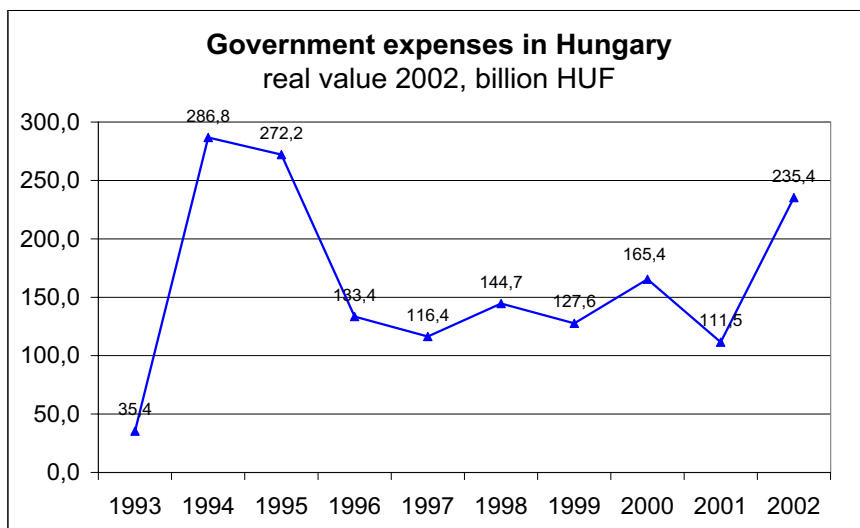


Fig. 6.

2.5. Summary of the Analysis

To make a benchmark between Hungary and Germany it must be taken into consideration, that the economical potentials of Germany and Hungary are quite different.

After all the motives of the German railway reform were two clear, well defined objectives, the measures needed to it were properly assigned. The reform in Hungary seemed to follow the occurrences, the measures of the reform depended on the actual political and economical possibilities, on the changes of the European legislation, and many steps proved to be inconsistent or non executable. In the restructuring plans it will be worth in the future to formulate the public needs regarding the sustainable development, namely the preference of public transport modes.

3. Effect on the Main Goals: Efficiency of the Government Contributions

3.1. Forms of Public Budget Contribution in the European Countries

Public budget contributions to railway undertakings and infrastructure managers are permitted by the EU legislation in various forms.

- Public Service Obligation (PSO) is a government requirement for an operator to undertake services, often with tariff controls, which would not be operated under the same conditions as if the operator were acting in its own commercial interests. The framework of Public Service Obligations for transport services was established in Council Regulation EEC/1191/69. In some countries the freight transport (mainly combined) can also be a recipient of state support.
- State aid for the purpose of contributing to the financing of transport infrastructure is permitted under EU law. This is specified in Council Regulation 1107/70. Different forms of state aid for infrastructure may occur. They may be directed at operating costs for the management and maintenance of infrastructure or take the form of capital grants for investing in infrastructure.
- Important categories of public budget contribution are specifically identified in Council Regulation 1192/69 on common rules for the normalisation of the accounts of railway undertakings. The principle behind this regulation is that the railway organisation is required to bear greater operating costs than it would be if it were operating on a commercial basis. Items specified in this regulation include payments for retirement, and payments for backdated government increases in wages and salaries.
- Article 9 of Council Directive 91/440 specifies forms of public budget contributions which are permitted to reduce the indebtedness of the railway undertaking. The objective of this provision is to reduce indebtedness of the undertaking to such a level that it would not impede financial management and to improve the financial situation of the undertaking.
- State Aid that is exceptional and is given in order to permit restructuring to remove excess capacity is permitted by EU law. This is specified in Council Regulation 1107/70. Such an aid may include, for example, payments for redundancies.

3.2. Benchmark Data

The countries presented below were selected according to the principle that they should have similar dimensions like Hungary or some others having different organizational structure and financial background.

The figures regarding Hungary were based on data published in the MÁV Statistical booklet, as state subvention aiming at the reduction of the indebtedness. A yearly average of the subvention between 1998 and 2002 was taken into consideration as an extraordinary income [8].

Table 1.

State contribution in 2001 million EUR	PT	GB	FR	AT	BE	LU	HU
1 Passenger public service	9	1 727	1 731	491	361	76	278
2 Freight/combined transport	0	57	76	140	0	0	0
3 Infrastructure maintenance and operation	7	1 201	1 608	950	640	142	0
4 Investment	87	0	263	122	419	0	119
5 Personnel and retirement expenses	0	0	2 131	0	520	0	0
6 Debt service	0	0	1 067	213	17	0	60
Total	103	2 985	6 876	1 916	1 957	218	457
Transport performance (pkm+tkm) million	6172	58500	121605	25586	16211	974	14568
Payments per transport unit, EUR	PT	GB	FR	AT	BE	LU	HU
Operation and maintenance (1+2+3)	0.003	0.051	0.028	0.062	0.062	0.224	0.019
Investment (4)	0.014	0.000	0.002	0.005	0.026	0.000	0.008
Other payments (5+6)	0.000	0.000	0.026	0.008	0.033	0.000	0.004
Total	0.017	0.051	0.057	0.075	0.121	0.224	0.031

3.3. Summary of the Benchmark

The sum of payments per transport units show how much taxpayers money shall be spent for producing a railway service unit. There are no unique evaluation methods regarding financing, the influences are different in each country.

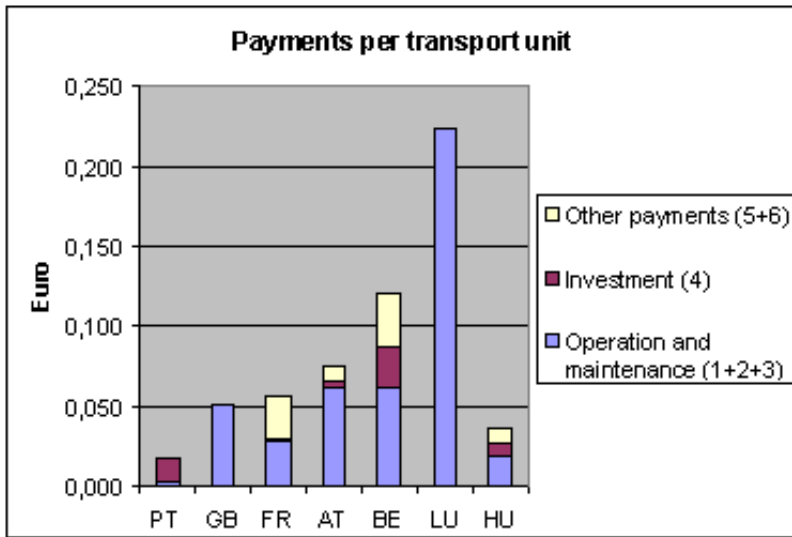


Fig. 7.

To evaluate the domestic figures some aspects have to be taken into consideration which affects the performance of the MÁV even if the financial data would be the same:

- despite the ongoing restructuring process the productivity of MÁV is still lower than the average of the European railway companies,
- the price of energy, materials and vehicles are the same as in Europe,
- due to the low passenger tariffs the own revenues of the company are also low.

Under these circumstances it is necessary to observe, that the Hungarian government has managed to keep the tariffs in low level while it could pay only the 40–50% of the average European subvention level. The negative impact is the permanent decreasing quality and the indebted company.

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