

# THE TECHNICAL AND FINANCIAL DECLINE OF THE RAILWAY INFRASTRUCTURE IN ROMANIA

Anduena FÎRTAT, PhD Student  
Cătălin ADAM, PhD Student  
University of Craiova

## 1. Introduction

The Public railway transportation of Romania is a strategic sector of national interest, which contributes to the free traffic of passengers and goods inside the country and of the international traffic. The development of the railway infrastructure has a major role in the integration of in the intern market and emphasizes the geographic position of Romania, as a transit zone, at the intersection of many transportation corridors. Romania has to take advantage of her geographical position through attracting investments into the railway infrastructure and services in the transportation domain. The development of the railway transport will increase the accessibility of the wick regions, both on the intern and extern zones increasing the flexibility of the labour market and the economical competitive of the regions which benefit from the developing projects.

The operating companies, which unfold their activity in the railway domain, are keen to improve their productivity and efficiency. They also become gradually independent players on the railway market and are focused on achiving better results. Hence, the railway companies are forced to implement a framework for deeper reforms prescribed under the projects designed to reduce the infrastructure costs leading to lower access charges.

## 2. The well-balanced development of national transport system. Objectives and directions on a long term

**The general objective** is a well-balanced development of the national transport system, which ensures a modern and lasting infrastructure and rail services, the development of the economy and the improvement of life quality.

To obtain this objective ensures a directly lasting development of the rail transport system, the economy and the environment, increasing the Romanian accessibility, the inter-modality transport system, the well-balanced development of the whole transport system and the improvement of the quality and services efficiency.

**Specific objectives**, endorsed to obtain the general objective are:

- ◆ the modernization and development of the railway transport of European and national interest, the increase of the safety conditions and quality services;

- ◆ the encouragement of the development of the economy and of the competitive;

**The modernizing and the development of the European and national railway transport** leads to the increase of the intern and international transport, of the long distance travels of passengers and goods, of the degree of usage of the infrastructures and means of transportation. The increase of the usage of the infrastructure involves the generation of the income both at the railway management level and of the transport operators. The modernization

and development of railway transport determines the decrease of the travel time in the Community countries. We can attain this through investments whose level and financial way have three options in mind:

- a policy of maximizing the resources used in infrastructure;
- a policy of rationalization using the necessary means to situate the assumed commitments;
- a policy of stability which attenuates fluctuations in investment, to submit each action to a previous rigorous evaluation and to allow programming on average and long terms.

**The stimulating economic development.** The transport contribution of economic development and competitiveness is based on three domains: territorial, the optimization of the macroeconomic investment impact and innovation.

The economic development refers to facilitating the inclusion of the Romanian urban system in the European environment by improving the rail and aerial services, especially, with their main destinations in Europe.

The transport services have an important significance in the economy and participate in approximately 9.6% of the gross domestic product trading. It is estimated that, in the future, a greater participation of the national operators on the European market of transport. As an objective for 2030, they keep in mind, an increase with 40% of the national operators in the foreign market and supporting the growth of the number and the activity of the intermodal operators to the levels similar to an average of the ones in the European Union. In addition, this is concerned with the improvement of the efficiency of the transport system to a significant reducing energy dependence of the Romanian economy. This way, they intend to reduce, by at least 10%, the specific energy consumption for passenger-km and tonne-km until in 2015, progressive reduction of up to 15% in the year 2020 and up to 20% in 2030.

They will introduce alternative fuels to the conventional ones.

**Directions of action** take place in three phases, which create the framework for the progressive advancement of the national transport system compatibility with the European policies and the principles of sustainable development:

➤ 2009-2013 – actions for the reconfiguration of the national rail transport; the evaluation of the development and the modernizing projects for the national and European transport network and the connexions with the national network; the evaluation and the introduction of the policies of the environment and the permanent development;

➤ 2014-2020 – actions for gradual integration of network and services; providing financial and technical conditions to achieve modernizing and development projects; ending liberalization process for transport market;

➤ 2021-2030 – actions to promote the modernizing and the development of the networks and services; the construction of an integrated transport system.

The priorities of the **road transport system** in the next period, is concerned with the improvement of the conditions of the services in the network, concerning the safety and the physical state, but also the sequel of works on the Traffic Network, corridor IV and IX, in execution and establishing objective criteria to select the investments. To reconfigure the national transport network, they will construct 50 variants of motorway profile or national road profile with 835.37km total length. By the end of the year 2013, it is foreseen a number of 1,767km motorway in operation and 155km in preparation. So, the priorities consist on the achievement of quality levels and to bring them to the community standards of Intens Traffic Network by gradually achieving the modernizing, the development and the rehabilitation of the projects, the

introduction of a coordinated system of managing the network and of monitoring of the traffic on busy routes and the elimination of parallelism on long-distance itinerary.

In the future, the naval transport priorities concerns modernizing of the naval transport infrastructure, the insurance of the safety of the traffic, strengthening ports like intermodal logistics centre, which contributes to the progressive achievement of the intermodal goods network and more secure naval transport services. To achieve those priorities it is necessary: the development of the Constanta Port, like a main point of connection between Europe and Asia; the use of the inland waterway transport, like the option of the road transport; the gradual achievement of the projects on Corridor VII, which insures the navigation conditions during the hole year on Danube, on the navigable canals, the Danube – the Black Sea and the White Gate – Midia Navodari.

In Romania, the rail system requires a special, coherent and consistent treatment, based on financial insurance health.

In conclusion, it can be said that, the transport system must offer a complete service, independently of the nature of a certain infrastructure or operator.

### 3.The Romanian rail system

The ultimate objective is to progressively transform the rail system in the central pillar of the intermodal transport services, both for the passengers and for the goods. This objective imposes on the rehabilitation of the rail infrastructure actions situated on corridors with an important potential, and inter-modality demands on the rail services, the improvement of the institutional and relational framework between the manager of the infrastructure and the rail operators by encouraging the railway development

and the increasing accessibility of the whole territory.

The railways have grappled with difficult issues, for a number of years:

- the insufficient cash flow between the rail companies through the track access charges;
- the limited freedom in the activity of leading and the lack of stability in the management and staff;
- the unwillingness to downsize the rail network and divest the low traffic, unprofitable lines to match the traffic demand;
- the discrepancy between the passenger services supplied and the public services contract paid by the Ministry;
- the low productivity of the staff.

#### 3.1. The performance indices of the railway infrastructure operating

The performance indices of the railway infrastructure operating for the period 2008-2011 are foreseen in the activity of the contract of The National Railway Company<sup>1</sup>. This is concluded between The Transport Ministry and the company which manages the public railway infrastructure in Romania. The contract establishes mutual obligations to ensure the technical and operating state of the railway infrastructure, which guarantees the conditions to carry on the passengers and good transport on railway in safety conditions.

The performance indices a concerning operation of the railway infrastructure are presented in Table no.1.

---

<sup>1</sup> The decision no 1667 concerning the approval The Activity Contract of The Railway National Company for 2008-2011 published in The Official Gazette of Romania no 177 on 9 January 2009;

Table no. 1 The rail performance indices for 2011

Nr crt	Description	U.M.	Indices
<b>1</b>	<b>The railway infrastructure</b>		
1.1	Lines length	km x lines	10.820
1.2	Development length lines	km x lines	20.410
1.3	Station and small station	number	992
<b>2</b>	<b>Staff</b>	<b>number</b>	<b>29.600</b>
<b>3</b>	<b>Train-km</b>	<b>mil. train xkm</b>	<b>92,87</b>
3.1	Passengers	mil. train xkm	68,22
3.2	Goods	mil. train xkm	24,65
<b>4</b>	<b>The indices regarding the performance activity</b>		
4.1	Average speed on railway network		
4.1.1	Initial designed	km/h	90,99
4.1.2	Ensured	km/h	73,37
4.2	Regularity		
4.2.1	Goods	$\frac{\text{delay minutes}}{100 \text{ train x km}}$	1,6
4.2.2	Passengers	$\frac{\text{delay minutes}}{100 \text{ train x km}}$	1,9
4.3	Productivity	train x km/nr. average staff	3.782,00

Source: Activity contract concluded between The Transport Ministry and The National Railway Company for 2008-2011.

About the achievement of the railway performance indices, for 2008, I found the following:

➤the total network length has decreased to 20.382, due to the impossibility to assure the funds for the repair works of the rail infrastructure and it will drop in the future;

➤the number of staff decreased to 28,215, due to the measures of the available personnel, the policies of the limitations of the employment, the outsourcing activities and the establishment of the branches with the status of the commercial stocks;

➤the total traffic volume was 95,69 mil trainxkm (the passenger traffic 67,42 mil trainxkm and the freight traffic 28,27 mil trainxkm);

➤the productivity was of 3,423.63 train x km/nr. On average staff;

➤the average minutes of the delay per 100 trainxkm was of 1.17 for the passenger trains and of 8.23 for freight trains, because of the rail traffic which has been affected by the damaged

occurrence because of the theft of the installations, the rehabilitation works of the railway transport and the capital repairs performed with closure of the railway lines and the cancellation of all trains on those sections.

➤the relation between the existing speed, the definite like maximum present speed (affected by speed restrictions) and the initial projected speed, the definite like maximum speed of the lines (affected by constructive limitations speed) is of 0,803. To maintain the relation at the same level they have to allocate 1,640 mil. lei, and to increase the relation there is necessary some funds for the modernization in the sum of 2.282 mil lei<sup>2</sup>:

<sup>2</sup> The decision no 1667 concerning the approval The Activity Contract of The Railway National Company for 2008-2011 published in The Official Gazette of Romania no 177 on 9 January 2009;

For railway performance indices, every year, The Transport Ministry includes, in their budget, the necessary amount to ensure the public repairs of the railway infrastructure and to stop the technical degradation. In addition, the Ministry supports the continuation of the investments; especially the modernization of the European railway transport corridors. The National Railway Company have the obligation to ensure the maintenance, repair and modernization works according to the investments programs, to reduce the number of zones and kilometres which have speed restrictions and dangerous points on the public railway infrastructure and to increase the existing speed.

### 3.2. The result of the financial year – the cause and consequence of the current technical condition

The National Railway Company has supported the efforts to reduce the operating expenses to limit the parameters to insure the minimum safety and improve traffic speed restrictions and the maintenance necessary to maintain the functional parameters and the proper functioning of the public infrastructure. Despite these efforts, at the end of 2008, it results a loss of 709,670.38 thousand lei.

The evolution of the income, the expenses and the net result of the financial year, for 2004-2008, is presented in Table no. 2.

**Table no 2. Evolution of incomes, expences and net result of financial year (thousand lei)**

No crt	Description	2004	2005	2006	2007	2008
1	Total incomes	1.499.779,69	1.534.978,67	1.544.296,17	1.459.064,14	1.764.188,83
2	Operating incomes	1.424.687,87	1.408.298,38	1.294.683,79	1.300.896,66	1.339.999,73
3	Financial incomes	75.091,82	126.680,30	249.612,38	158.167,48	424.189,10
4	Extraordinary incomes	0	0	0	0	0
5	Total expences	1.549.129,07	1.711.843,58	2.400.913,57	1.793.524,48	2.473.859,21
6	Operating expences	1.427.132,32	1.372.462,95	2.104.455,12	1.666.476,90	2.025.017,28
7	Financial expences	121.996,75	159.827,21	282.722,86	127.035,30	448.841,93
8	Extraordinary expences	0	179.553,42	13.735,58	12,27	0
9	Operating result	-2.444,45	35.835,42	-809.771,32	-365.580,24	-685.017,55
10	Financial result	-46.904,93	-33.146,91	-33.110,48	31.132,18	-24.652,83
11	Current result	-49.349,38	2.688,51	-842.881,81	334.448,06	-709.670,38
12	Extraordinary activity result	0	-179.553,42	-13.735,58	-12,27	0
13	<b>Net result</b>	<b>-49.349,38</b>	<b>-176.864,90</b>	<b>-856.617,39</b>	<b>-334.460,33</b>	<b>-709.670,38</b>

Sursa : The Railways National Company, Financial situations

The evolution of the incomes and expenses of the National Railways Company reveals the following:

◆the incomes and expenses resulted from the operating activity have the most significant share in the total

incomes and expenses recorded, due to the activity object of the company;

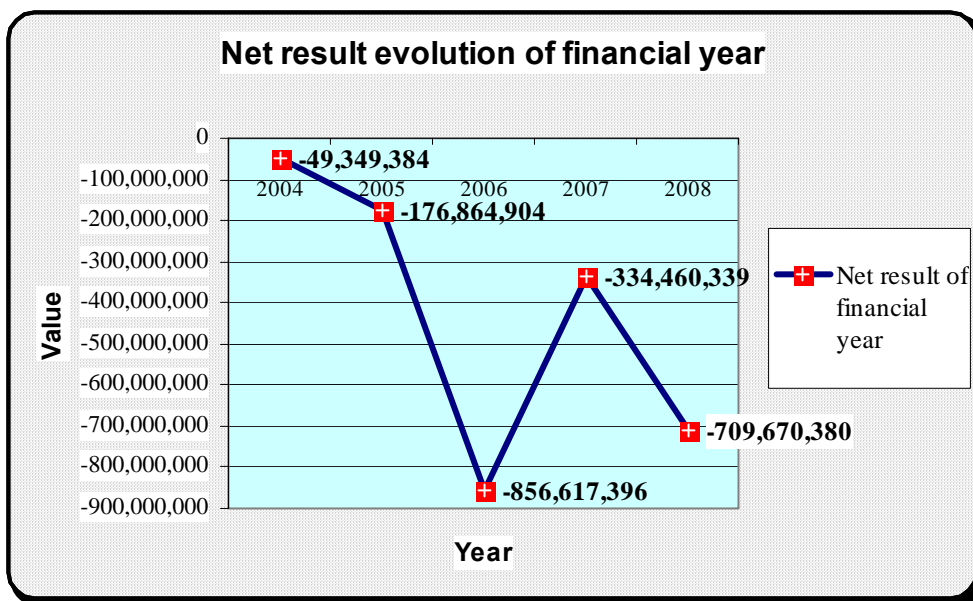
◆the increasing of expenses is due to the increase of the maintenance and the repair costs, as a result of the price increase of the materials costs and the labor;

◆the continuous degradations of the infrastructure due to the insufficient

allocation of the funds for the maintenance and the repairs, and as a result of the natural disasters in the years 2005-2006, have generated a need for the increase of the financial resources.

Graphically, the evolution of the net result of the financial exercise for 2004-2008 is shown in Figure no 1.

**Figure no 1**



Source: The Railways National Company, Financial situations

From the data presented, it is found an unfavourable situation, which led to an alarming growth of the necessary funding, generated, mainly, by the perpetuate insufficient funding of the rail system, which led to the widening problem of the infrastructure degradation

**4. Conclusions**

In conclusion, the national rail transport system is insufficiently developed and with an inadequate quality, affecting the quality, safety and time of trip between the departure and destination for the passengers and goods. For Romania, an European Union member country, they take into

consideration the increasing the speed of the railway traffic, measure that is required, firstly, to bring the railway in the operation of the projected parameters, but also the insurance of the technical conditions for the passengers and goods traffic at increased speeds.

The general objective is the insurance of the quality and safety of the rail infrastructure. In this way, the necessary premises for a sustainable development of the economy and the improvement of the life quality are created. The achievement of this objective will contribute to the economic increase by the positive impact of the demand on a short term and by the influence of the transport tender about the costs of the

structure at the economic agents, the integration of the Romanian economy in the world economy and stimulating the passengers and goods flows.

Taking into consideration the difficulty of the financial situation of the Railways National Company and the economic, the social and the strategic

importance of the rail system in Romania, I believe that it must increase the government subsidies for the investment on the acquisition and the rehabilitation of the railway infrastructure assets, and the ensure of the Government on the interest of the bearing liabilities.

## REFERENCES

Stancu I.	<i>Finance</i> , Economic Publishing, Bucharest, 2002;
*****	<i>"The strategy of the modernizing and the renewal of the railway infrastructure in the view of the assurance of the integration in the European Union"</i> ;
*****	<i>The decision no. 817 for the approval of the Plan concerning the long term strategy of the railway sector in the view of the re-establishing of the financial balance of the infrastructure administrator and in the view of the modernizing and the renewal of the infrastructure</i> , published in the Romania's Official Gazette no. 738 from August 15 <sup>th</sup> ;
*****	<i>The decision no. 1667 concerning the approval of the Activity contract concluded between The Transport Ministry and The National Railway Company for 2008-2011</i> , published in the Romania's Official Gazette no. 177 in January 9 <sup>th</sup> .