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### Considerations on the Status of the Romanian Railways during the First Years after World War II

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### **Abstract**

Romania's transport infrastructure was seriously affected by the damage caused by the WWII. The rebuilding of the national railway system was a top priority due to the fact that railway transportation ensured approximately 70% of the entire transportation activity. The development and modernization process of the Romanian railways required large capital investments and implied several stages.

**Key words:** Transport and railway system, train-related machinery, postwar period

### Introduction

During the first years after WWII, Romania was in a precarious economic state. Its postwar evolution was deeply affected by the economic, political, social, ideological, etc. consequences of the greatest conflagration the humankind had ever experienced.

During the period 1940–1943, the Romanian economy underwent significant losses due to the territorial raptures in the summer-autumn of 1940, to the domestic fighting (in Basarabia and Bucovina), as well as to the destruction caused by the maintenance and equipment of the army in the Eastern war. 1944 marked an unprecedented increase in the losses and destruction of the Romanian state. The Soviet troops' invasion of the national territory, the fighting carried out by the Romanian and German troops against the Soviet ones during March-August 1944, in Basarabia, Bucovina and Moldova, the massive bombings of the Anglo-American aviation against Romania, the battles of the Romanian and Soviet armies against the Germans in order to set free the northwestern part of Transylvania, the forced requisitions and the plunder of the Soviet troops on the Romanian territory – those were the factors that caused great and serious damage to the dysfunctional state of the Romanian economic system. The most significant losses were recorded in the oil industry and in the railway network [2].

1944 witnessed the lowest oil production during the war, i.e. 3,525,000 tons, accounting for an approximately 2,000,000-increase as compared to the average of the period 1940 – 1943 [3].

The railway network was partially destroyed [1] because of the fights, but most of all because of the Anglo-American aerial bombings. The deterioration of the operating status of the Romanian railway system was also caused by the excessive use of cars and locomotives, as well as by the obligations imposed on Romania through the Armistice Convention signed with the UN coalition in Moscow, on September 12, 1944.

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Railway transports underwent the following damage: 1,337 km of railways (10% of the ones under exploitation in 1944), 3,128 km of side railways, 322 bridges, and 267 small bridges with a total length of 14,938 m, as well as 17 tunnels. These were added to by the damage caused on railway stations and yards (with the appropriate workshops and machinery) in the following percentages: Griviţa 80%, Simeria 50%, Timişoara 90%, Galaţi 60%, Turnu Severin 80%, Bucureşti - Triaj 80%, Ploieşti 90%, Braşov 80%, Arad 60%, Cluj 50% and Oradea 50% [4].

In July 1945, the locomotive park of the Romanian Railways (CFR) comprised 3,307 locomotives. Of these, 409 locomotives were to be handed over to the USSR, as payment for war damages, 1,400 locomotives were not working and in various stages of repairs, 259 locomotives were crossed across the border by the Soviet Army for its needs, and only 1,598 locomotives were operating and usable by the CFR administration for the goods and people transportation required by the national economy, which accounted for less than half of the necessary park in order to meet the country's needs [4]. At the same time, the car park was confronted with a situation just as serious: of the 58,087 existent cars, 23,142 were crossed across the border, 3,979 were not working, and 30,966 were in good operating status. After giving the USSR the cars requested as war damages, the CFR administration had 14,911 as length [4].

As compared to the needs of a daily average traffic of approximately 71,100 cars required by the national economy, we notice that CFR had a deficit of more than 55,000 cars, a situation which fully affected the entire Romanian social-economic system. Consequently, the goods and people traffic during 1944-1945 significantly decreased, being 25–30% lower than the one before the war [2]. The maritime, river and road transportation also underwent significant decreases, due to the same causes that had affected the railway traffic.

The difficulties in the area of transportation negatively influenced the production activity in the other sectors of the economic and social life, which underwent interruptions, halts and/or shutdowns, with direct effects on the population. Large regions in Moldova experienced a dramatic situation; these were isolated from the rest of the country, since the Soviet troops changed the configuration of the main railway routes from Moldova to Ploieşti, following the Soviet railways model; the consequence was the interruption of the supply with goods that the population in this part of the country needed.

### The Reconstruction of the National Railway System during the First Years after the War

The general picture of the Romanian transport infrastructure at the end of the war emphasized the need to reconstruct it, especially the railway system, which accounted for the highest percentage, i.e. of more than 70% [1]. The status of the Romanian railway system required the need of a double approach: one on the short term, which aimed at the immediate reconstruction of the railways, and one on medium and long term, which implied several programs aimed at modernizing and developing the Romanian railways. Under such circumstances, the quick solution to bringing the railway system back into operating, in such a way as to ensure the domestic and international transport requirements, went without saying.

The first stage aimed at the reconstruction of the national railway system focused on short-term objectives, such as: bringing the banking and the trains back to their natural operating state, the reconstruction of the destroyed works of art, of the communication installations, exploitation stations, marshalling yards and repairs shops, the recovery of the trains across the border following the war and the resumption of international links. In this respect, the current railways were rebuilt and consolidated, used rails were replaced with heavier ones, bridges, small bridges and tunnels were rebuilt in order to allow for the passage of heavy-load and high-speed trains. Part of the technical exploitation stations and locomotive depots were rebuilt. During the same

stage, new railways begun before the war were completed (several shorter ones were started during the very war) and which, due to the difficult land, lack of funds or the outburst of the world conflict, were halted. Thus, the following railways were put into function:

- O Bumbeşti Livezeni, a route with a total length of 31.4 km. The construction of this route started in 1924, being resumed in 1924–1927; 1929–1931; 1937–1944, with a remainder of about 16 km. It was completed in 1948.
- o Deva Brad with a total length of 36 km. The construction began in 1939, only half of it being done (until 1945, about 18 km.). The works were completed in 1948.
- o Telciu Vişeu with a length of 42 km. The last part in the Salva-Vişeu connection was completed in 1949.

During the same period, the route Bucharest-Videle-Roşiori-Craiova was built on a 90-km length, as well as the routes Filipeştii de Pădure –Mina Palanca (5.5 km long) and Odăile–Buftea (7.8 km).

All in all, during the period 1945-1950, about 600 new railways were put into function [6]. The construction of these railway links met the economical, political, social and cultural needs of the country, and important regions such as Maramureş and Țara Moților were no longer isolated; it also sped up the domestic social-economic links and facilitated the access between all the regions of the country.

## The Resumption of the Links with Similar Organizations in Neighboring Countries

The end of the war found a Europe that was weakened, with a destabilized economy, with interrupted trade links and destroyed infrastructure, dominated by serious humanitarian problems. Under such confused and tensed circumstances, re-establishing the international links between railway systems belonging to European states became a top priority. This concern was expressed through the organization of the Conference on Europe's Internal Transports, which took place in London, even before the end of the world, i.e. during October 1944-February 1945. The conference was attended by delegates of the member states within the UN coalition (Belgium, Czechoslovakia, France, Greece, Luxembourg, the Netherlands, Norway, Poland, the Soviet Union, Great Britain, the USA, Denmark and Yugoslavia), as well as by Romania and Italy, as observers due to their status as former "ex-enemy states" [5]. The conference in question tackled upon difficult issues the transport infrastructure in Europe was confronted with, being devastated by six years of war.

A special problem CFR was confronted with during the first years after the end of the war was the recovery of the Romanian trains crossed across the border, either by withdrawing German-Hungarian troops, or by Soviet troops, in their offensive towards the West, on the basis of the Armistice Convention of September 12, 1944. After the first half of the year 1945, more than 23,000 cars and several hundred locomotives – owned by CFR – were crossed across the border. The situation implied two aspects: the first aimed at the restitution of the locomotives, cars and other railway mobile assets across the border; the second aimed at the payment of rents for the services provided from the end of the hostilities until the restitution per se. In order to solve this issue, the strategy of bilateral negotiations was adopted with each and every country, as testified in an MFA (Ministry of Foreign Affairs) document dated November 21, 1946 [5].

On September 11, 1945, Romania signed a Railway Convention with the Soviet Union, through which the Soviet state undertook, in accordance with art. 2, to restitute the entire trains used by the Red Army in Western military operations approx. 200 locomotives and more than 20,000 cars) [5]. Romania's request submitted on March 28, 1946 to the Allied Control Commission, through which it demanded the Soviet Union to pay for the services provided by the Romanian

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trains after the end of the world, was rejected by the Soviet party, on grounds that the services in question "are part of the common war effort and are due to be undertaken as such by the Romanian state, as its contribution to supporting the hostilities" [5].

The recovery process of the Romanian trains across the border and the rent payment one of the uses thereof advanced with great difficulty, especially during the negotiations with the authorities in Yugoslavia, Hungary and Poland, as compared to those in Sofia and Prague.

The Railway Convention signed with Bulgaria at the end of 1944 stated that, after January 15, 1945, all Romanian train cars in Bulgaria would be returned to Romania. The same document stipulated that the transit through Romania and Bulgaria via railway be done without unloading the goods at the customs.

The negotiations with the Yugoslav authorities were totally different. At the Romanian-Yugoslav railway conference that took place in Jimbolia in the period August 26-September 3, 1946, the authorities in Belgrade refused to admit the very principle of rent payment of the services provided by the Romanian train cars and locomotives on the Yugoslav territory. The Hungarian authorities adopted a similar position; at the end of 1946, they still had not started to review the Romanian trains on the Hungarian territory.

Through report no. 1022 of October 9, 1946, the Romanian Legation in Prague informed Bucharest that the Czechoslovakian authorities were already reviewing the Romanian trains in order to set the debit or credit balance in number of train cars between Romania and Czechoslovakia, without initiating any procedure regarding the payment of the rent for the provided services [5].

## Projects on the Development and Modernization of the Romanian Railways

During a subsequent stage, set by Romanian specialists as a modernization and development stage of the national railway system, there were several programs on the design and construction of new rails, the doubling of all international routes on the national territory, the electrification of the Romanian railways, the purchase of new locomotives and trains cars and the re-launch of the domestic production of locomotives and train cars.

The CFR administration was working on a program that aimed at the construction of about 379 km on new rails that were supposed: to shorten the distance between Western Moldova and Northern Transylvania (the route Piatra Neamţ – Vatra Dornei); between Southern Moldova and Muntenia and Transylvania (the route Buzău – Nehoiaşi – Întorsura Buzăului); to develop the communication system of several regions (the route Lunca Dunării – Constanţa, Văşcău – Vârfuri – Western Carpathians); to ensure the direct connection between important centers (the route Râmnicu Vâlcea – Curtea de Argeş) and to ease traffic in certain sectors (the route Turnu Severin – Prundişor). The development of the railway network was a natural consequence of the increase in the transportation demand, in accordance with the country's general economic development. Through the construction of the new railways, the railway system appeared as a unitary one, able to ensure optimal connections between all the provinces of the country, as well as with foreign countries.

The program on the doubling of international links within CFR network was considered "highly important" in order to "complete the railway network in order to meet the needs of a normal domestic and international traffic" [4]. The authorities took into consideration the doubling of all international links on the Romanian territory, as follows:

- o Bucharest Braşov Cluj Oradea for the link with Budapest-Vienna-Prague;
- o Bucharest Dorneşti via Cernăuți towards Lemberg Krakow Berlin;
- o Bucharest Iași and Buzău Galați towards Chișinău and Odessa Kiev;
- o Bucharest Constanța;
- Bucharest Giurgiu with direct link, by ferry-boat, with Rusciuk Gorna Orehovitza Sofia:
- o Bucharest Timişoara Jimbolia towards Belgrade Milan.

It was estimated that the doubling of the international links significantly contributed to the promotion of the Romanian economic life, to the increase of the CFR transport capacity and to the increase of the safety level of existing transports.

The program on the electrification of CFR was initiated back in 1943, but it was abandoned because of the war. In 1943, the CFR administration started the first studies on the electrification of the railway Ploieşti – Braşov. After the war, it was believed that the electrification of the Romanian railway system was an issue that needed "to be approached appropriately", but the "current needs of the railways" caused the delay of this program for several years. The electrification of the railway system implied rail and tunnel refurbishing, construction of power supply units, electrical locomotives purchase, etc. Until 1959, the CFR had only one diesel electrical locomotive, built in the Sulzer-Freres plant, in Winterthur, Switzerland, which operated starting from 1938 on the route Bucharest-Braşov, pulling great speed trains. In addition to this, CFR had several electrical auto-motors on the route Arad – Podgoria, as well as other diesel electrical such machinery. The electrification program was only started in the early '60s, when the Romanian state had the necessary technical, financial, economic and human resources.

### **Conclusions**

Experts stated that the reconstruction and modernization of the national railway system implied "significant expenses and capital investments", as well as several stages of development [4].

The analysis of the existent state of affairs within the Romanian railway system at the end of WWII emphasized the action of several economic, political, social factors, both domestic and international, that influenced the strategy of the CFR administration regarding the reconstruction and modernization of the Romanian road system.

Romania's status of defeated country, the interference of the Allied Control Commission in the country's domestic issues, the manner of enforcement of the Armistice Convention of September 12, 1944 on war damages – all this made it impossible for CFR to manage its assets. For this reason, it was inaccurate to truly assess the railway network, the trains and the manner of exploitation by the competent Romanian authorities. Romanian specialists estimated that, under the circumstances, they couldn't accurately assess the necessary investment funds in order to immediately rebuild the railway infrastructure [4].

The big problem for the future strategy on the development and modernization of the railway system that CFR was going to adopt was the financial support. The necessary investment expenses in order to run the development and modernization programs could not be ensured out of domestic resources – both CFR and Romanian capital ones – , which compulsorily required foreign loans. Foreign loans were affected by a series of risks generated by, the large capital CFR needed, the long-time recovery of the invested capital, as well as by the political and economic status of post-war Romania [4].

The late start of the modernization and development process of the Romanian railway system, during the second half of the '50s, can be explained, in our opinion, through two major causes: Romania's post-war status, it being influenced by the Soviet Union, which made it impossible

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for the Romanian state to be able to access Western funds, as well as the structure of Romania's economy, which did not allow for the speeding of the recovery and reimbursement process of the invested capital, since the CFR traffic was mainly (90%) made up of mass merchandise (wood, cereals, oil, etc.) which, in large amounts, accounted for a relatively low value.

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# Aspecte privind situația căilor ferate române în primii ani postbelici

#### Rezumat

Infrastructura de transport din România era grav afectată de distrugerile provocate în timpul celui de-al Doilea Război Mondial. Refacerea sistemului feroviar național era o prioritate absolută datorită faptului că transportul pe calea ferată asigura aproximativ 70% din întreaga activitate de transport. Procesul de dezvoltare și modernizare a căilor ferate române necesita mari investiții de capital și desfășurarea sa în mai multe etape.