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The attitude of the tsarist authorities towards railway – consequences for the Polish lands (until 1879). Jan Gottlieb Bloch's "new" perspective^{*}

Zarys treści: Artykuł przedstawia i analizuje poglądy Jana Gottlieba Blocha na temat wpływu carskich rządów na rozwój sieci kolejowej na ziemiach polskich pod zaborem rosyjskim (do roku 1879). Pierwsza część opracowania poświęcona jest ukazaniu, w ogólnym zarysie, zmiennego stosunku carów do budowy kolei na terenie imperium rosyjskiego. Następnie przedstawiona została specyfika i uwarunkowania budowy kolei w Królestwie Polskim. W dalszej kolejności zaprezentowano poglądy i wyniki badań Blocha na temat wpływu władz rosyjskich na kształt sieci kolejowej na ziemiach polskich. Wymieniono i opisano projekty dróg żelaznych przedkładane władzom rosyjskim przez krajowych i zagranicznych przedsiębiorców, które nie otrzymały akceptacji. Tym samym powstał obraz "straconych szans" – linii kolejowych, które powstałyby, gdyby nie sprzeciw władz rosyjskich. Wnioski płynące z badań Blocha nie stoją w sprzeczności z dość powszechnym w literaturze przedmiotu poglądem o negatywnym wpływie władz carskich na rozwój kolei na ziemiach polskich pod zaborem rosyjskim. Badania Blocha idą natomiast o krok dalej – pokazują wymierny obraz strat, jakie wywołała carska polityka "kolejowej pustyni" dotycząca ziem polskich.

Content outline: The article presents and analyses Jan Gottlieb Bloch's views on the influence of tsarist rule on the development of the railway network in the Polish lands under Russian rule¹ (up to 1879). The first part of the study is devoted to showing, in general, the tsars' changing attitude towards the construction of railways in the Russian Empire. The specifics and conditions of railway construction in the Kingdom of Poland are presented. Bloch's views and research results on the influence of the Russian authorities on the shape of the railway network in the Polish lands are then presented. Iron road projects submitted to the Russian authorities by domestic and foreign entrepreneurs, which did not receive approval, are listed and described. Thus, a picture emerges of "missed opportunities" – railway lines that would have been built

¹ In this article, I use the term 'Kingdom of Poland' interchangeably to describe the Polish lands under Russian rule in the nineteenth century.



^{*} This text is based in part on research presented in my book in Polish: A. Pieczewski, Samodzierżawie a rozwój gospodarczy Królestwa Polskiego w ujęciu Jana Gottlieba Blocha (Łódź: Wydawnictwo Uniwersytetu Łódzkiego, 2019).

had it not been for the specific policy of the Russian authorities. The conclusions of Bloch's research do not contradict the common view in the literature on the negative influence of the tsarist authorities on the development of railways in the Polish lands under the Russian partition. Bloch's research, however, goes a step further – it shows a measurable picture of the losses caused by the tsarist policy of a "railway desert", particularly referring to Polish lands.

Słowa kluczowe: Rosja, Królestwo Polskie, kolej żelazna, Bloch, XIX wiek

Keywords: Russia, Kingdom of Poland, railway, Bloch, nineteenth century

Introduction

Russia was a backward country in the nineteenth century compared to most European states.² This backwardness was not only economic – it was universal. It manifested itself in the social, cultural, and political spheres. In the cultural and social spheres, it was displayed by illiteracy, high alcohol consumption, a high mortality rate, a low level of medicine and lack of access to treatment for a vast part of the population, and a lower position of national minorities and women. This political backwardness is explained by the existence of a highly autocratic system of government throughout the nineteenth century and the absence of, or very weak manifestations of, civil society. All these signs of backwardness were complementary and self-sustaining systems – one existed thanks to the others.³

In modern Russia, for centuries (until the early twentieth century), social groups had not developed or were too weak to provide effective political competition to the tsarist power. Therefore, strong central governments monopolised the discussion of economic issues as well. Not only did the government decide on the socioeconomic system, but it also regulated markets, monopolised certain areas, decided on investments, opened up to foreign goods, and licensed and issued permits for certain activities, including the construction of railroads.⁴

The Russian government referred to economic modernisation (which undoubtedly included railroad construction) through its impact on the power and modernity of the armed forces.⁵ The doctrines relating to the construction of railroads and the directions of government action behind them were changing and were the

² A. Gerschenkron, grading European countries in terms of modernity and backwardness, placed Russia at the end of this continuum as the most backward country, see: A. Gerschenkron, *Economic Backwardness in Historical Perspective* (Cambridge, 1962), p. 21.

³ Y. Kotsonis, Making Peasants Backward. Agricultural Cooperatives and the Agrarian Question in Russia, 1861–1914 (New York, 1999), p. 5.

⁴ A. Pieczewski, Samodzierżawie a rozwój gospodarczy Królestwa Polskiego w ujęciu Jana Gottlieba Blocha (Łódź, 2019), p. 112.

⁵ A. Gerschenkron, 'Agrarian Policies and Industrialization: Russia 1861–1917', in: *The Cambridge Economic History of Europe. The Industrial Revolutions and After: Incomes, Population and Technological Change*, ed. H.J. Habakkuk and M.M. Postan, vol. 6 (Cambridge, 1966), p. 708.

product of many factors. Among these, the most important were the personality and views of the monarch, the beliefs and mindset of the environment that surrounded him, and the interests of the nobility and the state administration. Internal social pressure and the pressure of international competition were also important.⁶ The railroad, however, had always held a special place in the opinion of the Russian authorities. It was feared as a means of transporting people and ideas that threatened the political system, or it was seen as a key to the empire's economic and military power.

A particular case in the railroad plans of the tsars was the Polish lands under Russian annexation. For almost the entire nineteenth and early twentieth centuries, most Polish lands were within the borders of the Russian Empire. At different times, the degree of political and administrative integration of the Polish lands with Russia varied. The formal dissimilarity of the political system and state administration of the Kingdom of Poland in the years 1815-30, which was then strongly limited in the inter-insurrection period 1831-64, did not protect the governmental structures of the Kingdom of Poland from the influence of Russian authoritarianism. The Russian monarch did not respect the rights granted to the Kingdom of Poland – the Russian principle of power triumphed over the principle of law prevailing in Polish political culture. The Polish authorities, enjoying varying degrees of autonomy at different times, could act as much as St. Petersburg allowed them to. In cardinal matters (e.g. the demarcation and construction of railroads) so crucial for the development of the economy and society, the tsar had the final say. After the January Uprising, the Kingdom of Poland was stripped of all autonomy and incorporated into the Russian Empire. The power structures were incorporated into the Russian administration system, and despite some differences and dissimilarities from the hegemon model, they were an integral part of the tsarist administration. Their main task was to guard the integrity of the empire. They also served the economic and fiscal exploitation of the Kingdom of Poland, rarely considering the interests of society and its right to economic and civilisational development.⁷ Additionally, geopolitical and military considerations were important determinants of the construction of railroads on the territory of the Kingdom of Poland. The Polish territories belonging to the Russian Empire were its western borderlands - an area naturally separating Russia proper from Prussia and Austria-Hungary.

The literature on this subject is generally aware of the negative impact of the tsarist authorities' decisions on the development of railroads in the Polish lands incorporated into the Russian Empire. Caution in the expansion of railroad lines due mainly to military considerations and the subsequent notorious rejection of numerous projects for their extension within the territory of the Kingdom of

⁶ Pieczewski, Samodzierżawie, p. 112.

⁷ Ibid., pp. 158-59.

Poland limited and delayed their economic development for decades. Even a cursory analysis of the iron road network of the Polish Kingdom and a comparison with the Prussian and Austrian partition reveals huge disproportions. In 1914, more than 50 railroad lines reached the borders of the Kingdom from the west and north, while five times fewer travelled from the Kingdom to the border towns. Only a few lines connected the Kingdom of Poland with the central districts of Russia. In the Prussian partition in 1914, one kilometre of track fell on 8.5 square kilometres, in Galicia on 19.5 square kilometres, while in the Russian partition, it fell on 36.5 square kilometres.⁸ The effects of this policy on the Polish lands under Russian rule were felt for many years.⁹ A comparison of the development of the rail network of the Polish Kingdom with other European countries yields equally unfavourable results. In terms of the ratio of the length of lines to the area of the country, the lands of the Russian partition ranked 15th out of 20 countries. In terms of the ratio of the length of railways to the number of inhabitants, the Kingdom of Poland was in a penultimate place, ahead of only the European part of Turkey.¹⁰

It is difficult to argue with these statements. The literature, however, lacks estimates relating to the quantifiable losses caused by the policy of the tsars. The observations of Jan Gottlieb Bloch $(1836-1902)^{11}$ – one of the leading builders of railroads in the Kingdom of Poland and Russia, who already in his lifetime was hailed by the press as the "king of railroads" – may be helpful in this respect. As a practitioner, he participated in this process at every stage, from the efforts to obtain concessions from the Russian authorities through acquiring adequate capital to construction to the management of already operating lines.¹² His experience as

⁸ M. Krzysica, 'Rola czynników wojskowo-politycznych w budowie kolei żelaznych w Królestwie Polskim', in: *Studia z dziejów kolei żelaznych w Królestwie Polskim (1840–1914)*, ed. R. Kołodziejczyk (Warszawa, 1970), p. 39. See: *Historia Polski w liczbach. Transport i łączność* (Warszawa, 1995), p. 95.

⁹ More on this subject, see: Z. Taylor, *Rozwój i regres sieci kolejowej w Polsce* (Warszawa, 2007), pp. 28, 30, 35, 37.

¹⁰ Krzysica, 'Rola czynników', p. 40.

¹¹ The biography of Bloch – a financier, industrialist, railroad entrepreneur, pacifist, and economist – appears in the literature: J.E. Leśniewska, Jan Gottlieb Bloch (1836–1902) i dzieje rodu (Krosno, 2020); E. Małkowska-Bieniek, Wspólnicy i rywale. Koleje życia Kronenbergów i Blochów (Warszawa, 2019); A. Pieczewski, Samodzierżawie a rozwój gospodarczy Królestwa Polskiego w ujęciu Jana Gottlieba Blocha (Łódź, 2019); Jan Bloch, pacyfizm europejski i wyobraźnia wielkiej wojny. Studia i rozważania, ed. M. Kornat (Warszawa, 2016); Jan Bloch (1836–1902). Capitalist, Pacifist, Philanthropist, ed. A. Żor (Warszawa, 2015); Jan Bloch (1836–1902). Kapitalista, pacyfista, filantrop, ed. A. Żor (Warszawa, 2014); id., Figle historii (Toruń, 2005); R. Kołodziejczyk, Jan Bloch (1863–1902). Szkic do portretu 'króla polskich kolei' (Warszawa, 1983); A. Bocheński, Wędrówki po dziejach przemysłu polskiego, part 2 (Warszawa, 1969); id., Niezwykłe dzieje przemysłu polskiego (Warszawa, 1985); and articles by J. Bugajski, R. Kołodziejczyk, E. Małecka, A. Pieczewski, R. Szubański, and A. Werner.

¹² See more on this subject: W. Zuziak, 'Przedsiębiorca kolejowy Jan Gotlib Bloch (1832–19020)', in: *Studia z dziejów kolei żelaznych*, pp. 188–216.

a railway entrepreneur led him to write a number of papers on the subject.¹³ Among them, the five-volume work *Wpływ dróg żelaznych na stan ekonomiczny Rosji* [The Impact of Iron Roads on the Economic State of Russia] stands out.¹⁴ It won First Prize at the Geographical Congress in Paris. Bloch received a knighthood for writing it in 1883.¹⁵

The aim of this work is to review Bloch's observations on the influence of authoritarian Russian authorities on the course and effects of the process of building railroads in the territory of the Kingdom of Poland. Using Bloch's elaborations, the author will try to estimate the measurable losses (measured by kilometres of railroad lines) that the anti-railway policy of the tsars brought to the Polish lands under the Russian partition.

Tsars and railroads in the Empire. General observations

When analysing the influence of tsarist authorities on the development of the Russian Empire's railroad network, it is impossible to ignore the question of the political system functioning in Russia at that time. Looking at modern Russian absolutism from the doctrinal and systemic point of view, it must be considered that the decisive factor in establishing its principles and practical functioning was the personality of the tsars – their political philosophy or even their character traits. Russia's sovereigns attempted to modernise the system to some extent (e.g. Peter I and Catherine II) or, conversely, to strengthen and rule according to orthodox principles of self-rule (Nicholas I, Alexander III). Some monarchs moved from one attitude to another during their reign (Alexander I, Alexander II). Although the system evolved, its basic ideological and political assumptions were, to some extent, timeless.¹⁶ In an autocratically ruled empire, power had the final say in economic matters, including strategic issues like railroad construction.

Bloch divided the history of railroad construction in the Russian Empire into three periods. In the first, during the reign of Nicholas I, before Russia's armed conflict with Turkey, known as the Crimean War (1853–56), hesitation and uncertainty, even about the very need to cover the country with an iron road

¹³ Among others, see: J.G. Bloch, W kwestii Drogi Żelaznej Nadwiślańskiej (Warszawa, 1874); id., O kolejach żelaznych rosyjskich, wpływach i wydatkach eksploatacji, kosztach transportu i ruchu towarów (Petersburg, 1875) (edition in Russian and French); id., Poszukiwania dotyczące sprawy poboru przez drogi żelazne opłat przewozowych w walucie metalowej (Petersburg, 1877) (Russian edition); id., Stan ekonomiczny Rossyi (Warszawa, 1878); id., 'Droga żelazna Dąbrowsko-Dęblińska pod względem ekonomicznym i finansowym', Ekonomista, 37 (1881) (Polish edition).

 ¹⁴ J.G. Bloch, Wpływ dróg żelaznych na stan ekonomiczny Rosji, vols 1–5 (Petersburg, 1878–1880) (Russian, French, and Polish edition).

¹⁵ A. Żor, Figle historii (Toruń, 2005), p. 288.

¹⁶ L. Jaśkiewicz, 'Nowożytne samowładztwo rosyjskie i jego interpretacje. Przyczynek do dziejów absolutyzmu w Rosji', *Przegląd Historyczny*, vol. 70, no. 4 (1979), 679–80.

network, as well as inexperience and enormous mismanagement were characteristic of the tsarist authorities when the construction of the first lines began.¹⁷ It is worth noting that in the beginning, a large part of the Russian ruling elite was against the construction of railroads, fearing, above all, the social consequences that might arise from the movement of people within the country, let alone abroad. Most Russian society at the time lived in the villages, having no idea what was happening around them. Their only sources of information were government propaganda in the form of news from the censored press and gossip. The movement of people would mean the movement of ideas, and those ideas, especially those concerning the construction of a society other than a feudal one, were feared most by the authorities. Therefore, the tsar did not realise how vital the development of rail transport was to the empire. In the second period (i.e. after the Crimean War until 1865), there was already a full awareness among the tsarist authorities of the need to build an extensive network of iron roads supported by military and economic considerations.¹⁸ However, the poor condition of the tsarist state budget and credit system made it impossible to carry out this project to a satisfactory extent. The state hoped foreign entrepreneurs would provide the necessary capital, but these hopes did not materialise, and the government began to carry out minor investments at its own expense.¹⁹ In the third period (from 1865), thanks to the experience already acquired with difficulty by the authorities and entrepreneurs, the change in the method of licensing the construction of railroad lines²⁰ and their

¹⁷ The construction of iron roads in Russia began as early as 1836 with the line from St. Petersburg to Pavlovsk. Then (1842) the construction of a line from St. Petersburg to Moscow was approved (the so-called Nikolaevsky Railroad). Its construction took as long as eight years, and the initial assumption of the self-financing of the project proved to be a pipe dream. The actual construction costs were much higher than the initial cost estimates. Bloch gives an example of major mismanagement: "On the Nikolayev Railway, expenses for gravel paving the road averaged 7.8 thousand rubles per headland, and for laying the road [rails] 3.5 thousand rubles. And on the four newest roads built with share capital [...], the cost of graveling was 1.6 thousand rubles, and laying the road 0.28 thousand rubles", Bloch, *Stan ekonomiczny Rossyi*, p. 75.

¹⁸ As Bloch wrote: "The results achieved in the construction of the Nikolaev road could not [...] be an incentive for the construction of new railroads; the matter was raised again only when the course of the Crimean war had proved how disadvantageous the conditions were for a country with large areas, when it had to defend its own borders. [...] it was clear that the inadequacy of Russian waterways, frozen for half of the year, impeded by shoals in mid-summer, and with their mouths in places least favourable to export trade, would always impede the development of the national economy", ibid., pp. 73, 76–77.

¹⁹ On the initiative of the authorities, a joint-stock company called the Main Russian Railway Company was established in 1857. It was composed of prominent foreign banking houses, and its task was to build a network of iron roads with a total length of 4000 *viorst*. However, it failed to raise sufficient capital. The same fate befell the subsequent concessionaires despite a 5 per cent guarantee of profits by the government. See: ibid., pp. 76–86.

²⁰ In addition to joint stock railroad companies, Russian *zemstva* (a type of local government – the representation of citizens in governorates and districts) became another concessionaire. The government was eager to grant them concessions. As a rule, these companies did not build

financing, as well as the capital found in the money markets of France, Prussia, and then England, the so-called railroad boom took place in the Russian Empire.²¹ The economic benefits of rail transport also began to emerge.²²

Bloch's observations are in line with those of contemporary transport historians. Alfred Wielopolski points out that the full awareness and conviction of the need to build railroads among the Russian ruling elite did not occur until the late 1860s and early 1870s, i.e. during the reign of Alexander II (end of the Crimean War - 1856, abolition of serfdom in Russia - 1861). However, budget deficits, a chronically negative balance of payments, and the weakness of Russian bonds in international financial markets effectively impeded the railroad construction process. The tsarism, therefore, created numerous facilities for railroad companies. High estimates of projected construction costs and the level of necessary share capital were accepted, high-interest rates on railroad paper were guaranteed, and distant dates were set for the redemption of railroads by the state. It was also tolerated that railroad securities were placed on foreign financial markets at sometimes significantly lower prices, that construction work was entrusted to foreign companies, and that imported railroad equipment was overpaid. Rescuing railroad companies threatened with bankruptcy from the state budget by taking them over or cancelling their debts was common. Wielopolski emphasised that this system, in which the railroad companies' liabilities were charged to the state treasury, was only seemingly a system of private capitalist enterprise. It opened the door to a somewhat chaotic railroad economy and numerous speculations. The granting of concessions was governed by its specific laws and depended on the "relations" the applicant had with the tsarist mansion.²³

Bloch emphasised that the very method of concessions used in the Russian empire increased the transaction costs of the entire railroad construction process. This is because the granting of concessions was accompanied by corruption, ubiquitous in the Russian administration, in this case on a grand scale – appropriate to the scale of the railroad undertakings. Bloch wrote:

railroads but resold the concessions to private companies at a considerable profit. See: ibid., p. 89, passim.

²¹ First of all, bond issues were added to the forms of capital raising, in addition to the release of shares. It was also decided to use foreign money markets. When, due to a lack of confidence in Russian paper, the French and English markets were inaccessible, they turned to Prussia and issued bonds in that currency. Russian entrepreneurs raised capital in this way despite the enormous handling costs. Later, the English money market also became more gracious, and funds began to be obtained from it, not always in a clear way, taking advantage of the confusion accompanying the general fever. Bloch wrote: "The English, knowing little about the Russian lands, could not tell from the prospectus whether the bonds were based on the surety of the lands themselves, or whether the government would guarantee them", ibid., pp. 87–89, 92–95 and 100.

²² Ibid., pp., 73–109.

²³ A. Wielopolski, Zarys gospodarczych dziejów transportu do roku 1939 (Warszawa, 1975), pp. 245-50.

The most widespread granting of concessions to the landowners proved to be the least accurate. This is because the estates were [...] only an intermediary, costly for the state, and generally inept, between the treasury [of the state] and the main entrepreneurs, the so-called concessionaries. In addition to this, there were other disadvantages to this method of proceeding: the influence of the wealthy and, in general, the so-called "relations" began to exert such a strong and even dangerous influence on the dignity and credit of the state when landowners applied for concessions that the government decided that it was necessary to establish and promulgate permanent rules for issuing railroad concessions by auction. [...] To get rid of institutions, procedures and projects aiming only at profits in the construction industry, the government decided to replace the state treasury's guarantee of the capital stock with the participation of the lands applying for a concession [...] to unite them with the railroad companies and take a real interest in their success.²⁴

The system of concessions, in which everything depended on officials, fuelled corruption and thus increased the cost of railroad construction. It should also be added that winning concessionaires significantly overestimated the cost of building railroads. The auction system was introduced later and exposed the abuses. Bloch commented: "But as the beginning of a new era of railroad construction in Russia, the company of the Libava railroad, obtained by auction [...] and at which auction the remarkably low prices and favourable conditions given, revealed to the government for the first time what the reliable costs of building iron roads were".²⁵

Tsarist authorities and the railroads in the Kingdom of Poland

The construction of railroads in the territory of the Kingdom of Poland, as an element of the tsarist empire's railroad system, had numerous conditions, ranging from market conditions, such as the issue of acquiring the necessary – and, I should add, large – capital, to purely administrative and political conditions. Already at the beginning of the history of railroad construction, the Polish Kingdom authorities, in contrast to their sovereign in St. Petersburg, had no doubts about the positive impact of railroads on economic and civilisational growth. Even the governors of the Kingdom, appointed by the tsars and represented them, usually supported and recommended railroad projects in the Polish lands before them. However, the primary decision-makers regarding railroad construction on the Kingdom of Poland's territory were the Russian Ministry of Communications and the Ministry of War. Dependence on tsarist Russia, which had the final say on whether and where to build railroads, left a visible mark on the pace of construction and the shape of the railroad network in the Russian partition.

Unfortunately, although the Kingdom of Poland was the best developed and most industrialised part of the Russian Empire, geographically and militarily,

²⁴ Bloch, Stan ekonomiczny, pp. 102-03 and 98.

²⁵ Ibid., p. 103.

it was the western border of the superpower – for the authorities in Petersburg, "the western periphery" – the theatre of possible military operations, which were to take place far from Russia.²⁶ Thus, Russian war strategists, fearing invasion by the Prussian army, blocked numerous applications for concessions to build railroads west of the Vistula River for decades. Military arguments were supplemented by economic considerations: they did not want the construction of numerous iron roads in the highly industrialised, by Russian standards, Kingdom of Poland to siphon off needed capital to build railroads across vast areas of Russia. There is quite a general consensus in the professional literature that adherence to the "railroad desert" doctrine had decidedly negative consequences for developing rail transportation in the Polish lands.

The circumstances of the construction of the lines established on the territory of the Kingdom of Poland are well explained in the Polish literature. What is missing is a condensed picture of the "lost opportunities". Thanks to Jan Bloch's elaborations, we can now know how many kilometres of iron roads could have existed (until 1877) if there had not been the tsar's *niet* (no).

In the period of railroad construction described by Bloch (until 1879), many necessary projects, especially for economic reasons, of iron road construction were submitted to the Russian authorities. Private entrepreneurs submitted them.

Their plans were guided by future profitability, so they took into account the construction of the most freight- and passenger-intensive routes. Thus, in a way, the railroad could naturally integrate the Kingdom of Poland areas economically and contribute to their economic and civilisational development. Almost the only obstacle to realising the railroad entrepreneurs' intentions was the resistance of the Russian authorities. Other prerogatives guided them. The most important of these were the already mentioned military considerations and the interests of the railroads of the entire empire. Bloch's description of uncompleted railroad projects sheds light on the scale of restrictions imposed by the tsarist administration and, thus, on the extent of the "lost opportunities" or the many years of delay in the construction of the railroad network caused by the deliberate delay of the

²⁶ The Kingdom of Poland territories were, for the Russian military, the area that separated the West from Russia. It was there that Russia, but also Prussia and Austria, planned to play out possible wars. The content of the Russian strategy could be put in words: "To keep the enemy away from the borders, and in the meantime to mobilise and supply additional forces from the centre of the state". The strategic importance of the Polish territories was based on the high value of the Vistula and Narew rivers as natural water barriers. The left bank of the Vistula River was the most suitable area for military operations. Therefore, the Polish territories were adapted to the requirements of this strategy. Therefore, the area stretching from the left bank of the Vistula River was treated differently from the area on the right bank. The right bank was adapted as a backup area for the future front, while the left bank was used as a training ground for military operations. See more on this subject: J. Frejlich, *Królestwo Polskie jako teren strategiczny* (Warszawa, 1911), p. 21, passim; id., *Dyslokacja wojsk w Królestwie Polskim* (Warszawa, 1921), p. 40.

Russian administration. This clearly shows the direct influence of the decisions of the Russian state on the development of rail transport within the Kingdom of Poland – indirectly, however, given the multiplier effect of railroad investments on the economic and civilisational development of the entire partition.

The history of the mining iron road projects (connecting Piotrków and Sandomierz, Dąbrowa and Ivanogrod (Polish Dęblin), and Koluszki and Ivanogrod) began in 1856, when a French company, which intended to lease the government iron factories, came up with the idea of running a line to connect the mining districts. However, the contract was not fulfilled.

Then (1860), the initiative to build a road from Piotrków to Sandomierz came from the inhabitants and the magistrate of the latter. The Administrative Council of the Kingdom of Poland, having decided that the construction of this line was in the best interest of the Warsaw–Vienna Road Company, instructed it to consider the matter. The Company, while admitting that the construction of the line would contribute to the development of agriculture and the mining industry in the south-eastern parts of the Kingdom and to the revival of trade, nevertheless pointed out the difficulty of raising the necessary capital for its construction. After this refusal, further initiatives were taken by Herman Epstein (1862), Jan Bloch (1867 – construction of a road from Piotrków through Szydłowiec to Ostrowiec), and a group of entrepreneurs consisting of Margrave Zygmunt Wielopolski, Władysław Laski, Mieczysław Epstein, Leon Epstein, Antoni Fraenkel, and Antoni Laski (1868). In 1868, Jan Bloch joined this group of entrepreneurs, and they applied for a concession together. Despite the favourable opinion of the Governor of the Kingdom, the Russian Committee of the Iron Roads decided in a decree dated 14 November 1868, that the Piotrków-Ostrowiec Road was only of local and not national importance and deemed its construction premature.²⁷ Bloch did not give up, and in 1869, he proposed the construction of the Sandomierz Railway with a narrow gauge. However, even in this form, despite offering an extremely low price, the Piotrków–Ostrowiec road could not be realised for reasons of a political and strategic nature, as explained by the Russian authorities.

Besides military considerations, constructing eight great lines in the Empire was a priority for the tsarist authorities. There was, then, a pause in this mining line. In 1872, the Minister of Communications presented the Iron Roads Committee with a project to include in the list of lines to be built some 1,370 *viorst* (1,461.5 km) located on both the right and left banks of the Vistula.²⁸ The tsar, in cooperation

²⁷ J.G. Bloch, Wpływ dróg żelaznych na stan ekonomiczny Rossyi, vol. 1: Historya dróg żelaznych w Królestwie Polskim. Budowa i eksploatacja (Warszawa, 1880), pp. XXV–XXVII.

²⁸ The following routes were to be built on the right bank of the Vistula River: from Warsaw to Mława, from Warsaw through Ivanogrod (Dęblin) and Lublin to Tomaszów, from Ivanogrod to Łuków, from Lublin to Kowal, from Lublin to Józefów on the Vistula (a total of 632 *viorst*, or 674 km). The following lines were to run on the left side of the Vistula: from Ivanogrod to Kraków with a branch to Dąbrowa, from Józefów, through the mining plants in Radom province,

with the Governor of the Kingdom, approved (on 19 January 1873) the construction of an iron road from Kowale through Ivanogrod, Warsaw, and Novogeorgievsk (Polish Modlin Fortress) to Mława, totalling 473 *viorst* (504.6 km). He approved this decision on 8 February 1873. The construction of the line on the right bank of the Vistula was considered premature, with opponents arguing that the decision was based, on the one hand, on the inadequacy of means to defend the right bank and, on the other, on the fear that numerous railroad investments in the Kingdom would significantly increase the cost of railroad construction throughout the empire.²⁹

Between 1873 and 1879, the attitude of the Russian government towards constructing this line (in the various variants of its route that were considered) constantly changed, at times giving the future concessionaires hope for its imminent realisation, at others dismissing the decision. The War Ministry had much to say on this matter. For example, on 25 June 1875, the Minister of War notified the Minister of Communications that, in his opinion, new roads on the left bank of the Vistula should have the same track width as in the Empire, i.e. five English feet. He justified this on strategic grounds, as the adoption of this gauge would enable wagons to pass from the right bank of the Vistula to the left without hindrance, facilitating the army's manoeuvres. When the Ivanogrod-Dabrowa Iron Road project took this comment into account, the War Ministry made a new demand. This time, the pressure was to change the direction of each line, both the one from Ivanogrod to the Austrian border and the one to Koluszki, so that it passed through a tunnel in a location that the enemy could not bypass. When, in the course of negotiations, the War Ministry agreed to one tunnel on the line from Ivanogrod to Dabrowa, it seemed that the last obstacle had been removed. Negotiations then began with the Fabryczna-Łódzka Road Society (railroad from Łódź to Koluszki) as a potential contractor. The Warsaw-Vienna Iron Road Society also submitted a competitive bid to the government. Ultimately, Bloch's company won. However, things were not moving forward. Even the presentation of a memorandum from the governor to the tsar in October 1876, stating that the construction of this railroad line was necessary, which the tsar approved, did not help. The outbreak of the Eastern War (or Russo-Turkish War, 1877-78) further halted the process. Efforts made after the end of the conflict were also unsuccessful. In June 1879, the Governor of Warsaw, acting at the request of citizens and mining company owners in the Radom Governorate, submitted a memorandum to the tsar recommending the construction of such an important road for the country. The ministries of communications and finance, however, found it impossible to support this project.³⁰

to Koluszki, from Łódź to Kalisz and a branch from Sieradz to Wieruszów, from Kutno to Słupca (a total of 738 *viorst*, or 787 km); see: ibid., pp. XXVIII–XXIX.

²⁹ Ibid., pp. XXVIII–XXIX.

³⁰ Ibid., pp. XXX-XXXIII.

After the opening of the Fabryczno-Łódzka Road, it became natural to want to build further connections for the dynamically developing industrial centre of Łódź. The main connection was the project of an iron route between Łódź and Kalisz with a branch line to Wieruszów. Unfortunately, for several years after the opening of the Łódź-Koluszki connection, the issue of building further roads was closed. The reason was the decision of the Minister of War, approved by the Tsar, according to which no new railroad lines could be built on the left bank of the Vistula until the railroad network was developed on the right bank. Only after the construction of the Nadwiślańska Road could there be hope for a concession. There was little hope, as in the opinion of the Minister of War, it was of little strategic importance. The governor raised the issue of this line in September 1876, indicating its great importance for the country's economy in a proclamation to the Ministry of Communications. The Governor argued that the line, passing through the most fertile part of the country, was essential to the growth of agriculture and the well-developed industry there but would also provide the most accessible route from Lower Novgorod through Moscow to Leipzig. He added that as proof of its importance and expected profitability, several contractors had already been found to undertake its construction without government guarantees. As a result of the memorandum, the issue of the line from Łódź to Kalisz with a branch to Wieruszów was discussed at a meeting of the Committee of Ministers, which concluded that there were no obstacles to the construction of this road. The Prussian government was also keenly interested in its construction. The Committee of Ministers permitted the Ministry of Communications to begin negotiations with the applicants for the concession. Several conditions were imposed on the future concessionaire, such as, among others, the absence of government guarantees and the assurance that no loans or other support would be sought from the authorities during the road operation. The monarch approved the decision of the Committee of Ministers on 20 November 1878. In this situation, the voice of the Minister of War prevailed: "[...] the road will not be built soon, for the reason that given the other strategic roads built by Prussia, surrounding the Russian state borders, as well as the extraordinary reinforcement of such fortresses as Toruń and Królewiec, the Kaliska road, together with others on the left bank of the Vistula, if not used for an attack in case of war, [...] would present a danger of facilitating enemy movements".³¹ The project did not come to fruition until a quarter century later.³²

The concept of running a railroad line through the industrial cities of Łódź, Zgierz, and Ozorków had a long history, as the first draft of the Warsaw–Bydgoszcz road laid out its route through these cities. However, Łowicz was chosen as the

³¹ Ibid., p. XXXV; see also: ibid., pp. XXXIV-XXXVI.

³² See more on this subject: W. Leszkowicz, Kolej Kaliska. Budowa. Eksploatacja. Znaczenie dla przemysłowego rozwoju, in: Studia z dziejów kolei żelaznych, pp. 145–85.

t raised until 1

starting point of the route to Bydgoszcz, and the line issue was not raised until 1872. In March 1873, the Fabryczno-Łódzka Iron Road Society applied to the Minister of Transport for a concession for a line from Łódź through Zgierz and Ozorków to Ostrów on the Warsaw-Bydgoszcz route. Despite the attitude of the Governor of the Kingdom - Count Berg, who was favourable to the project - the matter did not move forward, as at that time, the concession for the Vistula Road, considered by the tsarist authorities to be the most crucial road in the Kingdom, had not yet been issued. When the concession had already been issued, a request for a permit was renewed, at least for a part of the road from Łódź to Ozorków. It was pointed out that the line would not be costly due to the favourable lie of the land. The Russian Ministry of Finance, however, based on the opinion of the War Ministry, gave a negative reply in April 1875. It argued that the line was of purely local importance. The Fabryczno-Łódzka Iron Road Society received a similar answer in October 1875.33 As Bloch wrote, "The war accidents of the time and the government's apparent reluctance to build new lines, especially on the left bank of the Vistula, do not allow us to expect the imminent realisation of this construction".³⁴

The iron road from Kutno to Słupca was qualified for construction by the Russian Ministry of Communications in June 1872. However, the Iron Road Committee considered it premature and allowed only preparatory studies to be conducted. When these were completed in 1874, the Warsaw–Vienna and Warsaw–Bydgoszcz iron road associations applied for a concession to build it. The Ministry of Communications supported the project, arguing that it was economic. The line would, among other things, shorten the route and reduce the cost of transporting goods from central Russia to northern Germany; moreover, it would destroy the monopoly of the Prussian-Eastern road on setting freight tariffs for goods entering Germany. Despite strong economic arguments, the road was not qualified for implementation for reasons of the nature mentioned above.³⁵

Requests for approval were also submitted to the Russian authorities for the construction of four minor iron roads: from Częstochowa to Herby (1865), from Olkusz to Sosnowiec (1869), from Lublin to Tomaszów (1879) and from Koluszki to Tomaszów (today: Mazowiecki) (1879). None of these projects received approval at the time.³⁶

To sum up, we can use a rather obvious statement that the Russian authorities, having the right to issue concessions and the possibility of financial aid for investors, had a decisive influence on the development of the railroad network in the Kingdom of Poland. This influence is assessed in the literature as unfavourable.

³³ Bloch, Wpływ dróg żelaznych, pp. XXXVI–XXXVII.

³⁴ Ibid., p. XXXVII.

³⁵ Ibid., p. XXXVII.

³⁶ Ibid., pp. XXXVIII–XXXIX.

Year	The iron road	Length of designed roads (in km)	
		Given line	Total
1860	Piotrków-Sandomierz	181.3	181.3
1865	Częstochowa-Herby	27.7	209.0
1866	Łódź–Kalisz	106.7	315.7
1867	Piotrków–Ostrowiec	151.5	467.2
1869	Olkusz–Sosnowiec	22.4	489.6
1872	Kutno–Słupca	100.3	589.9
1873	Łódź-Ostrów	71.5	661.4
1875	Dąbrowa–Ivanogrod (Dęblin) – the first project: Koluszki–Ivanogrod with a side road to Dąbrowa	476.9	1,138.3
1879	Lublin–Tomaszów	119.5	1,257.8
1879	Koluszki–Tomaszów	27.7	1,285.5

Table 1. "Missed Opportunities" – unrealised iron road projects in the Kingdom of Poland until 1879 due to the lack of consent of the Russian authorities (The table contains the names of towns used in the second half of the 19th century.)

Source: J. Bloch, Wpływ dróg żelaznych na stan ekonomiczny Rossyi, vol. 1: Historya dróg żelaznych w Królestwie Polskim. Budowa i eksploatacja (Warszawa, 1880), pp. XXV–XXXIX.

Bloch's statements are not original in this respect. However, we can learn more about the scale of this negative influence thanks to Bloch's calculations. Bloch calculated that between 1845 and 1877, 1476 km of railways were built in the Kingdom of Poland.³⁷ However, this length could be increased by an additional 1285.5 km, almost as much again! Thanks to Bloch, one can clearly see, one might say, "in kilometres", the effects of the tsars' policy on the development of railroads in the Polish lands under Russian annexation. However, the consequences of the tsarist policy are not only kilometres of unbuilt lines. It also means less economic growth, which the multiplier effect of investments, unused labour force, less trade, etc. would have generated. It should also be emphasised that the built lines mostly connected the Kingdom with the "Russian centre" and not with the West, with which the Polish lands were naturally linked in economic and cultural terms. Bloch's calculations provide valuable preliminary material for further research and simulations for economic historians, especially those specialising in cliometrics.

³⁷ By 1877, the following iron roads had been built in the Kingdom of Poland: Warsaw-Vienna (346.6 km), St. Petersburg-Warsaw (258.1 km), Warsaw-Bydgoszcz (147.2 km), Łódź-Koluszki (27.7 km), Warsaw-Terespol (207.9), Terespol-Brześć (6.2 km), Brześć-Grajewo (30.0 km), Vistula River Railroad (452.3 km); see: ibid., p. 2.

Bloch's observations are consistent with later historians' conclusions. As Mieczysław Krzysica emphasised, the Russian authorities never considered the needs of the inhabitants of the Kingdom, who demanded the construction of this or that railroad line. Their realisation occurred if they coincided by chance with the assumptions of the empire's all-power policy. When they were finally built, economic considerations were of secondary importance, while military issues took priority.³⁸ The principle was, not only not to give permission to build a broadgauge railroad³⁹ on the left side of the Vistula, but not to give it at all. Following this policy, until the outbreak of the First World War, permission was granted to build only two lines on the left bank of the Vistula. These were the Warsaw-Kalisz Railway (completed in 1903) and the Herby-Kielce Railway (completed in 1911). Obtaining a concession to build a railroad on the left bank of the Vistula River was downright impossible. Russian strategic plans did not permit it. Requests motivated by economic needs or even the prospect of increasing the Russian state's income through economic growth stimulated by the development of the railroad meant nothing. A notable example was the industrial city of Łódź, which sought permission to build a railroad connection for years.⁴⁰

Bloch's analyses cover the period from 1845 (the start of the construction of the first railroad line in the Russian partition: Warsaw–Vienna) to 1879. It should be added that later, due to the policy of "railroad desert", the Polish lands were also bypassed by the great "railroad boom", which started in the last decade of the nineteenth century and lasted until the outbreak of the October Revolution in the Russian Empire. This further enlarges the picture of the economic and civilisational losses suffered by the Polish lands.

Conclusion

In the nineteenth century, the European areas of the Russian Empire were among Europe's most economically and socially backward lands. This was accompanied

³⁸ As Mieczysław Krzysica wrote, "The Kingdom of Poland was a [Russian] fortress in itself, cut off from the east and west by the lack of a sufficient number of railroad connections, and the whole thing constituted a kind of Maginot line defending access to Russia. [...] The Polish railroad lines were built to connect large fortresses or to run close to them", Krzysica, 'Rola czynników', p. 17.

³⁹ The different widths of the railroad tracks in the Kingdom of Poland indicated the importance the authorities attached to the line. Lines of primary importance had the so-called wide track (1523 mm) characteristic of Russian railroads. Lines of secondary importance were 'normal-track', i.e. the gauge was 1435 mm, the so-called western standard. The right bank was dominated by the 'wide track' connecting Poland with the centre of Russia, and the left bank by the 'normal track' connecting the lands of Poland with Prussia and Austria. See more on this subject: T. Kociałkiewicz, *Stan sieci kolejowej Królestwa Polskiego przed wojng 1914 r.* (Warszawa, 1914), p. 3 and passim.

⁴⁰ Krzysica, 'Rola czynników', pp. 12–15.

by political backwardness manifested in the existence and functioning of a highly authoritarian political system. In the Russian political system, the monarch had the decisive voice in important economic matters, which undoubtedly included the construction of iron railroads. The tsars' attitude towards railroads varied from initial apprehension and reluctance to the enthusiasm of the authorities, which manifested itself in the so-called "railroad boom" that began in the late nineteenth century.

The Polish lands that came under tsarist rule in the nineteenth century enjoyed varying degrees of freedom at different times: from relative autonomy during the period of the Kingdom of Poland (1815–30) through limited autonomy in the period between uprisings to complete incorporation of the Polish lands into Russia after the January Uprising. Despite the varying degrees of economic discretion, questions of railroad construction remained invariably within the competence of the tsarist authorities throughout Russian rule. Moreover, strategic and military considerations meant that the tsars' changeable attitudes to the question of railroad construction did not apply to Polish lands. In this case, the doctrine was unchangeable: to minimise the construction of railroads on the western side of the Vistula.

The Russian doctrine of the "railroad desert" had negative consequences for the economic and civilisational development of the Polish lands belonging to the Russian Empire. This view is commonly held in the literature. Bloch's observations are similar, but they go a step further. In his considerations, he presented railroad projects submitted to the Russian authorities and not accepted by them as so-called "lost opportunities". According to Bloch's calculations, 1476 km of railroads were built on the territory of the Kingdom of Poland by 1877. Potentially, around 1880, the length of railroad lines could have been 1285.5 km longer had it not been for the objections of the Russian authorities. It should be emphasised that the projects considered and analysed by Bloch were formal requests to the authorities for permission to build railroad lines, supported by preliminary designs and accumulated initial funds. They were submitted by private entrepreneurs who considered the profitability of the projects. The planned lines were most needed from the point of view of the economic development of the Kingdom of Poland, and their construction was very likely to be carried out if the authorities agreed. Bloch closes his analysis with the year 1879. It should be added that the great "railroad boom", which began in the last decade of the nineteenth century and lasted until the outbreak of the October Revolution in the Russian empire's territories, was later omitted in Poland. This further enlarges the picture of the economic and civilisational losses suffered by the Polish lands.

Jan Bloch's studies on the Russian Empire's railroads are valuable material for historical research. The consequences of the tsarist policy are not only kilometres of unbuilt lines. It also means less economic growth, which would have been generated by the multiplier effect of investments, unused labour force, less trade, etc. The data presented in this paper can be a starting point for further in-depth research on the economic losses caused by Russian policy.

Abstract

This article aims to present Jan Bloch's views on the influence of the Russian tsars' policy on the development of railways in Polish lands and to define the contribution of Bloch's research to contemporary knowledge on the subject. The author presents a general outline of the attitude of Russian rulers to the question of railway construction in the empire and illuminates the specificity of the Polish Kingdom in this respect. Following Bloch, railway projects that did not come to fruition due to opposition from the Russian authorities are presented and described. In this way, a picture of "lost opportunities" emerges, showing how many kilometres longer the railway network of the Polish Kingdom would have been had it not been for the anti-railway policy of the tsars. Bloch's statements about the negative influence of Russian policy on the development of the railways in the Polish lands are not new. Such a view is common in the literature. However, Bloch's studies go further, showing a measurable picture of these harmful effects. They may provide a basis for further research into the influence of the policy of tsarist authorities on the economic and civilisational development of the Polish lands under Russian annexation. The literature base of this article is constituted by Jan Bloch's studies and contemporary literature on this topic.

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