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STATE INDUSTRIAL ECONOMY IN THE KINGDOM OF POLAND
IN THE 19TH CENTURY

The so-called Kingdom of Poland — created in 1815 at the Congress of Vienna on a part of the territory of the former Duchy of Warsaw and placed under the rule of the Russian Tzar — was an almost purely agricultural country. Few of the manufacturies which had been established in the course of the 18th century in considerable numbers in the royal, ecclesiastical and magnates' estates, survived the disaster of Poland's partitions. Napoleonic wars and the continental blockade, having impoverished the country, anything but favoured economic progress. Finally the Prussian customs barrier which cut off the central Polish regions from the Baltic Sea, left the country without her traditional western markets for her grain and timber, bringing in effect a rapid fall of the profitability of agriculture.

Prominent Polish statesmen and intellectuals of the times of Tzar Alexander I were fully aware of the backwardness of Polish material civilization as compared with that of the leading countries of Europe. The more far-sighted of them realized also, that in order to create a steady market for farm products and thus to build up the economic foundations of Polish statehood — though limited as it then was — economic reconstruction had to be accompanied by industrialization and urbanization.¹

But any process of industrialization in the Kingdom was bound to encounter obstacles similar to those which could be observed today in underdeveloped countries.

The most serious of these obstacles was the feudal agrarian structure. Though serfdom was formally abolished (1807) the peasant still lived under a patriarchal regime and in complete dependence on the owner of the land. He did his *corvée* on the nobleman's estate, and his own plot of land provided him with but a meagre existence, seldom leaving any surplus for sale. In this manner the bulk of the nation (almost 80 per cent of the country's total population) was practically eliminated from the market.

¹ J. Górski, *Polska myśl ekonomiczna a rozwój gospodarczy 1807 - 1830. Studia nad początkami teorii zacofania gospodarczego* [Polish Economic Thought and Economic Development 1807 - 1830. Studies on the Origins of Theory of Economic Backwardness], Warszawa 1963.

Another barrier — of particular interest here — was the lack of free capital. Obviously, the Kingdom had no such possibilities of expanding its trade as were available to the bourgeoisie of the colonizing countries. The urban middle classes, weak economically and numerically, refrained from any bolder initiatives, remaining content with handicraft production and local trade. True, at the turn of the 18th and 19th centuries a dozen or so larger banking and trading houses were founded in Warsaw, making a fortune on the deliveries for the Prussian, French, Russian and Polish armies.² But demoralized by the high profits made on war speculations, they preferred to reduce their activity to granting short term credits at usurious interest rates, rather than take the risks of industrial pioneering.

In this situation, the advocates of the idea of industrialization were compelled — at least in the initial stage — to resort to very specific sources and methods of accumulating capital — namely to those which could be provided only by the state. The ways and results of this campaign are the subject of this article.

I

From the outset the industrial activity of the government of the autonomous Kingdom of Poland took two different paths.

In the sphere of light industry — i.e. first of all in textile and then in food production — the state authorities began vigorously to encourage and support private enterprise. Supply of skilled labour was ensured by recruiting textile workers from the Poznań province (which, following the decision of the Vienna Congress, was annexed by Prussia), as well as from Silesia, Bohemia and Saxony. They were given building materials and lots on government estates and granted reductions in taxes and customs duties. Also encouraged to settle in the Kingdom were businessmen with capital of their own or, at least, with initiative and abilities. They were offered investment credits from the Treasury for the construction of spinning mills or fulling presses, and tempted by prospects of low duty exports of cloth to Russia and China. This policy has greatly contributed to the development of the Łódź textile region (wool and cotton), and to the construction of the first sugar factories, flax mills, etc.³

In the mining and metallurgical industries, on the other hand, the State entered in a somewhat different character — not as a promotor but as a direct investor and producer. In iron metallurgy the State soon became the largest producer in the Kingdom, and held a virtual monopoly in coal and zinc mining.

² B. Grochulska, *Handel zagraniczny Księstwa Warszawskiego. Z badań nad strukturą gospodarczą* [Foreign Trade of the Duchy of Warsaw. Inquiries into the Economic Structure], Warszawa 1967, pp. 136 - 141; J. Jedlicki, *Bilan social du Duché de Varsovie*, "Acta Poloniae Historica," vol. XIV, 1966, pp. 101 - 103.

³ A. Ronkowska, *Działalność gospodarcza władz Królestwa Polskiego na terenie Łodzi przemysłowej w latach 1821 - 1831* [Economic Activities of the Polish Kingdom's Government in Łódź Industry 1821 - 1831], Łódź 1951; Z. Małeckie, *Metody i formy pomocy finansowej władz Królestwa Polskiego dla powstającego przemysłu łódzkiego 1820 - 1870* [Methods and Forms of State Financial Assistance to the Developing Industry of Łódź, 1820 - 1870], Łódź 1960.

This position of a monopolist was a direct consequence of the fact that the State was the largest land-owner in the Kingdom. The so-called national estates administered by the Treasury, covered about 20 per cent of the total area of cultivated land and some 30 per cent of forest area.⁴ Furthermore, the national estates comprised areas which contained rich deposits of iron and zinc ore (*calamine*). This was true especially in the former estates of the Cracow Diocese in the Kielce and Siewierz regions, taken over by Poland's Treasury in compliance with the Sejm law of 1790. In the first half of the 18th century the largest complex of iron ore mines, blast furnaces (fuelled by charcoal) and forges in Poland had been built in the Cracow Diocesan estates in the Kielce region.⁵ At the end of the century, rich layers of coal in close-to-surface deposits had been discovered in the Siewierz area, near the border with Silesia, which abounded also in other mineral resources.

The Polish law provided that property of land included full and unrestricted ownership of everything lying under its surface. The Napoleonic Code introduced in the Duchy of Warsaw and remaining in force in the Kingdom of Poland, also recognized this principle. Thus, the government of the Kingdom had at its disposal all the raw materials indispensable for the development of metallurgy.

The utilization of these resources was, however, not a simple matter. The foundries did not really differ from dozens of similar, privately owned enterprises. Their methods of smelting and pig-iron processing were based on 18th century technology and, from the economic point of view, they were but a branch of dominion economy. The metal working industry, machine building in particular, were only in the initial stage of development and, consequently, could not have been important customers for the foundries. The building industry had not yet learnt to use iron structures. In this situation a market existed only for metallurgical semi-finished products used by small forges and smithies in the production of simple agricultural tools, nails, axes or horseshoes. Coal, hewed in small quantities exclusively for the needs of zinc mills was at that time not yet a market commodity. Any wider trading prospects, including possibilities of exports, existed only for zinc and zinc sheet. In such conditions mining and metallurgy hardly provided any opportunities for high profits from the invested capital.

Thus, enterprises of this type could have been profitable only within a feudal dominion which gave the possibility of utilizing the free, or very cheap, labour force recruited from among the peasants, with the local forests providing free building materials and fuel, the clay for the production of bricks and for the lining of the furnaces, as well as its own resources of iron ore. Naturally, this situation did not create any incentives for the modernization of such enterprises; on the contrary, it rather favoured technological and social conservatism.⁶

⁴ W. Grabski, *Historia Towarzystwa Rolniczego [History of the Agricultural Society]*, vol. I, Warszawa 1904, pp. 548 - 549.

⁵ W. Kula, *Szkice o manufakturach w Polsce XVIII wieku [Essays on Manufactories in Poland in the 18th Century]*, vol. I, Warszawa 1956, pp. 77 - 78.

⁶ K. Piesowicz, *Zakłady górnicze w Sielcach — monografia przemysłu dworskiego w polowie*

Hardly different were, at first, the economic foundations of the government-run enterprises which had been initially regarded only as a means of raising the profitability of the national estates; an attitude no different from that adopted by any owner of a larger country estate.

But the supervision over the government owned mining industry was placed in the hands of a man with a vision. That man was Stanisław Staszic, an outstanding philosopher and writer of the Polish Enlightenment and an ardent advocate of the emancipation of the urban middle classes and of the peasants.

Already an old man when appointed by Alexander I to the post of Director of the Department of Industry in the Kingdom's Ministry of the Interior, he made his main concern the development of science and the advancement of material civilization of his country. The founder of Polish geology, Stanisław Staszic dreamed of expanding the production of the country's mining resources. A large share of the profits obtained from the government's mining properties he devoted to the prospecting for new deposits of coal, calamine and iron ore. He built the first zinc mills in the Kingdom, set up the National Mining Board and founded the School of Mining in Kielce. In 1824 he submitted a plan for the construction of two large state metallurgical complexes — one in the Kielce area working on water power and charcoal, the other in the Siewierz - Dąbrowa region, working on coke. The plan was to have been carried out in 15 years, if financed from the profits accrued by the mining industry, or in 6 years, if subsidized by the Treasury.⁷

The plan advanced by Staszic was resisted from two sides. First of all, the opposition came from the gentry representatives in the Sejm. At that time the landed gentry was firmly against any industrialization, especially if it were to be financed by the Treasury; they feared that it would draw the labour force away from farming and also that it would result in increased taxation. At the 1820 and 1825 Sejm sessions the opposition strongly criticized the government's investment policy. Stating that "too many enterprises and too much expenditures have been initiated in an agricultural and so poor a country as the Kingdom," the representatives of the landed gentry demanded that the government-owned mines and mills be handed over to private owners or companies.⁸ In the then prevailing conditions such a demand could only mean the taking over of the government's industrial establishments by foreign capital — British, French or Belgian. Within the government this concept was supported by Staszic's superior, the Minister of Interior Tadeusz Mostowski, follower of the English classical economy, a liberal and an enemy of any form of industrial management by the government.

XIX wieku [The Mining Establishments in Sielce — A Monography of Manorial Industry in the Middle of the 19th Century], in: *Ekonomika górnictwa i hutnictwa w Królestwie Polskim 1840 - 1910 [Economics of Mining and Metallurgy in the Kingdom of Poland 1840 - 1910]*, Warszawa 1961, pp. 47 - 237.

⁷ H. Łabęcki, *Górnictwo krajowe [National Mining]*, "Dziennik Powszechny," 1862, No. I.

⁸ N. Gąsiorowska-Grabowska, *Górnictwo i hutnictwo w Królestwie Polskim 1815 - 1830 [Mining and Metallurgy in the Kingdom of Poland 1815 - 1830]*, in: *Z dziejów przemysłu w Królestwie Polskim 1815 - 1918 [Essays in the Industrial History of the Kingdom of Poland 1815 - 1918]*, Warszawa 1965, pp. 258 - 261.

The other opponent of the Staszic policy was the Minister of the Treasury, Prince Franciszek Ksawery Drucki - Lubecki. In the years 1822 - 1824, Lubecki carried out with an iron hand the work of putting the state finances on a healthy basis. In his striving to achieve a balanced budget and stabilize the balance of payments, he was compelled to ignore the opinion of the gentry who opposed the growth of "fiscal pressure." His initial interest in the state industry grew from purely financial reasons. He admonished Staszic for too small payments into the state Treasury from the proceeds of mining, accused him of wasteful management and of making investments without prior calculation of their financial effectiveness.⁹ In this conflict he made use of the influence and the confidence he enjoyed in Petersburg. As a result the aged Staszic handed in his resignation and, in 1825, the Mining Board was transferred from the Ministry of the Interior to the Treasury where it came under the direct supervision of the minister. But then Lubecki has suddenly made a complete *volte face* and instead of imposing the strictest economy on the state industrial enterprises he began to put into effect the old plans of the defeated Staszic, but on an even more grandiose scale.

The reason for this change of policy was that Lubecki's victory came at a time when the stabilization of the state budget had already been achieved. Means for the maintenance of the army and the state administration were ensured from other sources, mainly by increasing indirect taxation. Furthermore there appeared realistic prospects of achieving a certain budgetary surplus. The possibility arose that because of its good management the government of the Kingdom would win confidence and obtain credits on the international monetary market. From then on Lubecki's ambitions went much further. The guardian of the Treasury was gradually assuming responsibility for the entire national economy.

Lubecki correctly realized that the expansion of the country's industry would become "the only lever for raising the withering agriculture." Developing the towns, building up factories, extending the network of roads, creating an internal market for farm produce, utilizing local raw materials, eliminating the economic backwardness of the country — these and similar ideas occurred over and over again in Lubecki's letters and correspondence of those days.¹⁰ As he saw it, the initiative and the capital for all these transformations were to be provided by the government. "Such, alas" — he then wrote — "is the position of the authorities in a country so underdeveloped as ours that they themselves must take all the initiative in every sphere, because the prevailing state of education, the mistrust and the deeply ingrained habits create among the citizens a feeling of aversion to all new ventures which elsewhere could be safely entrusted to private individuals for their own benefit. In our situation it would be wrong to apply even the most attractive axioms of political economy if they were to commit us to the stagnation in which, unfortunately, we have so long been submerged. Our government, the leader of still fresh and

⁹ *Ibidem*, pp. 262 - 271; M. Ajzen, *Polityka gospodarcza Lubeckiego [Lubecki's Economic Policy]*, Warszawa 1932, p. 190.

¹⁰ S. Smolka, *Polityka Lubeckiego przed powstaniem listopadowym [Lubecki's Policy before the November Insurrection of 1830]*, vol. I, Kraków 1907, pp. 173, 200.

undisciplined regiments, must boldly march at their head in order to instill in them the feeling of strength and the consciousness of the means at their disposal. God grant, that this role of the government would end as quickly as possible and that the driving force inherent in it, after setting everything in motion, could return within the boundaries of prudent calm.”¹¹

That credo became the guiding line of a policy of state interventionism, a policy, by the way, which had no previous traditions in Poland — a country that never in its history passed through the period of mercantilism. In addition to the above mentioned ways and means of patronizing private enterprise, the state interventionism was chiefly concerned with direct action, that is with state industrial construction. Realizing partly old ideas of Staszic and partly new plans elaborated by Lubecki's mining experts, the Treasury began to allocate huge sums for the construction of state mines, iron mills, roads as well as for the regulation of rivers which were to serve as both a source of power and for the rafting of merchandise.

Unlike Mostowski, Lubecki was firmly against bringing foreign capital into mining and metallurgy. But actually it was impossible to do without it. In view of economic situation of the Kingdom and of the opposition of the privileged class of landed gentry, the Treasury was in no position to provide a budgetary surplus which would ensure adequate funds for the financing of an investment programme of such a scope. Also the available private capital in the Kingdom was much too limited to ensure sufficient funds for carrying out the programme. Thus the only solution was foreign state loans, which meant letting in foreign capital, with the provision however, that economic decision making would remain in the hands of the government. The first such loan was finalized by Lubecki in 1829 through the intermediary of well-connected Warsaw bankers. That loan, to the amount of 42 million Polish zlotys (6.3 million roubles) was covered by government bonds which carried a 5 per cent of rate interest. It was earmarked for investments in production, trade and transport, with the priority for state-owned mining and metallurgical enterprises.¹² One year earlier Lubecki had founded the state Bank of Poland which, aside from being a bank of issue, was entrusted with the tasks of servicing the Kingdom's public debt, organizing trade credits and financing state industry.

In this way the state investment programme was guaranteed a firm financial basis, and work moved ahead at a rapid pace. But it was still far from completed when, in 1830, the November Insurrection broke out, followed by the Polish - Russian war of 1831. Lubecki who was sent by the Polish Sejm on a mission to Tzar Nicholas I, remained in Petersburg and never again returned to Warsaw.

¹¹ *Korespondencja Lubeckiego z ministrami - sekretarzami stanu [Lubecki's Correspondence with Ministers - Secretaries of State]*, ed. S. Smółka, vol. II, Kraków 1909, p. 144.

¹² *Ibidem*, pp. 65, 210.

II

The military defeat of the Insurrection completely changed the political and economic situation in the Polish Kingdom. Nicholas I preserved its name but dissolved the parliament and the separate Polish army, abolished constitutional freedoms and restricted its autonomy by introducing Russians as ministers in the Kingdom's government and appointing the conqueror of Warsaw, Field-Marshal Ivan Paskevitch as Governor-General and head of the government.

The new authorities, after completing the urgent task of pacifying the country, had to decide what to do with the state industrial construction which had already been underway. The financial situation of the Kingdom was again in a very bad shape made even worse by the contribution which the country had to pay to Russia, and by enforced expenditures for the construction of fortresses and the maintenance of Russian garrisons. Also, the reasons which had stimulated Lubecki's economic policy were alien and immaterial to the new bureaucracy headed by Paskevitch.

But by 1832 the sums spent on government mining and metallurgy had amounted to almost 22 million zlotys which came from the Treasury and the banks. If the construction work which had already been in progress were to be stopped and purchase of technical equipment and installations interrupted — all these outlays would have been wasted. And yet the government refused to continue financing the project and demanded that the Mining Board should restrict its activity to the extraction of ore and, perhaps, to its smelting in the old primitive furnaces "using the fuel obtained from the vast forests under the Board's administration."¹³

But at that moment the management of the Bank of Poland, the largest creditor of the government's mining industry, stepped in. The Bank directors came out with the following alternative: either the Treasury would pay back to the Bank the multi-million debt of the industry, or the Bank would take over mining under its own administration in order to complete the investment project with its own resources and recover the invested sums from the production profits. Because in 1832 the empty State Treasury was in no position to undertake the repayment of the debt, the Paskevitch government found itself compelled to accept the latter solution.¹⁴ Thus, on January 1st, 1833, the ten year period well known in the history of Polish industrial development, began, during which the administration of the mining industry was in the hands of the Bank of Poland.

The initial provisions of the project were modified — its scope was extended and, above all, it was decided to base it on modern, western technology. The Bank of Poland, taking up the old ideas of Staszic and following the experiences of Silesia (then under Prussian rule) began to build up iron metallurgy in the coal basin area, thus initiating the era of coke fuelled blast furnaces and of steam power in the Kingdom. In this connection means were provided for the expansion of coal mines whose

¹³ *Minutes from the session of the Administrative Council of the Kingdom, January 22, 1833*; see in: *Zbiór urzędzeń i przepisów Banku Polskiego [Code of Ordinances and Regulations of the Bank of Poland]*, vol. II, Warszawa 1859, pp. 24 - 27.

¹⁴ *Ibidem*, pp. 34, 50 - 51.

output had been, so far, negligible. Puddling and rolling of iron replaced the old fineries and forges.¹⁵ The crowning point of the whole plan was the construction of Huta Bankowa (Bankowa Mill) in Dąbrowa, a large iron mill based on techniques employed in the most up-to-date west European mills and capable of performing all phases of production — from the smelting of the ore to the mechanical working of iron.

The realization of the plan which, according to its intentions was to bring a tenfold increase of the government's heavy industry production capacity consumed, in the course of ten years, almost 40 million Polish zlotys (6 million roubles)¹⁶, a sum greatly exceeding the possibilities of any individually held private capital in the Kingdom. The source of these huge funds were the profits earned by the Bank from its trading and credit operations, the private and public deposits held by it, and also new foreign loans contracted by the Bank of Poland on behalf of the Kingdom's Treasury.¹⁷ The Bank modelled its industrialization activities on Prussian institutions: on the one hand, on the Prussian (and also Saxon) government mining establishments and, on the other, — on the Royal Prussian Seehandlung Bank which had long been conducting large scale industrial expansion. A feature specific to the Kingdom, however, was the combining within one institution the functions of issuing Bank notes and bonds, servicing of public debt, granting various forms of short and long term credits, management of state industry, the handling of state investments (construction of roads, canals etc.) and, finally, conducting trading and industrial activity at its own risk and account. Because of the scope and range of its operations, in the years 1833 - 1842, the Bank became in fact the prime mover of the Kingdom's economic development. It controlled and financed practically all the major investment projects and industrial establishments, both private and state-owned. And as regards especially the government's mining industry, the time of the Bank's management has been generally recognized in Polish historiography as the golden era of its history. A detailed economic analysis leads, however, to somewhat different conclusions.

III

Industrial construction conducted by the Bank of Poland was meeting serious obstacles and delays resulting from the shortage of qualified technical personnel and skilled labour, from transport difficulties, structural defects in the purchased machinery and equipment, etc. Attempts were made to alleviate the situation by stepping up recruitment to the Mining Corps, by building housing settlements for workers, bringing engineers and foremen from abroad, constructing roads and narrow-gauge railways which linked mines and factories.¹⁸ All this of course, greatly

¹⁵ Central Archives of Old Records in Warsaw (abbrev. AGAD), *Records of the Government Commission of Income and Treasury of the Kingdom* (abbrev. KRPS), vol. 2476, ff. 18, 25.

¹⁶ *Ibidem*, vol. 2532, ff. 11, 28, 38; vol. 2476, ff. 40 - 43.

¹⁷ H. Radziszewski, *Bank Polski [Bank of Poland]*, 2nd ed., Poznań 1919, pp 150 - 157.

¹⁸ National Archives of the Katowice Voivodeship (abbrev. WAP — Katowice), *Records of the Dąbrowa Mining Office* (abbrev. AGD), vol. 2410 to 2456, and others.

raised the cost of the basic investments. But the resources of the Bank, whose financial operations were conducted with much success, seemed inexhaustible.

Beginning with the closing years of the 1830's new mines and mills were being successively put into operation. But it soon became evident that their production and financial results were most unfavourable. On the whole, the entire government mining industry, placed under the Bank of Poland's administration, was regularly running at a loss. Profits from sales barely covered half of the cost of maintaining the swollen administrative apparatus. In this situation the government reverted to the old idea of Minister Mostowski and put forward the demand that the Bank management lease the enterprises to private owners, convinced that the deal would be advantageous both to the leaseholders and to the Treasury. As we have already mentioned the bourgeoisie was not interested in investing its capital in mining or metallurgy. It was, however, quite another thing to take over a finished job and to start production in enterprises constructed and equipped by the state, with one's own money needed only as working capital. Thus, in 1836 — when the first results of the realization of the investment plan were already evident — a competitive struggle began for the control of the government's enterprises.

"The construction of new work establishments had barely started" — Henryk Łubieński, vice-chairman of the Bank of Poland and the chief promotor of the investment campaign, wrote that year in a report to the fiscal authorities, "when the speculators from the Kingdom saw their chance and the Bank was thus able to achieve the principal aim of the government."¹⁹ The struggle for control was won by a company led by the banker Maurycy Koniar, which, in 1837, leased the government's entire metallurgical industry in the Kingdom. The contract was signed for the period of 25 years with the stipulation that all projects under construction would be completed by the Bank and successively given over to the leaseholders as soon as they were put into operation.²⁰ Thus, the practice had been adopted that whilst the whole burden of financing investment projects was taken by the state, private capital was admitted to share in the profits from production.

But the arrangement did not last long. The government of Nicholas I, which since about 1840 adopted a policy of intensified Russification of the Kingdom and of further restricting its autonomy, only waited for a convenient pretext to subordinate to itself an institution of such importance and enjoying such a large degree of independence as the Bank of Poland. They did not have to wait long for an opportunity to act. At the beginning of the 1840's it became known that the Bank had sustained huge losses, running into many millions, as a result of granting credits to several insolvent private companies (especially the Żyrardów Linen Works and the Warsaw - Vienna Railway Company), copartners in which were the chairman and the vice-chairman of the Bank.²¹ The Bank's mining policy was then also placed under government control which revealed exorbitant extravagance in disposing of

¹⁹ AGAD, KRPS, vol. 2476, f. 26.

²⁰ *Ibidem*, ff. 72 - 98.

²¹ Radziszewski, op. cit., pp. 242 - 247; J. M. Wiślicki, *Moje pamiętniki z całego życia* [*My Whole Life — Memoirs*], Biblioteka Publiczna w Warszawie, MS 78, p. 87 ff.

investment funds as well as numerous fraudulent deals between the Bank and private enterprises. The possibility should not be excluded, however, that certain political and military considerations played their role — above all the fear of the Tzarist government that a well developed metallurgical industry in the Kingdom could easily become the main supplier of arms for another Polish insurrection. And an additional factor which influenced the decision was that the leaseholder of the iron works had systematically, under all kinds of pretexts, shirked its responsibilities arising from the contract.²² In such a state of affairs, during the visit to Warsaw of Nicholas I in October 1842, the decision was taken to change the leadership of the Bank which from then on consisted of Paskevitch's own men. At the same time it was resolved to place the mines and the mills back under the direct administration of the Treasury.²³

Even earlier, the government of the Kingdom has floated the big loan of 60 million zlotys and issued interest bearing bonds to cover that sum. A large part of that loan was earmarked "for refunding to the Bank of Poland the costs incurred in connection with the construction of mining establishments."²⁴ Henceforth, appropriations for the payment of interests and the repayment of successive installments of the loan were included in all budgets of the Kingdom until the end of its fiscal autonomy, i.e., until 1866. Included in the budget were also sums for covering the losses sustained during the period of the Koniar administration as well as those which arose as a result of the previously mentioned credit deals.²⁵ In other words, the entire cost of the state's intensive industrialization drive was shifted onto the population of the Kingdom which was to carry the burden for several decades. Money squeezed out from the taxpayers filled, by way of the Treasury, the pockets of the holders of state obligations that is the Polish and foreign bourgeoisie. The mechanism of accumulation of capital, once set into motion, continued to function, although the further expansion of state sponsored industries came to a halt. But that occurred at a time when the Bank's investment programme was already nearing completion. The coming period was to show whether the appropriations for its realization would prove economically effective.

IV

In 1833, when the Bank of Poland took over the administration of the government's mining industry, there was a shortage of iron in the Kingdom. Its price was maintained at a high level and the private and state owned mills could hardly meet the market demand. Ten years later the situation has changed completely. As a result of successive commissioning of the newly constructed factories, the output

²² AGAD, KRPS, vol. 2477.

²³ *Zbiór urzędzeń i przepisów Banku Polskiego*, vol. III, pp. 18 - 21, 29.

²⁴ *Materiały po delam Carswa polskogo*, elaborated under the direction of M. Milutin, vol. III, 1864, part 3, p. 106.

²⁵ Central Historical State Archives in Leningrad (abbrev. CGIAL), *Records of the Committee of Ministers of the Russian Empire*, coll. 1263, inv. 1, vol. 4801, ff. 605 - 606.

of pig-iron in the government mills increased four-fold and the production of forged and rolled iron — almost three-fold. This marked growth of output caused a rapid fall of prices. In 1843 the index of average prices of iron metallurgy products fell to 66 per cent of the 1833 level and the downward trend still continued.²⁶ But despite this drop of prices the market did not absorb the rising production. Large quantities of unsold goods began to pile up in government warehouses.

In Lubecki's plans the state investment programme was to become the driving force which would set the entire national economy into motion. But as it were, things have turned out differently. Because of the one-sided concentration of state capital in the raw material and heavy industries, chiefly in iron metallurgy, these branches of production were relatively over-invested. The light industry, almost exclusively in private hands, showed at that time a much slower rate of expansion, with the notable exception of the cotton industry. But the latter worked on imported machines and installation, as the Kingdom's industry did not yet master their production. The situation was somewhat better with regard to the production of agricultural machinery and food processing equipment in which the Polish engineering industry achieved a high degree of specialization. However, the conservatism inherent in the feudal relations prevailing in the countryside hampered progress in agricultural technology, thus limiting the demand for iron. A further reduction of prices would, perhaps, eventually result in increasing that demand but during the years 1843 - 1846 the prices fell to a level which barely covered the cost of production. The state production potential, great as it was for those days, turned out to be economically almost useless. As long as the state investment programme was in progress the situation was not so bad because the new projects themselves absorbed a considerable part of the production of the iron mills. But on the day when the major projects, in particular Huta Bankowa, were completed, there came the imminent breakdown. The year 1844 opened up in the Kingdom the period of a chronic crisis which was to last for almost 20 years. Up to 1864 the output of pig-iron in the government mills did not once reach the 1843 level, and in the worst years (1850 - 51, 1856) it was barely one third of that level. During the entire twenty years, 1844 - 1863, the real output fluctuated between 15 to 35 per cent of the figure envisaged in the Bank of Poland's investment programme.²⁷

The two most modern and most expensive mills — Huta Henryków in Niwka and Huta Bankowa in Dąbrowa — had the most unsatisfactory production indices. From the very moment they were put into operation it became evident that coke made from the Dąbrowa coal was either completely useless for the production of pig-iron or, at best, gave a very low quality product. Furthermore, the steam engines and mill installations showed serious structural defects. The effect was rather paradoxical — in modern enterprises equipped with the latest technology

²⁶ S. Siegel, *Ceny w Warszawie w latach 1816 - 1914* [Prices in Warsaw, 1816 - 1914], Poznań 1949, pp. 250 - 251.

²⁷ AGAD, KRPS, vol. 1758, f. 165; see also J. Łukasiewicz, *Przewrót techniczny w przemyśle Królestwa Polskiego 1852 - 1886* [The Technological Revolution in the Polish Kingdom's Industry 1852 - 1886], Warszawa 1963, pp. 47 - 65.

the cost of production was higher and the quality of goods inferior to that in the old mills. In consequence, at the times of the greatest difficulties with the sales, the new mills were the first to be closed down. Huta Henryków stopped production after barely five years of operation and was subsequently dismantled.²⁸ Huta Bankowa one of the largest metallurgical works on the European continent, used only 10 per cent of its full capacity in the production of pig-iron and less than 20 per cent — of rolled iron. Of its six blast furnaces only one or two worked continuously and even these were put out in the years of economic depression. The puddling and rolling mills of Huta Bankowa worked chiefly on pig iron brought from distant charcoal furnaces.²⁹ Thus the considerations which had influenced the localization plans, co-operation schemes and profit estimates proved of no value.

The crisis embraced also the zinc industry; in the years 1855 - 58 the output of the government works was, on the average, five times lower than that achieved in 1843. The production of coal continued to rise until 1848 as a result of investments in mining, but following the crisis in the metallurgical industry, it dropped, within four years, to one sixth of its highest level, which it reached again only in 1860.³⁰

It was therefore fully understandable, that in this situation economic effectiveness of the investment outlays was practically nil. Up to 1860 the government mining and metallurgy did not make a single payment into the state budget. On the contrary, during the 1850's and the beginning of 1860's the Treasury was compelled to contract new loans from the Bank of Poland to cover the cost of maintaining the huge stocks of unsold iron and zinc which filled the government warehouses.³¹ These, practically unlimited possibilities of obtaining additional funds, were the reason why the enterprises which for twenty years had shown such disastrous production and trading results, did not go bankrupt.

It should be noted here, that the privately owned mines and mills, which did not have such possibilities of pouring in addition capital, did not suffer from the crisis to the same extent as the government enterprises. The private mills produced cheaper and better quality goods and though the average standard of their technical equipment was considerably lower and production methods more conservative they had less difficulty in marketing their products even in the years of the greatest drop in demand. The reasons for this were the relatively smaller capital outlays in private enterprises (raw materials, fuel and labour being available on the owners' estates), much lower cost of administration and greater flexibility in adapting production to the requirements of the market.

The industrial policy of the Paskevitch government resulted in depriving the corrupt Bank of Poland of the initiative and in halting all further state investment

²⁸ A. Jezierski, *Niwka. Monografia historyczno-ekonomiczna zakładów hutniczych w latach 1833 - 1843* [*Historico-economic Monography of the Metallurgical Establishments in Niwka, 1833 - 1843*], in: *Ekonomika górnictwa i hutnictwa w Królestwie Polskim 1831 - 1864* [*Economics of Mining and Metallurgy in the Kingdom of Poland, 1831 - 1864*], Warszawa 1958, pp. 115 - 220.

²⁹ WAP Katowice, *AGD*, vol. 409, 2439, 2450 and others.

³⁰ Łukasiewicz, *op. cit.*, pp. 67, 94, 141, 163.

³¹ *AGAD, KRPS*, vol. 2482, ff. 70 - 73, 89 - 98, 344 - 345.

outlays. But the government never worked out any alternative economic policy. Attempts to again lease the enterprises were abandoned after the unfortunate experiment with the Koniar company, and the state management of the Kingdom's industry presented a picture of bureaucracy and incompetence, similar to that which prevailed in all other spheres of administration during the final years of the rule of Nicholas I and his Governor-General. The rights of the local mining boards were constrained to absurd limits so that even the smallest expenditure in excess of the planned figure, any change in the selling prices or minor repairs of machinery, required the approval of higher fiscal authorities. All this made impossible a quick reaction to the fluctuations of supply and demand on the market.

Tendencies to alter such a state of affairs became apparent only during the initial period of the reign of Alexander II, after the defeat of Russia in the Crimean War.

The main reason for this was the desperate financial situation of both the Russian Empire and the Kingdom.³² After the death of Paskevitch (1856) the Kingdom's national debt amounted to 61 million roubles, the equivalent of more than three annual budgets.³³ In these circumstances the profitability of state-owned landed estates and industrial enterprises was a matter of prime importance. But the feasibility of that goal was viewed with a growing scepticism among the government circles both in Warsaw and in Petersburg. After the Sebastopol defeat, ideas of economic liberalism gained ground in Russia, and ever more insistent demands were voiced for thorough reforms of the state's economic and financial policies. These ideas had their advocates also within the government.

Pressure in that direction was exerted by private capital, too. This was not surprising in view of the fact that after a long period of stagnation, the late fifties brought a new economic boom. The change over from the system of *corvée* to one of tenancy in many estates resulted in an increase of the sales of agricultural products and raised the demand for all kinds of goods on the home market. The customs union between the Kingdom and the Russian Empire (from 1851) and the construction of the Warsaw - Petersburg railway line raised hopes in Poland of regaining Eastern markets for the Polish industry. The bank rate was reduced. The general increase of the tempo of reproduction and accumulation brought about a sudden influx of capital, both Polish and foreign (mainly from Germany), to industry.

This economic revival did not by-pass the mining and metallurgical industries. In 1859 the Dąbrowa coal basin was linked by rail with the Warsaw - Vienna Railway. From then onwards coal became a much sought after commodity, serving as fuel for locomotives (which had previously run on wood), for steam boilers in industry, and also for heating homes. The boom in industrial and urban housing construction in which iron structures were increasingly used raised the demand for metallurgical goods. The land improvement schemes undertaken by the gentry and the increased demand for agricultural machinery had the same effect. In these circumstances

³² S. S. Tatiščev, *Aleksandr II, ego žizn i carstvovanije*, Sankt-Petersburg 1903, p. 164; A. P. Pogrebinski, *Očerki po istorii finansov dorevolucionnoj Rossii*, Moskva 1954, p. 54.

³³ AGAD, *Records of State Council of the Kingdom* (abbrev. *RSt*), vol. 253, pp. 6, 21.

the land-owning gentry and the urban bourgeoisie of the Kingdom began to take a greater interest in the possibility of gaining control over the state-owned heavy industry enterprises.

A whole arsenal of liberal slogans was employed in this context. Profiting by the easing of press censorship by the government of Alexander II, Warsaw papers published articles which boldly criticised the state industrial management in general and the administration of mining in particular.

Under the pressure of all these factors, the government began to lean towards a gradual limitation of the state's economic control both in Russia and Poland. The first step in that direction was the sale, in 1855, of the Warsaw - Vienna State Railway to a joint-stock company formed by Polish and German capitalists. The government provided guarantees to the stockholders and itself purchased a packet of the shares.³⁴ It the Warsaw government, subordinated to Petersburg, the chief advocate of the liquidation of State capitalism was the new Director of the Treasury Adam Łęski, a finance expert of the Lubecki school, but closely connected with the liberal fraction of the Polish landowning gentry. In 1860, in a memorandum for the Kingdom's Governor-General Mikhail Gorchakov, he wrote that the reasons for the failures of the mining economy "should be sought in the government administration's basic inability to run profitably industrial and trading enterprises."³⁵ In fact, the situation created by the economic boom was utilized much more efficiently by private capital, than by the state.

The recommendation for the sale of government mines and metallurgical plants was approved by the Council of State of the Polish Kingdom in December 1861, and subsequently endorsed by Alexander II in March 1862.³⁶ But the Warsaw government was prevented from carrying out this project by the outbreak of the national Insurrection of 1863. The partisan war, particularly fierce in the mining areas, led to a considerable devastation of the government mines and mills. The hostilities prevented the taking of an inventory and making other necessary preparations for their sale.

Soon after crushing the insurrection the Tzarist authorities set about liquidating the remnants of the Polish Kingdom's autonomy. 1866 was the last year of the

³⁴ H. Hilchen, *Historia drogi żelaznej warszawsko-wiedeńskiej* [History of the Warsaw - Vienna Railway Line], Warszawa-Kraków 1912, pp. 96 - 97.

³⁵ AGAD, *KRPS*, vol. 2482, ff. 344 - 345.

³⁶ AGAD, *RSt.* vol. 921, minutes from the 17th session, Dec. 9, 1861; also AGAD, *Records of the Administrative Council* (abbrev. *RA*), vol. 144, minutes from the session of March 14, 1862. In a letter from the Tzar to the acting Governor-General of the Kingdom, Gen. Lüders, of March 6, 1862, a following reason was given for the decision: "Though state mining had been, at one time or another, subordinated to different branches of administration [...] its main objective, namely that it should bring profits to the Kingdom's Treasury, was never and nowhere achieved, under any administration. For a long time the mining industry has been a heavy liability to the Treasury drawing huge capital from it. Today the Treasury is still burdened with considerable expenditures for the repayment of the mass of debts contracted by the mining managements during various periods. Large stocks of mining products for which there is little demand on the market, even at reduced prices, represent but a dead capital."

existence of a separate budget in the Kingdom, which was henceforth fully integrated with Russia's fiscal system. Consequently the future of the Polish government industry was to be decided by the Empire's economic policy, then administered by Finance Minister Mikhail Reyttern.

Reyttern had no intention to withdraw state capital from the national economy. On the contrary, in the great plan of railway construction which he promoted, the Treasury was to play the part of a driving-force, share-holder and guarantor of dividends. All this, of course, involved huge expenditures. The Finance Minister was, however, a firm opponent of direct state ownership and administration of production establishments.³⁷ It was in the sixties that the Treasury was gradually selling out state metallurgical plants in the Urals, and immediately began to proceed likewise in Poland.

But the plants earmarked for sale were by then in a pitiable condition, as practically nothing had been invested in them for 25 years. The coal and calamine deposits were almost exhausted. The Treasury had long ago abandoned all ideas of extending them and prospecting for new deposits. Even the Huta Bankowa which had been built as a most up-to-date enterprise was, in 1870, already obsolete. The main reason for this was that no steel plant had been constructed there; thus, at a time when the railways were using steel rails on an increasing scale, the mill was practically excluded from the bids for supplying railway companies. It is not surprising, therefore, that in the years 1870 - 1874, a time of exceptionally high demand for coal and iron, all the Treasury coal mines in the Kingdom, and the Huta Bankowa, were closed down.³⁸

In this state of affairs, very low prices were offered by private capital for these enterprises. The buyers were ready to pay for the site of the plants and for the raw materials and power available, but not for outdated equipment which in most cases was destined for the scrap heap. Finally, after many unsuccessful attempts at getting higher offers by way of an auction, the Treasury was forced to sell its enterprises at a negligible price.

In 1870 the metallurgical complex on the Kamienna River in the Kielce region, passed into the hands of the Russian - Polish consortium headed by Baron Fraenkel.³⁹ That year also the state engineering plant in Warsaw became the property of the Lilpop and Rau Company. In 1876 the Huta Bankowa and the four largest government coal mines in the Dąbrowa basin were taken over by French capital.⁴⁰ Of the major industrial establishments, the calamine mines and the zinc mills remained longest the property of the state. The Tzarist government still tried to improve

³⁷ P. I. Laščenko, *Istorija narodnogo chozjajstva SSSR*, vol. II, 3rd ed., Moskva 1952, pp. 176 - 179; I. F. Gindin, *Gosudarstvennyj Bank i ekonomičeskaja politika carskogo pravitelstva*, Moskva 1960, pp. 16, 73.

³⁸ CGIAL, *Records of the Mining Department of the Ministry of Finance*, coll. 37, inv. 6, vol. 152, ff 3 - 4; inv. 7, vol. 204, ff. 184, 216; inv. 7, vol. 424, ff. 8 - 15.

³⁹ CGIAL, *Records of the Committee for the Affairs of the Kingdom of Poland*, coll. 1270, inv 1, vol. 1432, ff. 3 - 11.

⁴⁰ CGIAL, coll. 37, inv. 7, vol. 424, ff. 1 - 4.

the situation of this industry by more investment outlays from the budget, but the results were rather unimpressive.⁴¹ In 1892, the zinc industry of the Polish Kingdom was leased to the Russian Derviz, Shevtzov and Pomerantzev Company which, a few years later, accepted the partnership of French capital. According to a very rough estimate, in all these transactions the State regained a mere 10 per cent of all its unamortized investment outlays.

On the site of the old plants, and under their original names, completely new ones were built by the buyers. The Huta Bankowa was a characteristic example of this procedure. Immediately after it was sold, almost all its furnaces and buildings were demolished. On the site, the new owners — the Franco - Italian Bank — built a new plant with an up-to-date mill with open-hearth furnaces and soon turned it into one of the largest and most prosperous industrial enterprises in the whole vast territory of the Russian Empire.⁴²

But that dynamic industrial expansion which, in the last quarter of the 19th century, embraced Tzarist Russia and the annexed Polish lands, did not take place under the banners of economic liberalism. The liberal doctrines had but a short-lived career: a backward country could not profit by them to any appreciable extent. The State only altered the forms of its economic intervention. Resigning from direct control and management of industry it began to invest in the railways, and above all, developed extensive schemes of protecting private initiative. It was only the prohibitive import duties imposed in 1877, tax privileges, army and railway orders and similar measures, that created favourable conditions for private industrial capital, thus promoting economic growth.

CONCLUSIONS

1. During the first half of the 19th century a programme of large-scale industrial construction in a small and poor agricultural country, could have been realized only with the aid of means and resources from state accumulation. Up to 1830, the autonomous government of the Polish Kingdom and later the state Bank of Poland carried out an impressive investment programme, and created an important production potential.

2. Contrary to the hopes of its initiators the state investment activity did not become the driving force setting in motion the entire national economy. It did not succeed in sparking off a dynamic industrial revolution. The main obstacle was still the feudal socio-economic structure, which hampered the expansion of the market, restricted supply of the labour force and accumulation of capital. Furthermore, the concentration of outlays in mining and metallurgy created disproportions between different branches of the national economy, and led to a prolonged structural crisis.

⁴¹ CGIAL, coll. 1263, inv. 1, vol. 4798, ff. 330 - 356; vol. 4801, ff. 591 - 608.

⁴² Łukasiewicz, *op. cit.*, pp. 231 - 252.

3. The bureaucratic state machine, which was fairly efficient, though uneconomical, in the implementation of the investment programme proved to be lamentably helpless when it came to administrate day-to-day production and trade activities. This was also largely due to the fact that the Polish authorities were deprived of their autonomy and initiative, and that the economic administration was subordinated to a foreign government, thus vastly elongating the administrative ladder. The absurd centralization of commercial decisions, coupled with the notorious inertia of the reactionary bureaucracy of the times of Nicholas I largely contributed to wasting the effects of the labour and capital invested.

4. In the second half of the 19th century the withdrawal of the state from the direct administration of industry and its adoption of a policy of stronger protectionism positively influenced economic growth. At the same time, however, the admission of foreign capital subordinated to Western control gave a semi-colonial character to the process of industrialization in eastern Europe.⁴³ This had its well known results both in Russia and in the Polish territories: a rapid aggravation of social conflicts and the development of revolutionary working class movement.

(Translated by Leon Szwajcer)

⁴³ Problems discussed in this article are elaborated in greater detail by the author in his book *Nieudana próba kapitalistycznej industrializacji [An Unsuccessful Attempt at Capitalist Industrialization]*, Warszawa 1963. Theoretical and comparative analysis of the process of industrialization in Eastern Europe is given by W. Kula in his book *Kształtowanie się kapitalizmu w Polsce [Formation of Capitalism in Poland]*, Warszawa 1955, and in his papers: *Some Observations on the Industrial Revolution in Eastern European Countries*, "Ergon," vol. I, 1958, pp. 239 - 248, and *Les débuts du capitalisme en Pologne dans la perspective de l'histoire comparée* (Conférence tenue à la Bibliothèque de l'Académie Polonaise à Rome le 22 mars 1960), Roma 1960.