

SLOVAK INDUSTRY DURING 1918-1938 IN THE CONTEXT OF ECONOMIC DEVELOPMENT OF ČSR

Jaroslav Šeminský¹

Abstract: *The contribution is dedicated to the industrial development at the territory of present Slovakia during 1918-1938. At the time of the establishment of the first Czechoslovak Republic, the economy at Slovak territory was characterized by a proportional imbalance in development and disproportion between the various economic areas, as well as in the internal structure of industry, agriculture and infrastructure. In industry, on the one hand, there were companies of European importance with mass production, but, on the other hand, regions with mostly manual labour. In agriculture, the differences between the levels of technology of farms in southwestern Slovakia contrasted with small farms in the mountainous areas. In the infrastructure, there were contrasts between the progress of railway transportation and the little development of the road network. The main share of electricity production in Slovakia territory was produced in the local power stations of industrial plants, working mainly for their own needs. The paper is summarization of fundamental aspects of industry development in Slovakia territory during first decades of ČSR. The paper is dedicated to students of technology and everyone as well, who has interest for the history of industry development in context of Slovakia.*

Keywords: History of science and technology, history of Czechoslovakia, history of Slovakia, industrialisation

1 INTRODUCTION

Czech lands, Slovakia, and Carpathian Ruthenia have entered to the new state with a vastly different level of industrialization. Despite some positives in the industrialization of Slovakia territory related to the Second Industrial Revolution [1-3], Slovakia remained a rural country. This fact is the legacy of the different development of the economy of the Czech lands in the conditions of Austria and the Slovak part in the conditions of Hungary and other conditions resulting from the available raw material base. The establishment of Czechoslovak Republic (ČSR) propelled Slovakia into a completely new geopolitical, social, cultural and economic situation. For this reason, the industrialization of Slovakia in the years 1918-1938 brought stagnation initially and increased only in some areas of industry and infrastructure [4].

In the territory of present-day Slovakia, besides traditional mining industry, the paper, woodworking, textile and building materials industries were developing. Other area of industry what was developed was electricity generation. The development of electrification is a characteristic sign of the period after 1918 for most European countries. At least the mechanical engineering was developed within the framework of industrial development in Slovakia, especially its progressive branches, such as the production of locomotives and other means of transport. After 1918, the Slovak economy, as part of a new state unit, encountered serious economic problems in both the industrial and transport sectors.

After 1918, Slovakia's industry lost not only a large part of its markets, but also various forms of protection and benefits provided by the Hungarian government institutions and the financial support of the

Hungarian and Austrian banks. At the same time, it came into direct competition with the more advanced industry of Czechia and Moravia.

Among the negative effects on the industrialization process in the post-war years, transport infrastructure had the most serious consequences. Industry has lost the possibility of using advantageous rail tariffs. The extinction of Hungary has disrupted Slovakia's most important transport system, the railway network. The state border with Hungary cut off some of the main lines, which were mainly north-south oriented, but the new state was geographically oriented in east-west direction. In addition, some of the railway lines were in private hands and transport costs were higher than in the Czech Republic.

In this respect, it should be noted that among the traditional customers, Slovak enterprises have lost their most important customer, the Hungarian government. Above all, textile, leather, food and chemical industries, partly other industries and a large part of agriculture, were dependent on orders from the government, especially the military. Replacing this outage with new orders took a long time. In order to increase the share of Slovak production in government orders of industry, in 1922 the so-called. 5% advantage for the Slovak industry was introduced, according to which Slovak producers had priority in government orders in its territory even if their delivery costs were 5% higher than same from the Czech lands.

One of the important owners of the economic base of Slovakia after 1918 became the Czechoslovak state, which took over part of the economy managed by the Hungarian Empire. About two fifths of the volume of mining production, significant ironworks (Pohronie),

and metallurgical plants (Tisovec), tobacco factories, some woodprocessing companies, power plants, minting plant in Kremnica, a large part of railway and road network as well as 55% of forest area and part of agricultural land.

2 THE OVERALL CHARACTERISTICS OF THE INDUSTRIALIZATION OF SLOVAKIA IN 1918-1938

As mentioned above, in the period under review, the development of industrialization intersected the opposite tendencies reflecting the process of gradual adjustment of the Slovak economy to the new economic space of the Czechoslovak Republic. The nature of industrialization depended on the success of attempts to create new business links in Western Europe and preserve economic relations before 1918 in the successor states of the former monarchy.

In the initial restructuring phase, which was characterized by the liquidation of some of the excess industrial capacities, the industrialization process was temporarily suspended. However, in the second half of the 1920s, the restructuring has undergone a phase of consolidation, with the development of more prospective industries capable of adapting to new internal and international market conditions.

Consolidation was connected with a major reconstruction of the industry's technical base, in particular the acceleration of electrification, as a result of the intensification in the competitive environment, and with a government supported infrastructure. The process of systematic large-area electrification considerably accelerated at the end of the 1920s. The negative aspect of the consolidation stage was the lengthy removal of differences in production conditions between the western and eastern parts of Czechoslovakia, in principle terminated in the early 1930s. (Fig. 1).

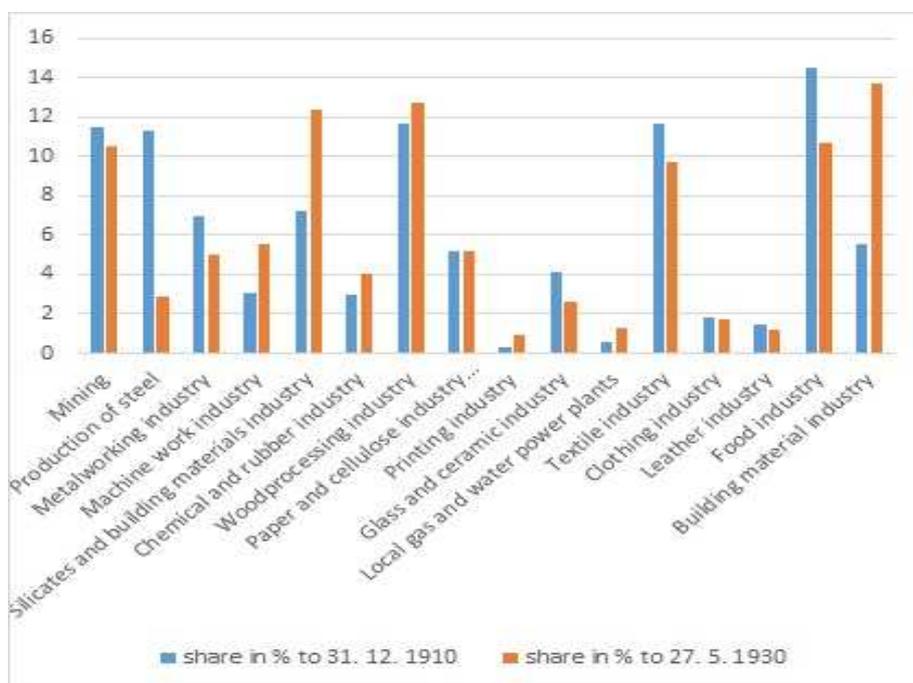


Figure 1 Structural changes in industry at Slovakia territory by percentage of industrial sectors in the total number of active persons in factories in 1910 and 1930. Resource: [5]

The consolidation until 1929 resulted in the restoration of the total production capacity of the industry and of the industrialization situation to roughly the level before the start of the restructuring. After overcoming the consequences of the global economic downturn in 1929-1933, partly retarding the positive tendencies in Slovakia's economy, it is possible to talk about the revival of the upward trend of industrialization for the years 1934-1938, especially in western Slovakia, where reconstruction and consolidation reached its furthest.

The resumption of the industrialization process was linked to the building of new production capacities in traditional as well as unrepresented industries, acceleration of the technical reconstruction of the economy and significant progress in

infrastructure development, with the different role of various forms of intervention and state investment in the Slovak economy to overcome the economic crisis, ensure the needs of the country's defence and gradually revitalize the socio-economic development of Slovakia. At the same time, the activity of Czech capital in the eastern part of Czechoslovakia was restored, which was undoubtedly due to the completion of the restructuring and consolidation of Slovakia's economy.

2.1 Mining industries

Historically, the mining belonged to the most important industries in Slovakia. After a gradual decrease of mining of precious metals and copper, the

position of relevance retained namely the mining of the iron ore. The iron mining in Slovakia was concentrated in two localities – the region of Spiš (Slovinky, Gelnica, Prakovce), and the region of Gemer. The iron mines in Spiš region were located close to Košice-Bohumín Railroad, which facilitated transport of ore to Silesia. Significant amounts of iron ore were also shipped to the steel works in Krompachy. Because the Gemer region had not a railroad connection with the western parts of Czechoslovakia, the possibilities of shipments of iron ore in this direction were minimal. Consequences of geo-political development in mentioned period had consequences upon the Slovak iron ore mining industry, iron ore production decreased.

Problematic transport and higher transport costs were the consequence of decision of Třinec Iron Works to import ore from Sweden, which led to decrease of ore from Spiš. Similar situation characterized also other important mining sectors, such as mining of pyrite, manganese, antimony and magnesite.

2.2 Production of steel

The production of pig iron culminated in the last years of nineteenth century. Since then the production gradually decreased and reached bottom at the close of World War I. A further dramatic decrease in production occurred in year 1919. The post-war instability and necessity to convert the production to non-military needs contributed to this sharp decrease. Another causes of drop in production were the lack of coal and coke, termination of exports to Hungary and deflation. Several plants were compelled to stop production completely, because they run out of supply of coal.

The difficult situation of Slovak iron works was exacerbated by limited possibilities to sell their products. The capacity of domestic market to absorb production was utterly insufficient. Traditionally, steel mills working on Slovak territory, shipped a majority of their products to the other parts of Hungary and partially also to Poland. After establishment of CSR, the majority of exports was conditioned upon the obtainment of export permissions.

2.3 Machine work industries

There were no significant facilities producing industrial machinery on Slovak territory. The majority of plants were rather small facilities with a low degree of mechanization and few employees.

The main venue of exports – Hungary, was closed and this resulted in stoppage of production of majority of plants. The Slovak agricultural sector could not replace lost markets at all. To make the situation even more problematic, the Czech manufactures became formidable competitors, penetrating the limited Slovak market. The loss of markets, transport expenses and lack of state orders negatively affected all machinery production in Slovakia. A number of

factories either went out of business completely, or lowered production substantially.

The situation began to change at the end of the 1930s. The government has relocated a part of arms production to the east. An example is the construction of an underground arms factory in Nová Dubnica (Fig. 2).



Figure 2 Underground factory of Skoda Works in Nová Dubnica was founded in 1937. Photo [6]

2.4 Paper producing industry

Because of the importance of this type of industry located on Slovak territory, it is necessary, in and concise fashion, to map its development after establishment of CSR. In the pre-war Hungary the production on the Slovak territory amounted to more than 50% of the total Hungarian output. The manufacturing of stationery products was concentrated in nine localities employing 4,700 workers. The possible increase in production, which could be enabled by the growth in demand for stationery products, hampered ubiquitous dearth of coal. In some cases, this production limited production capacity.

2.5 Woodworking industry

The last major industry in existence in Slovakia was a wood-processing. Large parts of Slovakia are covered by lush forests, offering the opportunity for gainful exploitation. Immediately after creation of CSR, the woodworking industry in Slovakia, especially harvesting and primary processing grew at a rapid pace. The growing demand for wood at home and abroad during years 1919 – 1920 led to a boom in exploitation of wood. Despite the deflation, loss of Hungarian market and stagnation of domestic wood consumption, the exports of wood further increased in following two years. However, the ratio of exports of raw wood products to semi-finished articles increased - a trend which undermined the development of wood processing industry.

The exports of non-processed wood (logs and pulp) increased during the period 1920–1923 56,9 %. To the contrary, the export of semi-finished articles (timber, boards, planks etc.) decreased and production of finished products declined too at the same time.

The limited ability to place the production on domestic and foreign markets led to sharp decrease in prices. The outbreak of the Great Depression worsened situation still.

The territory of Slovakia entered a new state with very little developed electricity distribution infrastructure and low power generation (Fig. 3).

2.6 Electricity generation

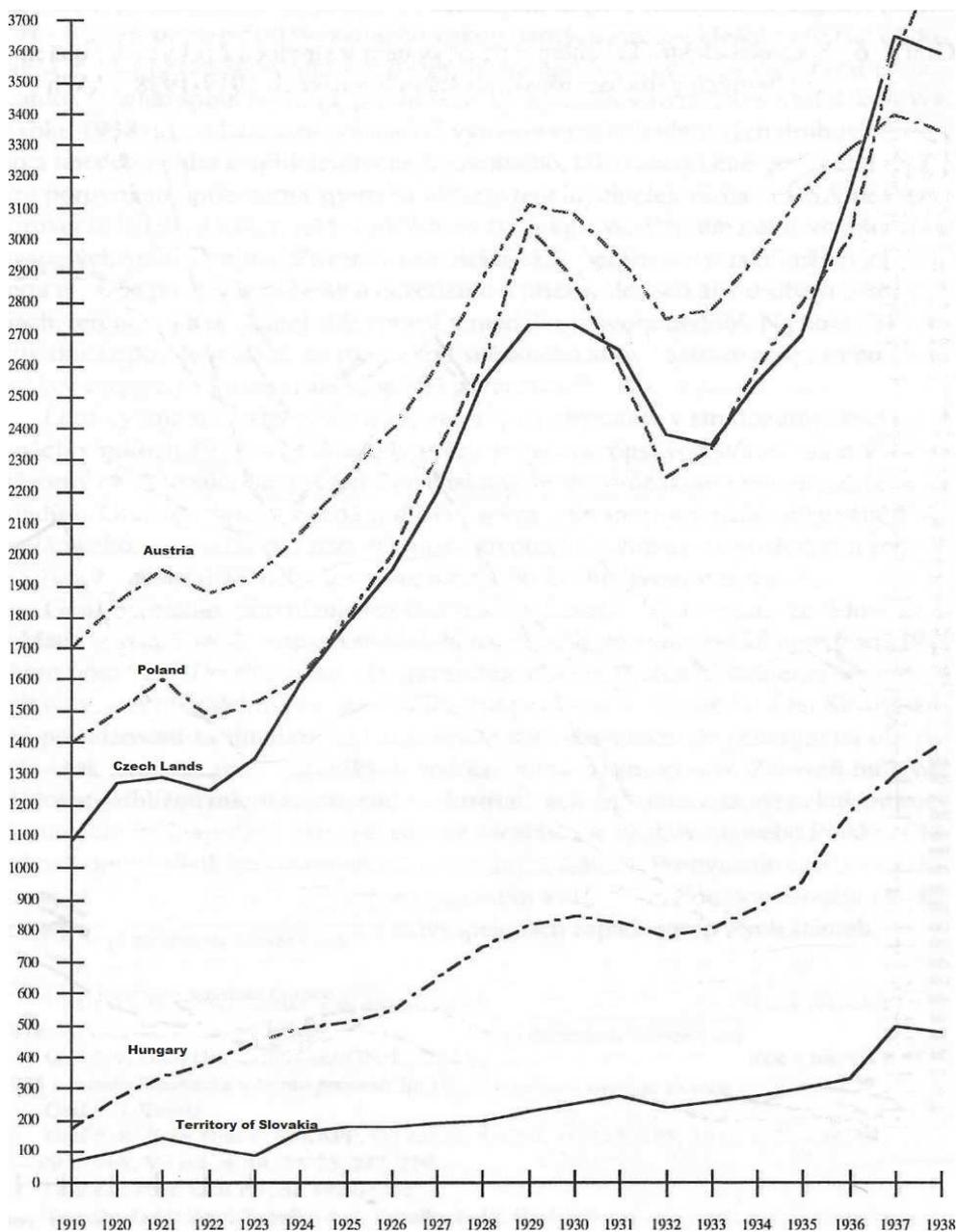


Figure 3 Electricity consumption in mil. kWh in countries of central Europe. Resource: [5]

In the energy sector, which has an impact on the environment after 1918, premature rising prices for primary energy inputs, as well as increased transport costs, and the overall shortage of raw materials in the post-war boom period. The coal-based energy situation was particularly difficult.

However, industrial plant power plants continued to play a key role in electricity generation. An important milestone in the development of the Czechoslovak electricity industry was June 22, 1919, when the law on the creation of "All-utility power

companies" was passed. By declaring the company to be useless, he was ordered to supply electricity in a

particular territory to anyone who requested it, unless it was proved that the connection was unprofitable. Since 1920, a 50 Hz three-phase system with a voltage of 3 x 380/220 V for local networks and 100 000 V for long-distance networks has been introduced for the whole republic.

The second important milestone was the start of the construction of hydropower plants.



Figure 4 Water power station Ladce build 1930-1936
Photo [7]

4 CONCLUSION

In conclusion, in the last three years of the inter-war period under review, industrialization was again taking place in Slovakia, whose development was mainly ensured by satisfactory results in the area of infrastructure. By 1938, thanks to large investments, the rail network was basically adapted to the new landscape conditions, changed after 1918, the road network construction started, the electrification process, as one of the prerequisites for building a modern industry, came to a national stage, which meant that a large part of the territory of today's SR was covered by a high voltage network, a network of very high voltage municipal authorities was rapidly built and the implementation of plans for the construction of a cascade of hydroelectric power plants on the Váh River, which together with the high-voltage highways should represent the backbone of modern Slovak energy, continued successfully.

Within the framework of infrastructure development, telegraphy, telephony, radio, river transport and air transport started to be quite successful in interwar years. In the years 1918—1938, only the electrification of the railways, like in the Czech lands, showed permanent stagnation. In the last year of the existence of Czechoslovakia, several modern high-capacity factories were built in Slovakia, completed only in the following period. Dozens of older plants were also under construction, and older businesses, upgraded in previous years, needed only a favourable sales boom for capacity utilization, such as the sharp rise in industrial production during the war in the early 1940s. The sum of all these factors had a key share in the relatively rapid growth of the volume indicators of the industrialization process in 1939-1943.

Acknowledgment: *This paper was created within the solution of project KEGA 006STU-4/2018 "Modernization of laboratories for measurement of thermal and technical quantities".*

REFERENCES

- [1] ŠEMINSKÝ, J. 2016. The etymology of term the 4th industrial revolution In: International journal of interdisciplinarity in theory and practice. No. 11 (2016), p. 324-326. ISSN 2344 - 2409
- [2] ŠEMINSKÝ, J. 2018. Industrial revolution in the territory of recent Slovakia and Košice. Interdisciplinarity in Theory and Practice : The Journal for Presentation of Interdisciplinary Approaches in Various Fields. - Arad (Rumunsko) : No. 16 (2018), p. 33-38 ISSN 2344-2409
- [3] ŠEMINSKÝ, J. 2018. Continuing of industrial revolution at the territory of recent Slovakia / Jaroslav Šeminský - 2018. In: Interdisciplinarity in Theory and Practice: the Journal for Presentation of Interdisciplinary Approaches in Various Fields. No. 17 (2018), p. 29-34 ISSN 2344-2409
- [4] SABOL, M. 2012. Slovenská ekonomika po 1. svetovej vojne. Hospodárske pomery na Slovensku pri vzniku ČSR. In: História. Revue o dejinách spoločnosti. No. 3-4/2012. p. 30-36. ISSN 1350-8316
- [5] HALLON, L. 1995 Industrializácia Slovenska 1918-1938. (Rozvoj alebo úpadok?) Vydané: Bratislava, Veda, vydavateľstvo SAV. 1. vydanie. ISBN 8022404101
- [6] Official website of town Nová Dubnica. On-line: <https://www.novadubnica.eu/historia-mesta/>
- [7] Official website of town Ladce. On-line: <https://www.ladce.sk/cementaren-elektren/>

AUTHORS ADDRESSES

- ¹ Doc. Ing. Jaroslav Šeminský, PhD.
Technical University of Kosice
Park Komenského 8, 040 01 Košice,
Slovak Republic
Email: jaroslav.seminsky@tuke.sk