ZDENĚK JINDRA
IVAN JAKUBEC
ET AL.

THE ECONOMIC RISE OF THE CZECH LANDS I.

FROM THE 1750s TO THE END OF WORLD WAR I

KAROLINUM

The Economic Rise of the Czech Lands I.
From the 1750s to the End of World War I

Zdeněk Jindra, Ivan Jakubec et al.

Reviewers:
Assoc. Prof. Lee Cabell
PaedDr. Pavol Pivovarniček, PhD.

KAROLINUM PRESS
Karolinum Press is a publishing department of Charles University
Ovocný trh 560/5, 116 36 Prague 1, Czech Republic
www.karolinum.cz

Copyedited by Scott A. Jones and Michael R. Stein
Set in the Czech Republic by Karolinum Press
Layout by Jan Šerých
First English edition

A catalogue record for this book is available
from the National Library of the Czech Republic.

Authorial team led by Professor PhDr. Ivan Jakubec, CSc.
and Professor PhDr. Zdeněk Jindra, CSc. (†)
Authorial team:
PhDr. et PaedDr. Jiří Dvořák, Ph.D., PhDr. Jan Hájek, CSc.,
prof. PhDr. Ivan Jakubec, CSc., prof. PhDr. Zdeněk Jindra, CSc. (†),
JUDr. et PhDr. Antonín Kubačák, CSc. (†), doc. PhDr. Petr Popelka, Ph.D.
Doc. PhDr. Michal Pullmann, Ph.D., doc. PhDr. et JUDr. Jakub Rákosnik, Ph.D.
Doc. PhDr. et JUDr. Jan Štemberk, Ph.D.

The original manuscript was reviewed by doc. PhDr. Jana Englová, CSc.
(University of Jan Evangelista Purkyně in Ústí nad Labem)
and prof. PhDr. Aleš Skřivan, CSc. (Charles University, Prague)

ISBN 978-80-246-4023-5 (pdf)
ISBN 978-80-246-4067-9 (epub)
ISBN 978-80-246-3806-5

Charles University
Karolinum Press

www.karolinum.cz
ebooks@karolinum.cz

CONTENTS

FOREWORD

The first part of this study of the economic development of the Czech crown lands over the last 250 years is based on the book *Hospodářský vzestup českých zemí od poloviny 18. století do konce monarchie,*[1] published under the aegis of the Institute of Economic and Social History of the Arts Faculty of Charles University and the Karolinum Press. Some passages have been edited from the English version. Given the use of footnotes, the book might be seen as occupying a place somewhere between university textbook and research monograph.

The book is intended for foreign students, researchers, and anyone interested in economics under the conditions of Central Europe. From the reign of Maria Theresa and Joseph II, via the Congress of Vienna and to the First World War, Europe underwent a profound transformation. The same is true of the Austrian Monarchy itself, from the Silesian Wars, its ascent to become one of the five Great Powers responsible for redrafting the map of Europe at the Congress of Vienna, to its decline into a second-class power and an internally unstable, dualist Austria-Hungary. Many of these secular changes took place in the economic sphere and form the subject of our study.

The authors are leading experts in the economic history of the Czech crowns lands in the eighteenth and nineteenth centuries and include representatives of universities and research institutes from Bohemia and Moravia. Given the broad scope of the subject matter and the expertise of individual authors, certain chapters include contributions from more than one author.

Four chapters are devoted to the period lasting from halfway through the eighteenth century to 1918. Chapter 1 examines the economic, institutional, and legal bases of developments in the social, demographic, ethnic, and cultural spheres. The rest of the chapters outline developments in the primary, secondary, and tertiary economic sectors. The concluding chapter looks at events during the First World War. A selected biography is attached, intended to provide pointers to anyone looking to expand their knowledge of this topic. Most of the tables and graphs are embedded in the text. Schematic maps indicating the surface area of the Austro-Hungarian Monarchy,

1 Jindra, Z., and Jakubec. I. a kol. *Hospodářský vzestup českých zemí od poloviny 18. století do konce monarchie*. Praha, 2015.

the scope of the chambers of commerce and trade, the development of the leading engineering firms, and the railway network of the Czech lands are contained in an appendix.

Though the aim is not to provide a single interpretation, the different approaches taken by individual authors, depending on their areas of expertise, in no way undermine the integrity of the work as a whole. For the sake of clarity we have left certain overlaps and repetitions in the text. The authors would like to thank the Karolinum Press for publishing this book in English, the translator for his patience, and the proofreaders for their helpful suggestions.

BIOGRAPHICAL DETAILS

Professor PhDr. Ivan Jakubec, CSc. (b. 1960)
Charles University, Faculty of Arts, Institute of Economic and Social History ivan.jakubec@ff.cuni.cz. Specialises in the economic history of the nineteenth and twentieth centuries and the history of technology, transport, and infrastructure. He has recently begun researching travel during the period of the Protectorate of Bohemia and Moravia.

Emeritus professor PhDr. Zdeněk Jindra, CSc. (b. 1931–2023)
Charles University, Faculty of Arts, Institute of Economic and Social History. Specialises in business history in the nineteenth century and first half of the twentieth century, the economic aspects of the First World War, and the history of the company Krupp, Essen.

1. SOCIOECONOMIC, INSTITUTIONAL, AND LEGAL FOUNDATIONS

ECONOMIC FOUNDATIONS

BASIC TERMS AND PROBLEMS EXAMINED

The material conditions of the citizens of the Czech crown lands during the nineteenth century were primarily affected by the following factors: fundamental demographic changes; industrialisation and the revolution in technology and manufacturing (the Industrial Revolution) in the secondary sector (trade and industrial factory production), along with the swift and sustainable economic growth that resulted; radical changes to the primary sector (agriculture, mining, forestry, etc.); and—somewhat ignored by historians—fundamental transformations to the tertiary sphere (i.e., the wide range of services ensuring communication and the smooth running of the economy, state institutions, and society as a whole). These changes saw the establishment of a market-based capitalist economy and a newly structured bourgeois civil society. However, historical research into these changes has raised a host of questions and problems that are still being discussed to this day.[2]

This chapter will not analyse in detail economic and historical terms, which have recently been dealt with comprehensively by the *Oxford Encyclopedia of Economic History*. Instead, it will focus on specific aspects of the developments that took place in the monarchy and the Czech crown lands.

The cornerstone and main sources of economic development during the course of industrialisation are urban trades, crafts, and factory-based industry (i.e., the secondary sector of a national economy, as opposed to a traditional agrarian society, which is based on the primary sector of land and countryside management). The most trusted measure of economic development is an ongoing, irreversible, and significant rise in gross domestic product (GDP) per head of the population. Industrialisation can therefore be characterised as a long-term, sustainable increase in the part played by the industrial (secondary) sector of the national income of a country. This

2 Cf. the relevant entries in encyclopaedias of economic and social history.

expansion is accompanied by structural transformations within industry itself, which are manifest outwardly in a change to the relative importance of individual industrial branches (i.e., an uneven growth rate). In this respect, it is possible to speak of a historical exchange of positions between leading or strategic industries. At the end of the eighteenth and the start of the nineteenth centuries, the textile industry was the economy's driving force. In the second half of the nineteenth century, its role was taken over by coal, iron, and steel as a consequence of the railway boom, and at the end of the nineteenth century the vanguard comprised electrical engineering, the chemical industry, the internal combustion engine, etc.

The most important factor accompanying industrial revolution is sustainable and self-sustaining, relatively high *economic growth*, the main driver of which is (unlike the classical production factors of land and natural energy sources in the form of human, animal, hydro, and wind power in agrarian societies) productive (i.e., investment and operating) capital, and over the course of time, especially in the twentieth century, human capital (i.e., higher levels of education, knowledge, and skills amongst workers).

Economic growth. What essentially and outwardly best characterises an Industrial Revolution is the fact that there is sustainable and significantly higher economic growth in the country in question, leading to the extraordinary compression, acceleration, and deepening of the process of industrialisation. Economic growth, which significantly increases the production capacity of a national economy, also featured in the preceding agrarian society. However, such growth was negligible, slow, and highly unstable, interrupted by long periods of stagnation and decline. "We can therefore say that the main sign of a successful Industrial Revolution is the institutionalisation of (economic) growth".[3] Said growth is (leaving aside short-term cyclical fluctuations) sustainable and significantly higher and faster than at any time previously.[4]

Theoretically speaking, sustained and faster economic growth can be expressed in three ways: (1) linearly as a gradual, smooth increase in production capacity; (2) using a discontinuity model that isolates significant quantitative breaks or short periods of accelerated economic development; and (3) by plotting a gradually accelerating upward trend in which economic tempo gradually increases while deviations from this trend are short-lived and progress is at core permanent and irreversible. The second model is applied more to Prussia and Germany 1847–1873, and can be compared to

3 Buchheim, Christoph. *Industrielle Revolutionen. Langfristige Wirtschaftsentwicklung in Großbritannien, Europa und in Übersee.* München: Taschenbuch, 1994, p. 11.

4 See the entry Economic growth, in: Mokyr, Joel (ed.). *The Oxford Encyclopedia of Economic History, Vol. 2.* Oxford: Oxford University Press, 2003.

the "take-off" phase as posited by Walt Whitman Rostow. In the Habsburg Empire, France, and other countries, the course of the industrialisation process and economic growth is closer in reality to the third model, and all that is left to debate is the precise moment when the entire process began. The American historian David F. Good traces things back to the pre-March Revolution period (*Vormärz*, the period preceding the 1848 March Revolution in the states of the German Confederation): "Data on the growth of the social product and documents on the technical transformations in key industrial sectors indicate that permanent growth began in the Western region of the (Habsburg) Empire after the Napoleonic era."[5]

In national and international statistics, economic growth is measured by the sum of all values created by the citizens of the country in question, in all sectors of the national economy (i.e., by the appreciable increase in the real gross domestic [national] product [GDP]). At the same time, this relatively accurate indicator of the economic, especially industrial, level of the country in question does not so much operate in absolute figures, such as relative annual per capita increases, since not absolutely every increasing national product counts as economic growth. We deem economic growth to be an increase that is higher than the parallel growth of the population. In principle, it represents the greater potential of labour forces. In this respect, the difference between advanced and less advanced industrial countries resides in the extent to which these potential human resources are genuinely and rationally used in the economy or deployed in the most progressive sectors of the economy (secondary and tertiary). This perspective is directly applicable to the protracted industrial process in the Habsburg Empire.

Market economic transformation. The primary sector (i.e., agriculture, forestry, and mining – the Agrarian Revolution), aims to intensify and rationalise performance in these spheres in order to provide the secondary and tertiary sectors a surplus of accumulated capital and abundant supplies of alimentation and raw materials, as well as a reserve army of labour to develop industry and services.[6] In a broad sense, radical change in the primary sphere refers to transforming feudal social and legal ties between the land and the peasantry in the form of emancipating the peasants and commercialising property and market relations, partly on a bottom-up basis in the form of bourgeois revolutions, and partly on a top-down basis in the form of legal decree and reform. This, in turn, saw peasants purchasing their freedom and ceding parts of their land. The Agrarian Revolution is there-

5 Good, David F., *Der wirtschaftliche Aufstieg des Habsburgerreiches 1750–1914*, Wien, Köln, Graz, 1986, p. 61.

6 Cf. Bairoch, Paul. *Die Landwirtschaft und die Industrielle Revolution 1700–1914*, in: Cipolla, Carlo M., and Knut Borchardt (eds.). *Europäische Wirtschaftsgeschichte, Vol. 3*, pp. 297–332.

fore an important precondition for industrialisation, and either wholly or partly precedes the Industrial Revolution or, at the very least, accompanies it. Fundamental changes are associated with this process. Firstly, the land must become a freely marketable commodity, which presupposes the abolition of the fideicommissum (inalienable and indivisible properties with hereditary succession), the abolition of municipal or communal ownership of land, and the entry of an unsuccessful husbandman into bankruptcy proceedings. Secondly, serfs and villeins had to be turned into free, *sui juris* citizens stripped of all feudal duties and benefits.

In a narrow sense, the Agrarian Revolution involved a transition from a triangular planting system to crop rotation, to the stabling of livestock and the cultivation of fodder crops (clover and alfalfa) and root crops (potatoes and sugar beet), the introduction of fertilisers, the improvement of tools and machines, and finally the application of science to large-scale agricultural production. The Agrarian Revolution increased demand for iron, machines, and means of transport, while producing a multiplication effect (i.e., it in turn drove an increase in the production of iron, the creation of agricultural machinery, the development of the food and chemical industries, etc.). All of this then establishes a close correlation between the Agrarian and Industrial Revolutions.

Changes (revolutions) in communications and services[7] include a qualitative transformation in transporting large numbers of people and goods across land and water (networks of roads, canals, and railways; steam navigation; etc.), rapidly disseminating news and information (the telegraph and printing press, etc.), expanding other utilities and institutions of the tertiary sector, ensuring the exchange of goods (wholesale and retail), circulating money (banks, savings banks, and stock exchanges), managing insurance operations, etc. The importance of this sector resides in the fact that modern means of communication and services are an important part of the infrastructure essential to operating the national economy as a whole and its individual sectors and regions. In Central Europe, where industrialisation was delayed, three factors were important for accelerating economic growth: (a) the railway, which, with its multiplication effect (on metallurgy, engineering, mining, construction, etc.), from 1840–1880, was the driving force behind the Industrial Revolution; (b) the creation of joint-stock moveable banks[8] capable of compensating for insufficient short-term investment and operating capital with loans and short-term credit, and later through shares

7 Cf. Hartwell, R. M. *Die Dienstleistungsrevolution*, in: Cipolla and Borchardt. *Europäische Wirtschaftsgeschichte*, pp. 233–260.

8 Cf. Gill, B., *Bankwesen und Industrialisierung in Europa 1730–1914*, pp. 165–194; Vencovský, F., Jindra, Z., Novotný, J., et al. *Dějiny bankovnictví v českých zemích.* Praha, 1999.

in an enterprise; and (c) greater state participation in the economy.[9] The state performs an important function by creating a basic framework for economic activities and by managing public institutions through enforcing the law and the constitution; overseeing the activities of the administrative authorities, municipal and parliamentary representatives; providing education for its citizens; supplying energy and water; regulating healthcare; etc.[10]

The ***change of demographic regime (the great transition or demographic revolution)***[11] accounts for the explosive population growth (which took place in England from the mid-eighteenth century and in Western and Central Europe from the nineteenth century onwards) and connects it to the Industrial Revolution, since people, as the main productive force, are a decisive factor in economic growth as well as being the users and consumers of the fruits thereof. This transformation involves a transition lasting several decades from the centuries-old "old demographic regime" of agrarian society (high birth rates of from 35–50 per thousand of the population, high mortality rates of 30–40 per thousand) to the "modern demographic regime" of industrial society (average, subsequently low birth rates of 20–30 per thousand and a decreasing mortality rate, especially infant mortality, of 15–20 per thousand). In the advanced countries of Western Europe, this transition was completed between 1880 and 1913, but in the Habsburg Empire, only its Western region, specifically the Czech lands, comes close to conforming to this trend. The sluggish and uneven course of the demographic revolution in the Habsburg monarchy in comparison with the West was reflected in the somewhat lower numerical increase in the population, slower migration from the countryside to the cities, the insufficient capacity of the domestic market and hence the low level of internal trade and the slow progress of industrialisation.

The ***concept of the Industrial Revolution*** has been subject to extensive debate over the last fifty years and has generated hundreds of publications.[12] Issues particular to the Habsburg Monarchy and the Czech lands can be summarised in the following points.

---

9 Cf. Supple, B., *Der Staat und die Industrielle Revolution 1700–1914*, in: Cipolla and Borchardt, *Europäische Wirtschaftsgeschichte, Vol. 3*, pp. 195–231.

10 Regarding the issue of institutionalism, cf. T. Veblen, J. R. Commons, J. K. Galbraith, D. North in *Theorie des institutionellen Wandels. Eine neue Sicht der Wirtschaftsgeschichte*. Tübingen 1988.

11 Cf. Cipolla, Carlo M. *The Economic History of World Population*. London: Penguin Books, 1962.

12 Purš, J. *Průmyslová revoluce: Vývoj pojmu a koncepce*. Praha, 1973; Myška, Milan. "Průmyslová revoluce z perspektivy 70. a 80. let." *ČsČH* 89 (1991): 533–546; Komlos, J. "Überblick über die Konzeptionen der Industriellen Revolution." *VSWG* 84 (1997): 461–511; Mokyr, J. (ed.). *The Oxford Encyclopedia of Economic History, Vol. 1–5*. Oxford: Oxford University Press, 2003; Hahn, Hans-Werner. *Die industrielle Revolution in Deutschland*. München, 1998; Paulinyi, Á. *Industrielle Revolution: Vom Ursprung der modernen Technik*. Reinbek bei Hamburg, 1989 (Czech *Průmyslová revoluce: O původu moderní techniky*. Praha, 2002).

While in England the prerequisites for industrialisation (the Industrial Revolution) were basically in place by the mid-eighteenth century, in the Habsburg Empire progress was stifled by a number of factors: an economy based on serfdom, the absence of a centralised state unified in terms of both religion and nationality, and a protracted struggle to secure the integrity of the state (the wars with Turkey, the Wars of the Spanish and Austrian Succession, and the wars with revolutionary and Napoleonic France and with Prussia over hegemony in Germany). This meant that enacting the basic legal and institutional regulations for the transition to a bourgeois industrial society was more difficult and took far longer, with breaks and setbacks. A mercantile policy aimed at assisting the process was only later initiated and up until 1740 enjoyed only limited success. It was only in the second phase of Habsburg mercantilism from 1740–1790 that Maria Theresa, Joseph II, and Leopold II passed a series of measures and reforms facilitating the development of a capitalist market economy (placing restrictions on guilds and privileges, granting of subsidies and export premiums to self-employed tradespeople; abolishing internal tariffs; constructing roads and regulating rivers; opening the Vienna Stock Exchange in 1771; eliminating relationships based on serfdom; introducing the Land Registry; converting peasant benefits and services into monetary leases from 1781–1789; enacting education reforms; founding the Czech Learned Society; etc.). However, the relatively free movement of market forces was enforced in defiance of the Metternich absolutist regime. Progress was particularly apparent in the Czech lands and Alpine provinces. (a) At the turn of the eighteenth and nineteenth centuries, a new class of factory owners arose from the ranks of wholesalers, craftsmen, court Jews, private bankers and moneychangers, members of the nobility, and immigrant specialists and entrepreneurs. (b) In the textile industry there was a rapid expansion of the workshop production method and the domestic system characteristic of advanced proto-industrialisation. (c) Gradually, a symbiosis was reached between inventors and entrepreneurs that put down roots in universities, polytechnics, and learned societies, and starting in 1810 found support in the legal protection of inventions. (d) Signs of greater capital mobility were clear in the activities of many private banking houses, in the opening of the Austrian National Bank in 1816 (with branches in Prague in 1847, Brno in 1853, and Olomouc and Opava in 1854), and in the foundings of savings and insurance systems. While the older literature tended to downplay the institutional basis of the economic progress achieved prior to the revolutions of 1848, cliometric research from the 1980s (J. Komlos et al.) has demonstrated the limitations of these traditional judgements. The reforms enacted from 1848–1859 represent the culmination of this gradual trend toward liberalisation. However, as far as the economic development of the Western part of the monarchy was concerned, they did not represent a crucial turning point but at most accelerated economic growth and ensured its irreversibility.

In addition, the course of capitalistic free competition ran neither smoothly nor for very long in the monarchy. This was for several reasons. Firstly, economic liberalism was forced to assert itself against the backdrop of suppressed political liberalism (Baron Alexander von Bach's absolutism or neo-absolutism). Secondly, liberalism was shown to be weaker than nationalism in the multinational Habsburg state. Thirdly, unlike the huge economic boom enjoyed by Germany during the 1850s and 1860s, the Habsburg Monarchy experienced only a short upswing during the 1850s, which was buffeted by Austria's neutrality in the Crimean War and defeat in the Italian Campaign of 1859, followed by the deflationary politics pursued by Plener and defeat in the war with Prussia in 1866. From 1859–1866, economic growth was so attenuated in the monarchy that not even the subsequent sharp upswing and "founders' period" or *Gründerzeit* of 1867–1873 was sufficient to compensate. In reaction to the crisis of 1873, state regulation was reintroduced with the tacit support of businesspeople. This was not restricted simply to a switch over to protectionism. Amendments passed in 1883 and 1907 to the liberal Trade Regulation Act of 1859 placed restrictions on trade. In addition, the high taxation of joint-stock companies saw Austrian economic policy become an "international rarity".[13] This policy contributed to the creation of powerful cartels that monopolised the internal market and increased commodity prices.

For more than fifty years, historians have debated precisely when modern economic growth began in the Habsburg Monarchy. Some date the commencement of the industrial age, at least in the western part of the empire, as far back as the pre–March Revolution period (e.g., David F. Good favors 1820), while others regard as decisive the "bottom-up revolution" (1848) and reforms in the form of a "top-down revolution" (1850–1867). The debate then centred on whether modern economic growth in the region was manifest in the form of a definitive break, a "take-off" (Walt Rostow, 1963) or a "surge" (Alexander Gerschenkron, 1965), or whether the rate of growth simply increased gradually. The first case is an example of a discontinuous model; the second is that of an accelerating trend. Attempts to find Rostow's take-off point for the industrialisation process in the Habsburg Monarchy are not entirely convincing, partly because some writers date it at the turn of the pre–March Revolution period and others from 1850–1873. We should bear in mind that in the economically more advanced Germany (in particular in Prussia), the take-off point is posited by Hans-Ulrich Wehler in his last work to have taken place in

13 Koren, St. "Die Industrialisierung Österreichs: Vom Protektionismus zur Integration," in: Weber, W. (ed.), *Österreichs Wirtschaftsstruktur: gestern, heute, morgen, Vol. I* (1961): 236.

the mid-1840s, with the "breakthrough of the Industrial Revolution" taking place from 1850–1873. Neither the Habsburg Empire as a whole nor its western region experienced such a strong dynamic of industrialisation, and thus an increasing number of historians prefer speaking, as in the case of France, of a slow but relatively constant process of growth, the beginnings of which can be traced back to the 1820s. However, the question remains as to whether we can regard this process as culminating in all sectors simultaneously (Jaroslav Purš's opinion, at least as it applies to the Czech lands), as in the more advanced Germany (1873). The approach taken by Milan Myška (1996) is more acceptable. Myška regards the Industrial Revolution in the broadest sense as a "complex of economic, social, and cultural changes associated with the growth of the factory system and modern technical civilisation", and in a narrower sense as a "process of technical, productive revolution" that in the Czech lands culminated in the main industrial sectors around the turn of the 1870s and 1880s. This revolution is more dynamic in the Czech lands than in other parts of the monarchy. According to Myška's calculations, from 1841–1880 the annual increase in industrial production in the region was 3.07%, while in Lower Austria the figure was 2.66% and across Cisleithania as a whole it was 2.44%. If we take the broader concept as our base, even on the eve of the First World War, Cisleithania cannot be deemed an advanced industrial region but at best an "industrialised agrarian state" (Herbert Matis, 1996). As late as 1910, 53% of gainfully employed people worked in agriculture and only 23% in industry and trades. The share taken by agriculture of national assets was 27%, and there were only seven towns and cities with over 100,000 inhabitants, indicating a lower rate of urbanisation and suggesting that internal trade was still insufficiently developed. In the Czech lands, this structural transformation was somewhat more pronounced. However, only in 1910 did the ratio of economically active persons turn to 45:39 in favour of non-agricultural sectors, a fact that saw the Czech lands move up to the higher level of the "industrially agrarian", somewhat comparable with Germany, where in 1907 this same ratio had reached the level of 52:35. The monarchy's slower rate of industrialisation was reflected in the structure and lower concentration of industrial production. In 1911, the textile and clothing industries, along with the food industry, accounted for 52% of the total creation of value in industry, while this figure was only 20% with metalworking and 10% with fuel, chemicals, and energy. Registered enterprises were dominated by small and medium firms, with 70%–80% of all firms employing fewer than 100 workers. The only exceptions were in the iron and steel industry, mining, and some engineering plants (e.g., Österreichisch-Alpine Montangesellschaft, Pražská železářská společnost [Prague Ironworks], Prager-Eisen-Industrie-Gesellschaft, Vítkovické železárny [Vítkovice Ironworks], and Škodovy závody [Škoda Works]).

According to Anton Kausel (1979), modern sustainable economic growth can be identified in Cisleithania, including the Czech lands, from around 1825–1830, a period with an average GDP growth rate of 1.11%, and from 1870–1913 with average growth of 2.16%. The last calculations by D. Good (*Journal of Economic History*, 1994) are somewhat higher than Kausel's earlier estimates: according to these, by the end of the nineteenth century the economy of the Habsburg Empire was posting higher rates of growth than most European countries (though it was still unable to draw level by 1914), thanks mainly to high GDP growth rates in the backward peripheral provinces that began to approach the level of the more advanced western regions of the monarchy. From 1870–1910, GDP per capita rose year-on-year in the Habsburg Empire by 1.63% (i.e., at the same rate as Germany and faster than Great Britain, France, Belgium, and Italy—all around 1%), while in Cisleithania as a whole growth was 1.48% and in Transleithania 2%, in the Czech lands 1.54%, in Slovakia 1.85%, and in the territory of what later became Czechoslovakia 1.59%. Along with Lower Austria and Vienna, the Czech lands were among the most economically advanced countries of the entire the Habsburg Empire, on a similar level to Germany.

In Cisleithania, specifically in the Alpine and Czech lands, levels of industrialisation were not far off those of Western Europe. Though their share of the European population was only 5.5%, these regions contributed a very respectable 4.5% to European industrial production. The 3% growth enjoyed by Western Europe was topped by the crown lands of Austria-Hungary, with an annual average of 3.46%.[14]

Ongoing discussion on the Industrial Revolution is linked to several broader issues relating to European, even global, economic development that from the last quarter of the nineteenth century strongly impacted the Czech economy. These issues are known as the "Long Depression", the "second Industrial Revolution", and "organised capitalism".

The ***Long Depression of 1873–1896*** is part of the broader issue of economic cycles or the subject of "historical economic cycle research",[15] which Czech historiography has yet to examine systematically (except for two studies by Pavla Horská-Vrbová and the book by Vlastislav Lacina on the crisis of 1929–1934). An outline of the economic cycles in Austria from 1850–1914 is offered by the Austrian historians H. Kernbauer and E. März in the anthology

---

14 Rumpler, H. *Eine Chance für Mitteleuropa: Bürgerliche Emanzipation und Staatsverfall in der Habsburgermonarchie*. (Wolfram, H. (ed.), *Österreichische Geschichte 1804–1914, vol. 1*), Wien 1997, pp. 456–457; Jindra, Z. "Výchozí ekonomické pozice Československa. Odhad národního jmění, důchodu a hrubého národního produktu Rakouska-Uherska a českých zemí před 1. světovou válkou," in: Střední a východní Evropa v krizi XX. století. K 70. narozeninám Zd. Sládka, AUC-Philosophica et historica 3–4, Studia historica XLII, Praha 1998, pp. 183–204.

15 Schröder, W. H. and Spree, R. (ed.). *Historische Konjunkturforschung*. Stuttgart, 1980.

referred to above. For a long time, the "Long Depression" itself was viewed by economic historians in the light of the Hans Rosenberg book *Große Depression und Bismarckzeit* (1967). Rosenberg's description of that period would at first sight appear justified and accurate. Even at the time it was perceived as being characterised by a strong downward pressure on prices, interest rates, and profits. However, a glance at the statistics of those years quickly reveals that the Vienna Stock Exchange crash of 1873 had unusually long-term consequences that dragged on until the mid-1890s. (Incidentally, the German word *krach,* meaning "crash" in relation to the start of the deepest global economic crisis of the nineteenth century, was first used in Vienna by Prague journalists, whence it entered general economic history via the Viennese press). However, we should realise that this depression was far more about a drop in values than a restriction of the volume of production in the leading industrial sectors (with the exception of the years of stagnation and recession lasting until 1878–1879). Moreover, agriculture was severely affected by the reduction in production, and this was accompanied by a large agrarian crisis caused by the flooding of Western and Central European markets with cheap grain and food from America and Russia. In the Czech lands, sugar beet and corn producers were also affected by this crisis in the 1880s. The most striking feature of these years was the great "price revolution", which, compared to the fluctuations in business cycles during the rest of the nineteenth century, saw sharp deflation. For this reason, these days we speak more of the "period of great deflation" when analysing those times. Whatever the case, the industry of the Habsburg Monarchy emerged from this twenty-year period of development lagging behind Germany and after a longer delay.

However, the course of economic cycles from 1873–1896 impacted only one side of economic development. From a broader perspective, the last quarter of the nineteenth century was characterised by a general crisis of structural adaptation and a restructuring of the entire economic system. Painful lessons learned from the crisis and the declining profitability of business led the economic bourgeois to a major turnaround regarding a range of other issues. These included:

- a systemic rejection of classical liberal capitalism and free competition in favour of its containment and regulation within what was known as "organised capitalism"
- a shift in internal economic policy towards greater state participation and intervention (e.g., in the war-controlled economy of 1914–1918)
- a retreat from free trade to customs protectionism and to external capital or territorial (colonial) expansion

- remedial measures aimed at the rationalisation of production and its concentration in large enterprises, and finally to its departmentalisation and allocation to cartels
- the widespread deployment of new methods and technology and a shift towards progressive new spheres of production (the second Industrial Revolution)
- a significant increase in the number of white-collar workers (managers, engineers, laboratory technicians, and researchers)
- the concomitant reorganisation of the top rungs of the corporate ladder and a transformation of the function of entrepreneurs (the "managerial revolution")
- an unprecedented rise in the number of shop-floor workers, introducing a "social question", the solution to which was provided by creating mass workers' political parties and trade unions
- the organisation of the professional interests of entrepreneurs and wealthy business circles, partly through political parties and partly through professional organisations such as chambers of commerce and industry as well as professional federations in Austria and the Czech lands (e.g., Industriellen-Club in 1875, Central-Verband der Industriellen Österreichs in 1892, Bund österreichischer Industrieller in 1897, and Verband österreichischer Banken und Bankiers in 1911, along with independent Czech national affiliates such as Spolek českých průmyslníků textilních [Association of Czech Textile Industrialists] in 1902, Spolek továrníků a výrobců hospodářských strojů [Association of Manufacturers of Agricultural Machinery] in 1910, Jednota průmyslníků pro Moravu a Slezsko [Association of Industrialists for Moravia and Silesia] in 1912, and Svaz českých bank [Union of Czech Banks] in 1917).

More research needs to be conducted into these professional associations, though perhaps the study by Eduard Kubů (2000) will point the way forward.

In 2015, Czech historiography saw the publication of a large collective interdisciplinary monograph that attempted to investigate the phenomenon of economic crisis in its specific Central European forms and its territorial, temporal, and sectoral manifestations.[16] Certain entrenched ideas that located the end of the "Long Depression" in the mid-1890s (1895–1896) were now corrected so as to make it coincide with the peak of the economic cycles in 1899–1900 and even 1909–1912.[17]

16 Kubů, E., Soukup, J., and Šouša, J. (eds.). *Fenomén hospodářské krize v českých zemích 19. až počátku 21. století. Cyklický vývoj ekonomiky v procesu gradující globalizace*. Praha and Ostrava, 2015, p. 7. Engl. résumé.

17 Hájek, J. "Velká deprese" 19. století a peněžnictví v českých zemích, in: ibid., p. 144.

The lower and middle classes most affected by the crisis and depression turned away from the liberal philosophy of individualism and the principles of *laissez-faire et laissez-passer* and sought salvation in collectivist solutions, mass parties, and state intervention. This shift was soon reflected in new categories of thinking and action, notably in the rise of anti-Semitism, nationalism, socialism, and conservatism. In Austria, this anti-liberal movement was extremely radical in its discourse and objectives. In 1879, Eduard Taaffe's conservative government came to power (1879–1893) and systematically boosted the power of the state in the economy. On the one hand, it imposed higher taxes and more red tape on businesses, while on the other hand it provided small tradesmen with protection "against economic competition" (amendments to trade licensing regulations in 1883 and 1885), supported the peasantry with the Cooperative Act and other measures, and introduced legislation protecting workers' rights. In practice, this policy provided protection for small industrialists and craftsmen (in 1902, 96.6% of all factories and 55% of all employees were included in the category of small factories and domestic production in Cisleithania), put the brakes on economic growth, and freed up political forces that were eventually to contribute to the downfall of the monarchy. It is no coincidence that the nationalist friction between the Czech and German populations of the Czech crown lands flared up in the 1880s and 1890s and that economic nationalism spread as a protest mainly on the part of small and medium businesspeople most at risk from the growing competition of large companies and mass production. It was less the consequence of competition between large companies, which were more easily able to reach agreement (e.g., in cartels).[18]

MAIN FEATURES AND DRIVERS OF THE SOCIAL AND ECONOMIC DEVELOPMENT OF THE CZECH LANDS

The economic rise of the Czech nation grew from very modest foundations laid during the mid-nineteenth century in parallel with linguistic, cultural, and political emancipation. However, over the next two generations it progressed so quickly that by the time we reach the threshold of the twentieth century, we can speak of the creation of a Czech national economy ranging from agriculture, mining, and industry all the way to its own banking system.[19] For the dual monarchy of Austria-Hungary, based—from the Compro-

18 Cf. Jančík, D. and Kubů, E. (eds.). *Nacionalismus zvaný hospodářský: Střety a zápasy o nacionální emancipaci/převahu v českých zemích (1859–1945)*. Praha, 2011; Kubů, E. and Schultz, H. (ed.). "Wirtschaftsnationalismus als Entwicklungsstrategie ostmitteleuropäischer Eliten." *Die böhmischen Länder und die Tschechoslowakei in vergleichender Perspektive*. Praha and Berlin, 2004.

19 Mommsen, H. *Die Sozialdemokratie und die Nationalitätenfrage im habsburgischen Vielvölkerstaat, Vol. 1*. Wien, 1963, p. 26.

mise of 1867 onwards—on the supremacy of the Germans and Hungarians, this was hugely significant. The Czechs deserve much of the credit for the economic growth of the monarchy being sustainable and, despite all barriers, becoming the second largest industrial nation in the whole empire and specifically in Cisleithania after the German Austrians. What were the factors that made this possible?

Demographic developments were favourable overall for the Czech lands.[20] In the first century of industrialisation (1819–1913) the population of the region doubled from five to more than ten million while the birth rate fell gradually to 27 per thousand and mortality to 18.7 per thousand. The turn in the birth rate came in 1873, while that of the death rate came approximately twenty years later. This means that the transition to a modern demographic regime continued apace. Nevertheless, it was not yet over by the time the Habsburg Empire fell, and had only fully taken place within the framework of the First Republic circa 1930.[21]

However, the swift rise in the population was not uniformly spread. Numbers rose most quickly in the industrially advanced regions of North, Central, and West Bohemia, Central Moravia, and Silesia, which in 1910 together comprised more than three quarters of the entire population (as opposed to two thirds in 1857). A remarkable side effect of this development was a larger population density on the one hand—for instance, from 1800–1900 the population/km^2 in the Czech lands rose from 58 to 122—and a significant increase in urbanisation on the other hand. During the first phase of industrialisation, the most densely populated regions were North Bohemia, mainly the textile-producing areas where Germans had settled around Liberec and Rumburk, while later on the workforce spread into the new industrial centres around Prague and Brno, as well as to the coalfields around Kladno, Most, and Ostrava. Based on colloquial speech, in 1910 more than six million Czechs and 3.5 million Germans lived in the Czech lands. In Bohemia, the Czechs represented a majority of the population, around 63%, and in Moravia of almost 72%; only in Silesia were Czechs in the minority. The Czech population was also growing at a slightly faster rate, and as a result, from the pre-March Revolution period onwards, their share in the ethnolinguistic composition of the Czech lands continued to increase and that of the Germans to fall. Importantly, regarding the economic rise of the Czech lands from the mid-nineteenth century onwards, the population of the old textile regions in border areas, where the first phase of industrialisation had taken place with a mainly German population, grew more slowly than that of the new industrial regions hosting the technologically younger and, after

20 Cf. Srb, V. *1000 let obyvatelstva českých zemí*. Praha, 2004.
21 Kárníková, L. *Vývoj obyvatelstva v českých zemích 1754–1914*. Praha, 1965.

the second phase of industrialisation, key sectors of the food and engineering sectors and heavy industry, populated mainly by Czechs. This trend was also reflected in the census and classification of nationalities by basic types of occupation in Cisleithania (1902). The Czech lands could no longer be deemed an agricultural nation, as had been the case fifty years previously. Although agriculture's share (43%) of the economy was greater than industry (36.5%), the ratio was slowly being reversed, especially if we include the affiliated spheres of trade and transport (46%). Nevertheless, Czech Germans were in a far more favourable position thanks to support from the government in Vienna. They counted themselves among the numerically stronger Austrian Germans, and in weaker moments, they looked to Berlin. During the course of industrialisation, they achieved a far stronger economic status, and also enjoyed support in the state's power apparatus, which was centrally controlled mainly by German civil servants and run along German lines.[22] Despite these favourable demographic and economic developments, the pre-1914 Czech nation found itself in the inferior position of being a "nation without a state".

The ***modern social structure of Czech bourgeois society*** was formed in the nineteenth century under the influence of the cultural, linguistic, political, and economic emancipation of the Czech nation in parallel with the industrialisation of the Czech lands and the promotion of capitalism. What follows are the characteristic signs of the emergence and composition of modern Czech society.

From an economic and political perspective, the aristocracy, though numbering only a few thousand individuals, continued to remain a powerful group.[23] Strictly speaking, this was a landed nobility, for the most part indifferent to nationality, professing a "provincial (*böhmisch*) patriotism" rather than endorsing expressly Czech or German national objectives. Though the aristocracy's influential position at the top of the social pyramid, like that of the Prussian Junkers, was due in part to the functions it traditionally occupied in the public administration, army, and diplomatic corps, at heart it derived from its vast estates (thousands of hectares), managed partly by the nobility itself, often using modern capitalist methods. In addition, this particular aristocracy, more than any other in Central and Eastern Europe, was engaged early and extensively in workshop production and later in factories and financial speculation.[24] The abolition of statute labour in 1848 did

---

22 Cf. Jindra, Z. "Národnostní složení úřednictva centrálních úřadů v habsburské monarchii a v Předlitavsku k 1. lednu 1914," in: *Pocta Zdeňku Kárníkovi. Sborník k 70. narozeninám, AUC-philosophica et historica, Studia historica LI*. Praha (2003): 71–88.

23 Cf. Županič, J. *Nová šlechta rakouského císařství*. Praha, 2006.

24 See the chapter "Der Grundherr als Unternehmer" in: Salz, A. *Geschichte der Böhmischen Industrie in der Neuzeit*. München, 1913, p. 275; Myška, M., Der Adel der böhmischen Länder. Seine wirtschaftliche Entwicklung, in: Reden-Dohna, A. von, and Melville, R. (ed.). *Der Adel an der*

not represent a blow to the 1,912 lords in the Czech lands at that time, but afforded them many advantages, the topmost being the transformation of many bondmen into farm labourers and the acquisition of 72.3 million florins from repayment of the bond. The aristocracy often used these funds to modernise their estates and to invest in industry, the railways, banks, and financial speculation. At the end of the 1867–1873 cycle, the aristocracy owned 37% of all plants and controlled 41% of all production in the steel and iron sector, in addition to the 30% it already owned (1841) of all mines responsible for around half of all coal in the Czech lands. Even though it had in the meantime gotten rid of almost all the older positions in the textile industry, it was now more active in industrial sectors linked by raw materials with agriculture (breweries, distilleries, starch factories, oil pressing shops, mills, glassworks, brickworks, and sawmills). It was also strongly represented in the new sugar beet industry. Prior to the crisis of 1873, aristocratic entrepreneurs owned 32% of the sugar factories in the Czech lands, 24% in Moravia, and 30% in Silesia. In addition, we should not overlook the fact that, along with the historical landed gentry, many newly honoured factory owners, wholesalers, and bankers lived and worked in the Austrian and Czech economy. Overall, the engagement of the Czech landed gentry in capitalist business activities was far more important than many historians are willing to concede.[25]

A protracted period of industrialisation saw the *peasants, farmers, and the agrarian bourgeoisie* become the most powerful social group in the countryside. An important position was taken by the owners of small and medium-sized farms, firstly by virtue of their power—since in the Czech lands, for example, they managed 43% of all land (at the end of the 1880s)—and secondly because of their role in the Czech national revival. Almost all the fertile regions in the Bohemian and Moravian lowlands (with the exception of the German districts of Žatec, Litoměřice, Znojmo, and Mikulov) were in the hands of Czechs. Of great significance in the economic upturn of the Czech lands in the nineteenth century were the prosperous mill owners and large farmers. Their vast, accumulated assets, which began with cultivating cereals and potatoes, later moved into new crops, especially sugar beet, and also, by the end of the century, breeding cattle. A large part of this expanding agrarian bourgeoisie were—by origin and even more so by conviction—some of

Schwelle des bürgerlichen Zeitalters 1780–1860. Stuttgart, 1988, p. 169–189; Myška, M. "Šlechta v Čechách, na Moravě a ve Slezsku na prahu buržoazní éry." *Časopis Slezského muzea*, série B (1987): 46–65.

25 Myška, M. (*Časopis Slezského muzea*, 1987). A thorough overview is offered by *Schematismus und Statistik des Großgrundbesitzes und größerer Rustikalgüter im Königreich Böhmen*. Prag, 1906; the most recent examination of the relationship between the nobility and entrepreneurship is offered by Popelka, P. *Zrod moderního podnikatelstva: Bratři Kleinové a podnikatelé v českých zemích a Rakouském císařství v éře kapitalistické industrializace*. Ostrava, 2011, p. 112.

the most fervent supporters of Czech nationalism. It is no coincidence that many of the Czech intellectuals and leading politicians (František Ladislav Rieger, Jan Perner, Alois Pravoslav Trojan, A. Strohbach, etc.) who were to draft the first Czech political programme during the revolution of 1848 came from their ranks. After constitutionalism and municipal electoral law were introduced, these wealthy Czech farmers and sugar growers occupied an important position in municipal and district councils (i.e., the lowest level of the local government administration).

A group was forming on the horizon that would become increasingly important, namely the *urban* and *industrial*, as well as (in a broader sense) the business bourgeoisie. Its members were largely rich farmers living in the agricultural interior of Bohemia and Moravia, and to a lesser extent small businessmen and craftspeople inhabiting Czech cities or the suburbs of large German cities. This organic process progressed very slowly at first. Compared to the similar development of the Czech-Bohemian and Austro-German bourgeois it was barely noticeable even after the start of the Industrial Revolution. *"Up until 1848, there was neither a Czech business bourgeoisie nor individual Czechs who could be viewed as modern industrial entrepreneurs"*.[26] Indeed, the Czech nation only became mature enough to take on the most arduous task, namely economic emancipation and the creation of its own business class, in the culminating decades of industrialisation. With its origins in villages and amongst artisans, merchants, and other small producers, the Czech bourgeoisie clung to the petty bourgeois features that were its longtime hallmark. Nevertheless, institutional snags and the stiff challenge represented by German competition drove it towards greater entrepreneurship, diligence, and tenacity, and ultimately to an extraordinarily dynamic market penetration. Only in this way did it succeed in rapidly mobilising the necessary investment funds and finding competent and assertive business personalities from amongst its ranks. The capital accumulated in farms and urban craft workshops gradually found its way, via various channels, into Czech commerce and industry (e.g. through trust funds and gratuities for young farmers' sons or the deposits and credit services of Czech mutual savings banks established for this purpose, and finally through the contributions of self-help and cooperative organisations).

The rise of a Czech industrial, commercial, and financial bourgeoisie with its own economic and political interests and demands is uniquely and gradually intertwined with the short period of economic liberalism and the birth

26 Kořalka, J. "Die Herausbildung des Wirtschaftsbürgertums in den böhmischen Ländern im 19. Jahrhundert," in: Heumos, P. (ed.). *Polen und die böhmischen Länder im 19. und 20. Jahrhundert. Politik und Gesellschaft im Vergleich.* München, 1997, p. 64.

pangs of the industrialisation process in the Czech lands from 1850–1885.[27] Whether or not we can shift these beginnings to the pre-March Revolution period will only become clear with the sociological survey of the *Historical Encyclopaedia of Entrepreneurs of Bohemia, Moravia and Silesia*, though it would appear likely. The cradle of Czech entrepreneurs consisted mainly of regions populated by Czechs—most notably in Bohemia, less so in Moravia, and only later in Silesia—and this created a special role for the industrial region of Central Bohemia and Prague as the centre of the Czech nationalist political movement. From the very start, a close link to agriculture in terms of finance, raw materials, and markets was important for the investment strategy of a capital-poor Czech business bourgeois. This entailed business activities in the food industry and service engineering (machines for sugar refineries, breweries, and distilleries), or in the manufacture of artificial fertilisers. In these two sectors, investment demands were lower and there was a faster capital turnover and secure profit. Czech construction companies and hauliers capitalised on this, as did sugar merchants operating a consignment system.

We can only speak of the arrival of the first, pioneering generation of Czech entrepreneurs after 1850. The indigenous Czech business class lacked German and Jewish businessmen like the Leitenbergers, Liebigs, and the Prague-based Porges, who had begun to do business in the era of proto- and early industrialisation. We see this in the difference between the power of Czech and German capital in the Czech lands. If we measure this strength at the end of the wave of company incorporations of 1873 (according to the level of paid-up share capital in companies with a Czech or Czech-German name), a total of 25 million florins of share capital in 134 companies (excluding banks) was held in Czech hands, while in the case of the 135 German companies (excluding banks), this figure was 144 million florins. The Czech business bourgeois did not make significant inroads into this disproportion. By 1901, the paid-up capital of Czech joint-stock companies (excluding banks) had risen to 79 million florins, while that of German companies had leapt to 865 million florins.[28]

Indigenous Czech financial capital advanced in leaps and bounds. After the relatively short period of company incorporation, at the end of 1872 four Czech banks headed by Živnostenská banka in Prague, held total share capital of 8.4 million florins, to which we should add approximately half the capi-

27 The roots and beginnings of the Czech bourgeoisie in the rural and urban areas is examined in detailed in Stölzl, C. *Die Ära Bach in Böhmen: Sozialgeschichtliche Studien zum Neoabsolutismus*. München–Wien, 1971.

28 Cf. Horská-Vrbová, P. "K otázce vzniku české průmyslové buržoazie." *ČsČH* vol. 10, no. 2 (1962): 257–284.

tal of what were known as the Utraquist (mixed Czech-German) banks (i.e., 3.3 million florins. Confronting this total of around 12 million florins stood nine banks owned by Czech Germans with capital of 27.2 million florins, to which we must add half of the capital of the utraquist banks, making a total of around 30 million florins). However, the centralisation of the Czech financial capital had already attained a higher level, since, in addition to a few joint-stock commercial banks, several hundred Czech credit unions had already been created in the Czech lands. Though these credit unions worked with small amounts of widely scattered capital, taken together they had a further 80 million florins under management. Czech banking capital recorded its sharpest growth in the last incorporation wave of 1907–1913, when it even managed to outstrip that of Czech Germans—in 1914, nine German banks held share capital of 124 million crowns, while thirteen independent Czech banks held share capital of 225 million crowns.[29] The practical results of the extraordinarily expansive power of the Czech entrepreneurial sphere and its capital are reflected in the composition of the management boards of the five business and trade chambers in the Czech lands. When established on the threshold of the 1850s, they were dominated by German businessmen, traders, and entrepreneurs. By the mid 1880s, Czechs had taken over the management of three of them, namely the Prague, Plzeň, and České Budějovice chambers of trade and commerce.

Moreover, for the young Czech nation it was very important to have a broadly educated elite, what we now call a *bourgeois intelligentsia*. Access to education, therefore, played a crucial role in the process of national revival. As soon as a universal requirement to attend school had been introduced in Austria and tuition could be provided, at least in state schools, in the mother tongue, Czechs became, during the period of one century, one of the most literate nationalities in the Habsburg Empire, even outstripping the Czech Germans. By contrast, huge efforts had to be made during the second half of the nineteenth century to promote tuition in the mother tongue at the secondary and tertiary level. In this sphere, the Germans, with the most state support, long outclassed the Czechs. The milestones of this huge Czech educational and cultural project, especially as it relates to the training of specialists for the Czech economy, are as follows: the founding of the Jednota k povzbuzení průmyslu v Čechách (Union for Industrial Support in Bohemia) (1833), the opening of the first industrial schools in Prague (1857), the national division of the Prague Polytechnic (1868–1869), a similar division of Prague University (1882), and the establishment of the Czech University of Technology in Brno (1899). All of this made it possible to train hundreds of engineers,

29 For more details, see Vencovský, Jindra, and Novotný. *Dějiny bankovnictví v českých zemích*.

technicians, technologists, and jurists, all of whom were to play an invaluable role in the Czech economic ascent, thanks not only to their know-how and organisational abilities, but to the creation of a specialist nomenclature.

The Jewish minority formed a distinct social group. Though small in number, it grew over the years. In 1776, there were 206,655 Jews living in the Austrian lands (excluding Hungary). According to the first census of 1869, this figure had risen to 822,220 and by 1910 it was 1,313,687. The largest numbers lived in Galicia, Bukovina, and Lower Austria (Vienna), and in the Czech lands most lived in Bohemia (85,826 in 1910), with fewer in Moravia and Silesia. They mostly lived in cities (e.g., in Prague [18,986 in 1900, 9.4% of the population, Brno [7.5%], Jihlava [9.4%], Olomouc [7.7%]), and were represented in the districts of Tábor, Čáslav, Plzeň, Znojmo, and Uherské Hradiště. Most were assimilated with the leading nationality: in Silesia (1910) 84% identified as German, and this was likewise the case in Moravia (78%), though in Bohemia this figure was only 48%. Jews increasingly identified with the Czechs as the nation prospered politically and economically. The most remarkable fact regarding the Jewish ethnicity is its unusually strong participation in business. In 1910, the social status of Jews living in Bohemia and Moravia was as follows: 52% worked in commerce, finance, and transport; 19% in industry and trade; 25% in the liberal professions or were civil servants; and only 3% in the agricultural sector. In the main, they can be categorised alongside the bourgeois industrial middle class as urban "independent employees". Few were simple labourers, or navvies, but most made strenuous efforts to be taken on as apprentices or study at university.[30]

We should not overlook the *proletariat*, which grew rapidly in size during the period of industrialisation in the Czech lands. Its share of the population remained unchanged at 25% from 1857–1910, despite the overall increase in the population. In 1910, the proletariat numbered 2.7 million people (not including dependents). At the same time, there was a fundamental shift within the proletariat from agricultural to industrial work. By 1910, the number of agricultural workers had fallen to around two thirds of what it had been in 1857, while the number of industrial workers had increased threefold. This large proletariat was concentrated in a small number of industrial regions, where it worked for large corporations. This was in line with the trend in Cisleithania for a concentration of business activities. According to the census of 1902, of the total number of people working in industry in the Czech lands, 39.5%

30 A sound overview of the status of the Jews in the monarchy is contained in Bihl, W. *Die Habsburgermonarchie 1848–1918, Bd. III/2*. Wien, 1980; regarding their great contribution to economic life, see Otruba, G. "Der Anteil der Juden am Wirtschaftsleben der böhmischen Länder seit dem Beginn der Industrialisierung," in: Seibt, F. (ed.). *Die Juden in den böhmischen Ländern*. München and Wien, 1983, pp. 209–268, pp. 323–351.

were based in large factories (employing a hundred or more people), which was far higher than the average for Cisleithania (30.4%). This also involved important changes on a national level. In the old textile regions, which had set the tone of the first wave of industrialisation up to the mid-nineteenth century, a German labour force predominated. However, the newly emerging centres of the food and heavy industries were manned mainly by Czechs, and this was even so in certain areas populated predominantly by Germans.[31]

In conclusion, the restructuring of the social order in the Czech lands was such that by the turn of the twentieth century, Czechs formed a socially differentiated, modern bourgeois society. As the first Slavic nationality in the multicultural Habsburg Empire, it evolved into a Western-oriented and culturally advanced nation that, even within the economic life of the monarchy, enjoyed greater clout than would appear merited by its share of the population. Nevertheless, it still lacked representation in the ministries and business guilds (e.g., in the Austro-Hungarian bank, in consortia for state loans, etc.) that would correspond to its size and political status. Of a total of 6,293 civil servants in all the Viennese ministries and central institutions, a total of 4,772 were German (76%), while only 53 (10.3%) were Czechs. The rest belonged to other nationalities.[32] Inasmuch as two national categories existed in the monarchy—namely the governing and non-governing on the social, economic, and political level, and the privileged, less privileged, or unprivileged in the sphere of law, the constitution, and the administration—prior to 1914, the Czechs belonged to the second category, even though their social and economic power was growing.

The ***agricultural base*** of the Czech economic upswing during the nineteenth century was prepared by deep-rooted changes that gradually took place throughout the Agrarian Revolution. These included: (a) the transformation of ownership and the commercialisation of agriculture as a consequence of the abolition of serfdom and bonded labour, as well as the implementation of other reforms; (b) the cultivation of fodder and technical crops (sugar beet, potatoes for starch factories and distilleries, and barley and hops for malt and beer production), mostly in the fertile lowlands populated by the Czechs, gradually replaced the three-field system with crop rotation, which had a crucial impact on the intensification of livestock breeding; (c) the introduction of modern tools and machinery into agriculture, first of all in farms, soon to be followed by manorial farms; and (d) the creation of

31 Regarding the initial status of the workforce, see Stölzl. *Die Ära Bach in Böhmen: Sozialgeschichtliche Studien zum Neoabsolutismus*; Purš, J. "The Situation of the Working Class in the Czech Lands in the Phase of the Expansion and Completion of the Industrial Revolution 1849–1873." *Historica* 6 (1963) 145–237; Bruckmüller, E. *Sozialgeschichte Österreichs*. Wien, 1985.

32 For more details, see Jindra, Z. "Národnostní složení úřednictva."

special research institutes, vocational schools, magazines, exhibitions, and special interest groups. All of these changes led finally to the expansion of intensive plant and livestock production, increases in yield and efficiency, and hence a greater accumulation of agrarian capital. In addition, the burgeoning agrarian bourgeoisie was looking for an effective means to more rapidly mobilise and centralise small agrarian capital, and found it in self-help cooperatives set up in the sphere of rural credit (mutual savings banks, credit unions, and thrift institutions) and in the purchase, sale, and processing of agricultural products. At the same time, agricultural research institutes, vocational schools, and magazines were being established and agricultural fairs organised. All of this was visible in the increase of agricultural production (interrupted only by the great sugar beet crisis of the 1880s), which resulted in the accumulation of free agrarian capital to the benefit of young Czech capital in industry and banking.

The paths taken by Czech industrialisation. According to Alexander Gerschenkron,[33] the more backward a country, the more concentrated, comprehensive, and aggressive the process of industrialisation, with all the attendant effects and tensions of this “great spurt”. Using this model, we can outline the industrial boom in the Czech lands during the nineteenth century, a boom which was impacted by several factors: (a) the institutional framework for a capitalist market economy began to coalesce in the Austrian empire later and progressed more slowly and intermittently, while retaining many relics of feudalism and absolutism, (b) the breakthrough in technology and production took place later in Austria and the Czech lands than in Northwest Europe and could thus draw on the latter’s technological achievements and knowhow, import machinery, capital, and specialists, and attract many foreign entrepreneurs, (c) Czech industrialisation was thus able to proceed in a more compressed form and shorter period and was more a continuous phenomenon, without a clear take-off and, leaving aside the *Gründerjahre* or founders’ years (during which start-ups proliferated rapidly) of 1867–1873, without a “great spurt”, (d) Czech industrialisation is an original example of the regional course of the Industrial Revolution, in that the modern economic growth that started in the monarchy approximately ten years after the end of the Napoleonic Wars was uneven, and was earlier and deeper in the western reaches of the empire—specifically in selected parts of the Czech lands where conditions were the most favourable—than in its eastern and southern regions.

Industrialisation was accompanied and supported by the following factors. Firstly, the great wave of European industrialisation that spread from

33 See Gerschenkron, A. “Wirtschaftliche Rückständigkeit in historischer Perspektive”, in: Wehler, H.U. (ed.). *Geschichte und Ökonomie*. Köln, 1973, pp. 121–139.

west to east reached the Czech lands, and over the course of several decades raised the region, in parallel with the emancipatory movement of the Czech nation, to the status of industrial heartland of the Habsburg Empire. Even though around 1880 only 37% of the population of Cisleithania was settled in the Czech lands, almost 54% of the entire Cisleithanian workforce worked in Czech industry and 64% of the horsepower of all Cisleithanian steam engines was deployed here. Even during the proto-industrialisation period, the region had been known for its production of textiles, glass, porcelain, paper, and musical instruments. At the end of the nineteenth century, these sectors were joined by new ones characteristic of the second Industrial Revolution, in particular the production of steel using the Thomas-Gilchrist process, machinery, engines, cars, and artillery weapons, along with the chemical and electrical industries. However, despite the huge increase in output and capacity, industry in the Czech lands continued to be controlled by Vienna, partly in the spirit of monarchic centralism and a command economy, partly by means of the large banks and joint-stock companies headquartered in the capital. And so as the need for investment and operating capital grew and production was consolidated by mega-corporations, Czech industry also fell under the sway of Vienna through low-key modern phenomena such as overdraft banking, the provision of bank loans, and the takeover of shares in a credit institution. This was possible because German-Austrian capital still dominated indigenous Czech capital on the basis of its volume, its longer tradition and experience, its contacts and links with central government authorities, and its relations with the international banking world.

Secondly, the breakthrough in production and technology in the Czech lands between the 1830s and the 1890s did not take place in a unified nation and amongst the members of a simply structured bourgeoisie united in its modes of thinking and acting. This revolution transformed and differentiated two nationalities occupying the region one after the other and living alongside one another, the Czechs on the one hand and the Czech and Austrian Germans on the other. Furthermore, the upper, middle, and lower classes were each affected in a different way. And so at the end of the nineteenth century two distinct, self-contained, unevenly developed national economic systems of different strength came into being, with business strata that rarely collaborated but instead competed for markets and influence on the state administration.

Thirdly, the breakthroughs in technology and production affected the Czech (Sudeten) Germans not only earlier, but at a time when conditions were more favourable than for the indigenous Czechs.[34]

34 Cited in Jaworski, R. *Vorposten oder Minderheit?: Der sudetendeutsche Volkstumskampf in den Beziehungen zwischen der Weimarer Republik und der ČSR*. Stuttgart, 1977, p. 17.

It was under these circumstances that the backwardness factor, along with special methods for overcoming it as formulated by Gerschenkron, played a role in the Czech economy during the nineteenth century. Independent states finding themselves in a similar situation resorted to protectionist measures (for instance, "educative protectionism" in Prussia during the first half of the century, replaced in Bismarck's empire by the expansion of cartel protectionism). Either that, or it was possible to support the still fledgling domestic industry directly (e.g., by means of targeted tax relief, lucrative state contracts, and special laws providing incentives to industry as had been practiced from the end of the nineteenth century in Hungary). In the struggle for internal and foreign markets, influence over the public administration, as well as international recognition, the Czech nation without a state was forced to resort to other methods.

The first of these involved political and economic nationalism. Research into the national question in the Habsburg Empire has until recently focused more on its political, ideological, and cultural aspects, downplaying and neglecting the social and economic roots and the influence of national rivalry.[35] Although disputes regarding the language to be used in communication with the authorities were at the forefront of the confrontation between Czechs and Germans (culminating in 1897–1898 in the struggle over the Badeni language decree), in the background were far more sensitive manifestations of economic nationalism that cannot be attributed only to the Czechs. On the capital market especially, Germany economic nationalism was widespread.[36] However, this was not simply the consequence of the superiority of Germany banking capital, but was also about the power deriving from the dominant political status of Austrian and Czech Germans in the state. This status offered the Czech German and Austrian bourgeois plenty of opportunities to discriminate against other competing nationalities. As far back as the 1850s, Czech entrepreneurs had complained of this (valuable sources where these complaints are recorded include the annual reports of the chambers of trade and commerce, which have yet to be researched from this perspective). This was also fertile ground for the rise and spread of Czech economic nationalism, which entered the fray with the slogan "our own to our own",[37] appealed to

35 See the overview of the social and economic aspects of the issue of nationality in: Matis, H. *Österreichs Wirtschaft 1848–1913*. Berlin, 1972, pp. 383–413. From the Czech point of view, the latest research is contained in Jančík, D. and Kubů, E. (eds.). *Nacionalismus zvaný hospodářský: Střety a zápasy o nacionální emancipaci/převahu v českých zemích (1859–1945)*. Praha, 2011.

36 Examples are given by Rudolph, R. *Banking and Industrialization in Austria-Hungary: The Role of Banks in the Industrialization of the Czech Crownlands 1873–1914*. Cambridge, London, New York, Melbourne, 1976.

37 See Bráf, A. *Národohospodářské potřeby české*. Praha, 1904; ibid., České a německé „svůj k svému", 1909, in: Bráf, A., Život a dílo, vol. IV., Praha 1923, pp. 168–210.

people to buy and sell with Czech traders and businesses, called for a boycott of German goods, organised business on the basis of self-help institutions and cooperatives, encouraged the creation of Czech business schools, and supported the creation and growth of Czech banking. The "our own to our own" movement had its German equivalent, though both have only begun to be researched.[38] However, even though the Czech movement received support in the media from university professors (Albín Bráf et al.), it appears to have failed to convince small consumers to change their buying habits or businessmen to adapt their decisions. In an effort to meet the autarkic and separatist needs of the Czech economy, Czech politicians tried to obtain money from the state budget and open up the Austro-Hungarian Bank for Czech credit requirements by expanding the competencies of its branch in Prague and acquiring a voice on its board. However, these endeavours met with failure.

Secondly, while increasing its market share, Czech capital found itself in a position formerly occupied in an earlier stage of development by the more powerful capital of the Czech and Austrian Germans. It was forced to find a quick way out of this narrow domestic base in single-minded commercial and capital expansion beyond the Czech lands, especially to less developed peripheral regions of the monarchy in the east and southeast peopled by the Slavs.[39]

Thirdly, in an attempt at the most extensive and rapid capital mobilisation during the diversification of the entire banking sector, Czech banks tried to apply a new business model, the aim of which was to do away completely with the less advanced wholesale activities being pursued in Austria-Hungary as a whole, but especially in the Czech lands. This involved banks opening their own *departments of goods in commission* in order to sell mass consumer items such as coal and sugar, followed by other goods. On the one hand, this corresponded to the system of Central European universal banking that was characterised by a tight relationship between credit institutions and large industry, and on the other was regarded by German financial experts simply as a departure from generally accepted banking regulation. Nevertheless, commission trade with goods had been a well-established practice in Austria since at least the 1880s, and had thrived under the conditions of organised capitalism in which a bank's business department often functioned as the clearing house and syndicate bureau of cartels. These departments earned

38 Jančík and Kubů. *Nacionalismus zvaný hospodářský: Střety a zápasy o nacionální emancipaci/převahu v českých zemích (1859–1945)*, ibid. other literature.

39 For more details, see Nečas, C. *Na prahu české kapitálové expanze: Rozpínavost českého bankovního kapitálu ve střední, jihovýchodní a východní Evropě v období rakousko-uherského imperialismu*. UJEP, Spisy FF No. 272. Brno, 1987; ibid. *Podnikání českých bank v cizině 1898–1918: Rozpínavost českého bankovního kapitálu ve střední, jihovýchodní a východní Evropě v období rakousko-uherského imperialismu*. MU, Spisy FF No. 295. Brno, 1993.

huge profits and were therefore popular with Czech national banks, which used them in an attempt to boost their market share and catch up with Viennese banks. This business activity reached a peak during the First World War and in its immediate aftermath, when there was a shortage of goods on the market and it was possible to impose inflationary prices on consumers. This type of banking operation was banned in Czechoslovakia only in 1924.

Fourthly, it proved highly effective for Czech capital to combine older business methods with an effective twofold form of expansion: the centralisation of capital (through the merger of small capital in joint-stock companies), and the concentration of production using modern technology and skilled engineers and managers in either new industrial sectors or older but now mechanised sectors. Czech business capital applied these methods by means of investment and credit activities in the food industry (especially the sugar, brewing, and distilling industries), in the associated machinery and metalworking sectors, and in the manufacture of shoes and off-the-peg clothes.

Fifth, the attempts made by the Czechs to establish their own national economy culminated in the creation and development of an independently functioning banking system without foreign capital, which at the outset, lacking sufficient capital and based on a new law of association, was formed partly on the basis of the self-help activities of farmers (financial cooperatives and mutual savings banks) and partly on the basis of savings institutions and the money of municipal traders. It was from such meagre and diffused resources that in 1868 the first Czech commercial bank, Živnostenská banka, was created in Prague.[40]

All of the factors referred to played a role in Czech industrial entrepreneurship that developed fully in the second half of the nineteenth century. Up until almost the 1850s, Germans living in Austria and the Czech lands gave no thought to the economic emancipation of the Czechs. In the process of modern industrialisation, the Czechs were regarded as weak, inexperienced latecomers to the party. The initial phase of the revolution in technology and manufacturing prior to 1848 was almost completely the work of Germans, and took place in mainly non-Czech regions. Often taking its cue from handmade production, mass factory production started largely in the textile industry, traditionally located in hilly and mountainous borderlands (Krušné hory, Krkonoše, and Orlické hory), on the northern side of the Bohemian-Moravian Highlands, in Northern Moravia and northwest Silesia, as well as around Brno and, to a lesser extent, Prague (i.e., areas mainly populated by

40 For more details, see Vencovský, Jindra, and Novotný. *Dějiny bankovnictví v českých zemích*. Regarding the beginnings of the Czech self-help movement, see Stölzl. *Die Ära Bach in Böhmen*, p. 92 et seq.; Hájek, J. "Počátky a rozmach českého záloženského hnutí ve třetí čtvrtině 19. století, Hospodářské dějiny." *Economic History* 12 (1984) 265–320.

Czech Germans). Even though the natural conditions and domestic raw material base (sheep's wool and high-quality flax) had traditionally encouraged the production of wool and linen products, the Industrial Revolution was initiated in the textile industry in the Czech lands, as in England, by means of the mechanisation of the spinning mills of imported cotton. The first such spinning mills, equipped with English machinery, were put into operation from 1796–1799 in Verneřice, Kosmonosy, and Zákupy by the Leitenbergers, a German Bohemian business family. Germans also predominated in ferrous metallurgy, though not completely, as we see from the example of the Moravian metallurgical Homoláč family. However, this is not true of mechanical engineering, as the first industrial entrepreneurs, investors, and technicians were mainly foreigners: English, Belgian, French, or immigrants from Germany.[41]

To the surprise of onlookers at the time, Czech entrepreneurs joined in the industrialisation of the Czech lands in the peak decades of the Industrial Revolution from 1850–1880 (i.e., when the role of the Sudeten-German textile industry as the leading industrial sector was reaching its zenith and Czech entrepreneurs were able to leap on the bandwagon of newly emerging sectors linked with the second Industrial Revolution.[42] This was linked to the important change that took place to the structure of industrial sectors in the Czech lands in the second half of the nineteenth century, the main feature of which concerned the relationship between the consumer goods manufacturing industry and the means of production. According to calculations by František Dudek (arrived at by means of the arithmetic average of the share of individual sectors in the gross value of production, the efficiency of steam machines, and the number of employees), during the 1840s this ratio was approximately 80:20, during the 1880s it was 74:26, and in the industrial census of 1902 it had dropped to 59:41.[43] What had originally been the predominant position of the consumer industry dropped over six decades from four-fifths to just under three-fifths, while the share of heavy industry and metalworking rose significantly only during the last decades of the nineteenth century. This structural analysis also clearly displays the decisive and long-standing position of the three main industrial sectors in the Czech lands, namely textiles and food in the consumer industry, and metalworking in the means of production industry, the order of which also reflects their relative importance. Compared with the traditional course of an Industrial Revolution from

41 Cf. Myška, M. *Rytíři průmyslové revoluce: Šest studií k dějinám podnikatelů v českých zemích*. Ostrava, 1997.

42 Cf. Horská-Vrbová, P. *Český průmysl a tzv. druhá průmyslová revoluce*. Praha, 1965; Brousek, K. M. *Die Großindustrie Böhmens 1848–1918*. München, 1987.

43 Dudek, F. "Vývoj struktury průmyslu v českých zemích za kapitalismu." *Slezský sborník* 86 (1988): 252–269.