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CONTROVERSY OF LATE INDUSTRIALIZATION: THE LAND-BASED EMPIRES ARGUMENT FOR EAST CENTRAL EUROPE

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The article ponders upon the social science controversy of late industrialization and therefore modernization with concern to imperial nations between the 18th and 20th centuries in an attempt to look for the explanations of why they didn't fit into both waves of the industrial revolution. The research attempts to consider the case of the states that fell out of the first and second industrial revolutions, but were not the part of the traditionally understood developing world in terms of the difference in capabilities of land-based and naval-based empires. It's also studied the ability of land-based empires to overcome the modernization challenge and the influence of Eurocentric stereotypes on this discussion. The examples of Habsburg Austria, Romanov Russia, Japan and Turkey are also analyzed. The descriptive comparison points to other factors responsible for relatively laggard modernization of these states.

Keywords: industrialization, modernization, late industrializers, land-based empire, naval-based empire, industrial revolution, proto-industrialization, forced development, Russia, Austria, Japan, Turkey, Habsburg, Romanov, Ottoman, Meiji Revolution, Eurocentrism.

ПРОБЛЕМА ПОЗДНЕЙ ИНДУСТРИАЛИЗАЦИИ: ФАКТОР СУХОПУТНЫХ ИМПЕРИЙ В ЦЕНТРАЛЬНО-ВОСТОЧНОЙ ЕВРОПЕ

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В статье рассматривается дискуссия, известная в социологии как проблема поздней индустриализации и, следовательно, модернизации в отношении к имперским нациям XVIII-XX веков в попытке найти объяснения того, почему им не удалось вписаться в обе волны промышленной революции. В работе делается попытка рассмотреть случай государств, выпавших из

первой и второй промышленных революций, но при этом не являющихся частью традиционно понимаемого развивающегося мира с точки зрения разницы возможностей сухопутных и морских империй. Также исследуются способности сухопутных империй к преодолению вызова модернизации и влияние европоцентричных стереотипов на характер самой дискуссии. Рассматриваются примеры Габсбургской Австрии, Романовской России, Японии и Турции. Описательное сравнение указывает и на другие факторы, ответственных за относительно отстающую модернизацию этих государств.

Ключевые слова: индустриализация, модернизация, страны поздней индустриализации, сухопутная империя, морская империя, промышленная революция, протоиндустриализация, форсированное развитие, Россия, Австрия, Япония, Турция, Габсбурги, Романовы, Оттоманы, революция Мэйдзи, европоцентризм.

Within political economy, there long exists a concept of “late industrializers”, which refers to countries, or rather states, which do not belong to either first, or British, or second (German and American) waves of industrial revolution. While it sounds somewhat discriminative, it has been primarily used to understand the phenomenon of modernization in Russia, Japan and Turkey, although today it might seem incorrect (or outdated) due to the circumstance, that it is not the starting moment or pace of modernization which has been defining with regard to these cases, but the nature of their social design. This thesis above is set to be our broader claim in this paper. A narrower claim we make is concerned with the popular myth within the Post-Soviet discussion and has to do with differences in development between Ukraine’s territories being previously part to Habsburg and Romanov’s Empire, with the subtext of praising the former at the expense of the latter. The thesis we put forward in this respect is that this is rather a politicized mythological construct, than a provable tendency, while the real reason for differences, as well as for similarities is different, this being the land imperial nature of both monarchies. Therefore we divide the discussion in this our work into three parts – definitions, standalone cases and

Habsburg-Romanov empires related processes focused comparison with conclusions driven from all three components.

Above all, let us explore the existing definitions for all the concepts mentioned. One cannot evade referring to the ardent academic discussion around industrialization and modernization themselves. It has to be underlined, that they look as if being reciprocal processes, the latter creating social, political and intellectual conditions for the former, and then both fuse into a self-sustaining trend.

Proto-industrialization is the regional development, alongside commercial agriculture, of rural handicraft production for external markets [3, p. 436-437]. The term was introduced in the early 1970s by economic historians who argued that such developments in parts of Europe between the 16th and 19th centuries created the social and economic conditions that led to the Industrial Revolution. Later researchers suggested that similar conditions had arisen in other parts of the world. Most aspects of the theory have been challenged by other historians [15].

The term itself was coined by Franklin Mendels in his 1969 doctoral dissertation on the rural linen industry in 18th century Flanders and popularized in his 1972 article based on that work [13]. Mendels argued that using surplus labor, initially available during slow periods of the agricultural seasons, increased rural incomes, broke the monopolies of urban guild system and weakened rural traditions that had limited population growth. The resulting increase in population led to further growth in production, in a self-sustaining process that, Mendels claimed, created the labor, capital and entrepreneurial skill that led to industrialization [15].

Other historians expanded on these ideas in the 1970s and 1980s [16]. In their 1979 book “Industrialization before industrialization” Peter Kriedte, Hans Medick and Jürgen Schlumbohm expanded the theory into a broad account of the transformation of European society from feudalism to industrial capitalism. They viewed proto-industrialization as part of the second phase in this transformation, following the weakening of the manorial system in the High Middle Ages [11]. Later historians identified similar situations in other parts of the world, including India, China, Japan and the former Muslim world [10; 17].

The applicability of proto-industrialization in Europe has since been challenged. Martin Daunton, for example, argues that proto-industrialization "excludes too much" to fully explain the expansion of industry: not only do proponents of proto-industrialization ignore the vital town-based industries in pre-industrial economies, but also ignores "rural and urban industry based upon non-domestic organization"; referring to how mines, mills, forges and furnaces fit into the agrarian economy [4, p. 169].

After the last stage of the Proto-industrialization, the first transformation from an agricultural to an industrial economy is known as the Industrial Revolution and took place from the mid-18th to early 19th century in certain areas in Europe and North America; starting in Great Britain, followed by Belgium, Switzerland, Germany and France [8]. Characteristics of this early industrialization were technological progress, a shift from rural work to industrial labor, financial investments in new industrial structure, and early developments in class consciousness and theories related to this. Later commentators have called this the First Industrial Revolution [18].

The "Second Industrial Revolution" labels the later changes that came about in the mid-19th century after the refinement of the steam engine, the invention of the internal combustion engine, the harnessing of electricity and the construction of canals, railways and electric-power lines. The invention of the assembly line gave this phase a boost. Coal mines, steelworks, and textile factories replaced homes as the place of work [2, S. 11-104; 9, S. 15-279].

By the end of the 20th century, East Asia had become one of the most recently industrialized regions of the world. The BRICS states (Brazil, Russia, India, China and South Africa) are somehow being considered to be still undergoing the process of industrialization.

There is considerable literature on the factors facilitating industrial modernization and enterprise development [12]. Industrialization is the period of social and economic change that transforms a human group from an agrarian society into an industrial society. This involves an extensive re-organization of an economy

for the purpose of manufacturing [17, p. 472]. In theory, as industrial workers' incomes rise, markets for consumer goods and services of all kinds tend to expand and provide a further stimulus to industrial investment and economic growth. In practice, a number of nations demonstrate controversial experience of industrialization and some of them are being defined or labeled as 'late industrializers'.

Alice Amsden, building on the insights of Gerschenkron [7], identifies Late Industrialization as a particular form of industrialization the study of which is useful for those interested in study of the prospects for material progress in developing countries. Amsden notes that whilst the 1st industrial revolution in the UK towards the end of the eighteenth century, and the 2nd industrial revolution 100 years later in Germany and the US both involved new products and processes, the countries that did not start industrialization until the 20th century tended to generate neither new products nor processes. These, the late industrializers, raised their income and transformed their productive structures using borrowed technology [1].

Another take on this would be that the 1st industrial revolution was based on invention, the 2nd on the basis of innovation and more recently in the late industrializers are industrializing on the basis of learning.

Amsden's uses her thesis of late industrialization to discuss the following countries: South Korea, Taiwan, Brazil, India, possibly Mexico, and Turkey and *also Japan although this last country is regarded as, in many respects, special*.

Learning in these countries has been achieved through the use of similar institutions in particular those associated with industrial policy. These learners compete, initially at least, via low wages, state subsidies or other forms of government supports, and gradual increases in quality of, and efficiency in producing, existing products. The shop floor in businesses tends to be the "strategic focus" when competition is based on borrowed technology.

The late industrializers have moved into the more mature markets of the innovators and the productivity of long-established innovators has been successfully challenged by the learners' lower wages, intense efforts to raise productivity and

firms supported by industrial policy.

One can see that somehow Japan is being suspected by Amsden to be a specific case, while Turkey is put together with other late industrialization cases and Russia went completely unnoticed. What's the difference then? Japan has started its modernization long after Russia as part of Meiji Revolution (or Restoration) in 1868-1912. Russia's modernization and proto-industrialization was initiated under Peter the Great in the beginning of the 18th century. Turkey has only left the proto-industrialization process after the Young Turks revolution and the break-up of its empire. The difference in our opinion is that Japan has been an island-based empire, while Russia and Turkey were landmass-based (with the understanding that Ottoman Turkey had enjoyed much broader sea access, competing for it, quite successfully, with, well, Romanov Russia). What is being often neglected is that there exists another candidate for late industrialization status, both in Europe, like Russia, with the extremely narrow access to naval trade opportunities, like Russia and a landmass-based empire – like Russia. This is Habsburg Austria.

Here we will extensively refer to basic characteristics of industrialization stories of Austria and Russia, provided by the European Route of Industrial Heritage Project, sponsored by the Council of Europe. What we can observe in these accounts are only two differences between two cases – highly disproportional development of Habsburg provinces versus evenly sluggish and defense-focused industrialization in Russia and deeper political change in Austria (1848) with equally important, though superficial political evolution in Russia (1861).

"On the one hand, Austria possessed all the prerequisites for industrialization: plentiful natural resources particularly iron ore and salt, and a long mining tradition. The Celts, for instance, developed underground salt mining to a proto-industrial level long before the Common Era. And in the late Middle Ages, tens of thousands of miners were extracting silver and copper ore" [5]. To some extent, in Medieval Ages these natural riches, as well as lumber, provided a solid basis for the rising imperial dynasty.

"On the other hand, the mountainous terrain impeded trade and travel. Nor

could Trieste, the only sizeable port of the Habsburg Empire, develop into a first-class trading center (here and further the author's italics – *M.M.*) on the northern rim of the Mediterranean. Additionally, the *nation's elite were still trapped in a feudalistic mind-set*: until well into the 19th century" [5]. This mentioned feature of the Habsburgs brings them closer to their most important Eastern neighbors at the time.

"Thus, the new era did not dawn until 1830, later and more haltingly than in many parts of Western Europe. The construction of the railway system played a decisive role: starting in the mid-1850s, the Kaiser Ferdinand Northern Railroad provided services from Vienna to Prague via Brünn, with a branch to Galicia. The Südbahn, or "Southern line", ran via Laibach to Trieste; the Semmeringbahn, Europe's first mountain railway, formed one section of this. The development of the polytechnic schools in Vienna and Prague into technical universities as early as 1815 proved to be a farsighted act" [5]. The eastwards infrastructural expansion may have had an impact upon somewhat speedier modernization on Habsburg largest Slavic provinces, alongside inheriting old Polish universities, though still marred by Polish-Ukrainian survivalist competition in the region.

"The industrialization of the Habsburg Empire originated primarily *in the non-Austrian regions*: Hungary's development stagnated, as it produced only agricultural goods, but coal mining and textiles in Moravia and the innovative heavy industry of Bohemia became drivers for economic and technical progress. However, industrialization there brought with it a heightened Czech nationalist awareness and sharpened the conflicts within this heterogeneous country" [5]. What is inferred is that industrialization of this kind was continuously diminishing Austrian chances to survive the change as an empire.

"In the territory of today's Austria, the economic transformation did not gain momentum until the so-called "Gründerzeit", the era of rapid economic expansion in German-speaking Europe, dawned in the 1860s. Until then, wood from the dense forests and Austria's mountain streams had delivered sufficient energy, but now more factories were being built and businesses were forced to switch to coal, the classic

fuel of industrialization. Upper Styria developed into an industrial core region, where Karl Wittgenstein, "Austria's Krupp", formed the established mining and iron-working operations into a powerful cartel. Textile production developed in the Vorarlberg region, and in Vienna – where the Rothschilds founded the merchant bank "Credit-Anstaltfür Handel und Gewerbe" in 1855 – the manufacturing of rail cars and locomotives flourished in particular. The Vienna International Exposition of 1873 stood as a symbol for this development – even though shortly after its opening a "Black Friday" stock market crash occurred that triggered a depression that lasted many years" [5]. Ironically, such a short economic expansion period indicates that the powerful empire has experienced the so-called bottleneck problem, rather pertaining to developing nations of the post-WWII era.

"In a second boom toward the end of the century, motor vehicle manufacturing emerged in and around Vienna; particularly with the founding of the "Österreichische Daimler-Motoren-Gesellschaft" in 1899, which supplied all branches of the new motorized transport and soon employed well over one thousand people. However, the first car of K.u.K. (imperial and royal) Monarchy was built in Moravia in 1888. As in Western Europe an electrical industry emerged, also centered on Vienna, and electric and gas transmission infrastructure was built around the country. Further important sectors to emerge included the food industry, particularly sugar manufacturing from beet, and paper production, which was boosted by the vast forests of this Alpine country.

Concurrently, industrial working conditions gradually improved, working time was capped at 11 hours and health and accident insurance was introduced. However, the national and municipal governments did not address the acute housing shortage until the 1920s in the form of construction projects such as the famous Viennese "Arbeiterhöfe". By then, the promising economic upswing of the turn of the century was already history, a casualty of the destruction of the First World War and the subsequent breakup of the Habsburg Empire" [5]. One can also recall the economic boom in the Romanov Russia in the same period, still surrounded by a non-shattered gilded age myth, although the showdown has been as closer to Habsburg Austria as it

could get.

The *breakup episode* is the last key moment we should stress, before referring to the same project's description of Romanov's and, to some extent, Bolsheviks' Russia industrialization process – as it seems like both land-based empires could not withstand the modernization challenge.

"Although the European part of the Russian Empire was rich in raw materials its industrialization started late, due mainly to the *lack of labor and capital caused by centuries of extreme exploitation of the serfs* and the nobility's lack of interest in innovative economic projects. Thus, the task of developing the economy fell solely to the state.

Czar Peter the Great initiated the first wave of industrialization in the early 18th century, *with the aim of strengthening his empire militarily*. Shipyards and factories were established in St. Petersburg and the mining of copper and iron ores in the Ural Mountains, which were smelted using charcoal produced in local forests. The city of Yekaterinburg was founded in 1723 with the construction of a massive ironworks. In Izhevsk in the western Urals, the ironworks led to the establishment of an arms factory that is still in operation today, and also in Tula, near Moscow, the Czar established a tradition of armament manufacture. Textile manufacturing flourished as well. Flax production prospered in Ivanovo, later known as "Russia's Manchester", the first cotton spinning machine went into operation in Shlisselburg at the end of the century, and 1805 saw the commissioning of the first steam engine in St. Petersburg" [6]. With all its narrow focus and rather superficial social change the modernization wave of the 18th century has brought with itself, it can be regarded as the zenith of the Romanovs' imperial project.

"On the other hand, the boom in iron production trailed off in the mid-19th century, and the government attempted to stimulate the economy by building railways. The line from St. Petersburg to the summer palace in Zarskoye Selo opened for demonstration purposes in 1837 and was followed by a link between Warsaw, at that time under Russian rule, and the Austro-Hungarian border. From 1851 trains ran between St. Petersburg and Moscow. These lines were financed primarily with

foreign capital and as the domestic iron industry was unable to meet the demand for rails, locomotives and wagons, these had to be imported" [6]. While that story completely fits into Gershenkron-Amsden vision on late industrializers discussed above, the policy of attracting speculative capital into state-led industrialization has eventually become a political burden for Russia, effectively forced to participate in unnecessary wars.

"Alexander II finally eliminated serfdom in 1861, *but this did not result in economic growth*, because the peasants remained dependent on the noble landowners, and in the mines of the Urals, which were worked by serfs, iron production even declined. However, the expanding rail network helped to significantly increase grain exports via the ports of the Baltic and Black Seas. The government now began to channel funding into heavy industry, production of hard coal increased, as did iron and steel production, and towards the end of the 19th century the Russian Empire experienced the first phase of industrialization. However, workers' living conditions were often even more basic than under early capitalism in the West" [6]. The above circumstance combined with unmoving noble and clerical enormous privileges, is partially responsible for the upcoming outburst of revolutionary unrest.

"In this initial period of growth, the government succeeded in stabilizing the ruble with the aid of import tariffs and by attracting foreign investment. Construction of the Trans-Siberian Railway commenced in 1892 – primarily for strategic reasons – and was completed in 1916. St. Petersburg developed into a center for machinery manufacturing, while the textile industry in particular flourished in Moscow. Yet *outside of these two rapidly growing metropolises*, Russia was still an agrarian country when the Bolsheviks seized power in 1918" [6]. The underlined nuance should be considered a mirrored similarity to the Habsburg Austria situation, where parts of the periphery became disproportionately developed at the expense of the center, while in Romanovs' Russia these were the intensive metropolitan areas in the imperial core to accumulate destructive potential able to bring the empire down.

"From 1929, Stalin started to replace Lenin's experiment of the liberal "New Economic Policy" in favor of one of uncompromising industrialization. Steelmaking

and coal mining in the formerly Soviet Ukraine and in Siberia quadrupled. In the Southern Urals, Magnitogorsk, the first of numerous "test-tube" cities, was established in 1932. Europe's largest agricultural-machinery complex was erected in record time in Rostov on Don, production commenced in the Stalingrad (today Volgograd) tractor works in the mid-1930s, and in Gorki (today Nizhniy Novgorod) the automotive plant GAZ churned out cars and trucks. One of the world's most innovative aircraft manufacturers grew out of the Moscow office of the designer Andrei Tupolev. Also in Moscow, the Aleksandrov Radio Works commenced operation in 1932, and began the mass production of televisions following World War II. New power stations delivered electricity, new canals and railways facilitated transportation, and the economic development of Siberia continued to advance. However, this rapid advancement through the ranks of the great industrial nations *came at the price of flagrant neglect of agriculture, dramatic shortages of consumer goods, and the constant fear of the ruthless power of the state*" [6]. That said one has to acknowledge that Russian Socialist modernization strategies rather belong with a discussion beyond the scope of our treatise.

At this point we can formulate conclusions

First, the existing output of late industrialization and modernization studies with concern especially to three cases of imperial nations in 18th-20th centuries remains controversial and somewhat subject to Eurocentric stereotypes [14].

Second, the puzzle of slower progress of so-called late industrializers (outside post-WWII developing countries) might be researched with a more thorough attention to opportunity differences between land-based and naval-based imperial nations, rather than to other factors.

And third, the very controversy of development divergences between bordering peripheral provinces of Habsburg and Romanov's empires in East Central Europe should be revisited with a more critical lens of pinpointing both similarities and slighter nuances of two land-based empires social history.

Bibliography:

1. Amsden A.H. Asia's Next Giant: South Korea and Late Industrialization, Oxford University Press, 1989. 400 p.

2. Buchheim C. Industrielle Revolutionen. Langfristige Wirtschaftsentwicklung in Großbritannien, Europa und in Übersee. München: DTV Verlagsgesellschaft, 1994. 161 S.

3. Coleman D.C. Proto-Industrialization: A Concept Too Many // The Economic History Review. New Series. 1983. Vol. 36 (3). P. 435-448.

4. Daunton M. Progress and Poverty: An Economic and Social History of Britain 1700-1850. New York: Oxford University Press Inc., 1995. 620 p.

5. Industrial history of Austria [Web resource] // The European Route of Industrial Heritage. 2020. URL: https://goo.su/2hEx (reference date: 15.03.2020).

6. Industrial history of Russia [Web resource] // The European Route of Industrial Heritage. 2020. URL: https://goo.su/2HeX (reference date: 15.03.2020).

7. Gerschenkron A. Economic Backwardness in Historical Perspective: A Book of Essays. Cambridge (Mass.): Belknap Press of Harvard University, 1962. 456 p.

8. Griffin E. A Short History of the British Industrial Revolution. London: Palgrave Macmillan, 2010. 208 p.

9. Henning F.-W. Die Industrialisierung in Deutschland 1800 bis 1914. Paderborn; München; Wien; Zürich: F. Schöningh, 1995. 308 S.

10. Koyama M. Jared Rubin: Rulers, religion, and riches: Why the West got rich and the Middle East did not? // Public Choice. 2017. Vol. 172 (3). P. 549-552.

11. Kriedte P., Medick H., Schlumbohm J. Industrialization Before Industrialization / Translated by B. Schempp. Cambridge: Cambridge University Press. 1981. 335 p.

12. Lewis F.A. Theories of industrial modernization and enterprise development: a review. Manchester: Industrial Systems Research, 2002. 116 p.

13. Mendels F.F. Proto-industrialization: the first phase of the industrialization process // The Journal of Economic History. 1972. Vol. 32 (1). P. 241-261.

14. Mykhaylenko M.V. Orthodoxy and economic backwardness: combating the myth [Web resource] // Studia Humanitatis. 2017. № 1. URL: http://st-hum.ru/en/node/506 (reference date: 15.03.2020).

15. Ogilvie S. Protoindustrialization [Web resource] // University of Cambridge. Faculty of Economics. 2020. URL: https://goo.su/2HEx (reference date: 15.03.2020).

16. Ogilvie S., Cerman M. The theories of proto-industrialization // European Proto-Industrialization: An Introductory Handbook. Cambridge University Press, 1996. P. 1-11.

17. O'Sullivan A., Sheffrin S.M. Economics: principles in action. Needham, Mass.: Prentice Hall, 2003. 592 p.

18. Pollard S. Peaceful Conquest: The Industrialization of Europe, 1760–1970. New York: Oxford University Press, 1981. 451 p.

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