

RUSSIA IN GLOBAL ECONOMY AND INTERNATIONAL RELATIONS: ECONOMIC ASPECT OF SOCIAL AND ECONOMIC HISTORY OF THE 2ND HALF OF THE 19TH CENTURY

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Abstract: This article is devoted to historical themes and explores the position of Russia (of the Russian Empire period) in the global economy of the second half of the 19th century, based on the available statistical data and the empirical research of this historical period. On the basis of this survey and received data, we can formulate the following conclusions:

- *In the second half of the 19th century, the Russian Empire is one of the few countries that had (and still has) significant natural and human capital, and by geographic location and area of the country, of course, was considered and is considered one of the leading actors in the global economy;*
- *Until the second half of the 19th century, the socio-economic development of the Russian Empire was feudal and had the agrarian (agricultural) and raw material specialization. Institutional, legal and financial reforms carried out in the 19th century provided the industrial breakthrough of the Russian Empire, but at the same time the gap from the industrial development of England, France and other countries was significant and was at least half a century;*
- *The results of cluster analysis show that the Russian Empire in the second half of the 19th century played a leading role in the global economy of the period, but at the same time was not a backbone link, unlike countries of Western Europe (UK, France, Denmark, Sweden, etc.);*

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- *In the second half of the 19th century, the Russian Empire in its economic and social development was very dependent on the political will of an autocrat (Emperor), change and reform processes were not completed in many ways, which did not allow the state to reduce the historical gap between it and the most developed countries;*
- *Now the Russian Federation, having overcome a certain degree of inertia of development including due to low efficiency "economic legacy" (both during the imperial period and the period of the Soviet Union), is a leader in the space industry, the energy raw materials supply. The country needs to further liberalize its markets in order to not only currently but also in the near future secure a more significant position in the global economy.*

Keywords: *economic history, social and economic development, the Russian Empire, the second half of the 19th century, Western Europe, industrial breakthrough, the Industrial Revolution.*

1. INTRODUCTION

The economic growth of the country...What conditions is it derived from? What factors affect it? These issues have already been relevant for modern economics for more than a decade, but the same questions were also asked by scientists, researchers and journalists of the past centuries. From Smith to Schumpeter (Schumpeter, 2008), Kondratiev (Kondratiev, 2002), Schmookler (Schmookler, 1966), Kuznets (Kuznets, 1953), to the scientists of our time (Akayev, 2013; Hirooka, 2006), the continuity of thought is traced on what the welfare of the nation is, and what forms the country's national wealth.

In terms of historical background of its creation, the system of national accounts, which reflects the basic economic indicators of the country's development, is first of all based on the statistical tables (in particular, Kene created one of such tables in the second half of the 18th century). And, secondly, it is based on the fact that the national wealth of the country is formed of a set of tangible and intangible values, as well as natural and human capital. At the same time, our papers (Dudin *et al.*, 2013; Lyasnikov *et al.*, 2014; Dudin *et al.*, 2015) repeatedly showed that the natural and human capital are two basic types of capital (primary capital), which are necessary for the creation of tangible and intangible values (secondary or produced capital).

In other words, both from the modern and historical points of view, the economic growth and socio-economic development of any country depend on its accumulated (or acquired) primary capital. And the economic studying of the primary statistical data is the best way to examine the state of the primary capital forming national wealth. And this aspect is very significant from a retrospective point of view, since the study of the historical background of economic dynamics of the secular cycle provides the most extensive picture of the socio-economic and technological development potential of the countries, as well as of the quality and completeness of this potential use in the past, present and future.

2. METHODS

This paper presents the economic analysis of the data, which are contained in the survey papers of the second half of the 19th century. First of all, in our study we relied on the data published in the writings of the German statistician and political economist Otto Gubner (Gubner, 1869). These data demonstrate the economic and social indicators of the Russian Empire status and development, beginning from the second half of the 19th century, and also reflect the administrative structure of the state during its transition from feudal to capitalist formation. As a comparison, we apply other data as well for various countries, published in this source. In addition, in this paper we use historical data published in the works of Russian, for example, Mihaylevsky (Mikhalevsky, 1925), Mel'gunov (Mel'gunov, 1905), Tugan-Baranowskiy (Tugan-Baranowskiy, 1997), Lappo-Danilevskiy (Lappo-Danilevskiy, 1890) and foreign researchers and scientists working in this and subsequent historical periods, for example, Mavor (Mavor, 1925), and Kuznets (Kuznets, 1946).

The cluster analysis based on available data is used to determine the position of the Russian Empire in the second half of the 19th century; 15 countries were selected that collectively represented a basis of a global political architecture in the 19th century, and concentrated on their territory a large part of the economic, military and scientific capacity of mankind. For countries see Table 1.

Most global countries were not included in the cluster analysis due to the lack of statistic database. So, due to the lack of various statistics, Prussia, Japan, and Argentina were not analyzed. It is also worth pointing out that the boundaries of the

Table 1
List of states for cluster analysis in order to determine the position of the Russian Empire in the world development in the second half of the 19th century

<i>State number in analysis</i>	<i>State (according to the official title in the 19th century)</i>
1	Austro-Hungarian Empire
2	USA
3	Belgium
4	Brazil
5	Great Britain and Ireland
6	Denmark
7	Spain
8	Italy
9	Empire of China
10	Netherlands
11	Portugal
12	Russian Empire
13	France
14	Sweden
15	Sweden

aforementioned states for the most part do not coincide with the modern demarcation lines of territories.

It is also worth pointing out that the boundaries of the aforementioned states for the most part do not coincide with the modern ones. In addition, a number of countries, which we included in the cluster analysis, now do not exist at all. The following data were selected among the parameters for the scientific analysis: area of the country; population; the number of military personnel (in peacetime); government expenditure (in rubles); bank notes (in rubles); imports (in rubles); exports (in rubles), in accordance with the parameters specified in the statistical tables that are attributable to the second half of the 19th century.

3. RESULTS

From the moment of Kievan Rus' (the 9th-10th century) and to the middle of the 19th century, Russia developed as a patriarchal and feudal autocracy (a form of government) and formed only at the beginning of the 16th century. At the time of formation of Kievan Rus', in that prototype of the future Russian state, a population was 4 million, but by the beginning of the 16th century the population more than doubled (up to 8-9 mln), and at the end of the 17th century the population was 11.5 million people (Gubner, 1869; Samokhin, 2001; Gregory, 2014). Such high growth rates of the Russian state were not associated with such a concept as "quality of life" (which we use quite often in modern times to describe a term of socio-economic dynamics), and the rate of consistently high population growth were the result of the expansion of the Russian Empire's borders.

In terms of the economic development type, the Russian state remained agrarian and not densely populated country, both in the formation of Kievan Rus', and in the formation and propagation of autocratic power. According to some data, it can be judged that the population density in the Russian state in the 15th-16th centuries was 2.3 persons per 1 m²; at the same time within the boundaries of the historic France and Poland the population density was about 30 and 21 people per 1 m², respectively (see Figure 1).

Although in the 19th century the population density of the Russian state increased more than three times, this figure did not reach the values of similar indicators in Poland and France three-four centuries ago. In the second half of the 19th century, the population of the Russian Empire was already 79.7 million people, while the population of France in the same period was only 38.2 million people, in Japan it was about 35 million people, the United Kingdom – about 29.9 million, China – more than 400.5 million people (see Figure 2). At the same time, the physical and geographical remoteness of the Russian Empire from the key global markets (Europe), the weakness of the country's communications and the largest area in the northern latitudes minimized the demographic advantage of the country. In percentage terms, the population of the Russian Empire in the second half of the 19th century was 6% of the

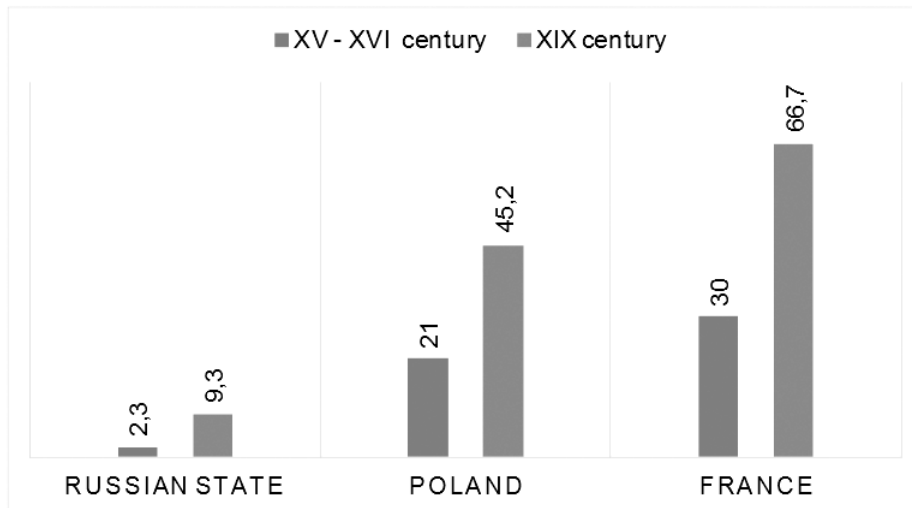


Figure 1: Population density (people per 1 km²) in Russia, Poland and France (in the boundaries comparable to the historical period) in the 15th-16th and 19th centuries (Samokhin, 2001; Gregory, 2014; Caron, 2014)

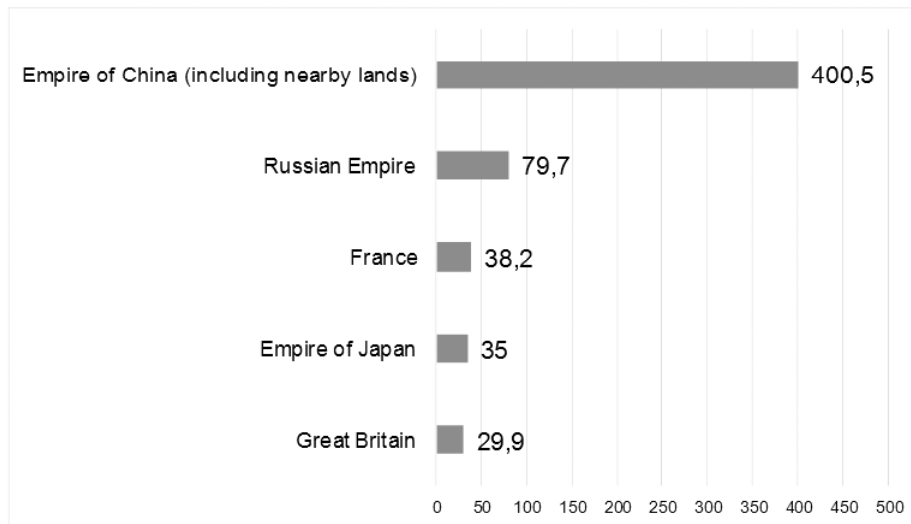


Figure 2: Population of certain states in the second half of the 19th century (millions) (Gubner, 1869; Samokhin, 2001; Gregory, 2014; Caron, 2014; Ashton, 2013)

world's population. According to Otto Gubner's statistics, in the Russian Empire of the second half of the 19th century, there were 1,111 cities, 1,384 towns, 250,090 villages (Gubner, 1869).

Among them, St. Petersburg was the largest population center (539,000 people); other than that there were 4 cities with population over 100,000 people including

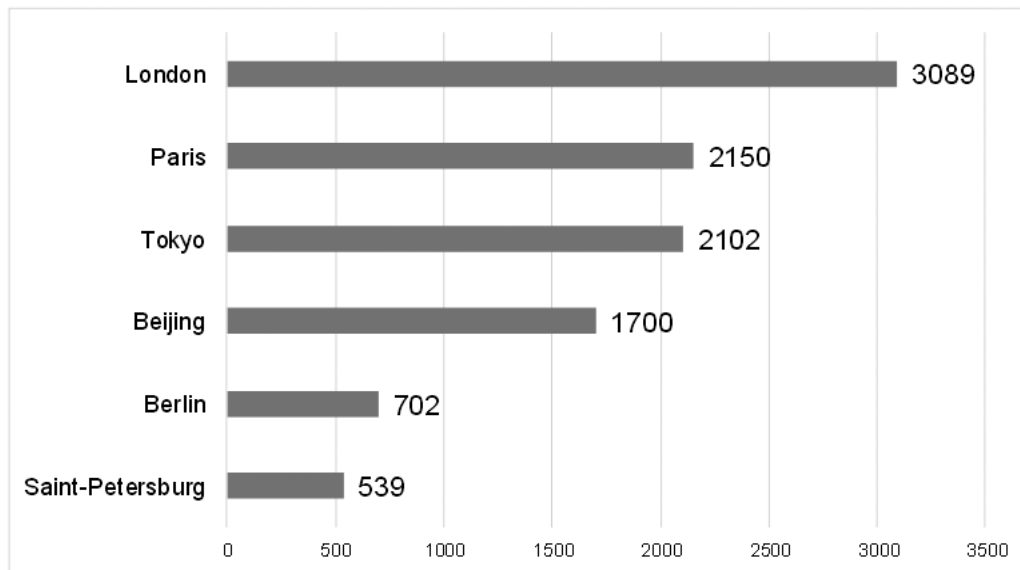


Figure 3: Population of the capitals of certain countries in the second half of the 19th century (thousands) (Gubner, 1869)

Moscow (368,000 people), Warsaw (180,000 people), Odessa (119,000 people), Riga (102,000 people). For comparison, London was the most populous capital of the world of the second half of the 19th century with a population of, followed by Paris and Tokyo; Beijing was in the third place, and Berlin – on the fourth (see Figure 3).

Thus, there were more than 10% of the population in Western capitals of the second half of the 19th century; a similar situation was observed in Japan (more than 7% of the population lived in Tokyo). In the Russian and Chinese Empires then less than 1% of the population lived in the capitals; this fact nowadays probably has caused the gap between Russia and China in the process of development and urbanization. Certainly, the administrative-command economy played not the last role here, as well as the Communist ideology of state governance. But at the same time the historical aspects of the socio-economic development of modern Russia and modern China cannot be ignored.

In the second half of the 19th century, the administrative division of the Russian Empire included the European and Asian parts. The former included the actual European Russia, Kingdom of Poland and the Grand Duchy of Finland; the second included the Caucasus, Siberia, the Amur and Primorye Regions, the Kyrgyz-Kazakh Steppe, Turkestan General-Governorship. At the same time, the main products produced in the Russian Empire were the following:

- in the European part of the Empire: bread, raw wool, flax, tallow, wood, leather, iron, copper, animal bones, hemp, cattle, fur;

- in the Caucasus: wool, cotton, silk cocoons;
- in Siberia: bread, wood, resin, tar, horse, horse hair, wool, zinc;
- in the Kingdom of Poland: wood, potash, resin, tar, cattle, tallow, butter, cheese.

Data on products in the Amur and Primorye Regions, as well as in the Kyrgyz-Kazakh Steppe and Turkestan General Governorship are not available, but at the same time it should be assumed that the manufacture and industrial production were less developed in these regions, but crafts were developed more, as well as animal husbandry (livestock), crop production and fisheries (where possible), gathering. As a comparison, Table 3 shows the main types of products in other countries, which currently occupy the leading position in the global economy.

Table 3
Main products manufactured in certain states in the second half of the 19th century (Gubner, 1869, Mel'gunov, 1905; Mel'gunov, 1925; Caron, 2014; Ashton, 2013)

State	Main products
USA (northern states)	cotton, flour, meat, fish, paper products, gold, skin, potash, butter, bread, tobacco, rice, oil
Great Britain and Ireland	paper, linen, wool, porcelain and metal products, wool, salt, coal, iron, copper, tin, glass, beer and herring
Empire of China	tea, silk, silk products, porcelain, sugar, rice, paper, cotton, camphor, mother of pearl, nankin fabric
France	silk, wool, copper, leather, metal, gold and precious goods, wine, vodka, finished leather, rye, flour, perfume, silk
Japan	tea, rice, cotton, silk, copper, porcelain, glass, lacquer
Sweden (and Norway)	band iron, steel, bread, scaffolding, quartz

It is obvious that in the second half of the 19th century the Russian Empire maintained the agrarian specialization in the global economy.

But at the same time in the reviewed period, in the Russian Empire liberal reforms were initiated, which led to the emergence of a new socio-economic system, i.e. capitalism. In the second half of the 19th century in Russia serfdom was abolished (that is, a special form of rigid feudal dependence was canceled, in which there was a ban for farmers to leave their land holdings, and the administrative and judicial power was inherited, which allowed the lord to include farmers and their property to his real assets). In addition, the Emperor Alexander III tried to consistently pursue pragmatic financial reforms and modernization of the economy (Tugan-Baranowskiy, 1997; Lappo-Danilevskiy, 1890). This led to the fact that in Russia in the second half of the 19th century the industrial revolution happened (Gregory, 2014) and, accordingly, the Russian Empire's industrial development was almost a century behind the countries of Western Europe (North, & Thomas, 1973), and especially behind England, which was the largest industrial center of the time (Floud, 1984; Allen, 2001).

4. DISCUSSION

In spite of the continuing substantial lag from Western European countries, the reforming initiatives of the Emperor Alexander II (abolished serfdom) and Emperor

Table 4
Cluster analysis results on the socio-economic situation of certain countries and the Russian Empire (the second half of the 19th century)

Group	Subgroup	States	General socio-economic features
Group I	Subgroup A	Austro-Hungarian Empire, Spain, Italy	Unstable Empires lagging behind in all socio-economic indicators considered in the analysis, but have much larger areas than countries in Group I Subgroup B
	Subgroup B	Belgium, the Netherlands, Denmark, Norway, Portugal, Sweden, Brazil	Countries relatively quickly developing in economic and social way; in the 20th century, they are the "locomotives" of Western European civilization. Brazil is the exception; in spite of the large areas and the higher population, it is comparable to European countries of Group I Subgroup B by its economic performance
Group II	Subgroup A	the USA, Great Britain and Ireland, France	Forming centers of economic gravity and industrial development. Active participants of foreign trade, future financial and business centers of Western civilization
	Subgroup B	Empire of China, Russian Empire	Countries with a large territory, characterized by high rates of population, but economically much less developed than the countries of Group II Subgroup A

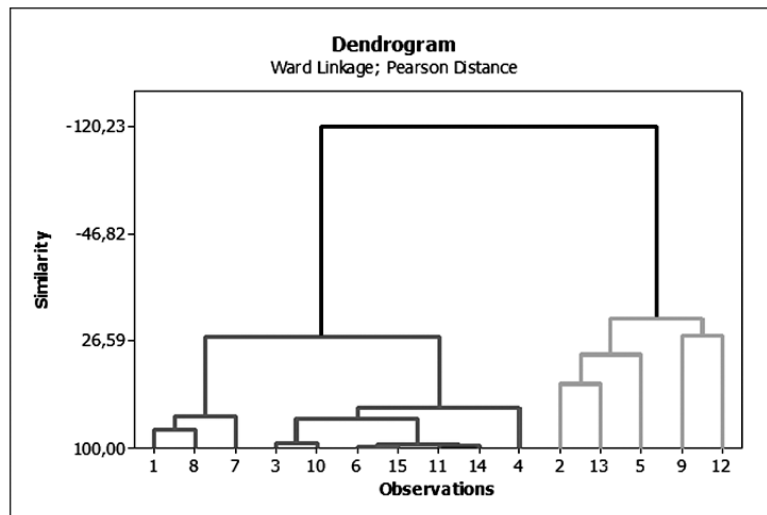


Figure 4: Cluster analysis dendrogram on the socio-economic situation of certain countries and the Russian Empire (the second half of the 19th century)

Alexander III (held financial and industrial reform) allowed the Russian Empire of the second half of the 19th century to significantly increase the rate of economic growth and transform the quality of the state socio-economic development. According to our cluster analysis, among the major countries of the world, including the Russian Empire, the two groups with two subgroups in each were allocated (Table 4, Figure 4).

Given the data of the above cluster analysis on the socio-economic situation of certain countries and the Russian Empire in the second half of the 19th century, it is worth noting that:

- First, the growing prosperity of countries in the analysis was due to the development of financial and trade relations; it allowed countries to provide the necessary level of government expenditure. However, the trade relations should be balanced, as well as a high dependence on imports; and a significant amount of imports pose a threat to the internal market. The significant imports have a negative impact on the development of the real sector (industry, agriculture), but at the same time actively contribute to the formation of the retail trade. The significant exports put the country at the mercy of external sources of money in the treasury, while the domestic market is stagnating;
- Secondly, the high population does not mean the growth of labor productivity. For example, in the second half of the 19th century England produced 5 times more coal than the Russian Empire, while the population in Russia in this period was 2.5 times higher. It is also worth considering that the high population does not mean the country's ability to fully develop the nature potential and rationally use all the territorial and geographical area, because the population density is very low.

Of course, the Russian Empire of the second half of the 19th century was considered one of the most important countries in the global economy, whose geographical position and natural wealth allowed at least long enough distance itself from global evolution and technological trends. But at the same time, it should be noted that the statistical data of the second half of the 19th century clearly demonstrate the fact that the limited natural and human potential can be used very effectively if there are liberal internal market, developed (relative to the research period) financial system and foreign trade. This is fully supported by the cluster analysis results and the dynamics of Western European countries in the second half of the 19th century.

5. CONCLUSION

To summarize this article, we want to note that the quality of economic growth and overall socio-economic development of countries both in the historical and in the current context is determined by a number of some similar factors: the availability of natural and human capital in conjunction with the abilities of their rapid and efficient use. The political system and especially government control play a significant role in this. And

this thesis is objectively justified by the statistical information analysis results for the second half of the 19th century. Our findings objectively demonstrate that significant natural and human capital is not always a guarantee of the country's dominant position in the global economy. We can see that the Russian Empire in the second half of the 19th century was one of the most important countries in economic terms.

However, the inertia of its development was due to the institutional and market reforms that largely were late by the time. As a result, the breakthrough in industrial production was carried out by the Russian Empire almost in a century of delay. States possessing less natural and human capital are forced to compete more actively and defend their economic and territorial boundaries in order to maintain not only their own state, but also not be overtaken (in both economic and territorial aspect) by more powerful states. This statement is fully true for the current phase of the global economic development. Despite the fact that modern Russia had got not the best economic legacy, she was able to overcome the inertial trends and secure technology leadership in the aerospace, military and industrial spheres. But the bulk of the inertial tendencies are not overcome, so in possessing the natural and human capital, Russia has to find reserves of intensive conversion of this capital into produced capital using the already created modern production technologies. In addition, Russia should more actively participate in the scientific and technological transfer, so that in the future not to lose its leading position, as it did in the past (18th-19th century).

In this article, we have not discussed the issues of quantitative assessment of the socio-economic development in historical retrospective attributable to the second half of the 19th century. These issues will be considered by us in the following articles and studies on the history of economies.

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