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**CONSTRUCTION IN RUSSIA AND CHINA: A COMPARATIVE ANALYSIS**

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**Abstract**

Analysis of global trends suggests that in the coming years after the end of the pandemic caused by the virus COVID-19, the volume of construction will increase significantly. This will directly affect both the construction of new industrial enterprises, residential buildings, and infrastructure facilities. The construction industry in any country in the world has a multiplicative effect. Economists estimate that an increase in infrastructure investment of 1% of GDP could help create several million jobs. Thus, according to the McKinsey Global Institute, such an increase in infrastructure investment will create 1.3 million new jobs in Brazil, 1.5 million jobs in the United States and up to 3.4 million jobs in India. Considering these and other qualities of the construction industry, including innovation, the leadership of the leading countries of the world is taking action and has been instrumental in providing the construction industry with everything necessary for effective work: highly qualified staff, efficient machinery, quality building materials, and also preferential financing. This is exactly what they do in China, the world's second-largest country by nominal GDP. In this article, the authors made an attempt to compare construction in Russia with construction in China and draw appropriate conclusions based on a comparative analysis.

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## 1. Introduction

The conceptual role of the construction industry in the economy, its multiplier effect was developed in the works of famous foreign and domestic economists, among them should be called such researchers as (Keynes, 2002; Tugan-Baranovsky, 2004; Wicksell, 2007).

The problems of using the system approach in Economics have been the subject of research by Russian scientists-economists (Aganbegyan, 2018; Albegov, 2001; Clark, 1917; Granberg, 2006; Hansen, 2007; Leont'ev, 2002; Pigou, 1932; Samuelson, 1954).

The theoretical justification of the economic role of construction in the development of investment processes in Russia was given in the works of (Asaul et al., 2008; Shokhin & Prokhorova, 2018; Yasin, 2019).

The success of economic reforms in China, including in the construction industry, has been highlighted in monographs, scientific articles, and other publications by Chinese and Russian scholars such as: Balyuk (2015), Gelbras (2010), Wang et al. (2019). The article by researcher Zhang Zhifeng "Economic reforms in China: their features, mechanisms, factors of success" notes that China's transition to the implementation of the Program of Four Modernizations was confirmed in 1978 by the fifth session of the National People's Congress and the adoption of a ten-year development plan, in which the main. Chinese state-owned enterprises have received significant rights in the field of pricing, suppliers of building materials, machinery, and other material and technical resources, material incentives for their employees for conscientious and productive. The Chinese leadership managed to create favourable conditions for attracting foreign capital to the industry, agriculture, construction and other sectors of the national economy (Zhifeng, 2003). These and other measures taken have yielded significant results. S. N. Glagolev, V. V. Moiseev, E. A. Karelina in the article Main Factors of Economic Growth of China "published in the series of books" Advances in Social Science, Education and Humanities Research "in 2019, they cite a little-known fact: over forty years of reforms, China's economy has grown 50 times (as cited in Moiseev et al., 2019). It is no coincidence that China's economy is outstripping the pace today world economic development, successfully solving many problems of our time, including in the construction industry.

**Table 1.** Comparative economies of China and Russia (as of 01.01.2020)

Country	Nominal GDP (trillion dollars)	Place in the world ranking	Territory (sq. km)	Construction of high-speed roads (in km)	Cost of 1 km motorways 4 stripes (RUB million)	Urban housing stock (billion sq. m)	Housing (sq m for 1 person per year)
China	14.217	2	9 596 961	7 100	223.0	31.5	1.5
Russia	1.610	12	17 125 191	2 063	754.5	2.6	0.55

It follows from Table 1 that over the past two decades, the Russian economy has grown 6.2 times, and the Chinese economy over the same period - 11.7 times. By 2020, in terms of the main economic

indicator (nominal GDP), the People's Republic of China was ahead of Russia. Federation in almost 9 times, (more precisely, 8.83 times).

Our country lags behind developed China in construction, in particular, modern high-speed highways and highways. The total length of high-speed highways in the mainland of the PRC alone in 2020 exceeded 150,000 km. In Russia - 100 times less. And with the pace of road construction as it is today, our country is not able to catch up with highly developed China in this category of construction. In addition, due to corruption and other reasons, the cost of 1 km of a four-lane highway in Russia is more than three times more expensive than in China.

The pandemic had a negative impact on the results of the construction industry in Russia in 2020. For 9 months of 2020, only 594.7 thousand apartments were commissioned in multi-apartment and residential buildings, including those built by the population. 45.3 million sq. meters of residential premises were built in just three blocks. At the end of the year, according to the builders, the total area of housing will not reach 65 million square meters, even if about half of the volumes in the first three quarters of an unsuccessful year are built in the remaining quarter (Leont'ev, 2002). If we divide the built square meters of housing by the population of Russia, then for each citizen there is only 0.44 square meters. This is 2 times less than President V. Putin demanded, and 3 times less than in the same period housing is being built in China.

A comparative analysis of the development of the economies of Russia and China in recent years allows us to draw a well-grounded conclusion about significantly higher GDP growth rates in the People's Republic of China. This is evidenced by Table 2.

**Table 2.** Growth rates of the Russian economy in comparison with other countries of the world (in%)

Country	2014	2015	2016	2017	2018	2019	2020	За 7 лет
China	7.3	6.9	6.7	6.9	6.6	5.1	2.1	34.7
Russia	0.6	- 3.7	-0.2	1.5	1.8	- 0.1	- 3.8	- 3.8

It follows from the table that due to corruption and other reasons, the economic development of our country has practically stopped. The result was a decrease in gross domestic product by 3.8%. In ruble terms, this is about 4,000,000,000,000 rubles, which Russia has not received over the past 7 years. During the same period, China expanded its economy by more than a third.

## 2. Problem Statement

In carrying out this study, the authors set themselves the following problems:

- Conduct a comparative analysis of the state of the construction industries in Russia and China.
- Show how far our country has lagged behind modern China in the construction of roads, housing, factories and other important economic and social facilities.
- Determine in what ways the PRC was able to develop its construction industry so quickly and what the Russian leadership can take from its experience for the development of construction.

China is the undisputed leader in the construction of new automobile factories as well as in the production of automobiles. Already in 2010, the country took a leading position in the global automotive industry. The total car production in the country in 2019 exceeded 25 million units; China produces more cars every year than the United States and Japan combined (Karelina et al., 2019).

Over the past 5 years, China has overtaken the entire world in terms of housing construction.

Over the past 35 years, housing security in the people's Republic of China has increased 10-fold. Today, 90% of Chinese families own an apartment, including 12% of families - 2 or more apartments (China Housing Sector Overview, 2016). With almost one and a half billion people in China, the average is 35 square meters, and the rate of housing construction exceeds 1.5 square meters per year per person. For comparison, in the Russian Federation, this indicator is almost 3 times worse. But it should be noted that in recent years, the Russian authorities, both in the center and in the field, have begun to pay more attention to housing construction. According to statistics, in 2019, 43.5 million square meters of apartment buildings were built in our country, which is 0.6% more than in 2018. A significant increase is also observed in the commissioning of individual housing - 36.8 million square meters. meters; compared to 2018, the increase was 13.5%. housing construction Financing also improved. According to the Central Bank of Russia, this sector of the economy is currently financed not only by construction companies, but also by attracting funds from the Federal and regional budgets. In 2019 alone, 22.4 billion rubles were allocated to co-Finance 99 housing construction projects (Housing construction, 2019).

In addition, we are implementing our own housing construction support programs in a number of regions. The most significant of them is the Moscow renovation program adopted in 2017 for the period up to 2032 (The Moscow Authorities have published a schedule of relocation under the renovation program, 2020). In addition, a number of regions are successfully implementing programs to support individual housing construction (IHS). An example is the Belgorod region, where since 1993 the regional Fund has provided financial support for construction and provided loans on preferential terms. Not by chance under Governor E. S. Savchenko Belgorod region has become the leader in low-rise construction in the Russian Federation.

### **3. Research Questions**

In accordance with the purpose of the study, the authors made an attempt to reveal the following questions:

- Analyze the main statistical data characterizing the volume of construction - in our country and in China.
- On the basis of a comparative analysis, identify the main shortcomings in the construction industry in Russia.
- Formulate and substantiate the main reasons for the backwardness of the construction industry in our country, its failure to meet modern challenges, as well as the strategic goals and objectives that need to be achieved by 2024.

#### **4. Purpose of Study**

The purpose of the study is to carry out a comparative analysis of the state and productivity of the construction industries of two states - Russia and China, and on this basis to identify the weaknesses of the Russian construction industry.

#### **5. Research Methods**

In the article, the authors used analytical, comparative, statistical and institutional methods of a systematic approach to the study of this problem.

The author has made an attempt, on the basis of a comparative analysis, to draw appropriate conclusions aimed at increasing the efficiency of the Russian construction industry, taking into account the positive experience of China.

#### **6. Findings**

During the period of radical and successful reforms, as a result of which China turned into a powerful economic power, building the second largest economy (after the United States) in the world, the country's leadership modernized state administration. Many bureaucratic barriers were removed, the investment climate improved, taxes were reduced, an uncompromising fight against corruption was organized by introducing the death penalty and confiscation of illegally acquired property of officials and public figures (Moiseev et al., 2019). In order to accelerate socio-economic development, China is developing its own education system, widely using the training of its students abroad (especially in the United States and Japan), encouraging the import of technologies that make it possible to develop such progressive sectors of the economy as the production of software, new materials, biotechnology, and healthcare. In the Haidian region, north of Beijing, the Chinese "Silicon Valley" has been created, and in a number of large cities there are also modern national industrial and technological parks.

The Civil Service Law, adopted in China on December 29, 2018, lays down the foundations for the regulation of civil service with Chinese characteristics (Khabrieva, & Shimin, 2020). It is designed to play a key role in ensuring the rapid socio-economic development of China, limiting bureaucracy and corruption in this country. Many of the advanced provisions of this legislative act can be creatively applied in Russia. Federal Law No. 346-FZ of October 27, 2020 was unable to restrict the administrative arbitrariness of officials in the construction industry.

The authors find it very strange the growth of officials and managers in our country in the past two decades. According to statistics, in modern Russia their staffing is twice as large as in the Soviet Union, which, in addition to Russia, included fourteen other union republics. The business community also does not understand why first produce bureaucrats and then call on civil society to wage an irreconcilable struggle with officials to reduce administrative procedures in construction (Putin, 2020).

The Russian Federation has a solid legal framework governing the construction industry. Today, construction activity in our country is a type of entrepreneurial activity, and, therefore, its legal basis, first of all, is made up of normative legal acts aimed at regulating economic activity. In Russian, as well as in

Chinese legislation, there are legal sanctions establishing administrative and criminal liability of individuals and legal entities for violation of legislation in the field of construction (New trends in the real estate market, 2020).

As noted in the Strategy for the Development of the Construction Industry until 2030, it is necessary to carry out quantitative and qualitative transformations, which should contribute to a more efficient solution of the tasks of increasing the volume of housing construction, the implementation of large-scale infrastructure projects that open up opportunities for the realization of the industrial and economic potential of our country.

In order to reduce the time required for completing all the procedures established by the current legislation, they are forced to resort to non-standard solutions to issues, up to the commission of corruption-related crimes. The problem is aggravated by the fact that annual federal budget funding is spent, as a rule, on the development and replication of various requirements and restrictions, rules, standards and methodological manuals for them, and other types of normative and reference documents (including documents on pricing for design and survey work) are not being developed. Naturally, this negatively affected the processes associated with the design of project documentation, the quality of construction expertise, in general, the operability of the entire document management system in domestic construction.

The practice of the construction market in modern capitalist Russia has shown that domestic businessmen are supposed to go through a long procedure of approvals and permits before building facilities. And in order to reduce the time for passing all the procedures established by the current legislation, they are forced to resort to non-standard solutions to issues, including giving bribes to officials. Maybe the legal framework governing the construction industry in the Russian Federation is fully consistent with European standards, but we are deeply convinced that law enforcement should be improved. Especially on the subject of extortion of bribes by officials, on whom the permission to allocate land plots for the construction of facilities, etc. depends. It is known that the former governor of the Tula region V. Dudka extorted 40 million rubles from "Corporation "GRINN"" for the allocation of a land plot for the construction of a shopping and entertainment complex in the regional center. Another official, invested with power, was arrested in the Far East for using administrative resources for personal gain. On February 9, 2018, the Yuzhno-Sakhalin City Court sentenced the ex-governor of the Sakhalin Region A. Khoroshavin for bribes to 13 years in prison, fined 500 million rubles and deprived of state awards. In China, for such crimes, officials are shot, and their property is confiscated. Therefore, in this country, the administrative resource is not used to curb the pace of construction and extort bribes.

During a meeting of the Council for Strategic Development and National Projects in July 2020, Russian President Vladimir Putin announced the need to remove bureaucratic obstacles and reduce costs, including in the construction sector. After the president set this task, the head of the Ministry of Construction of Russia Vladimir Yakushev hastened to assure the head of state that his department will continue to work on removing restrictions in the construction industry, including transferring some permitting norms to the category of optional ones (Moiseev, 2019).

It seems to us that in order to achieve the socio-economic development of Russia, it is necessary, first of all, to implement the Decree of President V. Putin of July 7, 2020 on the main tasks for the period

until 2030. To this end, it is worth adopting the experience of China in the development of the construction industry, and in the management of the economy as a whole.

## 7. Conclusion

As a result of this study, the authors came to the following conclusions.

Comparative analysis of the indicators of the construction industry in Russia and China shows the superiority of China in this important sector of the economy.

China's success is due to a modern and efficient system of government in the country. In fact, the leadership of the Communist party of China has shown in practice that market relations can and should be applied to achieve high performance in the construction of modern highways, housing construction, as well as in industry, agriculture, transport, etc. In this case precondition must be a sound economic strategy based on resource base, as is happening in Russia, and on innovative ways of development and steady implementation of the plans.

Another reason for the lag of our construction industry behind the world leaders is the excessive bureaucratization of permits for the construction of facilities, as a result of which the construction time and its total cost increase significantly. At the request of an official, endowed with similar rights, the start of construction work at a particular facility may be delayed not even for months, but for years. Therefore, the legal regulation of construction work in the Russian Federation needs modernization, including the limitation of administrative arbitrariness and corruption.

Despite the presence in the Russian legislation of a huge array of legal acts, including departmental ones, which regulate almost all stages of construction, starting with the preparation and execution of documents for land plots, unfortunately, the quantity has not turned into quality. With all the abundance of regulatory legal acts in the construction sector, there is no need to talk about their perfection. Moreover, the lack of coordination of departmental acts led to collisions between construction, fire, sanitary and other requirements that the developer must comply with.

It seems advisable to reduce the volume of government regulation in the construction industry and expand the powers of the professional community.

There are also problems of law enforcement practice, in particular, the main directions of the urban planning policy pursued by the Russian state clearly do not correspond to public requests. It is no secret that the lack of land plots intended for construction is also a problem. Only 17.8% of the total area of settlements is allotted for building in settlements, which is several times less than in China and other developed countries.

We are convinced that the fight against corruption in the economy promotes fair market competition, helps to reduce transaction costs and management risks of enterprises, improve the investment environment and, as a result, cause an increase in the country's gross domestic product. China has convincingly shown this by its example.

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