

# THEORETICAL, METHODOLOGICAL AND APPLIED ASPECTS OF INFRASTRUCTURE DEVELOPMENT IN THE CONTEXT OF THE RESOURCE POTENTIAL CAPITALIZATION

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## ABSTRACT

*The aim of the present research is to develop theoretical, methodological and applied aspects for studying availability and effectiveness in the use of infrastructure in the context of its influence on the capitalization processes of the resource potential of the regions. The authors generated a theoretical-methodological basis of research on the development of infrastructure potential of the territories in the context of the capitalization process. Methodological basis of the study is presented by system analysis, geo-economics, functional, integrated and dynamic approaches, as well as macro and microeconomic framework of analysis. The scientific novelty and theoretical relevance of the study is that in the course of the study the authors identified the structural and functional content of the infrastructure in the context of the regional economy capitalization, theoretically justified the rent differential effects of infrastructure development of the territory and identified applications and the key emerging trends of the contemporary infrastructural development of Russia. The practical significance of the study is that the research outcomes can be used by scientists, experts and government authorities to identify spatial features and justify the priority directions of the resource potential capitalization taking into account the regional infrastructure factor in developing strategic policy documents of federal and regional levels.*

**Keywords:** Capitalization, Region, Resource Potential, Infrastructure, Infrastructure and Rent Differential Effects, Infrastructure Investment Project.

## INTRODUCTION

The capitalization of the resource potential of the regions is a priority long-range objective of regional policy expressed in the statutory system of legal, financial, economic and organizational framework governing the work of federal and regional bodies of state power and local self-government. Securing expanded reproduction of various forms of regional capital depends primarily on the level of infrastructure development.

The relevance of the present study is due to the fact that the Russian Federation, being the world's largest country in terms of its territory, takes just 9<sup>th</sup> place in terms of population, 12<sup>th</sup> place in terms of GDP and 48<sup>th</sup> place in terms of per capita GDP at purchasing power parity. In the early 21<sup>st</sup> century Russia faced a host of geopolitical, economic and social challenges, among which the most important are:

1. Obsolete and strategically hopeless "resource-based" economic model;
2. Growing disparities in the socio-economic development between Russian regions;
3. Critical wear and tear of national and regional infrastructure resulting from chronic shortage of public and private investments;
4. Decrease in economic, social and partly cultural and mental interrelatedness of Russian territory, the emergence of "break lines" between the European and Asian parts of Russia, as well as between Russia and the North Caucasus;
5. Increasing influence of the new geopolitical and geo-economics players, taking on the role of the regional moderator (China in the Far East and Central Asia, Iran and Turkey in Central Asia and the Caucasus) instead of Russia.

In this case, of particular importance is the regional component of infrastructure development, inextricably linked with the key issues of internal geo-economics and regional development, up to the formation of a new geo-economics role of the Siberia and the Far East regions and change of their places in the economy of the country. Contemporary regional development of Russia is going down the path of concentration of economic potential within individual territories, the formation of macro regions with the centers located in large multi-million-strong cities and areas, rich in natural resources. State regional policy should contribute to the expansion of growth areas by reducing economic distances, transport costs in the developed areas and utilization of the benefits of agglomeration effect. Still large areas, particularly in the North and Far East, have remained undeveloped due to their high capital intensity and the long duration of the payback period. The economically developed and inhabited areas are not continuous, since between them there are almost uninhabited vast spaces. Therefore, the infrastructural arrangement of the regional space, first of all, should be focused on intense development of challenging but sparsely populated territories. According to some experts, the way out of this situation is implementing the "United Eurasia" project, which involves the creation of not only trade routes, but new industry sectors, industries and markets, i.e. common space with free movement of capital, labor, goods and services.

Issues of theoretical and practical studies of the regional economy infrastructure were raised in different times by both foreign scientists (Klaus & Seitz, 1994; Delmon & Mandri-Perrott, 2009; Delmon, 2009; Dilger & Witt, 1994; Fox & Smith, 1990; Justman, 1995; Kelejian & Robinson, 1997; Kerf, 1998; Kudryavtsev & Rudneva, 2014; Martin & Rogers, 1995; Moomaw, Mullen & Williams, 1995) and Russian researchers (Dronov, 1998; Yeganyan, 2015; Kuznetsova, 2010; Lomovtseva & Mordvintsev, 2012; Prokhorov, 2010; Russkova, 2006; Rykalin, 2015; Tikhonovich, 2012).

Despite the large number of works dealt with the development of regional economy infrastructure, there is still significant number of problems associated with the transformation of its place and role in the spatial economic systems, including the capitalization process of the regional resource potential.

## METHODS

Methodology of formation of national and regional infrastructure as an independent subsystem of the economy has not been given enough serious consideration, although it is influenced by all processes that are happening in the world.

In terms of methodology, when solving the problem of functioning of national economies in their relation with infrastructure environment, first and foremost we should emanate from the principles of system analysis. It is necessary to consider the world as a single global economic

system, while political and economic transformations occurring at national and global levels, including industrialization, technological modes, waves of innovation, modernization, sustainable development and finally, globalization as a consequence of geo-economic transformations, should be considered as the inevitable phenomena in the development of civilization. System approach acts as the original model of cognition; the second special case is the cognition model based on nonlinear dynamics, i.e. synergy (self-organization associated with the selection of order parameters and the prediction of the future on their basis).

Methodological and theoretical basis of the infrastructure analysis is the principle of objectivity. Infrastructure in the course of cognition appears as a social phenomenon and the problem of its formation and modernization occurs objectively, independently of the will of the subjects. The main methodological principle of analysis of contemporary mechanisms of infrastructural equipping consists also in the study of the problem of industrial infrastructure modernization of the third and fourth technological modes and, based on the realities of our time, the necessity of creating infrastructure for the reproductive structures of the fifth and sixth technological modes.

The effectiveness of infrastructure development of economic boundaries is stipulated by their geographical location, stability, engagement with global trade corridors, forms and volumes of commodity circulation. In this regard, currently, of exceptional interest are the latest conceptual insights about the objective relationship and the impact of geo-economy on the national and regional infrastructure, where multiple forms of the activities and services, included in the reproduction process covered by the geo-economy, cannot be part of purely national regulation, because are mediated by globalization.

The system-synergetic and geo-economics analysis, coupled with the principle of objectivity in research, made it possible to identify the structural and functional content, the nature and direction of impact of regional infrastructure on the capital reproduction processes and the socio-economic development of the territory.

The differences in the definitions of infrastructure can be explained by different approaches to the analysis of this phenomenon at the macro and micro levels. In the macroeconomic aspect, the infrastructure is a set of economic and social conditions, which provide the development of material production, meet the needs of the population in general and are dictated by the need of comprehensive development of communications, transport, power industry, supply of materials and machinery, as well as science, education, health, etc. The macroeconomic aspect of the infrastructure research is reflected in a selective estimation of the state of transport infrastructure in Russia, as well as in a study of the activities of key foreign investment and construction participants in the market for infrastructure projects in Russia.

In the microeconomic aspect the problem of infrastructure is studied in terms of internal functional meaning, which describes the relationship between the individual objects (industry sector, city, district, territorial complex) and the combination of elements necessary for its creation and subsequent development. This aspect was taken into account by the authors of the study when assessing the workload level of concession subsidiaries of foreign construction companies and analyzing the construction costs in large foreign infrastructure projects.

Functional approach to building infrastructure model involves its consideration as a carrier of the aggregate of major and minor functions, satisfying the specific need and their optimization. An integrated approach involves consideration of construction, economic, social, organizational and informational and other aspects. The dynamic approach involves the study of objects in the course of development, based on the retrospective analysis of previous

development and forecasting of infrastructure model parameters for 10-50 years ahead. The presented triad of approaches was applied in determining the key near-term trends in the development of the national and regional markets for infrastructure investments in Russia.

## RESULTS

Infrastructure (from the Latin *infra*-below and *struktura*-structure, location) is a term borrowed from the military lexicon denoting a set of logistical facilities that support the activities of the armed forces and consisting of the depots of ammunition and other military materials, airfields, missile bases, polygons, rocket launching sites and other structures. In the economic literature this term is used since the 40-s of 20<sup>th</sup> century.

In the broadest strokes, infrastructure can be defined as the set of industries offering a variety of services of an industrial nature or rendering public service. At more complete definition that takes into account the functional characteristics of the infrastructure, it can be defined as a set of constructions, buildings, systems and services necessary for the functioning of material production (production infrastructure), market (market infrastructure) and nonmaterial sphere (social infrastructure).

The increasing worldwide role of scientific and technical progress and information management support of production processes allow considering the scientific-technological infrastructure (research, information, computing centers, telecommunications, etc.) as an independent subsystem. In concentrated form, the technological infrastructure is presented in the industrial parks and technopolises.

Currently, there are many definitions of infrastructure, most of which have no fundamental differences, though are characterized by varying degrees of detalization and provide some clarification to wording (Table 1).

<b>Table 1</b>	
<b>SYSTEMATIZATION OF INTERPRETATIONS OF ECONOMIC SUBSTANCE OF INFRASTRUCTURE</b>	
<b>Source</b>	<b>Economic substance</b>
<b>Reference and academic publications</b>	
Great Economic Encyclopedia, 2014	The aggregate of fixed assets as well as services and systems necessary for the functioning of material production sectors and ensuring the living environment of society; the infrastructure can be industrial (channels, ports, roads, communications, etc.) and social (schools, hospitals, theaters, stadiums, etc.).
Modern Dictionary of Economics. (Raizberg, Lozovsky & Starodubtsev, 2006)	The set of industries, enterprises and organizations within those industries, their activity categories, aimed at creating and ensuring conditions for the normal functioning of goods production and circulation, as well as human living environment; The infrastructure can be industrial and social, at that, industrial infrastructure additionally includes transport and warehousing, while social infrastructure covers also landscaping, service enterprises, science, education and public health service.
Great Soviet Encyclopedia, 1978	Complements the components of the industrial infrastructure-bridges, airports, sewage facilities and at the same time specifies certain areas of social infrastructure; for example, with regard to education: this concerns training, general (school) education and vocational (higher) education.
Materials Handling Dictionary, 2012	Introduces the concept of three types of infrastructure: engineering and technical infrastructure-as a set of engineering, transport, energy and other structures to ensure the normal functioning of the whole production complex within a certain area; social infrastructure-as a complex of residential properties, social amenities and other facilities providing the support of the entire population of the territory concerned; institutional infrastructure-as a set of public and general administration institutions (including financial

	and logistic support services), design agencies and institutions that promote the cultural development of the territory in general.
<b>The scientific monographic works</b>	
Semenenko & Sergeev, 2013	Infrastructure is a complex of economic services; a set of industry sectors and categories of activity (e.g., logistics), serving both industrial-commercial and non-productive sector of the economy aimed at creating a framework for economic, business and social activities.
Khrameshkin, 2004	Infrastructure is a set of activities serving a particular sector of the economy; it is divided into industrial infrastructure, which serves and ensures the functioning of production process; institutional infrastructure, which performs general economic services and includes state, public and corporate institutions; and social infrastructure, which provides vital activity of a human, satisfying his material and spiritual needs.
Oreshin, 2000	Considers industrial infrastructure to be the most important and complex component of the overall infrastructure, covering objects which create favorable conditions for the implementation of the production process through the circulation of material goods (means of production), their transportation, accumulation, storage and sales.

Since the infrastructure and territory (with its resource potential) are inextricably linked to each other (the main feature of infrastructure is its immobility, i.e., anchoring on-site), it, like resource potential, has the ability to create a differential effect ("infrastructure-rent differential effect") (Dronov, 1998). In other words, higher degree of infrastructure availability of the territory allows saving money and getting more profit from business organization compared to a region, which is less well equipped in terms of infrastructure.

In the world, over the last thirty years, various types of infrastructure (medical, social, transport, utilities and others) have attracted, by different estimations, from 1.5 to 2 trillion USD that have been invested in tens of thousands of projects different in terms of size. At the moment, another one trillion dollars has been accumulated in infrastructure funds worldwide.

According to the World Bank, Russia belongs to the group of countries with above-average incomes, while its total infrastructure spending (without division into public and private) for water, transport, sanitation, medicine, telecommunications and other must be at least 4-5% of GDP. Formally, this is necessary to maintain the current level of its condition, taking into account the underinvestment during previous years, as well as the absence of special tasks on development of infrastructure. In fact, the volume of investments in infrastructure is in line with similar indicators for Central and Eastern Europe. However, the size of the country and some other features make calculations of macroaggregates and their interdependence much less linear. Transport infrastructure is one of the leaders of extra-budgetary funds not only in Russia, but worldwide. In general, transport projects have attracted in recent years extra-budgetary investments amounting to tens of billions of USD. Most foreign economists always cite first and foremost Russia and several other states, when talking about transport infrastructure as an independent branch of economy and self-replicating segment of business and never relate it to associated industries, like in most countries. From the beginning of 20<sup>th</sup> century to the present, foreign experts in military theory, geopolitics and geoeconomists are talking about the extreme importance of transport infrastructure exactly in Russia to ensure the unity of economic space of the country, as it largely determines the sustainability and functioning dynamics of the national economy. However currently, the condition of the country's transportation infrastructure remains quite unsatisfactory (Table 2).

**Table 2**  
**SAMPLE ESTIMATE OF THE TRANSPORT INFRASTRUCTURE IN RUSSIA**

<b>Industry branch</b>	<b>Estimating the condition</b>
Rail facilities	Average wear and tear of locomotives of the JSC "Russian Railways" (JSC "RZD") is 74.9%, while 85% of the locomotives were purchased over 20 years ago;
	Depreciation of fixed assets of electric power facilities is about 70%; out of 1412 railroad substations, 786 (56%) substations require full reconstruction, including 3600 (81%) reducing and traction transformers that must be replaced;
	Due to the shortage of funds, capital repairs (modernization) of railway track of about 20,000 km long (out of 86,000 km of existing railways) were not carried out in a timely manner;
Auto-roads	About 31% of the total number of populated localities have no roads with hard covering;
	Almost 27% of the federal road network is operated under exceeded regulatory load.

Note: Compiled based on "Transport strategy of Russia until 2030" and "General scheme of the railway network development of JSC Russian Railways by 2020".

According to experts, the transport industry in Russia needs to attract over 1 trillion USD in the frameworks of thousands of projects. Both figures are extremely hard to achieve. However, if given amount will be efficiently structured for a period of ten years, then the task of bringing 50 billion USD a year into infrastructure development in Russia still looks ambitious, though doable, as evidenced by the experience of some of the BRICS countries.

We should pay attention to the state of business in the construction and infrastructure sector, which in the coming years will be in a quite intricate situation. Its maintenance needs either a significant amount of funding through government contracts (that in terms of the current and forecasted state of the federal budget is impossible) or increasing the proposals for the Public-Private Partnership (PPP) schemes. When implementing the second option, just to support the operations of major federal and regional construction companies, the state needs to bring to the market for at least 30-40 projects different in size. This is the minimum threshold necessary for maintaining the potential of the industry.

Analysis of the annual reports of the largest construction companies in Western markets confirms their leadership in such projects. The PPP-based subsidiaries are leaders of the projects, run consortia and transmit significant amounts of actual projects performance to their parent companies (Table 3).

**Table 3**  
**CAPACITY UTILIZATION OF CONCESSION SUBSIDIARIES OF FOREIGN CONSTRUCTION COMPANIES**

<b>Company</b>	<b>Concession subsidiary</b>	<b>Number of projects</b>	<b>Investment volume Bln Euro</b>
ACS Group+Hochtief	Iridium Concessions+Hochtief PPP Solutions/Hochtief Concessions	100	72
Vinci	Vinci Concessions	41	n/a
OHL Group	OHL Concessions	34	18
Strabag SE	Hermann Kirchner	30+	14
Bilfinger Berger GmbH	Bilfinger Berger BOT GmbH	30	5
Acciona	Acciona Concessions	23	n/a

Note: Compiled based on the annual corporate reports.

All aspects of infrastructure project face a variety of risks at all stages of their implementation that lead to a significant change in its parameters, the main of which are cost, time and quality. Reliable national statistics on the change in the value of projects yet does not exist. Most of them are still at various stages of execution, so that the comparison is impossible. Relying on the analysis of the causes of cost overruns, for example with regard to the 2014 Olympics or the APEC-2012 and other similar projects, does not appear to be representative. Therefore, in anticipation of the appearance of the relevant Russian data, we consider foreign experience in this issue (Table 4).

<b>Project</b>	<b>Country</b>	<b>Overexpenditure, %</b>
Third Harbor Tunnel Project (Big Dig)	USA	196
Humber Bridge	Great Britain	175
Boston-New York-Philadelphia-Washington Railroad	USA	130
The Great Belt Bridge and Tunnel	Denmark	110
The A6 highway Chapel-en-le-Frith & Whaley Bridge Bypass	Great Britain	100
The Joetsu Shinkansen railway line	Japan	85
The Washington Underground	USA	80
The Channel Tunnel (Tunnel under la Manche)	Great Britain	80
The Karlsruhe-Bretten narrow gauge railroad	Germany	80
Access roads to Oresund Bridge	Denmark	70

Source: Flyvbjerg Bent, Bruzelius Nils & Rothengatter Werner, 2003.

We should bear in mind that in the Table 4, the emphasis is made on the major overexpenditures on construction in the projects of the last years. On average, the projects are usually implemented approximately in accordance with the originally projected costs. However, the cost of errors due to an incorrect structuring and evaluation of the project is clearly visible. And countries with significant experience in implementing large infrastructure investment projects are also subjected to such risks.

The Russian economy has to increase the level of external financing of infrastructure projects up to 70-80%. Otherwise, implementing the required number of projects would be impossible. At the same time, the current uncertainty of cooperation prospects of Russia with the EU countries will become with a high degree of probability medium-term trend or possibly even long-term trend.

In general, we should note that there are just a few foreign companies which seriously consider Russia in the capacity of their strategic market and their attitudes toward projects and risks are becoming more cautious. Among the world level leading players, not more than 25% run their businesses in Russia (Table 5).

**Table 5**  
**PRESENCE OF KEY FOREIGN CONSTRUCTION AND INVESTMENT INSIDERS OF THE**  
**INFRASTRUCTURE PROJECTS MARKET IN RUSSIA**

Company	Country	Number of projects	Investments/Portfolio Bln USD	Interest towards Russia
Ferrovial/Cintra	Spain	55	73.5	no
ACS Group (including Hochtief)	Spain	100	72	yes
Vinci	France	41	70.7	yes
Marquarie Group	Australia	57	48.2	yes
Atlantia (including Gemina)	Italy	18	44.2	no
Bouygues	France	27	38.6	yes
Meridiam	France/USA	32	31.2	no
EGIS Projects	France	26	26.6	yes
Sacyr	Spain	36	21.8	no
Global Via-FCC-Bankia	Spain	46	19.4	no
John Laing	UK	22	21.4	no
OHL	Spain	34	18.2	yes
Strabag	Austria	30+	14	yes
Eiffage	France	31	13.6	no
Abertis	Spain	32	n/a	no
Hutchison Whampoa	China	34	n/a	no
NWS Holdings	China	27	n/a	no
IL&FS	India	18	n/a	no
Acciona	Spain/Australia	23	n/a	no
Alstom	France	15	n/a	yes
Fluor	USA	9	10	yes
IRB Infrastructure	India	9	7	no
Empresas ICA	Mexico	18	6.15	no
Bilfinger Berger	Germany	30	5	no
Skanska	Sweden	16	n/a	yes
SNC-Lavalin	Canada	20	3	yes
Camargo Correa	Brazil	14	3	no
Andrade Gutierrez	Brazil	13	n/a	no
Isolux Corsan	Spain	10	2.6	no
Reliance	India	13	2.5	no
Odebrecht	Brazil	13	2.2	no
Transurban	Australia	9	n/a	no
Balfour Beatty	UK	61	1.28	no
BRISA	Portugal	9	n/a	yes
Impregilo	Italy	13	n/a	no
Itinere	Spain	6	n/a	no

Note: Compiled from corporate annual reports, Public Works Financing, InfraONE, etc.

The reasons for inclusion in a Table of companies interested in Russia have been extremely flexible. We took into account any positive confirmation, such as involvement in projects or project competitions, availability of representation office or subsidiaries in Russia, the mention of Russia and specific projects as a promising market, the queries on the tender documentation for the ongoing selection and other signs of business activity. However, the list of those foreign investors, who actually carried out projects on the territory of the country, is much smaller.



At the same time, in Russia, there is a general need for the modernization of infrastructure, which amounts to about 1 trillion USD. Out of this sum, projects have been identified and structured for a total of about 180 billion USD. Not all of them were implemented, because some of them were rejected by market, others were not approved by the authorities. For the most part, these are so-called mega-projects with special implementation procedures. Consequently, even according to optimistic estimates, unstructured and unimplemented projects account in total to at least 820 billion USD. Some of the infrastructure sectors most promising in terms of return on investment are given in Table 6.

<b>Table 6</b>		
<b>MOST PROMISING SECTORS OF THE RUSSIAN INFRASTRUCTURE MARKET UP TO 2020</b>		
	<b>Infrastructure market sector</b>	<b>Market capacity until 2020, Billion USD</b>
<b>Transport</b>	The construction of toll turnpikes	10
	The construction of railway roads (including those to the industrial production faculties and commercial areas)	80
	The construction of light railway systems	12
	Roads construction	378
	The construction of bridges, tunnels and turnpikes	81
	Modernization/construction of airports	40
	The construction of transport hubs and transport-logistic nodes (including reconstruction of railway stations)	70
<b>Energy and housing</b>	The development of port infrastructure	33
	The construction and reconstruction of heat distribution networks and electrical grids	30
	Service infrastructure for public institutions	100
<b>Social</b>	Reconstruction and construction of municipal water supply facilities	21
	The creation of high-tech medical facilities	70
	Construction/reconstruction/transfer of regional multi-field hospitals and dispensaries	33
	Construction of sports and fitness complexes	38
<b>Industrial</b>	Development of education and science infrastructure	56
	Development of private deposits/production fields/enterprises	78
	Reconstruction of the existing infrastructure of large industrial enterprises and fields	34
<b>Total for the specified sectors: 51 266 billion USD</b>		

Note: Compiled based on the assessments of the World Bank, Renaissance Capital, Infranews, Business Monitor International and InfraONE.

## **DISCUSSION**

The importance of infrastructure cannot be overestimated, because in the context of market economy it provides interaction of economic entities, the movement of goods and services from producers to consumers, as well as financial flows and ensures the functioning of the labor market. The development level of infrastructural industries, especially those that contribute to the sustainability and dynamics of economic growth, largely influence a country's competitiveness on the world stage. The basic infrastructure sectors, influencing the country's

ranking in terms of competitiveness on the world market, include first and foremost all types of transport, communication and telecommunication facilities, as well as industries, providing computerization and informatization of the economic space. According to independent and government experts, about 24% of Russia's GDP is blocked in the field of transport infrastructure, about 11%-in the social and medical infrastructure, slightly less than 22%-in energy and related areas and about 18%-in the sphere of the so-called private infrastructure.

The issues of infrastructure development in Russia are being discussed in quite different contexts for many years, though a massive breakthrough in this regard yet has not happened. There are still multiple lags from most countries with comparable economies not only in terms of infrastructure availability and condition but most importantly, in the pace of its creation. Infrastructure is suffering from chronic underinvestment in the late Soviet period and during the transition period of the 90-s. In recent years, infrastructure investments in Russia reached 6% of GDP that broadly is in line with foreign indices. The larger part of these investments (4% of GDP) was directed in the transport sector. Considerable attention of the various federal authorities, involvement of large corporations, large volumes of financing from the federal budget and state banks are typical for national level infrastructure megaprojects and significantly contribute to their implementation. As for the projects that are not extra-large ones, so far there is no significant progress in this area of infrastructure development. Despite domestic needs, foreign specialized funds and other specialized investors find Russia to be very attractive market, though very complicated one. Large financial institutions are looking for large projects, which in relative terms constitute a significant amount of national investment in infrastructure. However, such projects are a minority, whereas most of the projects are regional and fall within the range of 50-450 million USD. At that, the regional authorities reproduce the federal model of the infrastructure investment market with existing distortions that results in the fact that regional projects become either too expensive or even remain unheeded.

Currently, the market has faced a paradoxical situation, where there is a need for the implementation of infrastructure projects, the minimum necessary regional level of which is estimated at several hundred billion dollars. However, Russia, like many other countries, which have embarked upon the capitalization of a private infrastructure that de facto is an active extra-budgetary investment in the existing and created objects of different infrastructure type, is facing two categories of investors. First category is investors showing risk appetite, who are not satisfied with the proposed rate of return, while the second one is investors, who are satisfied with the rate of return, though not satisfied with the level of risk. These two factors are the main limitations of extra-budgetary investments in infrastructure development.

One of the solutions to the problem of the market with too much supply and little demand may be public investments in both lacking and existing infrastructure, which comes into a decline. It is valid for both advanced and emerging countries, with the possible exception of China.

Speaking about key trends in national and regional infrastructure investment markets in Russia for the near future, we should mention the following trends: change of European and American vector of foreign investments towards the Asian and Arab markets; the emergence of new comprehensive investment mechanisms; the transition from simple capital-intensive projects to complex scientific and technical ones; change in the ownership structure and key participants of the infrastructure market; and increasing project competition.

## CONCLUSION

One ought not to continue the practice of residual financing, delay initiative on creating the infrastructure, shift the responsibility for creation of infrastructure to the regions, giving it a local character, because the infrastructure in all cases is a national treasure and at any time can acquire international significance, since both foreign and domestic investors invest money in joint and any other projects if the region has appropriate infrastructure capacity.

In these conditions, system-integrated national and regional infrastructure projects are called upon to become the locomotives of modernization and consequently, priority objects of attention and investment by the state, which in the long term will ensure qualitative improvement of the Russia's utilization level of its capacity and resources capitalization, including space, playing a unique bridging role between Europe and East Asia. These projects can significantly reduce socio-economic inequalities; create the incentives for new urbanization and capitalization in various regions of Russia.

It will increase the level of transport, logistic, economic, cultural and mental connectivity in the territory of the Russian Federation, including overcoming the growing gap between the Far East and Eastern Siberia, on the one hand and the European part of Russia-on the other.

The realization of national and regional infrastructure projects will create genuine possibilities to import the most advanced foreign technologies, new high-tech production and value-added chains in the territory of Russia for the entire period of operation of the created infrastructure using the Russian labor resources and scientific-technical potential.

The formation of preconditions for the deepening of the strategic and long-term economic and technological cooperation between Russia and its main partners both in Western Europe and the Asia-Pacific region can decline actual and potential dependence of Russia on its most significant geopolitical and geo-economics competitors, including China, as well as some transit states, which formerly have been part of the USSR.

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