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Infrastructure for Population Living Conditions in the Context of Qualitative Economic Growth

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On the basis of system-evolutionary paradigm and principles of neo-institutional economic theory an approach to system-reproduction and institutional analysis of infrastructure for population living conditions is developed. This analysis is aimed at expansion of opportunities for reproduction of human and infrastructure capital encouraging qualitative economic growth.

Keywords: Infrastructure, infrastructure for population living conditions, infrastructure subjects, infrastructure goods, qualitative economic growth, institutional analysis, institutional development.

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Introduction

Research approaches to analysis of infrastructure for population living conditions are based upon its perception as a dynamic socio-economic system aimed at reproduction of human capital and capital assets of infrastructure, which are integral parts of qualitative economic growth model of regional economy.

Qualitative economic growth is long-run reproduction of economy as an integrated system of industries, sectors and subjects in the permanent search of interests balance on the way to greater satisfaction of society's and individuals' needs. Under modern circumstances qualitative economic growth is to be exercised on the basis

of extensive resource exploitation as well as its productivity, modernization of technology and institutions improvement, while key results of qualitative growth consist in not only greater satisfaction of needs but also modification of business, society and government interests balance as well as increase of their economic opportunities.

As the basic paradigm for researching problems and opportunities of regional infrastructure for population living conditions development it is sensible to use complex of approaches, principles and methods of modern institutional economic theory which allows to solve the reproduction problems of economy in

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most effective way by taking into consideration private interests and by formation of public interests of economic relations subjects.

**Infrastructure:
The notion, characteristics
and approaches to research**

At the moment most researchers agree on the fact that the infrastructure provides the necessary conditions for industrial and agricultural production and living of the population (Kuznetsova, 2010). However, there is a difference in the approaches to the notion of «infrastructure» (Kocherga et al, 1981). Some authors define the infrastructure as a subsidiary complex of industries, enterprises, activities, serving the main production and the population. Others focus on the material side of things, meaning the aggregate of buildings, facilities, engineering structures, which ensure the functioning of material production enterprises. Thus, according to branch-wise approach infrastructure is a combination of subsidiary industries and kinds of activities, and according to territorial approach – a combination of structures, facilities, natural and engineering systems (transport, energy supply, water supply, communication and other service lines).

In the Russian managerial practice the definition of infrastructure similar to the Western one (public works – «public services and facilities») which covers services for maintenance of highways, airports, water transport, water supply and drainage, municipal solid waste, public transport, has not been developed. But, as noted, «this definition of infrastructure is also not complete. In particular sectors of social infrastructure such as education and health care are excluded from it» (Pchelintsev, 2006). According to domestic statistics industries that provide services comprise maintenance of agriculture, transport, communications, trade,

catering, procurement, housing and communal services. This category includes enterprises from sphere of circulation (transport, communications, trade, procurement) and service (catering, housing and communal services) which implies that the sphere of services include only some enterprises and branches of infrastructure (Yakovleva, 2002). Modern paid services statistics reflects the diversity of services rendered to population as a part of service sector: domestic, passenger transport, communications, housing and communal, educational, cultural, physical training and sports, tourism and excursion, medical, sanatorium, legal and other services.

Thus boundaries of the notion «infrastructure» in relation to various macroeconomic systems, in particular, regions are still indistinct, because a system of substantial traits distinguishing this class of objects (events) from all similar has not been yet formulated. It is common for applied research papers to identify infrastructure as a sphere of services, sphere of circulation or non-production sphere, although theoretical studies recognize that infrastructure is a broader concept. In this case to understand the role infrastructure plays in integral reproduction of a mixed economy it is expedient to investigate its properties and functional characteristics.

Experts point to the impossibility of determining a single criterion for industry or set of facilities to be considered as belonging to infrastructure and name the following groups of significant infrastructure properties to be taken into consideration in the course of analysis.

Group I – system properties of infrastructure or properties that characterize the nature and complexity of the infrastructure system. Some researchers note that it is more accurate to use term «infra-system» because they perceive infrastructure as a subsystem of complex systems «production-infrastructure» or «population-infrastructure» (Alaev, 1977).

Group II – the properties that characterize connection between infrastructure system and its external environment. Here cross-industry significance of products and services produced within infrastructure industries should be noted: those are designed for the economy as a united whole or some of its major sectors. In addition to that cross-industry connections of infrastructure industries are universal and immediate (Volchek, 1969).

Group III – properties that characterize the functioning and development parameters of infrastructure system are determined by the relevant technical and economic features. Isolated industries, spheres, types of infrastructure have specific technical and economic features depending on peculiarities of capital assets, technology and society's needs for certain infrastructural goods. The researchers also distinguish geographic features of infrastructure (pronounced «territoriality» of infrastructure functioning and development).

Group IV – properties that characterize goal-setting methodology for the regulation of infrastructure.

Historically the formation of infrastructure in Russian regions occurred mainly along trunk lines. At the present time in the view of maintenance of the national infrastructure «bundles» leading role there is more and more economics' and politics' consideration to fast development of regional infrastructures against the background of a prolonged underperform of infrastructural development in rural areas (Krasovskiy et al, 1980). Studies on the role of infrastructure in the development of territorial socio-economic systems are perceived as one of the most topical research trend in the regional economy (Saushkin, 1973).

Development of regional infrastructure taking into account territorial interests of population means adaptation of new facilities to

already established communications network, the development of so-called «small» infrastructure (e.g. small power engineering industry and small aviation), water supply problems solving with the best available sources (underground, open and its combination), discontinuation of the environmentally hazardous infrastructure facilities development in the areas of economic and urban development of the regional territory and so on. The interrelationship of territorial interests of population and infrastructural provision of the area should be the essence of modern territorial policy in regions.

The functional peculiarities of isolated infrastructure activities and spheres are investigated in applied branches of economics – economics and geography of transportation, construction, water industry, social infrastructure, infrastructure, production infrastructure etc. Researches name other known characteristics of the infrastructure, for instance, inseparability of processes of infrastructural products and services production and consumption as well as intangible nature of production itself, which implies the impossibility of accumulation and storage of infrastructural products and services, therefore the need for spare capacity maintenance at production facilities in respective industries (Shlichter, 1990).

Infrastructural facilities contain the elements necessary for completion of economy reproduction cycle: a social element (an aggregate of individuals associated with the operation of infrastructure), a technical element (a set of buildings, facilities, equipment, communications systems etc.), an economic element (forms of division of labor and production organization), a territorial element (geographical location). The simplest system model of an infrastructure object has the following characteristic elements: resources (anything that comes from outside), processor (the object proper), products (everything

produced by infrastructure and directed to the sphere of consumption by economy subjects), waste (part of the substance outstanding which is to be given back into the environment). All these elements have a spatial-geographic interpretation determining infrastructure location (also on environmental point of view).

However infrastructure is a complex system economic entity, and we should take into account its simultaneous belonging to two main types of economic systems – industrial and territorial. Its peculiarity and commonality lay in the fact that its consist of the same elements and the thing is that what configuration principle is applied in these systems. Therefore, the result of infrastructure operation as economic system is, on the one hand, the production of material and spiritual goods necessary for society's and individual's needs satisfaction, but on the other hand, the reproduction of the infrastructure itself in each cycle of its operation (Alaev, 1983). The economic result of infrastructure operation is not embodied in activities of its isolated industries, but is part of the social product reproduction effect as a whole (Shipilov et al, 1983), whereas the social result of infrastructure is embodied in the quality of population life, and environmental result is embodied in complete reproduction of society and human environment. The result of infrastructure spatial activities can be considered as changes that occur in the spatial development of regions under its impact.

Within studies of regional economy infrastructure was determined as territorial system of (ensuring) services, object and method of regulating the territory functioning which is investigated in spatial interrelationship with population, economy, environment and cultural sphere. At the same time a term of «geographic infrastructure» was suggested (Mayergoyz, 1974) which emphasize that study of infrastructure is the key to understanding and solving complex

problems of territorial organization of society's life through territorial division of labor, formation of economic regions and environment protection (Kosmachev, 1981).

Thus it can be argued that infrastructure is a common generic term covering its different types which form as separate specialized subsystems of economy (spheres, industries, market segments, productions, enterprises, institutions) necessary for serving population as well as general conditions formation – preconditions of isolated types of activities development. That is, the infrastructure functions of objects, phenomena, processes, and entire economic subsystems consist in ensuring and maintenance auxiliary in relation to the key areas of concerned socio-economic system.

In both theoretical and applied research on criterion functions of infrastructure as a «complex of industries, providing general conditions of production and population living conditions» accepted to divide into two main blocks – manufacturing or engineering and social or community and consumer (Belkin et al, 1989).

Production infrastructure is a such subsystem of economy that creates and implements the general conditions of operation (and interaction) of production industries equally necessary for economic activities in all spheres of social production. The structure of production infrastructure generally includes the following elements: all types of transport (including the devices associated with energy transmission and distribution), information and communications infrastructure (including all forms of communications), the system providing material resources, (including warehousing and logistical support); engineering infrastructure (heat, gas and electricity supply, water supply and drainage, sanitation of urban areas), construction, environmental protection and recreation infrastructure. Thus the production infrastructure

is considered as a factor organizing economic space of macroeconomic system (Shlichter, 1990).

Social infrastructure is a combination of organizations and facilities designed for housing, cultural and domestic, trading and health care services (Toshchenko, 1980). Conventionally it is accepted that there are thirteen groups of service industries maintaining population living conditions (Khrushchev et al, 1990): «housing, social services for population, retail trade and catering, domestic services, cultural and domestic services, integrated maintenance of some isolated groups of population, funeral services, legal services, cultural and educational services, education and training of children, medical care, ensuring safety of population living conditions and preservation of its property, maintenance of law and order and fire protection, as well as passenger transport». Thus, social infrastructure is regarded as a population living condition, a key organizer of social space of macroeconomic system (Tkachenko, 1995).

While other versions of the functional classifications of industries also mark out ecological, institutional and other types of infrastructure, in the view of economy subjects interested all of those can be more or less attributed either to production (end-users are companies) or social infrastructure (end-user is population).

Institutional analysis of infrastructure for population living conditions

Based on the fact that the «infrastructure – is a complex of industries providing the general conditions of production and people’s living conditions» (Belkina et al, 1989, p. 98) it can be argued that the infrastructure in an integrated economy consists of two blocks: the production and people life support.

The list of life support spheres of the Russian regions is adequately described in domestic publications. Typical fields of activities in the regional living conditions, determining peculiarity of its development are: economic and geographical state, population policy and employment, development of spatial structure, prospects for the use of mineral resources, opportunities of industrial development, prospects of agriculture, forestry development, the functioning of the construction complex; financial system development in the region, transport infrastructure potential, development of engineering infrastructure, science and research complex potential, opportunities in education, health care development, protection of cultural heritage, rational environmental management and protection, protection of the population and *territories* from *emergency situations* of natural and man-made causes, public safety, regulation of living (Topolev et al, 1999; Granberg et al, 2000, 2003; Shtulberg et al, 2000; Nesterova et al, 2002; Shtulberg et al, 2002; Tatarkin et al, 2003; Persky et al, 2003).

Thus the life support means ensuring of the necessary conditions for human life and activities, as well as normal functioning of social institutions (Nikonova, 2006). In turn the economic category of «population life support» is defined as a set of characteristics, both quantitative and qualitative appropriate to the level of society productive forces, socio-economic and socio-labor relations under the operation and development of market economy» (Tretyakova, 2009).

To examine the infrastructure for population living conditions it is expedient, in our view, to form an integrated approach to the functional characteristics of infrastructure reproduction and the role it plays in a consistent reproduction of the whole mixed economy. We have already noted that all industries of infrastructure can be divided into two parts – production and social.

It seems that the category of « infrastructure for population living conditions» is at the interface definitions of production and social infrastructure, as the provision of living conditions is impossible without a resources supply for basic industries and finished goods and services delivery from producers to consumers.

We assume that the primary functional role of infrastructure in the integrated system of economy consists in continuous reproduction of a number of infrastructural goods. Because these goods are consumed in the first place by social subjects, in our opinion the following system of industries can be build based on its interdependence and importance of manufactured goods (Fig. 1):

- primary infrastructure industries where material conditions of the infrastructure operation are designed – products produced by transportation services, housing and communal services and construction and renovation of housing stock industry;
- secondary infrastructure industries where goods and resources are distributed – products produced by provision of consumer goods services, catering services, domestic services, social services, information services and legal protection;
- tertiary infrastructure industries where pure public services are provided – products produced by spheres of ensuring safety of living conditions (including protection of public order and emergencies settlement), environmental protection, education, health care and cultural services (including physical training and sport).

Based on this list all subjects of integrated economy are interested in infrastructure goods and demand for extensive reproduction and

modernization of infrastructure for population living condition:

- social subjects interested in improving of living conditions and living standards in specific spheres and areas of economy, what provides conditions for the accumulation of human capital;
- business subjects interested in improving techniques of delivery of private and mixed goods and resources (in other words accumulation of capital for infrastructure) as well as in the use of human capital as a key competitive advantage in advanced industrial and post-industrial economy;
- public subjects interested in the organization of economic and social space in the country, in greater multiplier effect of public spending, in the stabilization of the cyclic development of the economy etc.

At the same time a developed human capital is meant to consist in labor resources which are reproduced in amount and quality sufficient for serving basic industries of economy and are characterized by high labor productivity, a decent standard of living and quality of life, the understanding of which is continuously modified related to change of preferences of individuals who use the infrastructure products and services (Becker, 1993; Schultz, 1996; Nesterova et al, 1999). The infrastructure capital is meant as capital goods (buildings, facilities, equipment, networks, intangible assets and other capital items) with the help of which infrastructure products and services are produced in private, state and public organizations (Ilyin et al, 1987).

Analyzing elements of the infrastructure for population living conditions in detail (Figure 1) we may note that all elements of the secondary infrastructural industries base in its activities on elements of the primary infrastructural industries, mainly transport and housing and

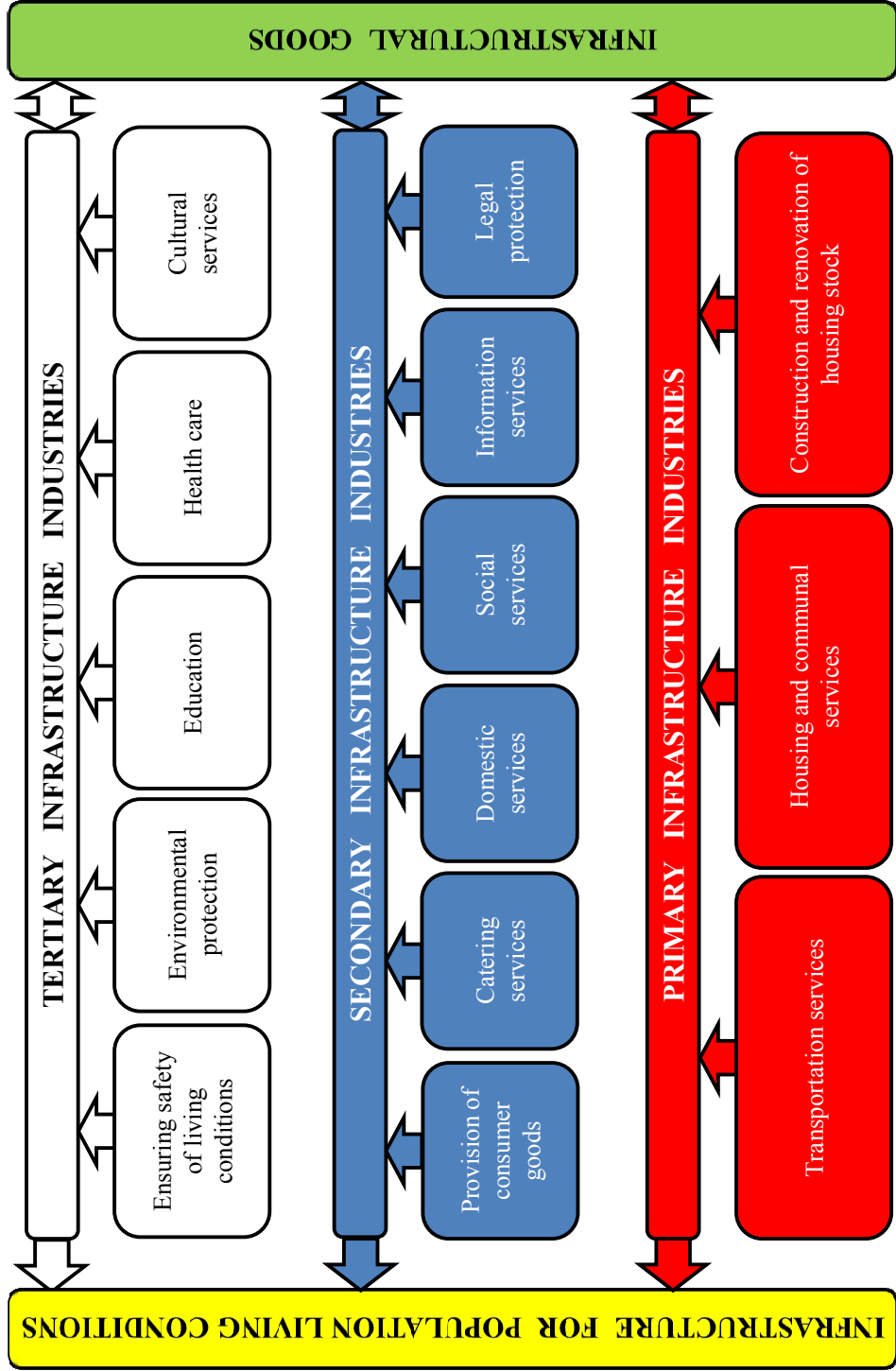


Fig. 1. Formation Scheme of infrastructure for population living conditions

communal services. In turn elements of the tertiary infrastructural industries can be not demanded in everyday life of population or are not vital.

It can be assumed that the three levels of infrastructure industries are demanded to different extent in the everyday life of population. Some such as transportation services, housing and communal services, construction and renovation of a housing stock are needed constantly. The other such as education, health care, cultural services, environmental protection are needed rarely are needed much more rarely – in case of necessity.

In turn, only on the basis of the developed channels of distribution and exchange of social product there may be provided an effective infrastructural public services, eventually forming the quality of human capital in economy as a whole. That extension of physical, financial and information access of new generations of population to improving infrastructural goods would cause facilitation of labor productivity increase opportunities and standard of living and quality of life improvement.

All infrastructural goods to a greater or lesser extent are public ones (pure or mixed), that is *non-competitive* and non-exclusive (Frolov, 2001; Kapelyushnikov, 2008, etc.). There are following reasons for this phenomenon:

In the first place production and maintenance of the necessary infrastructural objects is usually very time-consuming, *financially intensive*, labor- and capital-intensive process and require substantial amount of investments prohibitively high for isolated economic entities (Nosova, 1982; Krasovskiy, 1999).

Secondly realization of these goods brings their producers insignificant benefits often do not covering expenses, but significant though uncertain external (non-mediated by contracts) profit on the inter-industry level or general

economic level of economic domains (Volchek, 1983).

Thirdly, the consumption of infrastructural goods in the economy is dualistic. On the one hand, those goods form conditions for human capital reproduction, which accumulation is of households' interest and which usage is of business entities' interest. On the other hand, those goods stimulate financing of infrastructural capital reproduction under the impact of varying needs of population, basic and derivative industries, what indicates mixing of production and consumption processes within infrastructure (Nesterov, 1986) and infrastructure ability for self-renewal (Mayergoyz, 1981).

All infrastructure components form an integrated complex (Stein, 1988), which is subject to constant changes while its different spheres have different persistence and discreteness of changes (Sharygin, 1992; Krasovskiy, 1999). Therefore it is expedient to base analysis of infrastructural goods producing industries on hierarchy of appropriate homogeneous needs of population (as a primary consumer of infrastructural goods) and business (as a secondary consumer of human and infrastructural capital).

First of all there is need to achieve an advanced development level in primary industries of transportation and architectural complexes for products and services produced form the necessary conditions for the further development of mediation infrastructural industries and reproduction of infrastructural capital. In turn, an effective providing of infrastructural public services is possible only on the basis of developed channels of distribution and exchange of social product, what eventually form the quality of human capital of the economy as a united whole. It is extension of physical, financial and information access of new generations of population to improving infrastructural goods

would determine labor productivity increase opportunities and standard of living and quality of life improvement.

In addition to infrastructure organization there should be noted groups of subjects comparative advantages in production of certain infrastructural goods, however, inevitably leading to risks of loss in economic efficiency – «market failures» and «state failures» (Arkhipova, 2010). For example, state enterprises and institutions have a native advantage in the production of standardized primary and most tertiary infrastructural goods owing to long-run central funding opportunities and support of loss-making organizations. However, these organizations have little incentive for the staff, opaque structure of public finance usage (which encourages opportunistic behavior) and tend towards monopolization of markets served, what appear to be examples of traditional «state failures». Private and public organizations are able to deliver most of the secondary infrastructural goods with the lowest costs possible, but are not able to finance large-scale modernization of those industries, and tend to engage in explicit or tacit collusion causing prices overstating or *deterioration* of average infrastructural *goods quality*, which are examples of «market failure». These examples bring us to the necessity of effective mechanisms design for tripartite participation of subjects in production, distribution and consumption of infrastructural goods.

As a result the system of relations among infrastructure subjects inevitably involves functionally interrelated stationary strategies of organizations producing infrastructural products and services, individual consumers and organizations supplying resources necessary for infrastructure reproduction, public organizations and regulatory agencies of the state and local government.

Ensuring of qualitative economic growth through infrastructure for population living conditions development

Modern trends in economies of mixed type in different countries dictate the need for a systemic and integrative approach to study infrastructure for population living conditions. For this purposes we suggest to use the concept of qualitative economic growth – long-term reproduction of the evolving integrated economy (Pyzhov, Rutskiy, 2010). Socio-economic nature of qualitative growth is determined by intensification of sources, uncertainty in mechanism and humanization that determines, in its turn, the structural changes of the growth itself.

Quality of growth can be both positive and negative characteristic. For instance in developing countries there are various «vicious circles» of persistent poverty (Liebenstein, 1957; Nurkse, 1967; Fei et al., 1975) and exploitation by developed countries through non-equivalent exchange (Emmanuel, 1969; Amin, 1974) whereas developed countries economies show endogenization of growth factors (Aghion, 1992; Lucas, 1988) and search for a new quality of life (Rostow, 1960).

The specific role of information factor of production consists not only in transformation of established economic relations (Habermas, 2000, Toffler, 2004) but also in formation of a new type of society (Castels, 2000; Bell, 2004; Galbraith, 2008).

Purely quantitative growth models (Solow, 1956; Domar, 1957; Kaldor, 1957; Phelps, 1961; Robinson, 1962; Mankiw et al., 1992; Aghion, 1992; Keynes, 2007; Harrod, 2008) often can not reflect the complexity of occurring changes in full while qualitative less formalized concepts (Lewis, 1955; Myrdal, 1972; Abalkin, 1994; Subetto, 1994; Soto, 1995; Tatarkin et al, 1996; Zherebin et al, 2002; Senchagov, 2002; Bobkov, 2005) are

aimed at solving some significant problems but do not examine the growth in general.

There is a need for an integrated approach towards analysis of infrastructure, and the concept of qualitative economic growth complies with it in many respects.

The key subjects of qualitative economic growth are business (privately and publicly owned companies), social (households, its associations, non-profit organizations) and public ones (state budgetary institutions of national level and local government institutions), those are entities of an integrated economy heterogeneous in their interests and reproduction capabilities. The main sources of qualitative economic growth are divided into extensive (factors of production) and intensive (factors quality, institutions, technology).

Among factors of production we recognize land, labor, capital, entrepreneurial abilities and information. The main result of qualitative economic growth is expanded, simple or narrowed reproduction (production, distribution and exchange, consumption) of broadly perceived social product representing the totality of goods in-kind and value and purely value terms, which satisfy needs of economic actors at various stages of reproduction.

It seems that in the context of globalization of markets and accelerating scientific-technological progress it is expedient to analyze perspectives of qualitative growth of a mixed economy as a united whole by dividing all its branches into basic (specializing macroeconomic system in accordance with external environment) and derivative ones (serving basic).

The essence of the mechanism ensuring of sustainable qualitative growth of an integrated economy consists in not only expanded reproduction of sources of growth allocated among economic subjects interested in greater satisfaction of their needs, but also in ensuring

of the long-term regulation of this reproduction at all levels. The significance of qualitative economic growth derives from the dual nature of economic subjects relations. On the one hand actors take the decisions individually guided by a comparison of information on benefits and costs of interaction. On the other hand, in the end, they are an integral part of society at different levels of society's organization which means decision-making can be exposed by the impact of culture, ideology, social norms of behavior formed in groups, which are in turn an object of reverse impact of economic parameters. This dualism leads to an ambiguous predictability of interaction results and need for institutional analysis of isolated sectors and integrated economy as an evolving system.

Qualitative economic growth is accompanied by institutionalization of subjects interaction experience in integrated economy through fixation of cause and effect relationship between interaction and its favorable or unfavorable consequences within norms. The result of institutionalization is a mixture of various in their effectiveness forms of economic organization as economic institutions, norms external to the forms of economic organization as legal institutions, social and cultural patterns of decision-making structuring the set of available events as social institutions, as well as ways of reconciling individual subjects preferences into group preferences within sphere of economic policy as political institutions (Afontsev, 2010).

In accordance with the reproduction system-approach to infrastructure for population living condition as a key part element of the qualitative economic growth of region it is expedient to analyze behavior of an integrated economy subjects in terms of their main functional role in infrastructure reproduction. In our view there are three groups of subjects functional roles in some territorial macro-economic system (e.g. region):

1. Producers of infrastructural goods – organizations (public and private firms, state and local government agencies and institutions) that produce intermediate and end infrastructural products and services forming stable hierarchical and network structures – the industrial and inter-industry complexes as well as divisions of organizations and their employees. The main purpose of these subjects is extraction of revenue from the sale of manufactured goods for a profit (for private companies) and reproduction of the respective capital. The main function of these subjects is the primary production and distribution of ready-made infrastructural goods and its components. These subjects' resources are formed by the income derived from infrastructural goods and components realization as well as public purpose financing (for state and municipal enterprises and institutions).

2. Consumers of infrastructural goods – households and individuals using infrastructural goods directly in their daily life. The main purpose of these subjects is elimination (destruction, deterioration etc.) of respective goods and services purchased to extract the utility in the form of a certain quality of life and reproduction of the human capital elements. The main function of these subjects is the consumption of ready-made infrastructural goods. These subjects' resources are formed by the population income derived from various sources, both market (wages, rent on savings and other types of cash income) and non-market (public purpose financing in the form of cash or in-kind social transfers).

3. Regulators of infrastructural goods reproduction – organizations (state authorities, local governments, public organizations, self-regulating organization of producers) governing and regulating production, distribution and consumption of infrastructural goods. The main purpose of these subjects is a greater satisfaction of consumer needs (for public organizations,

state authorities and local self-governments acting for the benefit of population), formation of producers competitive advantages (for self-regulating organization of producers), industrial and territorial transformation of infrastructure or population living conditions vital for the growth of economic potential of basic and derivative industries and macroeconomic system as a united whole (for state authorities and local self-governments acting for the benefit of subjects of basic and derivative industries of an integrated economy). The main function of these subjects is interference in relationship of infrastructural goods producers and consumers through public purpose financing of production and redistribution of goods produced in an in-kind and value terms. These subjects' resources are formed by public purpose financing (for state authorities and local self-governments), voluntary contributions from customers (for public organizations) and producers (for self-regulating organization of producers).

Thus reproduction of infrastructural goods is closely interrelated to system of trilateral relations of respective producers, consumers and regulators. It is explained by the fact that infrastructure production and consumption spheres function jointly and on a public grounds together with the fact that isolated organizations incur production costs while benefits derived from goods consumption are absorbed by macroeconomic system as a united whole.

Conclusion

A comprehensive system of infrastructure for population living conditions belongs to both basic (specializing) and derivative (serving) industries of the integrated economy.

The main functional role of infrastructure for population living conditions in an integrated economy consists in continuous recreation of variety of infrastructural goods. Social, business

as well as public subjects of economy can be admitted as such goods consumers. Producers of infrastructural goods needed for population can be grouped into primary, secondary and tertiary industries, depending on the vital importance of consuming goods produced. In the course of infrastructural goods production and consumption all subjects of an integrated economy create a demand for expanded reproduction and modernization of infrastructure for population living conditions itself.

System-reproduction approach to qualitative economic growth gives an opportunity to define infrastructure for population living conditions as a dynamic socio-economic system of subjects, industries and capital infrastructural facilities ensuring reproduction of human and infrastructural capital of an integrated economy in branch-wise and territory-wise respects.

Summarizing results of analysis of various aspects of infrastructure for population living conditions we can distinguish its characteristic features:

- pervasive operation of the infrastructure due to its simultaneous functioning in *branch-wise and territory-wise* respects at the junction of basic (economic system specializing) and derivative (serving

basic) industries and its orientation on the reproduction of both human and infrastructural capital;

- System of infrastructural goods which are to a greater or lesser extent public – from primary ones ensuring the material conditions of capital reproduction to secondary ones mediating distribution of social product and tertiary ones ensuring the supply of pure public goods to population what suggest the need for consistent regulation of infrastructure for population living conditions on political and institutional markets;
- the fundamental triplicity of infrastructural goods reproduction relations among business, social and public subjects of an integrated economy dictates the need of usage of various mechanisms of coordination including coalitional coordination in the course of formation of public preferences of subjects;
- risks of loss in economic efficiency in infrastructural goods production requiring both market and non-market methods of mutual financing and control accomplished by business, social and public subjects.

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Инфраструктура жизнедеятельности населения в контексте качественного экономического роста

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На основе системно-эволюционной парадигмы и принципов неoinституциональной экономической теории, выработан подход к системно-воспроизводственному и институциональному анализу инфраструктуры жизнедеятельности населения, направленному на создание возможностей для воспроизводства человеческого и инфраструктурного капитала, обеспечивающих в свою очередь, качественный экономический рост.

Ключевые слова: инфраструктура, инфраструктура жизнедеятельности населения, субъекты инфраструктуры, инфраструктурные блага, качественный экономический рост, институциональный анализ, институциональное развитие.

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