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**ECONOMIC  
AND SOCIAL  
CHANGES:  
FACTS, TRENDS, FORECAST**

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**Federal Budgetary Institution of Science Institute of Socio-Economic Development of Territories of Russian Academy of Science (ISED T RAS)**, which existed as Vologda Scientific Coordinating Center of Central Economic and Mathematical Institute of RAS until March 2009, is situated on the territory of the Vologda Oblast. V.A. Ilyin, Doctor of Economics, Professor, Honored Scientist of Russia, is the permanent director of the Institute. A lot of great scientists have played an important role in the formation and the development of ISED T RAS as a scientific institution such as: academicians D.S. Lvov, V.L. Makarov, V.I. Mayevsky, A.D. Nekipelov, Y.S. Osipov. Everything that has been done before and is being done nowadays by the personnel of the Institute, it would be impossible without the constant support of the Vologda Oblast's Government and city leaders.

The formation of the scientific personnel with an active life position, a great demand for Institute's investigation, academic community's support of the new journal published by ISED T RAS, which combined efforts of the economic institutes of RAS in the Northwestern Federal District, and furthermore development of international ties have become the main outcomes of the last years.

### **MAIN RESEARCH DIRECTIONS**

Due to the Resolution № 96 by the Presidium of Russian Academy of Sciences dated from March 31, 2009 ISED T RAS carries out investigations in the following fields:

- problems of economic growth, scientific basis of regional policy, sustainable development of territories and municipalities, and transformations of socio-economic space;
- regional integration into global economic and political processes, problems of economic security and competitiveness of territorial socio-economic systems;
- territorial characteristics of living standards and lifestyle, behavioral strategies and world view of different groups of the Russian society;
- development of regional socio-economic systems, implementation of new forms and methods concerning territorial organization of society and economy, development of territories' recreational area;
- socio-economic problems regarding scientific and innovative transformation activities of territories;
- elaboration of society's informatization problems, development of intellectual technologies in information territorial systems, science and education.

### **INTERNATIONAL TIES AND PROJECTS**

In order to integrate scientific activities of the Institute's scholars into global research area, international scientific conferences are held on a regular basis; they result in cooperation agreements with different scientific establishments:

2007 – Cooperation agreement is signed with Institute of Sociology, of the National Academy of Sciences of Belarus, Center for Sociological and Marketing Investigations at the “International Institute of Humanities and Economics” (Belarus, 2008).

2008 – Protocol of intentions is signed with Alexander's Institute at the Helsinki University (Finland, 2008).

2009 – Cooperation agreement is signed with Center for System Analysis of Strategic Investigations of NAS (Belarus, 2009).

2010 – Cooperation agreement is signed with Institute of Economics of the National Academy of Sciences of Belarus (Minsk, 2010).

2011 – Cooperation agreements are signed with National Institute of Oriental Languages and Civilizations (Paris, 2011), Institute of Business Economy at Eszterhazy Karoly College (Hungary, 2011), Republican research and production unitary enterprise “Energy Institute of NAS” (Belarus, 2011). Protocol of intentions are signed with Jiangxi Academy of Social Sciences (China, 2011), Research and Development Center for Evaluation and Socio-Economic Development and the Science Foundation of Abruzzo region (Italy, 2011).

2012 – Cooperation agreement is signed with Center for social research at the Dortmund Technical University (Germany, 2012).

2013 – Cooperation agreement is signed with Jiangxi Academy of Social Sciences (China, 2013).

July 2013 – The application for research performance by international consortium involving ISEDT RAS within the 7th Framework Programme of European Community.

2014 – Cooperation agreement is signed with Jiangxi Academy of Social Sciences (China, 2014).

#### **NEW PUBLICATIONS OF ISEDT RAS**

*While Analyzing the Past, to Think about the Future.* Under the scientific supervision of Doctor of Economics, Professor V.A. Ilyin.

Ilyin V.A. *Public Administration Efficiency: Chief Editor's Point of View.*

*Russian Society: Transformation in the Regional Discourse (20 Years of Measurements): Monograph.* Team of authors under the scientific supervision of Doctor of Economics, RAS Academician M.K. Gorshkov and Doctor of Economics, Professor V.A. Ilyin.

Mironov A.V. *Pulp and Paper Industry in Russia: Trends, Results and Their Effect on Regional Development: Preprint.* Under the scientific supervision of Ph.D. in Economics T. V. Uskova.

Shabunova A.A., Kalachikova O.N., Korolenko A.V., Povarova A.I., Rossoshanskii A.I. *Russia's National Security: Internal Threats to the Implementation of the Strategy: Monograph.* Under the scientific supervision of Doctor of Economics, Professor V.A. Ilyin.

Shabunova A.A., Barsukov V.N., Kalachikova O.N., Morev M.V. *Elderly People in Modern Russian Society: Preprint.*

## **Seventh International Research-to-Practice Conference**

*December 4, 2015 ISED T RAS marked the 25th anniversary since the foundation. The seventh conference “Strategy and tactics of socio-economic reforms: regional aspect” coincided with the occasion.* It was organized by the Federal Agency for Scientific Organizations, the Russian Academy of Sciences, the Vologda Oblast Government, the Department for Strategic Planning of the Vologda Oblast, the Vologda City Administration, and the Institute of Socio-Economic Development of Territories of RAS. The conference purpose was to develop the theory and practice of socio-economic reforms and the prospects for development of Russian regions in the context of modernization transformations. This significant event of the region’s scientific life was attended by over 300 people.

The plenary session was devoted to the reports of Academician M.K. Gorshkov – Director of the Institute of Sociology of RAS; RAS Corresponding Member R.S. Grinberg – Scientific Director of the Institute of Economics of RAS; RAS Corresponding Member V.N. Lazhentsev – RAS Advisor, Senior Research Associate of the Institute of Socio-Economic and Energy Problems of the North Komi Scientific Centre, Ural Branch of the RAS; A.I. Sherlygin – First Deputy Governor of the Vologda Oblast; V.V. Lokosov – Director of the Institute of Social and Economic Studies of Population of RAS, Doctor of Economics; D.V. Afanasyev – Rector of Cherepovets State University Ph.D. in Sociology; V.V. Markin – Head of the Center for Regional Sociology and Conflictology Studies of the Institute of Sociology of RAS, Doctor of Economics; E.B. Shulepov – Vologda Mayor; S.S. Gubanov – Chief Editor of the journal “Economist”, Doctor of Economics; D.B. Kuvalin – Deputy Director of the Institute of Economic Forecasting of RAS, Doctor of Economics; S.D. Valentey – Scientific Director of Plekhanov Russian University of Economics, Chief Editor of the journal “Federalism” and “Social Sciences and Modernity”, Doctor of Economics; S.A. Ponomareva – Head of the Department of Strategic Planning of the Vologda Oblast, Ph.D. in Economics; K.V. Yankov – Head of the Laboratory of the Institute of Economic Forecasting of RAS, Member of the Government Expert Council, Ph.D. in Economics; V.K. Egorov – Academic Secretary of the Center for the Study of Security Problems of RAS, Ph.D. in History; K.A. Gulin – ISED T RAS Deputy Director, Doctor of Economics.

The speakers stated that the socio-economic situation of the country is still characterized by high dependence on commodity markets, technological backwardness of industrial production, a hazardous level of socio-economic inequality, presence of a serious problem for initiatives in business, and significant challenges in the social sector governance.

The last session of the conference “Formation and development of the RAS academic division in the region. The 25th anniversary of ISED T RAS” was held in the Vologda Regional Philharmonic Society Named After V.A. Gavrilin.



**The journal “Economic and Social Changes: Facts, Trends, Forecast”  
entered the most authoritative international database  
of scientific publications Web of Science**

The journal “Economic and Social Changes: Facts, Trends, Forecast” (English version; ISSN: 2307-0331) issued by the Institute of Socio-Economic Development of Territories of RAS was included in **Emerging Sources Citation Index**, which is a new database as part of **Web of Science Core Collection**.

Emerging Sources Citation Index is developed by Thomson Reuters in order to increase a large-scale collection of publications in Web of Science due to the high-quality peer-reviewed publications recently appeared in the scientific literature. This is the eighth index in Core Collection along with such indices as Science Citation Index Expanded (SCIE), Social Sciences Citation Index (SSCI), Arts & Humanities Citation Index (A&HCI) and book citation and conference proceedings citation indices (4 indices).

Thomson Reuters states that the new citation index is created, as there is a need to provide information for the evaluation and analysis of studies in a wider scope to encompass important regional content and not to miss early development stages of emerging (or recently emerged and now developing) knowledge areas and trends.

A journal presented in ESCI is viewed by the editorial staff of Thomson Reuters as in-demand and cited. All publications included in the index meet the Web of Science basic selection criteria. The journal inclusion in ESCI provides an opportunity to assess each author’s contribution to the scientific topic promotion.

The index already includes 2,400 scientific journals. Among them there are 16 Russian journals, including the ISEDT RAS Journal.

Link for a quick search in Web of Science:

<http://ip-science.thomsonreuters.com/cgi-bin/jrnlst/jlresults.cgi?PC=EX&Alpha=E>

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# FROM THE CHIEF EDITOR

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## Public Administration Efficiency and the Aggravation of Public Health Issues



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*December 3, 2015, the President of Russia Vladimir Putin delivered his annual Address to the Federal Assembly. Having analyzed the Address, experts pointed out the President's worries and concerns about the efficiency of execution of development priorities he had set out.*

*Vladimir Putin repeatedly urged the Government to implement effective measures on specific issues in the shortest time possible. However, it has not been done so far; therefore, we think that the President's concern is reasonable.*

*Recent research carried out by ISEDT RAS reveals certain alarming trends in the social health of the regional society.*

Currently, Russia has great influence on the decision of important international issues; consequently, it cannot stay away from global challenges related not only to the rise of

international terrorism, but also to the gradual eradication of the capitalist system (in the framework of which the majority of developed countries exist)<sup>1</sup>, to the transition to a new

<sup>1</sup> Today the world accumulates causes for the crisis of structural nature, that is undecidable within standard political and investment decisions of our day. This crisis will be far more serious than the Great Recession that began in 2008... The limits to capitalism growth became apparent in practice already in the early 1970s, and since then the crises have not been overcome, but shifted from one area to another, transferred from one area of the world to another. This can not continue infinitely and over the next three or four decades capitalists of the world, overcrowding the global markets and hard pressed on all sides by the social and ecological costs of doing business may find it simply impossible to make their usual investment decisions (Wallerstein I., Collins R., Mann M., Derlug'yan G., Calhoun C. Est' li budushchee u kapitalizma? [Does Capitalism Have a Future?]. *Informatsionnyi portal "Russkii bastion" analiticheskogo tsentra mir-sistemnykh issledovaniy* [Information Portal "Russian Bastion" of the Analytical Center for World-System Studies]. Available at: <http://tower-libertas.ru/library/est-li-budushchee-u-kapitalizma/>).

technological mode (therefore, to the growth of competition in the near future)<sup>2</sup>, and to the threat of “global resource crisis”<sup>3</sup>.

***The response to these challenges can be found only in the creation of conditions for effective development and implementation of human potential.*** However, our country has objective circumstances that hamper the achievement of this goal. They include social health issues that are deeply rooted in Russian society and caused by the long-term practice of pursuing economic policy in the interests of oligarchic cliques.

It seems that since the beginning of the 2000s the country has entered a period of stabilization characterized by the gradual overcoming of crisis phenomena in the economy and other spheres. In the course of time, the overcoming of the consequences of the “turbulent 1990s” in the real economy began to have a positive impact on the demographic situation. For instance, in 2000, natural population decline was observed

<sup>2</sup> “The current global crisis, which replaced the long economic recovery of developed countries, is a natural manifestation of long cycles of economic activity, known as Kondratiev waves... During global technological shifts advanced countries find it difficult to keep the lead, because along with the development of a new technological mode it is developing countries that make a leap forward, since they have succeeded in the preparation of prerequisites for its formation” (source: Glazyev S.Yu. *Kak ne proigrat' v voine [How Not to Lose in the War]*// *Ofitsial'nyi sait S.Yu. Glaz'eva [S.Yu. Glazyev's Official Website]*. Available at: [http://www.glazev.ru/sodr\\_ssn/368/](http://www.glazev.ru/sodr_ssn/368/)

<sup>3</sup> “Humanity is on the verge of a global resource crisis. Since the 1980s, people's needs have exceeded the planet's capacity. In 1999, they exceeded the limit by more than 20%. Recent estimates have shown that if the BRICS countries (Brazil, Russia, India, China and South Africa) brought their per capita consumption to the level of the U.S., then humanity would need five planets such as Earth (source: Malinetskii G.G. *Mezhdistsiplinarnye idei v sotsiologii i vyzovy budushchego [Interdisciplinary Ideas in Sociology and the Challenges of the Future]*. *Sotsis [Sociological Research]*, 2015, no. 4 (372), p. 157).

in Russia on average (-6.6 per 1 thousand people), and in 2015 the country experienced natural population increase (0.2 per 1 thousand people; *tab. 1*).

The dynamics of adaptation of the society to the conditions of life that changed after the collapse of the USSR is reflected most clearly in the trends of suicide mortality. It is no coincidence that suicide is the central idea in the scientific concepts of Pitirim Sorokin and Emile Durkheim, the classics of the Russian and world sociology. “The main general reason for the growth of suicides is the increasing loneliness of the individual, his/her isolation from society, which, in turn, represents the result of our randomly organized society. It is this common ground, upon which suicide develops. We owe to this ground the fact that the slightest failure is enough to cause an individual to commit suicide”<sup>4</sup>. Today, these views are still important.

It is possible to distinguish two periods in the dynamics of suicides in the Russian Federation (*fig. 1*):

1. In 1990–2000, the death rate experienced considerable fluctuations. In 1999, relative to 1990, the increase in the level of suicide mortality was 146%.

2. Since 2000, suicide mortality has been gradually declining. In 2000–2013, the suicide rate in the country decreased twofold, in the Vologda Oblast – 2.5-fold. According to the World Health Organization, in 2014, the level of suicides in Russia amounted to 19.5 cases (14th place in the world), it was 35.1 cases

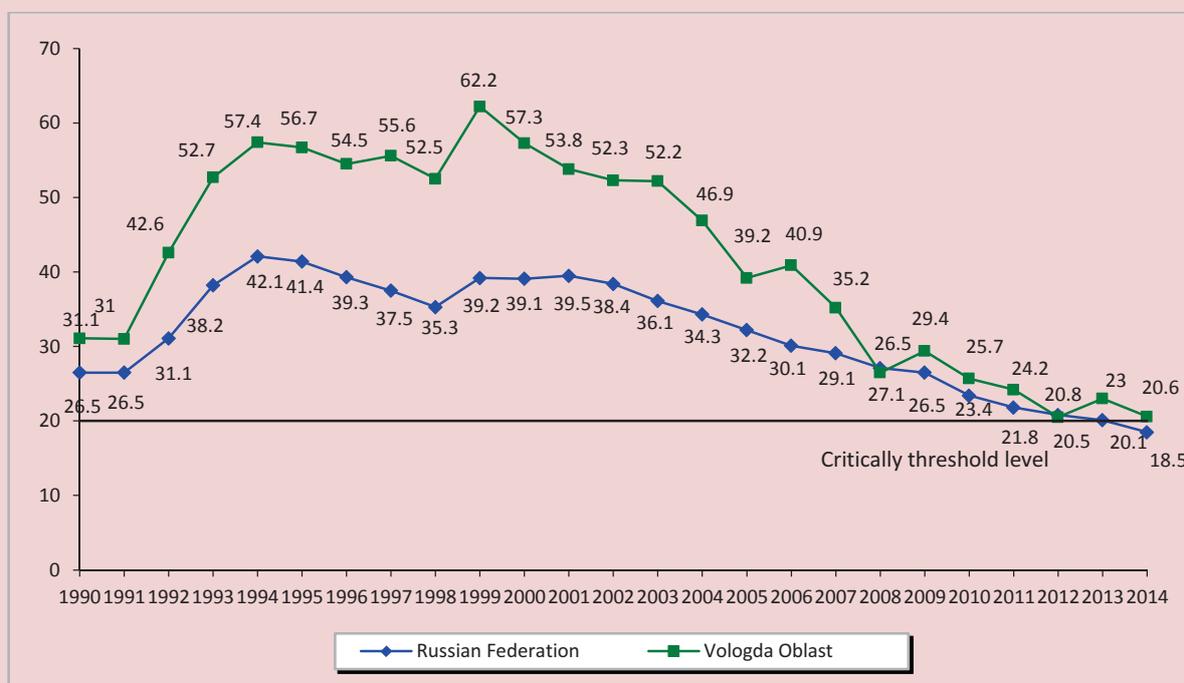
<sup>4</sup> Sorokin P.A. *Samoubiistvo kak obshchestvennoe yavlenie [Suicide as a Social Phenomenon]*. *Naselenie i obshchestvo [Population and Society]*. Institut demografii NIU “Vysshaya shkola ekonomiki”; *Demoskop Weekly [Demoscope Weekly]*. Available at: <http://www.demoscope.ru/weekly/knigi/stati/stati03.html>

Table 1. Dynamics of indicators that characterize economic and demographic situation in Russia and the Vologda Oblast in 1998–2015

Indicators	1998		2000		2005		2008		2010		2014		2015	
	Russia	Vologda Oblast												
<i>Indicators that characterize the development of economic situation in Russia and in the Vologda Oblast</i>														
Real disposable income, in % to previous year	-	82.3	112	118.8	112	106.4	102.4	98.7	105.9	109.3	99.3	103.1	96.5*	103.1
Real accrued wages per employee, in % to previous year	-	94.1	121	128.0	112.6	112.3	111.5	108.3	105.2	105.6	101.3	98.2	90.3*	89.2*
Population with income below the subsistence level, % of the total population	23.4	22.7	84.96	25.5	87.76	18.3	100.5	15.7	12.5	16.8	16.1	12.9	14.1	-
<i>Indicators that characterize the development of demographic situation in Russia and in the Vologda Oblast</i>														
Resident population as of January 1 of the respective year, million people	147.8	1.339	146.9	1.324	143.8	1.245	142.8	1.219	142.8	1.202	1.437	1.193	146.3	1.191
Natural population increase, decrease (-) per 1,000 population	-4.8	-6.2	-6.6	-7.2	-5.9	-8.3	-2.5	-4.4	-1.7	-4.2	0.2	-1.2	0.2	-1.1*
Life expectancy at birth, years	67	67	65	66	65	63	68	67	69	67	70.9	69.7	-	-

\* Data as of January – October 2015.

Figure 1. Level of suicide mortality in Russia and in the Vologda Oblast, per 100 thousand population



Source: Federal State Statistics Service database (www.gks.ru).

Table 2. Level of provision of the Vologda Oblast residents with commodities and real estate\* (as a percentage of the number of respondents)

Type of goods; Real estate	10% of the poorest		10% of the wealthiest	
	2000	2015	2000	2015
Outerwear	10.9	40.7	56.4	78.5
Light clothing	12.4	45.2	64.2	83.0
Footwear	8.1	43.0	57.1	79.3
Sports clothing and footwear	9.4	29.6	51.1	66.7
Household chemicals	67.6	82.2	90.4	94.8
Kitchenware	64.7	80.0	85.3	91.9
TV-set (monochrome)	31.9	38.9	40.9	36.5
TV-set (color)	14.5	60.0	73.0	80.0
Tape recorder/stereo system	20.3	40.0	67.2	61.5
Video cassette recorder/DVD player	9.4	43.0	62.0	62.2
Computer	7.4	49.6	53.7	80.0
Mobile phone	8.8	64.4	76.5	85.9
Vacuum cleaner	15.9	50.4	67.2	80.7
Washing machine	33.3	54.1	66.4	83.7
Fridge	26.1	59.3	68.6	85.2
Furniture	18.1	39.3	63.5	75.6
Car	5.8	25.9	40.9	51.1
Apartment	19.4	26.7	54.7	69.6

\* The wording of the question: "Please, assess the need of your family in goods and real estate". The answer used in the table is: "We are well-provided with them".  
The answer options "Computer", "Mobile phone", "Household chemicals", "Kitchenware" are included since 2005, the answer option "Apartment" is included since 2007. The answer option "TV-set (monochrome)" are not included since 2003. The answer options "Sports clothing and footwear", "Household chemicals", "Kitchenware", "Tape recorder/stereo system", "Video cassette recorder/DVD player" are not included since 2013.

among men (8th place in the world), and 6.2 cases among women (47th place in the world)<sup>5</sup>.

Similar trends are characteristic of the Vologda Oblast; moreover, the negative impact of the global financial crisis is more pronounced at the regional level. The Vologda Oblast found itself among the regions most affected by the crisis, and from a donor region it turned into a recipient region with the greatest budget deficit in Russia (in 2010 it was 28%). This was caused by a decline in metallurgical production that forms about 90% of tax revenues of the oblast budget.

<sup>5</sup> Predotvrashchenie samoubiistv: global'nyi imperativ [Preventing Suicide: Global Imperative]. *Ofitsial'nyi sait Evropeiskogo regional'nogo byuro VOZ* [Official Website of the WHO Regional Office for Europe]. Available at: [http://www.who.int/mental\\_health/suicide-prevention/world\\_suicide\\_report\\_russian.pdf](http://www.who.int/mental_health/suicide-prevention/world_suicide_report_russian.pdf)

However, the negative impact of the financial crisis in 2008 did not have long-term consequences precisely because it was not accompanied by the breaking of the moral foundations of the society.

Official statistics and people's subjective assessments point out the gradual improvement in the standard of living in the 2000s–2010s. For example, according to the public opinion polls conducted by ISEDT RAS, the low-income groups of the Vologda Oblast population are now better provided not only with the essentials (clothes, footwear, kitchenware), but also things such as DVD players (from 9 to 43%), computers (from 7 to 50%), furniture (from 18 to 39%), cars (from 6 to 26%), etc. (*tab. 2*). The same can be said about the most prosperous population groups.

However, the improvement of statistical indicators and data of sociological surveys in a 15-year retrospective is just evidence that Russia's society is overcoming the crisis that it faced during the decade of the 1990s.

Back in 1985, the USSR was ahead of the majority of developed countries (except for the GDR and Japan) according to the growth rate

of national income and labor productivity in industry. While the Soviet Union was a leader in manufacture of separate kinds of industrial and agricultural products: iron, steel, milk, butter, etc. (*tab. 3*).

Today experts note the growing dependence of the Russian economy on imports concerning basic industrial and food products (*tab. 4*).

Table 3. Some indicators of national economy of the USSR in comparison with developed countries in 1985

Indicators	USSR	GDR	FRG	USA	UK	Italy	France	China	Japan
<i>Growth rate of national income, industrial output and labor productivity (compared to 1960, fold)</i>									
National income per capita	<b>3.0</b>	3.1	2.0	1.7	1.6	2.2	2.2	2.6	4.2
Growth rate of industrial production	<b>4.8</b>	3.9	2.2	2.6	1.6	2.7	2.2	5.9	6.5
Growth rate of labor productivity in industry	<b>3.0</b>	3.4	2.5	2.0	2.5	2.5	2.4	-	4.3
<i>Production of certain types of industrial and agricultural products</i>									
Cast iron, million tons	<b>110</b>	2.6	32	44	10.5	12	16	44	82
Steel, million tons	<b>155</b>	7.9	41	81	16	24	19	4.5	105
Iron ore, million tons	<b>248</b>	-	1.0	52	0.4	-	15	122	0.3
Mineral fertilizers, million tons	<b>33,2</b>	4.8	4.2	21	2.1	1.8	4.7	13.4	1.8
Meat, million tons	<b>17,1</b>	2.1	5.5	28	3.6	3.9	6.0	17.6	3.7
Milk, million tons	<b>98,6</b>	7.7	25	65	16	12	34	2.9	7.4
Animal oil, thousand tons	<b>1605</b>	-	510	540	190	81	560	-	85
Fish and seafood, million tons	<b>10,7</b>	0.3	0.3	4.1	0.8	0.5	0.8	7.0	11
Potato, million tons	<b>73,0</b>	12.2	7.7	16.5	7.5	2.5	6.2	142	3.7
Wool fabric, million m <sup>2</sup>	<b>666</b>	91	78	150	98	520	125	294	330
Footwear, million pairs	<b>788</b>	84	90	300	120	415	190	184	115

Source: *Narodnoe khozyaistvo SSSR v 1985 g.: statisticheskiy ezhegodnik [Economy in the USSR in 1985: Statistical Yearbook]*. Moscow: Finansy i statistika, 1985. Pp. 582-591.

Table 4. Imports of basic industrial and food products in Russia (billion US dollars, in actual prices)

Types of industrial and food products	2000	2012
Foodstuffs and agricultural raw material	7.4	40.2
Textiles, textile products, footwear	2.0	17.4
Medicines	1.15	10.8

Source: Vazhenina I.S. *Sotsial'no-ekonomicheskaya suverenizatsiya Rossii: problemy i puti realizatsii [Social-Economic Sovereignization of Russia: Problems and Strategies]*. *Zhurnal ekonomicheskoi teorii [Russian Journal of economic Theory]*, 2015, no. 2, p. 9.

Meanwhile, the economy needs to keep up with the requirements of the time, which, in our view, involves the solution of important tasks, such as:

**A.** Meeting the needs of the population, which are increasing with the improvement of living conditions, and the people themselves have more and more demands to the government.

**B.** Provision of support to the military-industrial complex. In a period when Russia is one of the central participants in the events in Syria and Ukraine, when the “hybrid” warfare with the United States continues and the whole world civilization is standing up to a common enemy – international terrorism, this “article” of economic costs acquires paramount importance.

**C.** Development of science and technology, corresponding to the new technological mode; so that in 5–10 years, Russia would not be on the list of backward countries.

According to experts, the early 2020s will be the most dangerous period for Russia, when technological re-equipment in developed countries and China will begin; besides, at this period, the United States and other Western countries will come out of depression of 2008–2018 and will make a new technological leap. In 2021–2025, Russia may again fall significantly behind in technological and economic terms, which will devalue its defense capabilities and dramatically enhance internal social and ethnic conflicts, as it was in the Soviet Union in the late 1980s<sup>6</sup>.

<sup>6</sup> Glazyev S.Yu. Kak pobedit' v voine [How to Win the War]. *Gazeta “Vzglyad”* [Newspaper “View”], 2014, July 24. Available at: <http://www.vz.ru/opinions/2014/7/24/697063.html>.

In 2007–2013, gross domestic expenditure on research has increased worldwide by almost a third. The investments are the greatest in the USA (in 2013 – 28.1%) and China (19.6%) that is now ahead of the EU (19.1%). **The rest of the world spends about 33% of the total (Russia – 1.7%). In 2013, Russia spent 24.8 billion US dollars on research and development (1.7% of the world expenditures; in 2008, the figure was 2%).**

For comparison: the USA spent 396.7 billion, China – 290.1 billion, Japan – 141.4 billion, South Korea – 64.7 billion, France – 45.7 billion, Brazil – 31.3 billion.

(Source: Opublikovannyi Doklad YuNESKO po nauke: Rossii meshaet “resursnoe proklyatie” [Published UNESCO Report on Science: Russia Is Hampered by the “Resource Curse”]. *Novaya Gazeta* [New Newspaper], 2015, November 10. Available at: <http://www.novayagazeta.ru/society/70666.html>).

***Thus, new global challenges for the Russian economy are not the same (more precisely, there are also some new ones) that used to be in the early and mid-2000s. It causes the necessity of radical changes in all its aspects, and first of all, in the aspect of management. However, the same people with the same political consciousness and economic platform are still “at the helm” of the economic bloc of the Government.*** Experts, social scientists, economists, financiers, production managers who think about the development of economic and political independence of the country believe that the government is still

full of the representatives of those circles, for which the division and the wasting of national assets is a priority. Perhaps, this is the major problem of today, which is the cause of deep internal contradictions in the Russian society. This problem is not only inconsistent with the purposes of country's modernization and transition to a new technological way, but it also threatens Russia's national security.

Today no one has any doubt that the roots of the current demographic and socio-economic problems go back to the period of the 1990s, when the era of the Soviet Union (at the decline of its existence as one of the world's superpowers) was followed by perestroika and liberal reforms. The change in the social order was accompanied by ill-considered government decisions (primarily, a "predatory" privatization<sup>7</sup>), which threw the Russian society back for decades, foreshadowing Russia's lagging behind developed countries in terms of economic and scientific-technological development.

<sup>7</sup> "In the 1990 actively opposing the formation of a independent state control system in the new Russia and, at the same time, vigorously triggering a priori fraudulent and predatory mechanisms of total accelerated privatization, the social forces standing for the federal executive bodies launched the appropriate ideological campaign simultaneously, including the dissemination of the idea of inevitability and even usefulness of corruption. Privatization held in the 1990s resulted in the criminalization of both the control mechanisms and the consciousness of new private owners. It was high-tech implementation of the carefully considered, including in relation to ideological support, multi-pass algorithm, and last but not least involving the conjugation of the external customers' interests to "reduce" our state and the interests of forming domestic criminal "elite" (Source: Boldyrev Yu. Yu. Korruptsiya – sistemnoe svoistvo postsovetskogo rossiiskogo kapitalizma: nauchno-publitsisticheskie zametki [Corruption – a Systemic Feature of Post-Soviet Russian Capitalism: Scientific and Journalistic Notes]. *Rossiiskii ekonomicheskii zhurnal* [Russian Economic Journal], 2011, no. 2, p. 24).

*The liberal wing of the Government is still pursuing its economic policies not in the interests of the majority of the population, but in the interests of narrow groups whose needs contradict national development goals and the ideas of justice, law and order.* We have to admit that the current Government has no fresh ideas and no comprehensive strategy. Granted, it has technocratic instruments like the Main directions of its activities until 2018, etc., but in fact, Russian ministers and officials have no deep understanding of Russia's problems, or a clear vision of its future. In addition to the low level of competence of many of them, they fail to go beyond the notions that liberal monetarist approaches are the only possible, non-alternative option, and that all that goes beyond them is notorious heresy and populism. Besides, the work of the current government is affected, of course, by obvious interests of big business and the so-called elite<sup>8</sup>.

The consequences that the ill-considered decisions have for the future management are not limited to technological and economic gap between Russia and developed countries. They affect the quality characteristics of the Russian society and are manifested in the deformation of social structure, social consciousness and behavior, i.e. they are expressed in deep systemic problems of social health, the solution of which can take decades – the time that Russia does not have.

One such problem is the lack of trust in the authorities. On the one hand, it is a widespread

<sup>8</sup> Mironov S.M. Novaya real'nost' i starye illyuzii [New Reality and Old Illusions]. *Nezavisimaya gazeta* [Independent Newspaper], 2015, no. 247, November 18. Available at: [http://www.ng.ru/ideas/2015-11-18/5\\_illusions.html](http://www.ng.ru/ideas/2015-11-18/5_illusions.html)

global trend. Thus, according to an authoritative international research by the Edelman Trust Barometer<sup>9</sup>, in 2011–2015, the level of trust in the authorities on average in the 27 countries decreased by four percentage points (from 52 to 48%). In some states, the decline of this indicator was very substantial (10–50 p. p.): for example, in the Netherlands (by 85 p. p., from 75 to -10), Japan (by 62 p. p., from 51 to -11), Italy (67 p. p., from 45 to -12), Spain (by 60 p. p. from 43 to -17), Argentina (by 87 p. p., from 54 to -33), Brazil (by 133 p. p., from 85 to -48) and others (*tab. 5*).

In Russia in 2008–2015, the level of trust in the authorities increased by 16 p. p. (from 38 to 54%). However, we cannot say that this change is sustainable. Obvious positive changes are observed only in 2015 (level of trust in the authorities compared with 2014 increased by 27 p. p.), which is obviously due to Russian

President Vladimir Putin's successful actions aimed to strengthen the international standing of Russia.

However, in the previous period (2008–2014), the level of trust in the authorities in Russia decreased (by 11 p. p., from 38 to 27%). While in some leading countries we note a gradual but steady growth of this indicator over the past three years (in Indonesia: 20 p. p. in 2012, 47 p. p. in 2013, 53 p. p. in 2014, 72 p. p. in 2015; in Germany: 33 p. p. in 2012, 48 p. p. in 2013, 49 p. p. in 2014, 50 p. p. in 2015; *tab. 5*).

The trust in the authorities is focused solely on the top level of the power hierarchy – on the President. However, as the results of the surveys show, Russians clearly share the success of the President in dealing with international political issues and in solving the problems of growth in the quality of life (*tab. 6*). “The citizens realize the gravity of the situation in the economy and do not believe that the government is able to steer the country out of the crisis. But those same citizens support Russia's foreign policy that restored glory to our country”<sup>10</sup>.

***The feeling of uncertainty in the future combined with the crisis of trust in the authorities force people to plan their life prospects and achieve them by relying solely on their own resources. As a result, life goals of people become smaller. They are focused on consumer needs and concentrate within the closest social environment of an individual.***

<sup>9</sup> The Edelman Trust Barometer research results are highlighted annually at the World Economic Summit. Edelman Trust Barometer – 2015 represents the 2014 situation. Thirty-three thousand respondents in 27 countries around the world (in 2011 – 25 countries) are surveyed online. The survey involves the entire population aged over 18 and “informed respondents” (500 respondents in U.S. and China and 200 in other countries) that meet the following criteria: age: 25–64 years; education: higher; income level: upper 25% income group for each age group in each country; interested in the news of business and politics. The wording of the question is the following: “Below there is a list of institutions. Please, indicate to what extent you trust this institution, using the 9-point scale, where 1 means “distrust completely”, 9 – “trust greatly”. Respondents with the trust rating from 6 to 9 points are considered “trusting”. Countries where the share of those is below 50% are recognized as “distrusting”, from 50 to 59% – “neutral”, 60% and above – “trusting” (source: *Ofitsial'nyi sait kompanii Edelman Trust Barometr* [Official Website of Edelman Trust Barometer]. Available at: <http://www.edelman.com/>).

<sup>10</sup> Grazhdan ne volnuet rost bednosti. Vnutrennie problemy strany vyvedeny iz politicheskoi povestki [Citizens do not Care about the Increase in Poverty. Internal Problems of the Country are Outside the Political Agenda]. *Vedomosti* [News], 2015, June 14. Available at: <http://www.vedomosti.ru/opinion/articles/2015/06/15/596296-grazhdan-ne-volnuet-rost-smertnosti-i-bednosti>

Table 5. Level of trust in the authorities in the world\*

Country	2008	2009	2010	2011	2012	2013	2014	2015	2015 compared to 2011, +/-
India	49	43	43	44	53	57	53	82	+38
Germany	27	35	43	33	33	48	49	50	+17
<b>Russia</b>	<b>38</b>	<b>43</b>	<b>38</b>	<b>39</b>	<b>26</b>	<b>29</b>	<b>27</b>	<b>54</b>	<b>+15</b>
Indonesia	n.a	52	62	40	47	53	72	+10	
Ireland	35	35		20	35	32	21	26	+6
UAE				88	78	73	88	90	+2
USA	39	30	46	40	43	53	37	41	+1
Canada	39	51		52	56	58	51	49	-3
Australia	n.a.	53		52	47	43	56	49	-3
Malaysia					49	60	54	45	-4**
Sweden	63	39		64	62	65	63	59	-5
China	79	80	74	88	75	81	76	82	-6
Singapore				77	73	82	75	70	-7
France	35	36	43	49	31	49	32	42	-7
Mexico	49	41		42	35	41	28	33	-9
Netherlands	64	74		75	61	62	60	65	-10
Japan	45	45	42	51	25	32	45	40	-11
Poland	11	33		42	28	30	19	30	-12
Italy	29	32	36	45	31	35	24	28	-17
South Korea		38		50	33	44	45	33	-17
Spain	37	34		43	20	20	18	26	-17
Hong Kong					62	63	45	42	-20**
Argentina				54	36	19	23	21	-33
Brazil	22	51	39	85	32	33	34	37	-48
UK	34	41	38	43	38	47	42	43	0
Turkey						40	43	41	-
South Africa							17	16	-
<b>Average</b>	<b>42</b>	<b>45</b>		<b>52</b>	<b>43</b>	<b>50</b>	<b>45</b>	<b>48</b>	<b>-4</b>

Source: Edelman Trust Barometer official website. Available at: <http://www.edelman.com/>

\* Dynamics: 2015 to 2012, +/-.

\*\* The countries, in which the level of trust in the authorities for the period between 2011 and 2015 increased by 10 percentage points or more are highlighted in green; the countries, in which the level of trust in the authorities declined by 10 percentage points and more are highlighted in red.

Table 6. In your opinion, how successful is the RF President in coping with challenging issues? (as a percentage of the number of respondents)

Indicator	2000	2003	2005	2007	2008	2009	2010	2011	2012	2013	2014	2015	Dynamics, 2015 +/- to		
													2000	2007	2014
<i>Strengthening Russia's international standing</i>															
Successful	42.3	44.9	47.9	58.4	55.1	49.5	49.9	46.2	43.1	45.6	50.4	51.4	+9	-7	+1
Unsuccessful	30.9	30.1	33.8	24.9	23.7	30.4	29.3	33.7	37.9	36.2	32.4	31.2	0	+6	-1
<i>Imposing order in the country</i>															
Successful	31.4	37.5	41.9	53.2	48.2	39.1	41.1	36.6	35.4	39.4	48.0	50.1	+19	-3	+2
Unsuccessful	49.2	45.1	45.1	34.0	34.2	43.5	42.5	50.0	50.7	47.5	39.1	37.9	-11	+4	-1
<i>Protecting democracy and strengthening the citizens' freedoms</i>															
Successful	23.5	29.9	33.6	44.4	39.9	36.7	36.3	32.4	28.8	31.8	37.5	40.3	+17	-4	+3
Unsuccessful	43.8	42.4	47.0	37.0	35.9	41.5	42.6	48.3	52.3	51.0	45.4	41.0	-3	+4	-4
<i>Economic recovery and increase in the citizens' welfare</i>															
Successful	25.6	29.6	35.1	47.2	36.7	31.6	33.5	30.7	28.5	31.3	34.8	34.8	+9	-12	0
Unsuccessful	52.9	51.4	50.8	39.1	46.0	52.4	51.6	56.1	57.9	56.8	53.4	51.6	-1	+13	-2

Source: ISEDT RAS public opinion monitoring.

This phenomenon that science calls “social atomism” is noted by leading Russian scientists (M. K. Gorshkov, V. I. Zhukov, etc.) and by the results of regional sociologic research. Its essence consists in the fact that the interests, needs and hopes of Russians are concentrated at the micro level – the immediate social environment (family, closest friends and relatives). For example, the results of sociological assessments conducted by ISEDT RAS in the Vologda Oblast show that simultaneously with the growth of the quality of life there is a “degeneration” of life plans, they become more consumer-oriented, aimed at today and not at the future.

Thus, in 2001–2014, the representatives of the lowest income groups were less likely to plan for a year the implementation of the necessary medical treatment (the share of those who did not plan it increased by 22 p.p., from 23 to 45%; *tab. 7*), provision of children with high-quality education (by 17 p.p., from 32 to 49%), better nutrition (by 15 p.p., from 10 to 25%). However, during this same period, representatives of the same groups were more likely to plan the purchase of a car (the proportion of those who did not plan it decreased by 9 p.p., from 48 to 40%); the share of those who did not plan to spend their vacation abroad increased only by 4 p.p.

Table 7. Share of the least and most prosperous population who are not planning to... (as a percentage of the number of respondents in each decile group)\*

Plans for the year	2001	2014	Dynamics +/-
<i>10% of the poorest</i>			
To implement the necessary medical treatment	22.5	44.9	+22
To provide children with good education	31.9	48.5	+17
To improve the quality of nutrition	10.1	25.0	+15
To buy a country house, a subsidiary plot	46.4	61.8	+15
To find a job	19.6	33.1	+14
To buy new clothes and footwear	6.5	19.9	+13
To improve living conditions	22.5	33.1	+11
To spend the vacation in a sanatorium (vacation hotel) in Russia	42.8	50.0	+7
To spend the vacation abroad	53.6	57.4	+4
To increase the salary	16.7	19.9	+3
To buy a car	48.6	40.4	-9
<i>10% of the wealthiest</i>			
To improve the quality of nutrition	19.0	41.2	+22
To buy a country house, a subsidiary plot	63.5	81.6	+18
To implement the necessary medical treatment	46.0	62.5	+17
To spend the vacation in a sanatorium (vacation hotel) in Russia	53.3	67.6	+14
To find a job	54.0	66.9	+13
To provide children with good education	59.1	72.1	+13
To buy new clothes and footwear	7.3	16.9	+10
To improve living conditions	41.6	50.0	+8
To increase the salary	19.7	27.9	+8
To buy a car	46.7	54.4	+8
To spend the vacation abroad	62.0	39.0	-23
* Those plans that people are now more likely “not to plan” (by 15 p.p. or more) are highlighted in red.			

(from 54 to 57%), the share of those who did not plan to spend their vacation in Russia – by 7 p.p. (from 43 to 50%).

The difference is clear (2–3 times), and we recall that this applies to the 10% of the residents with the lowest income in the Vologda Oblast. The orientation toward consumer needs, the “degeneration” of life plans is noted among the most wealthy people as well, that is, among those who, it would seem, should not worry about the issues such as vacation abroad or the purchase of a car, i.e. the ones who have more opportunities to think about their health and the education of their children.

Thus, social atomism stems not only from the low income but also from the psychological insecurity and from the mistrust in the authorities, the factors deeply-rooted in public consciousness. The proportion of people who experience uncertainty about the future has been and remains very significant (46–63%;

*tab. 8*) in all the decile groups, except for the richest 10% of inhabitants of the Vologda Oblast. In addition, in all the decile groups, the proportion of people who are looking into the future with anxiety increased in 2015 compared to 2014.

The feeling of unpredictability of the future coexists with low levels of interpersonal trust: according to surveys, 79% of the Vologda Oblast residents believe that currently it is impossible to trust anyone or, in extreme cases, you can trust the closest friends and relatives (*tab. 9*).

**Of particular concern is the fact that uncertainty about the future, the “degeneration” of life plans, people’s mistrust in each other are becoming a more and more familiar way of life to Russians. These phenomena coexist quite peacefully with the good mood and content with life, which 20–60% of people expressed in the 2000s and 50–90% express at present (*tab. 10*).**

Table 8. Share of people who experience uncertainty about the future (as a percentage of the number of respondents in each decile group)

Decile groups	2001	2002	2003	2004	2005	2006	2007	2008	2009	2011	2012	2013	2014	2015
the wealthiest 10%	62.3	70.6	77.2	65.1	36.8	41.0	43.2	53.7	49.3	75.9	70.5	66.7	62.5	67.4
the poorest 30% (including the poorest 10%)	65.6	63.8	71.6	58.1	36.0	42.3	42.2	46.0	49.3	67.4	64.1	64.0	54.4	63.5
the poorest 30%	61.4	63.6	59.4	37.5	34.2	41.1	50.6	41.9	49.3	61.7	55.3	49.8	47.7	56.0
the wealthy 30%	63.4	53.9	54.7	37.2	30.4	45.7	45.8	36.6	43.7	63.7	50.0	43.6	45.5	52.2
the wealthiest 10%	47.4	46.8	30.7	17.8	29.4	42.4	38.1	30.8	30.4	40.9	39.4	31.9	24.3	37.8

Table 9. Who can you trust? (as a percentage of the number of respondents)

Answer option	2010	2011	2013	2014	2015
At present, I can trust no one	26.1	24.7	27.9	27.9	23.5
I can trust only the closest friends and relatives	58.1	56.5	52.5	53.4	55.7
Most of my acquaintances are trustworthy	12.8	16.1	15.2	12.2	12.6
One should trust everybody without exception	2.3	2.5	1.6	3.1	2.5

Table 10. Dynamics of social well-being indicators (as a percentage of the number of respondents in each decile group)

Decile groups	2000	2007	2010	2011	2012	2013	2014	2015
<i>The share of people with the "good mood, good condition"</i>								
the poorest 10%	26.5	49.1	42.7	41.3	44.6	40.1	44.9	48.4
the poorest 30% (including the poorest 10%)	30.7	53.8	48.6	49.3	54.9	51.5	54.2	56.2
the poor 30%	46.3	60.6	59.3	61.8	66.1	70.0	71.7	68.8
the wealthy 30%	54.1	70.1	72.0	74.2	76.5	80.4	80.9	78.9
the wealthiest 10%	65.5	77.1	80.4	76.7	85.1	84.7	84.8	81.9
<i>The share of people who are "satisfied; partly satisfied, partly not satisfied" with their life</i>								
the poorest 10%	22.9	59.5	63.5	58.2	70.6	46.2	43.3	35.1
the poorest 30% (including the poorest 10%)	34.0	59.5	71.1	67.7	75.0	54.6	58.4	53.4
the poor 30%	42.5	65.7	79.9	86.7	84.7	74.3	76.6	77.6
the wealthy 30%	61.1	73.8	81.4	91.3	89.2	88.4	85.5	86.0
the wealthiest 10%	73.5	85.5	86.9	94.9	92.7	90.9	96.3	87.8

*In other words, social atomism is a product of modern civilization; it is the part of our lives that is not perceived by ordinary citizens as a global problem, which holds the potential danger of total consequences for all the spheres of public life.* Meanwhile, experts warn that the consequences of the atomization of society can be very pessimistic – “from the loss of readiness to live through personal problems without hard protests during the likely new economic crises to the unwillingness to enlist in the army, while the very concepts of “state”, “homeland” as the ultimate guarantors of sustainable development and satisfaction of people’s needs are devaluating, and citizens cease to feel responsible for their fate”<sup>11</sup>.

Major changes are taking place in the social structure of the Russian society and, first of all, in the middle class – the social layer that today

<sup>11</sup> Gorshkov M.K. “Russkaya mechta”: opyt sotsiologicheskogo izmereniya [Russian Dream: Experience of Sociological Measurement]. *Sotsiologicheskie issledovaniya* [Sociological Studies], 2012, no. 12, p. 3; Chuguenko V.M., Bobkova E.M. Nove tendentsii v issledovanii sotsial'nogo samochuvstviya naseleniya [New Trends in the Research of Population's Social Well-Being]. *Sotsiologicheskie issledovaniya* [Sociological Studies], 2013, no. 1, p. 23.

plays an important role in the viability and competitiveness of the country.

Along with the strengthening of the power vertical (this process in Russia has been going on from the beginning of Vladimir Putin’s first presidential term, i.e. from the beginning of the 2000s), the position of the middle class is becoming more and more important. “The strengthening of the state always leads to the blockage of communication channels between society and authorities. The system “pupates”, its bureaucratic apparatus grows, even against the will of the ruling elites. The movement along the vector of democracy slows down. In order to re-establish its “smooth flow” it is necessary to exert pressure on the middle class as the most responsible, wealthy and educated segment of the population and part of the elite”<sup>12</sup>. “The fact of formation and development of the middle class is the most important criterion of efficiency of socio-economic development and strength of the

<sup>12</sup> Skorobogatyi P. Trevozhnyi i loyal'nyi [Worrisome and Loyal]. *Ekspert* [Expert], 2015, no. 45, November 2. Available at: <http://expert.ru/expert/2015/45/trevozhnyij-i-lojalnyij/>

entire system of economic, social, political and civil institutions. However, the development of the middle class is not only the result but also the source of economic growth”<sup>13</sup>.

The middle class is a social stratum, which has the most powerful potential for dialogue with the authorities. It comprises people who watch over the situation in the country; they are ready not only to criticize the government, but to come to an agreement with it. The pressure that the representatives of the middle class can and should exert on the government consists in active participation in political and public life, in the legitimate resistance to ambiguous initiatives of authorities, in the establishment of mechanisms and associations, i.e. the tools of influence. **If the active part of the population does this all outside the platforms for dialogue with the authorities, there arises a revolutionary potential. But if communication with the middle class is established, it creates the prospect of rapid development of the country.**

Due to the importance of the role played by the middle class in organizing the dialogue between government and society, its transformation attracts the attention of a growing number of researchers. Experts note that over the last 15 years the Russian middle class has become wealthier, but its size has declined; it is characterized by the processes of internal differentiation by income and ideological beliefs (some spokesmen advocate the stability of society, others speak in favor of its “soft” reform); active consumption in the middle class exceeded all other demands.

<sup>13</sup> Maleeva T.M., Burdyak A.Ya., Tyndik A.O. Srednie klassy na razlichnykh etapakh zhiznennogo puti [Middle Classes at Various Age Stages]. *Zhurnal novoi ekonomicheskoi assotsiatsii* [Journal of the New Economic Association], 2015, no. 3, p. 109.

In 2003–2014, the middle class experienced a significant decline (from 36 to 15%) in the proportion of those who were able to improve their education or the level of qualification and in the share of those who were able to get a promotion at work or find a new, more suitable job (from 31 to 10%). These recent studies allow us to speak about the presence of a kind of “social imbalance” in the Russian society, which is manifested in the contradiction between the relatively peaceful (according to statistics) state of the labor market with low unemployment and a fear that one can turn out unemployed in the next two or three years, the feeling that more than 40% of working Russians experience. Experts are convinced: despite the irrationality of such a disturbing thought, it has objective and reasonable grounds that include social insecurity of Russians and the inefficient system of state social protection against unemployment<sup>14</sup>.

Negative trends in the many years of transformation of Russia’s middle class lead to the fact that its representatives express significantly negative opinions concerning the Government. **“The internal policy that is criticized by Russians remains the responsibility of the Cabinet of Ministers, and the external policy supported by Russians is associated with the President. In addition, it is necessary to point out an important feature: the anger of the middle class is primarily directed toward regional authorities, i.e. the very power that is responsible for the order and quality of life in Russia’s constituent entities”**<sup>15</sup>.

<sup>14</sup> *Srednii klass v Rossii: 10 let spustya : analiticheskii doklad IS RAN* [Middle Class in Russia: 10 Years Later : IS RAS Analytical Report]. 2014, pp. 23, 27.

<sup>15</sup> Skorobogatyi P. Trevozhnyi i loyal’nyi [Worrisome and Loyal]. *Ekspert* [Expert], 2015, no. 45, November 2. Available at: <http://expert.ru/expert/2015/45/trevozhnyij-i-lojalnyij/>

Today the society (represented by the middle class) formulates quite clearly its requests to the state. Meanwhile, even the most the critically-minded social groups do not want protests and revolutions and try to find ways for constructive dialogue with the state. For instance, according to VCIOM and the Levada Center, 76% of Russians believe that protests against the decline in the standard of living are unlikely, and 77–80% of Russians are not ready to participate in rallies and other protest actions<sup>16</sup>. According to ISEDT RAS, the level of protest potential in the Vologda Oblast in 1998 was 40%, in 2005 – 32% and beginning from 2007, it does not exceed 20%.

However, some representatives of the economic bloc of the Government, i.e. the people who deal with domestic economic issues, do not pay attention to the society; their interests are connected only with certain social groups that do not care about national and public interests. “...The power, following a path of state capitalism, suppresses small and medium business by pursuing its economic policy. It is difficult to say whether it is done consciously or not. But obviously, it is inconvenient for the authorities to have a wealthy middle class, because it puts forward its claims, protects its property and civil rights and requires transparency. If the middle class were large, the government would have to make agreements with it, to grant it a share

<sup>16</sup> *Argumenty i fakty* [Arguments and Facts], 2015, January 23. Available at: [http://www.aif.ru/politics/russia/1431347;Ofitsial'nyi\\_sait\\_Levada-Tsentra](http://www.aif.ru/politics/russia/1431347;Ofitsial'nyi_sait_Levada-Tsentra) [Levada-Center Official Website]. Available at: <http://www.levada.ru/old/16-09-2015/rossiyane-gotovy-protestovat-tolko-za-kompaniyu>

in politics. But the “new Soviet power” is not used to it”<sup>17</sup>.

As a result, a tangle of contradictions is accumulating. Experts have repeatedly drawn attention to this situation, but their opinion is not taken into account. So today, you can hear the proposals of concrete actions<sup>18</sup>:

- provision of the Security Council of the Russian Federation with the powers of the civil General Staff that forms an adequate strategic plan to counter the threats, the implementation of which involved all the bodies of economic administration of the country;
- establishment of a special unit in law enforcement bodies that would fight against corruption, it is due to the pressing necessity of “purging” the elite given the possibility of war;
- establishment of a center for development management, which should unite leading Russian experts regardless of their

<sup>17</sup> Kostikov V. Ukroshchenie stroptivnykh. Kak bednost' ubivaet volyu k demokratii [Taming of the Shrew. Poverty Kills the Democratic Will]. *Argumenty i fakty* [Arguments and Facts], 2015, no.32, August 5. Available at: [http://www.aif.ru/society/opinion/ukroshchenie\\_stroptivnyh\\_kak\\_bednost\\_ubivaet\\_volyu\\_k\\_demokratii](http://www.aif.ru/society/opinion/ukroshchenie_stroptivnyh_kak_bednost_ubivaet_volyu_k_demokratii)

<sup>18</sup> See for example: 1. Glazyev S.Yu. O neotlozhnykh merakh po ukrepleniuyu ekonomicheskoi bezopasnosti Rossii: doklad na zasedanii Soveta bezopasnosti 15.09.2015 [On Urgent Measures to Strengthen the Economic Security of Russia: Report on the Security Council Meeting September 15, 2015]. *Biznes online: delovaya elektronnyaya gazeta* [Business Online: Business E-Newspaper], 2015, September 15. Available at: <http://www.business-gazeta.ru/article/140998/> 2. Tikhonov S. Khoteli posadok? [Did You Want Jailing?]. *Ekspert* [Expert], 2015, no. 40 (959), September 28. Available at: <http://expert.ru/expert/2015/40/hoteli-posadok/> 3. Dal'she “sushit” ekonomiku nekuda [It is Impossible to “Dry” Economy Anymore]. *Ekspert* [Expert], 2015, November 2. Available at: <http://expert.ru/expert/2015/45/dalshe-sushit-ekonomiku-nekuda/> 4. Mironov S.M. Novaya real'nost' i starye illyuzii [New Reality and Old Illusions]. *Nezavisimaya gazeta* [Independent Newspaper], 2015, no. 247, November 18. Available at: [http://www.ng.ru/ideas/2015-11-18/5\\_illusions.html](http://www.ng.ru/ideas/2015-11-18/5_illusions.html)

views on urgent measures necessary for the “recovery” of Russia’s economy;

- establishment of a government of national trust composed of representatives of different constructive political forces.

These options have different content, but one thing unites them – their direct accountability to the President. This suggests that the country has realized the true reasons underlying the backlog of social health issues. The political and scientific communities are ready to work on the various ways to eliminate them. It is understood that the ineffectiveness of the Government’s domestic policy is now the main obstacle to the improvement of the quality of life of Russia’s population and provision of its competitiveness on the world stage.

***Thus, social health issues are a question of strategy rather than tactics and of the future rather than the present. Today is not a threat of growing protest moods, but primarily the issue of the weakening of human potential – the main factor in national security in a competitive struggle for the next few years and decades.***

The false paradigm, concept and the lack of scientific strategic planning has led to the low growth and development of Russia. That is why the achievements and recommendations of economic science and international experience are neglected. That is why, despite the availability of rich natural and other

resources, the quality of life is low. And this is the main criterion for the low efficiency of power, of the ruling elite<sup>19</sup>.

The Russian society has changed over the last 20 years. Today, public consciousness, social needs and requirements to the government are quite different than in the early 2000s; that is why the solution of internal economic and political issues requires a fundamental change in the management system. And Russia has little time for this, because the global competition for the dominant position is going on under the conditions of a new technological mode, and Russia’s internal life will soon face a change in its the political cycle (2018).

***Sustainable human development can be ensured only through effective management, strategic planning and the adequate perception of global trends – in health, education, culture, the standard of living and quality of life of the population of different countries – by the ruling elite.*** Here the term “adequate perception” means not only an objective assessment of the situation prevailing in the above mentioned aspects of human potential, but also the formation of appropriate policy, i.e. a set of elaborate, science-based solutions for the medium-term (3, 5, 10 years), and long-term (20, 30, 40 years) perspective.

These solutions include the transition to strategic planning carried out by many developed countries<sup>20</sup>, the transition that in

<sup>19</sup> Korchagin Yu.A. Ekonomicheskaya nauka RF v zagone [Russian Economics is Neglected]. *Elektronnaya biblioteka Viperson.ru* [Viperson.ru Electronic Library]. Available at: <http://viperson.ru/articles/ekonomicheskaya-nauka-rf-v-zagone>

<sup>20</sup> “Japan, China. PRC has been developing very rapidly for the last 30 years... By the way, China has established and is operating a system of indicative planning. When working out plans the Chinese authorities attract a lot of organizations, including research institutes, public organizations and business, and it results in the most important thing – environment of trust... The tools of modernization, such as large-scale adoption of technologies and methods of management, indicative planning, import substitution and active support of export were at certain stages of modernization common to all countries, which managed to transfer from “developing” to “developed” (source: Polterovich V.M. Voprosa o sisteme, porozhdayushchei rost, ne oboiti : interv’yu [It is Impossible to Bypass the Question of the System that Generates Growth: Interview]. *Ekspert Yug* [Expert South], 2015, February 24. Available at: <http://mse-msu.ru/v-m-polterovich-voprosa-o-sisteme-porozhdayushhej-rost-ne-oboiti-intervyu-zhurnal-ekspert-yug/>).

Russia is so far “reduced to hosting the Olympic Games and world championships”<sup>21</sup>.

The extension of the powers and responsibilities of the Federal Assembly is no less important. A coalition of representatives of all parties must be formed in the Government. The coalition should include people who can not only offer solutions in the interests of the majority of the population, but also take responsibility for the implementation of these solutions. Civil investigations currently carried out by the All-Russian People’s Front should be organized at the federal level. Only in this case will they acquire systemic character and their results will influence all the areas of domestic policy.

*The managerial mind should be, on the one hand, flexible and adaptive to changing realities; on the other hand, it should be hard and ready to show political will in addressing the most complex issues. It is necessary to introduce the practice of the change of elites capable of offering effective response to dynamic and successive internal and external challenges. It is essential to create the general ideological vector for domestic and foreign policy.* If these steps are absent, it will inevitably lead to the alienation of power from society, the growth of social unrest, the new and more stringent requirements of the population. This may be a factor in the aggravation of social health issues, lingering and increasing in Russia; they affect its social structure (deformation of the middle class,

precariat<sup>22</sup>) and spiritual and value foundations of the Russian society (social atomism, the dominance of consumer interests). According to experts, this can lead to extremely serious consequences for the country in the long term, up to the loss of national identity.

Vladimir Putin during all his presidential terms and especially in recent years conducts an independent foreign policy, regularly drawing the world’s attention to threats inherent in a unipolar world, to the inevitable decline of civilization dominated by one power. This is the keynote of all his public speeches. At that, the conceptual theoretical promises and concrete actions of the President enhance Russia’s status in the international political arena and, according to the results of opinion polls, they are widely supported by the Russian society.

There is no doubt that Russians share Vladimir Putin’s views on the geopolitical arrangement of civilization and on the place of Russia in the multipolar world. So there is no doubt that the absence of such an independent course of internal policy of the Government causes misunderstanding and concern on the part of the population. The Russian society is aware of the need for change and the people are ready to mobilize their efforts to make their country one of the most influential powers in the world in the near future. But still at present it is too early to talk about any “breakthrough”, because it

<sup>21</sup> Antonov M. Pered pravitel’stvom ne stoit zadacha razvivat’ ekonomiku (zametki s Moskovskogo ekonomicheskogo foruma) [The Government does not Face the Task to Develop the Economy (Notes from the Moscow Economic Forum)]. *Pravda* [Truth], 2015, no. 115(30321), October 16–19. Available at: <http://kprf.ru/pravda/issues/2015/115/article-52966/>

<sup>22</sup> Precariat is “fundamentally new, sustainable social class education, which brings together a great number of people and gives them the status of permanent temporariness of the social state and the clear understanding of shortcomings and limitations in the realization of their capabilities and abilities” (source: Toshchenko Zh. T. Precariat – novyi sotsial’nyi klass [Precariat – New Social Class]. *Sotsis* [Sociological Research], 2015, no. 6 (374), p.7).

is necessary for the Russian economy at least to overcome the crisis and embark on the path of sustainable growth.

In his annual addresses to the Federal Assembly, the Russian President has repeatedly stressed the need to improve management effectiveness on the most pressing issues of Russia's life: in particular, it concerns the development of the system of healthcare and education, the functioning of the supervisory and control agencies in the sphere of small and medium business, the optimization of the agro-industrial complex, etc.

It is important to note that in 2012 (the first year of the third presidential term), the context of the President's speech was quite "mild" – it was about the duration of the issues and the need to intensify efforts to address them. The subsequent Presidential Addresses to the Federal Assembly contained more and more phrases such as: *"Let's comprehensively go over these issues again and finally bring the situation in line with common sense and attune it to the times"* (2013), *"There is now a clear understanding of what should be done, so now we must just start doing it"* (2014) and *"How many years have we been talking about this? Yet things are not moving forward"*. (2015; see *appendix*). Thus, Vladimir Putin

clearly expresses his dissatisfaction with the progress of the implementation of the tasks and priorities set out in 2012, and in fact – with the inefficiency of public administration. It looks as though the President is forced to tolerate an incompetent execution of his decrees.

"Being on top of the power vertical, the President cannot implement his initiatives when faced with the malfunction of institutions and low quality of public administration, so the tone of his latest Address is "alarmed and anxious"<sup>23</sup>.

*How long will be the patience of the President and the entire Russian society? Especially when we consider the imminent change of the political cycle... Can the Government realize that its 2008 fiscal and monetary policy has led to the stagnation of the economy, and in the future it may throw the Russian society backward by ten years and return it back to the level of the 1990s? Can the ruling elite understand that it would be disastrous for the country in the current geopolitical conditions? Or will Russia find the political will to reorient its economic policy in the interests of wider population rather than narrow oligarchic groups? This ultimately will determine the future of Russia and its national security and competitiveness in the coming decades.*

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<sup>23</sup> Poslanie ozabochennogo cheloveka [Message of a Worried Man]. *Nezavisimaya gazeta* [Independent Newspaper], 2015, December 4. Available at: [http://www.ng.ru/editorial/2015-12-04/2\\_red.html](http://www.ng.ru/editorial/2015-12-04/2_red.html)

Excerpts from the Addresses of the President of the Russian Federation  
to the Federal Assembly in 2012–2015 (Vladimir Putin's third presidential term)

Address of the President of the Russian Federation to the Federal Assembly, December 4, 2014	Address of the President of the Russian Federation to the Federal Assembly, December 3, 2015
<p>1. <b><i>"This is not the first time we are speaking about the need for new approaches to the activities of oversight, supervisory, and law enforcement agencies. Nevertheless, things are changing very slowly here.</i></b> The presumption of guilt is still very much alive. Instead of curbing individual violations, they close the path and create problems for thousands of law-abiding, self-motivated people".</p> <p>2. <b><i>"Finally,</i></b> it's crucial to abandon the basic principle of total, endless control. The situation should be monitored where there are real risks or signs of transgression. <b><i>You see, even when we have already done something with regard to restrictions, and these restrictions seem to be working well, there are so many inspection agencies that if every one of them comes at least once, then that's it, the company would just fold. In 2015, the Government should make all the necessary decisions to switch to this system, a system of restrictions with regard to reviews and inspections"</i></b>.</p> <p>3. Business people talk about the need for stable legislation and predictable rules, including taxes. I completely agree with this. <b><i>I propose to freeze the existing tax parameters as they are for the next four years, not revisit the matter again, not change them"</i></b>.</p> <p>4. "I'd like to ask the Government to complete this work as soon as possible. I'd also like to ask the deputies <b><i>not to delay</i></b> their review of the law on priority development areas (PDA). In addition, I propose extending PDA regulations to new projects in a number of single-industry cities with the most difficult socioeconomic situations, <b><i>rather than waiting three years, as provided by the draft law (I believe it has passed its first reading). Instead, we should amend it and start working on single-industry cities right away"</i></b>.</p> <p>5. "Unfortunately, engineers are still mostly educated at universities that are no longer linked to the actual producers, and lack access to the latest research and solutions. It is high time that we focus on the quality of education, not sheer enrolment numbers, and ensure that engineers are trained by top higher education institutions with strong industry connections, and preferably in the same regions where the future engineers will live".</p> <p>6. "...What this means is that, first, we have great potential, a lot of young promising talent. It also means that a lot has to be done to change the professional training system. <b><i>It's what I spoke about. We just need to avoid acting formally here. There is now a clear understanding of what should be done, so now we must just start doing it. Once we engage in this effort, we must keep up the momentum,</i></b> since despite the changes in labour professions and training, the key economic driver always was and will continue to be the availability of highly-skilled qualified workforce and engineers. A network of certification centers should be created so that workers can prove that they meet professional requirements".</p>	<p>1. "It is imperative to achieve a balanced budget. This, of course, is not an end in itself, but a critical prerequisite for macroeconomic stability and our financial independence. <b><i>As you may recall,</i></b> by the end of the 2016 federal budget year, the deficit should not exceed 3 percent, even if revenue is lower than expected. <b><i>Please take a note of this, colleagues, members of the State Duma and the Federation Council, the Federal Assembly in general. This is important. I just mentioned that financial stability and the independence of our country are completely interrelated. Please keep these basic considerations in mind"</i></b>.</p> <p>2. "Polls show that businesses see no qualitative progress in the regulators' work. <b><i>Yet, all the necessary instructions for this have been issued, even more than once. We repeat ourselves and our attempts to reduce their powers. We reduce them in one area – they simply grow again in another. A whole army of inspectors continues to hinder the operation of good businesses.</i></b> I am not saying that control is not necessary. Business does require regulation. But I ask the Government Commission for Administrative Reform to work out, together with business associations, proposals on eliminating redundant and overlapping functions of regulatory agencies, and submit them by July 1, 2016".</p> <p>3. "It is necessary to put to use millions of hectares of arable land that is now idle. They belong to large land owners, many of whom show little interest in farming. <b><i>How many years have we been talking about this? Yet things are not moving forward.</i></b> I suggest withdrawing misused agricultural land from questionable owners and selling it at an auction to those who can and want to cultivate the land".</p> <p>4. <b><i>"When we did this 10 years ago, I remember well, we agreed that we will make an initial injection of federal funding, and then the regions will take over the responsibility and keep the financing at a certain level. But this never happened, which is unfortunate. I understand that there may be issues, but like I said many times before, it is imperative to get our priorities straight. It was the wrong thing to do to wait for everything to fall apart, and then expect to be bailed out again with the money from the federal budget. However, the way things are now, it looks like we will have to do it again. But that's not what we agreed upon. In any case, I ask the Government and the regional authorities to get back to this issue and resolve it jointly"</i></b>.</p>

The End of the Appendix

Address of the President of the Russian Federation to the Federal Assembly, December 12, 2012	Address of the President of the Russian Federation to the Federal Assembly, December 12, 2013
<p>1. <b><i>“Poor government efficiency and corruption are major problems that everyone can see.</i></b> We will never be able to tackle the challenges facing our society and our nation without quality, modern public administration, and without a high level of personal responsibility of everyone involved in it”.</p> <p>2. “We must consistently work to ensure that all Russian regions without exception become economically self-sufficient and subjects of the Federation in the fullest sense. <b><i>Therefore, we must slightly change the current logic of relations among state budgets at various levels.</i></b> May the Finance Ministry not be frightened by these words”.</p> <p>3. “However, I now address the Government first of all since you know what I’m referring to, we will get rid of the tax breaks for infrastructure companies and infrastructure monopolies, among others. This means that they will have to pay more. But not everyone is ready to start paying new amounts, because at that point we could completely deprive them of investment possibilities. <b><i>We have already agreed on a smooth transition period and compensation for these companies. We absolutely must think about this. Such decisions are not taken casually, though of course it is necessary to move in this direction, and we will do so</i></b>”.</p>	<p>1. “...Local authority – because it is the closest power to the people – should be organized so that any citizen could reach out to it, figuratively speaking. In this connection I am addressing the All-Russian Council for Local Self-Government Development, All-Russian Congress of Municipalities, governors, and members of the Federal Assembly, of the Government of the Russian Federation – <b><i>let’s comprehensively go over these issues again and finally bring the situation in line with common sense and attune it to the times.</i></b></p> <p>Let me repeat: I think the most important task is to clarify the general principles of local self-government organization, develop strong, independent, financially sustainable local authorities. And we need to start this work and give it sound legal foundations already next year, 2014, the year of the 150th anniversary of the famous Zemstvo Reform of 1864”.</p> <p>2. “I think that it is impossible to elaborate policies following a formal approach. <b><i>Yes, of course we all know that economic trends may and do change. But that is no reason to talk about revising our goals. We need to do real work, seek solutions, and clearly lay out budgetary and other priorities. I would ask you to update all state programs accordingly.</i></b></p> <p>Already within the next two years, all budgets should be changed to conform to our budget plan. This does not mean rewriting everything mechanically. It means <b><i>increasing the personal responsibility of each manager for the achievement of results. What we need to do is to focus resources on achieving substantial changes in specific sectors.</i></b></p> <p>For this reason we are raising salaries in education and health-care so that the work of teachers, professors, and doctors becomes prestigious once again, and attracts strong university graduates. But <b><i>as we agreed</i></b>, decent wages must not only reflect budgetary transfers, but rather reforms designed to improve spending efficiency and, most importantly, the quality of social services. We need people to see how our schools, universities, clinics and hospitals are changing for the better”.</p>
<p>* The words and phrases used by President Vladimir Putin to stress the need for action and for transition from words to deeds are given in italics.</p>	

## Public Opinion Monitoring of the State of the Russian Society

As in the previous issues, we publish the results of the public opinion monitoring of the state of the Russian society conducted by ISEDТ RAS in the Vologda Oblast<sup>1</sup>.

The following tables show the dynamics of a number of parameters indicating the social feeling and socio-political sentiment of the Vologda Oblast population in October – December 2015, and also on average for 2015 (six polls carried out in February – October 2015). These data are compared with the data for 2013–2014, and also for 2007 (the last year of Vladimir Putin’s second presidential term, when the assessment of the President’s activity was the highest) and for 2011 (the last year of Dmitry Medvedev’s presidency).

### Estimation of performance of the authorities

In October – December 2015, the assessment of work of the President of the Russian Federation did not change significantly: the level of approval is 69–70%, the proportion of negative assessments is 17–18%. It is better than it was earlier in the year, when the level of support for Vladimir Putin was 66% and the share of negative characteristics was 21%.

In general, by the end of 2015, it should be noted that there is a steady increase in the share of the Vologda Oblast residents who approve of the President’s work during the last three years: in 2013 – 55%, in 2014 – 64%, in 2015 – 69%. However, the level of support of the President of the Russian Federation that was registered in 2007 (75%) had not been reached yet.

In the past three years there was a slight increase in the support of the Chairman of the Government of the Russian Federation (in 2013 – 49%; in 2014 – 54%, in 2015 – 58%). However, there are no significant changes in the current dynamics: in February 2015, the level of support of the Prime Minister was 56%, in October and December – 58%.

*For reference:* the nationwide level of approval of the RF President’s performance in October – November 2015 did not change considerably: 87% – according to VCIOM, and 85–86% – according to Levada-Center.

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<sup>1</sup> The polls are held six times a year in Vologda, Cherepovets, and in eight districts of the oblast (Babayevsky District, Velikoustyugsky District, Vozhegodsky District, Gryazovetsky District, Kirillovsky District, Nikolsky District, Tarnogsky District and Sheksninsky District). The method of the survey is a questionnaire poll by place of residence of respondents. The volume of a sample population is 1500 people aged from 18 and older.

The sample is purposeful and quoted. The representativeness of the sample is ensured by the observance of the proportions between the urban and rural population, the proportions between the inhabitants of settlements of various types (rural communities, small and medium-sized cities), age and sex structure of the oblast’s adult population. Sampling error does not exceed 3%.

More details on the results of ISEDТ RAS polls are available at <http://www.vscс.ac.ru/>

The same level of approval of the work of the head of state was marked by VCIOM and Levada-Center in February 2015 (88 and 86%, respectively).

In 2014–2015<sup>2</sup>, the national average level of support of Vladimir Putin increased by 5–6 p.p. (according to VCIOM – from 81 to 87 %, according to Levada-Center – from 81 to 86 %).

How do you assess the current performance of..? (as a percentage of the number of respondents)

Answer option	2007	2011	2013	2014	2015	Feb. 2015	Apr. 2015	June 2015	Aug. 2015	Oct. 2015	Dec. 2015	Dynamics (+/-), 2015 in comparison with...		
												2014	2011	2007
<b>RF President</b>														
I approve	75.3	58.7	55.3	64.1	69.1	66.3	67.5	69.5	72.0	69.3	69.7	+5	+10	-6
I do not approve	11.5	25.6	29.4	22.3	17.5	20.5	16.2	16.1	17.8	18.1	16.5	-5	-8	+6
<b>Chairman of the RF Government *</b>														
I approve	-	59.3	48.9	54.2	58.1	56.1	56.5	59.1	60.7	58.1	57.9	+4	-1	-
I do not approve	-	24.7	32.8	27.6	21.7	24.7	20.5	19.5	22.5	21.0	21.7	-6	-3	-
<b>Governor</b>														
I approve	55.8	45.7	44.4	40.1	39.3	38.3	37.1	40.5	41.5	38.7	39.7	-1	-6	-17
I do not approve	22.2	30.5	33.2	38.9	36.2	37.4	37.5	35.4	35.4	36.0	35.3	-3	+6	+14
* Included into the survey since 2008.														

The assessment of success of the President's actions in addressing the key problems of the country in the last two months did not change significantly:

– the share of the Vologda Oblast residents who think that the President successfully copes with the task of strengthening international positions of Russia remains at the level of 51–53% (the share of negative assessments is 32–33%);

– the share of the Vologda Oblast residents who think that the President successfully copes with the task of restoring order in the country is 49–51%; at the same time, the share of negative judgments remains stable (38–39%);

– 31–32% of the respondents believe that the President successfully copes with the task of economic recovery and promotes the increase in the welfare of citizens (the share of negative assessments is higher and remains at the level of 54–56%).

The share of those who believe that the President is successful in protecting democracy and strengthening citizens' freedoms increased slightly (from 38 to 41%) in the past two months.

<sup>2</sup> The data by VCIOM and Levada-Center are given for the period of January – November 2015.

Compared to the beginning of 2015, the evaluation of the success of the President's work in December remained stable for the majority of key issues. However, in the last 12 months there was an increase in the share of the Vologda Oblast residents (in February – 52%, in December – 56%) who are not satisfied with the way the RF President copes with the task of economic recovery and promotion of the growth of citizens' welfare.

In general in 2015 compared to 2014, people's estimates did not change significantly. The Vologda Oblast residents more often than in 2011–2013 point out Vladimir Putin's success in the strengthening of Russia's international positions, protection of democracy, economic recovery (increase by 5–6 p. p.) and especially in restoring order in the country (11–12 p.p.).

In your opinion, how successful is the RF President in coping with challenging issues?\*

(as a percentage of the number of respondents)

Answer option	2007	2011	2013	2014	2015	Feb. 2015	Apr. 2015	June 2015	Aug. 2015	Oct. 2015	Dec. 2015	Dynamics (+/-), 2015 in comparison with...		
												2014	2011	2007
<b>Strengthening Russia's international standing</b>														
Successful	58.4	46.2	45.7	50.4	51.7	50.4	52.7	51.1	52.2	50.7	53.2	+1	+6	-7
Unsuccessful	24.9	33.7	36.2	32.4	31.3	29.5	28.7	32.5	32.4	33.1	31.5	-1	-2	+6
<i>Index of success</i>	133.5	112.5	109.5	118.0	120.4	120.9	124.0	118.6	119.8	117.6	121.7	+2	+8	-13
<b>Imposing order in the country</b>														
Successful	53.2	36.6	39.4	48.0	50.2	50.3	50.1	49.9	51.7	48.6	50.5	+2	+14	-3
Unsuccessful	34.0	50.0	47.5	39.1	37.9	37.3	37.5	38.0	37.9	38.7	38.0	-1	-12	+4
<i>Index of success</i>	119.2	86.6	91.9	108.9	112.3	113.0	112.6	111.9	113.8	109.9	112.5	+3	+26	-7
<b>Protecting democracy and strengthening the citizens' freedoms</b>														
Successful	44.4	32.4	31.8	37.5	40.4	39.5	39.2	42.2	42.6	38.1	41.0	+3	+8	-4
Unsuccessful	37.0	48.3	51.0	45.4	41.5	40.9	39.9	38.3	41.7	44.3	43.7	-4	-7	+4
<i>Index of success</i>	107.4	84.1	80.8	92.1	99.0	98.6	99.3	103.9	100.9	93.8	97.3	+7	+15	-8
<b>Economic recovery and increase in the citizens' welfare</b>														
Successful	47.2	30.7	31.3	34.8	34.2	34.4	34.7	36.2	36.6	32.1	30.9	-1	+3	-13
Unsuccessful	39.1	56.1	56.8	53.4	52.3	51.5	49.9	49.9	52.6	54.3	55.7	-1	-4	+13
<i>Index of success</i>	108.1	74.6	74.5	81.4	81.8	82.9	84.8	86.3	84.0	77.8	75.2	0	+7	-26

\* Ranked according to the average value of the index of success for 2015.

The structure of the Russians' preferences concerning political parties in October – December 2015 did not see any significant changes: the “United Russia” is supported by 38–39%, KPRF and LDPR – by 6–7%, the “Just Russia” – by 3–4% during the entire year of 2015.

It is necessary to note a steady increase in the support of “United Russia” in annual dynamics: in 2013 – 29%, in 2014 – 33%, in 2015 – 39%. This is significantly higher than in 2007 (30%).

Which party expresses your interests? (as a percentage of the number of respondents)

Party	2007	Election to the RF State Duma 2007, fact	2011	Election to the RF State Duma 2011, fact	2013	2014	2015	Feb. 2015	Apr. 2015	June 2015	Aug. 2015	Oct. 2015	Dec. 2015	Dynamics (+/-), 2015 in comparison with...		
														2014	2011	2007
United Russia	30.2	60.5	31.1	33.4	29.4	32.8	38.8	38.8	38.2	40.3	38.5	38.0	39.0	+6	+8	+9
LDPR	7.5	11.0	7.8	15.4	7.2	7.6	6.2	6.7	6.1	5.4	5.9	6.1	7.1	-1	-2	-1
KPRF	7.0	9.3	10.3	16.8	11.3	9.7	7.1	7.7	7.8	6.8	7.1	6.9	6.5	-3	-3	0
Just Russia	7.8	8.8	5.6	27.2	4.6	3.5	3.6	4.1	3.7	3.3	3.5	3.3	3.7	0	-2	-4
Other	1.8	–	1.9	–	0.6	0.3	0.2	0.3	0.1	0.2	0.1	0.1	0.4	0	-2	-2
No party	17.8	–	29.4	–	34.9	34.4	31.8	30.3	31.5	32.5	33.8	32.3	30.5	-3	+2	+14
It is difficult to answer	21.2	–	13.2	–	10.2	11.7	12.2	12.0	12.5	11.6	11.1	13.3	12.9	+1	-1	-9

In October – December 2015, the assessments of social condition of the Vologda Oblast residents did not change significantly:

- 70% characterize their mood positively;
- 78% consider that “everything is not so bad; it’s difficult to live, but it’s possible to stand it”;
- 39% consider themselves to have “average income”;
- the consumer sentiment index remains at the level of 78 points.

Compared to the beginning of the year, in December, the share of positive assessments of social sentiment increased by 8 percentage points (from 62 to 70 %), stock of patience – by 4 percentage points (from 74 to 78%). Nevertheless, there are no positive changes in the dynamics of social self-identification: like in February 2015, about half of the Vologda Oblast residents (51–53%) consider themselves to be “poor and extremely poor”, the proportion of people of “average income” is 36%.

In general for the year 2015, the estimates of social mood and stock of patience are better than in 2007–2011 (by 5 p.p.) and they roughly correspond to the level of 2014. At the same time, we can point out an annual increase in the share of the “poor and extremely poor” residents of the Vologda Oblast: in 2007 – 42%, in 2011 – 44%, in 2013 – 47%, in 2014 – 49%, and in 2015 – 51%. People’s confidence in the future is gradually decreasing (consumer sentiment index in 2007 was 106 points, in 2011–2013 – 90 points; in 2014 – 88 points, in 2015 – 77 points).

Estimation of social condition (as a percentage of the number of respondents)

Answer option	2007	2011	2013	2014	2015	Feb. 2015	Apr. 2015	June 2015	Aug. 2015	Oct. 2015	Dec. 2015	Dynamics (+/-), 2015 in comparison with...		
												2014	2011	2007
<b>Mood</b>														
Usual condition, good mood	63.6	63.1	68.6	69.4	68.7	61.8	67.6	69.5	73.1	70.4	69.6	-1	+6	+5
I feel stress, anger, fear, depression	27.8	28.9	26.2	24.9	25.9	31.3	26.6	24.4	23.5	25.4	24.3	+1	-3	-2
<b>Stock of patience</b>														
Everything is not so bad; it's difficult to live, but it's possible to stand it	74.1	74.8	79.3	80.8	78.4	74.3	78.9	79.0	82.2	78.2	78.0	-2	+4	+4
It's impossible to bear such plight	13.6	15.3	14.2	12.6	14.5	17.3	14.9	14.7	13.3	13.9	12.7	+2	-1	+1
<b>Social self-identification*</b>														
The share of people who consider themselves to have average income	48.2	43.1	43.9	43.2	38.7	38.3	36.7	39.4	39.9	39.2	38.9	-4	-4	-9
The share of people who consider themselves to be poor and extremely poor	42.4	44.3	46.9	49.1	50.7	53.3	51.6	48.0	50.5	50.2	50.5	+2	+6	+8
<b>Consumer sentiment index</b>														
Index value, points	105.9	89.6	90.3	87.6	77.1	75.7	73.4	80.1	77.9	77.7	77.7	-11	-13	-29

\* Question: "Which category do you belong to, in your opinion?"

## Conclusion

The results of the survey conducted in December 2015 indicate that people's attitude to the work of Russia's authorities remains stable, and it is more positive than at the beginning of the year. To the end of 2015, social mood improved, the stock of patience increased. The Vologda Oblast residents supported the work of the President on strengthening Russia's international positions and restoring order in the country (the share of positive opinions is higher than negative ones by 12–20 p.p.). Party and political preferences remain the same.

Nevertheless, the results of sociological measurements clearly show that the ineffectiveness of domestic economic policy remains the prime issue for the Russian society. People's estimation of their financial position is dominated by negative assessments, and there were no significant changes in this regard in 2015:

- the share of the Vologda Oblast residents who consider themselves to be "poor and extremely poor" exceeds (just like in the beginning of the year) the proportion of people of "average income" by 12–15 p.p. (38–39% vs. 51–53%);

- the consumer sentiment index that indicates the forward-looking expectations of the population, remains very low (77 points, which is below the neutral level);
- the President's work on economic recovery and increase in citizens' welfare is assessed not so positively as his work on strengthening Russia's international positions, restoring order in the country and protecting democracy. It is dominated by negative assessments (34% of positive opinions versus 52% of negative opinions);
- the level of approval of the President's work continues to increase (from February to December 2015 – by 4 p.p., from 66 to 70%); however, it is clear that this growth is associated with his activities on the global arena. There is no increase in the support of Prime Minister Dmitry Medvedev's work in 2015 (56–58%), because he is primarily responsible for independent domestic economic policy.

Negative trends in the assessment of financial position are observed in the annual retrospective, which indicates the lingering nature and aggravation of economic problems:

- the percentage of the “poor and extremely poor” was 42% in 2007, 44% – in 2011, 47% in 2013, 49% in 2014, and 51% in 2015;
- the consumer sentiment index in 2007 was 106 points, in 2011–2013 – 90 points, in 2014 – 88 points, and in 2015 – 77 points.

Thus, the long-term negative trends in people's perception of their standard of living and prospects of development of financial situation are a direct result and clear proof of the ineffectiveness of domestic economic policy pursued by the Government.

It is no coincidence that the society is not content with the work of the authorities in this very aspect<sup>3</sup>. It is no coincidence that a large part of the Presidential Address to the Federal Assembly in December 2015 was connected not with the struggle against international terrorism, or with the geopolitical interests of Russia and the USA, but with internal economic problems and administration efficiency issues<sup>4</sup>. Moreover, the President' tone “turned out to be alarmed and concerned”<sup>5</sup>.

Further dynamics of public opinion will depend on the degree of responsibly with which the Cabinet of Ministers will accept the main theses presented by Vladimir Putin in his Address to the Federal Assembly, and also on the degree of efficiency with which the President's orders will be implemented; he has repeatedly drawn attention to these issues during his third presidential term.

The presence or absence of any changes in domestic economic policy will be indicated by the subjective assessments of the population concerning their standard of living and quality of life; these assessments will be revealed during the next stages of the monitoring conducted by ISEDТ RAS.

<sup>3</sup> Skorobogatyi P. Trevozhnyi i loyal'nyi [Worrisome and Loyal]. *Ekspert* [Expert], 2015, no. 45, November 2. Available at: <http://expert.ru/expert/2015/45/trevozhnyij-i-loyalnyij/>

<sup>4</sup> Poslanie Prezidenta RF V.V. Putina Federal'nomu Sobraniyu 3 dekabrya 2015 g. [Address of the RF President Vladimir Putin to the Federal Assembly, December 3, 2015]. *Ofitsial'nyi sait Prezidenta RF* [Official Website of the RF President]. Available at: <http://www.kremlin.ru/events/president/transcripts/messages/50864>

<sup>5</sup> Poslanie ozabochennogo cheloveka [Message of a Worried Man]. *Nezavisimaya gazeta* [Independent Newspaper], 2015, December 4. Available at: [http://www.ng.ru/editorial/2015-12-04/2\\_red.html](http://www.ng.ru/editorial/2015-12-04/2_red.html)

# SOCIO-ECONOMIC DEVELOPMENT STRATEGY

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## Children and Young People in Russia: Global Challenges of Modernity\*



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**Abstract.** The present-day world's development is becoming more and more uneven and new global challenges are emerging. Russia should respond to them by enhancing its economic competitiveness, preserving and increasing its population and human potential, first of all, that of children and young people. The paper points out that for the Russian Federation with its vast territory and substantial reserves

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of natural resources the most important geopolitical challenges consist in the preservation and increase of population and human potential. The authors prove that the formation of the population of Russia is under double “pressure” of high mortality and low fertility; therefore, natural movement (decline) is not completed by mechanical movement. In addition, the article determines that the share of young people in the total population is decreasing. For the first time in the history of Russia the share of children has become lower than the proportion of the elderly. In 2013 in 56 Russian regions, the proportion of children and adolescents accounted for less than 20% of the population (in the early 2000s, there were 41 such regions, and in 1990 – three). In addition to the reduction in the number of the population, child health potential is also deteriorating: about 35% of children in Russia are born ill or become ill in the near future (the figure is 30% in the Vologda Oblast). The number of adolescents aged 15–17 who are accounted for severe mental disorders is continuously increasing. The greatest socio-economic damage to the society comes from suicides that are widely spread among young people (the younger generation (persons up to 24 years old) accounts for one third of all the potential years of life lost from suicides). At the same time, young people consider health more valuable than does the population as a whole (4.5 points vs 4.4 points on a five- point scale). But young people underestimate the importance of self-preservation behavior. World experience shows that efficient development and productive use of the youth potential is the main advantage of the countries with innovation economy. The article shows that if the level of development of professional competencies is high, the level of innovation activity (projects, developments and inventions) among students is also high (3.93 points vs 3.69 points – in the absence of developments).

**Key words:** children, young people, population, health, innovation skills, years of potential life lost.

The present-day world’s development is becoming more and more uneven and new global challenges are emerging, they are as follows: unevenness of economic growth; demographic imbalances; decrease in the share of young people in the total population; strong migration flows from the regions suffering from terrorism; environmental issues; increasing number of natural disasters. In addition, global economy and politics witness the establishment of new regional economic alliances (WTO, APEC, EurAsEC, APEC, Eurasian Customs Union, etc.) that are beginning to change the principles of world economic regulation. Countries are boosting their innovation activities, which accelerate the pace of

change in several major economic trends in the world<sup>1</sup>; this requires that human potential quality be enhanced.

All the regions of the world experience a decline in population growth rate along with its significant territorial differentiation. According to the World Bank, the rate of population growth is much higher in the regions, where most of the territory is occupied by developing countries (South and North Africa, the Middle East, South Asia, Latin America), compared to the areas occupied by developed countries (*tab. 1*).

The crude birth rate in the world between 1960 and 2013 decreased from 32 to 20‰

<sup>1</sup> Long-Term Forecast of Scientific and Technological Development of the Russian Federation (up to 2025).

Table 1. Population (million people) and growth rate, %

World, region	Population size, million people							Growth rate, %				
	1960	1970	1980	1990	2000	2010	2012	1970 / 1960	1980 / 1970	1990/ 1980	2000/ 1990	2010 / 2000
<b>World</b>	<b>3,032</b>	<b>3,699</b>	<b>4,451</b>	<b>5,295</b>	<b>6,124</b>	<b>6,987</b>	<b>7,052</b>	<b>122.0</b>	<b>120.3</b>	<b>119.0</b>	<b>115.7</b>	<b>114.1</b>
Europe	605	657	693	721	729	738	740	108.6	105.5	104.0	101.1	101.2
Africa	282	364	480	637	821	1051	1,070	129.1	131.9	132.7	128.9	128.0
Asia	1,704	2,139	2,636	3,181	3,705	4,216	4,250	125.5	123.2	120.7	116.5	113.8
Latin America	220	288	364	444	523	596	603	130.9	126.4	122	117.8	114.0
North America	204	232	256	284	316	346	351	113.7	110.3	110.9	111.3	109.5
Australia and Oceania	16	20	23	27	31	37	38	125	115	117.4	114.8	119.4
<i>For reference: Russia</i>	<i>119</i>	<i>130</i>	<i>138</i>	<i>138</i>	<i>146</i>	<i>143</i>	<i>143</i>	<i>109.2</i>	<i>106.2</i>	<i>100</i>	<i>105.8</i>	<i>97.9</i>

Sources: Europe in Figures – Eurostat Yearbook. 2009, p. 130. Available at: <http://epp.eurostat.ec.europa.eu> (accessed October 25, 2010); *Demograficheskii ezhegodnik Rossii* [Demographic Yearbook of Russia]. 2001, p. 19; 2011 World Population Data Sheet. The World at 7 Billion. Population Reference Bureau. Pp. 6-9.

(the total fertility rate decreased from 5.0 to 2.5), the crude death rate – from 18 to 8‰, respectively<sup>2</sup>. The most significant decrease in the birth rate over this period was recorded in the European region (from 21.5 to 10.5‰), Asian region (from 42.3 to 19‰) and in Australia (from 23.0 to 12.9‰). That is, the decrease in the birth and death rates is a global trend (*fig. 1*).

The relative improvement in people's health is a positive trend of recent years. Since the beginning of the 2000s, life expectancy (LE) increased – from 65.3 years in 2000 to 70.8 years in 2013; as for healthy life expectancy (HALE), it also increased – from 58 to 61 years.

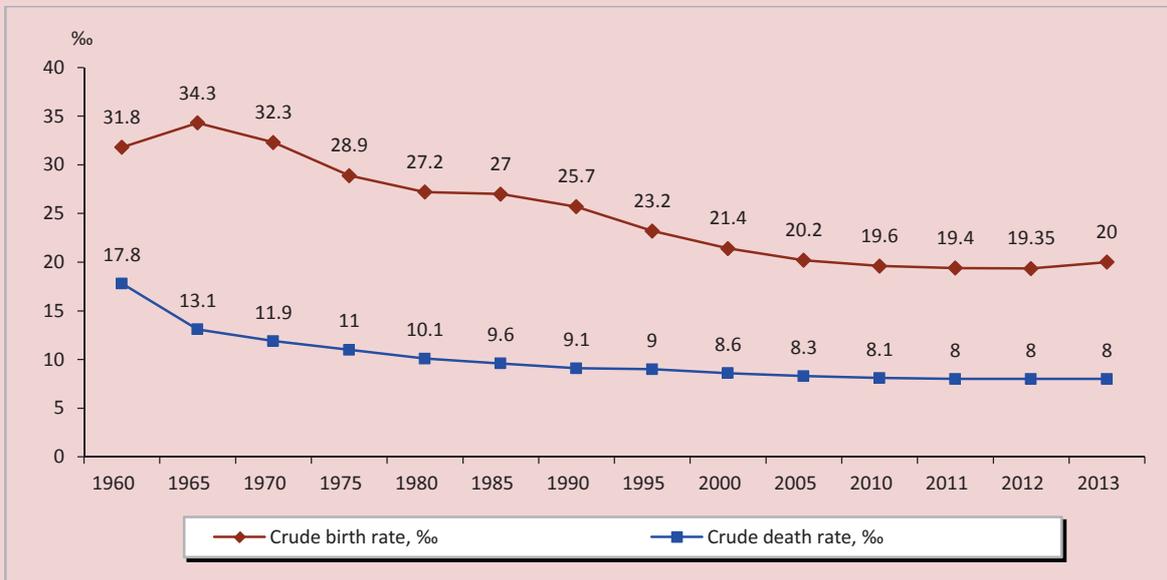
At the same time, Russia's lag behind developed countries in terms of the life expectancy indicator remains very consi-

derable: in 2013, LE in the EU exceeded the Russian national average LE by 10 years; the situation is similar with regard to HALE. It is noteworthy that the dynamics of Russians' health indicators is unique. They were comparable to those of developing countries at the beginning of the period under consideration; however, Russia managed to bring them close to the level of developed countries, in which the dynamics was insignificant.

Despite the fact that there were some positive developments in Russia since the beginning of the century (in 2000–2014, the crude birth rate increased from 8.7 to 13.1 ppm; the crude death rate increased from 15.3 to 13.3; besides, the natural population increase is observed since 2013: by 54 thousand people during 2013–2014), experts' forecasts indicate the upcoming deterioration of trends (*fig. 2*), because a structural resource for increasing the birth rate has been exhausted.

<sup>2</sup> *Natsional'naya bezopasnost' Rossii: vnutrennie ugrozy realizatsii strategii* [Russia's National Security: Domestic Threats to the Implementation of the Strategy]. Under the supervision of V.A. Ilyin. Vologda: ISERT RAN, 2015. 132 p.

Figure 1. Global birth and death rates in 1960–2013, ppm (per one thousand population)



Source: *The World Bank. World Development Indicators*. Available at: <http://databank.worldbank.org/data/views/reports/tableview.aspx>

Figure 2. Developments in the crude birth and death rates of Russia's population, ppm (fact and forecast) (according to Rosstat data)

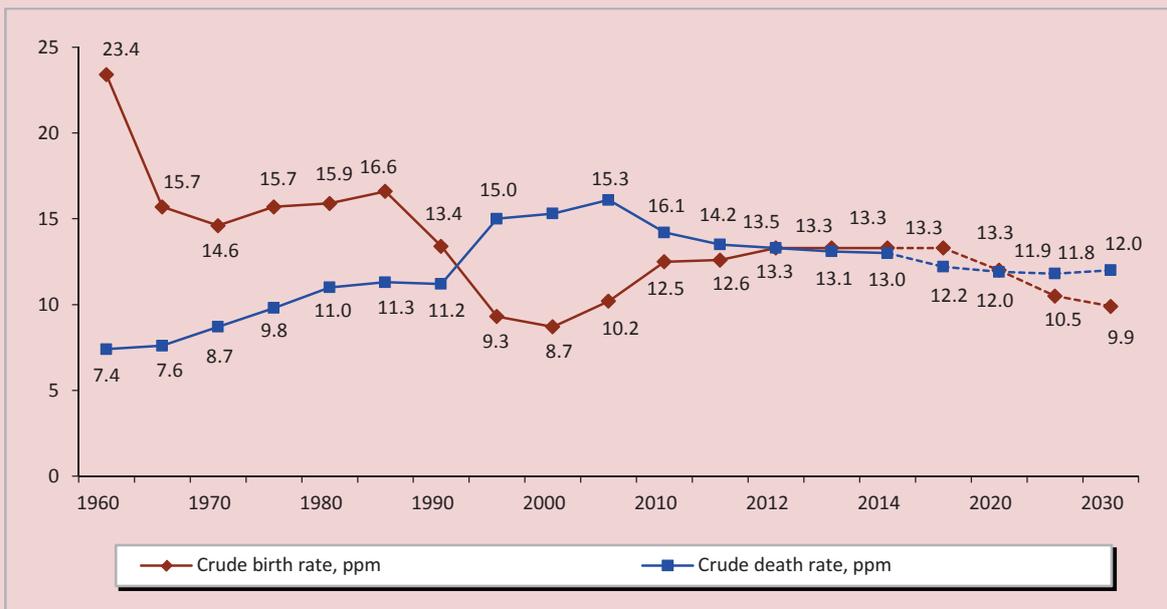


Table 2. Infant mortality, deaths per 1,000 live births

Countries	1990	1995	2000	2005	2010	2011	2012	2013	2014	2015
World	62.8	60.0	53.1	44.3	37.5	36.2	34.9	33.7	32.6	31.7
Russia	21.9	22.2	19.7	14.4	10.3	9.8	9.3	8.9	8.5	8.2
Developed countries										
USA	9.4	8.0	7.1	6.8	6.3	6.1	6.1	5.9	5.7	5.6
UK	7.9	6.1	5.6	5.1	4.4	4.2	4.1	3.9	3.7	3.5
Sweden	5.8	4.0	3.4	3.0	2.5	2.4	2.4	2.4	2.4	2.4
Canada	6.8	5.7	5.2	5.3	4.9	4.7	4.7	4.6	4.4	4.3
Denmark	7.3	5.4	4.6	4.1	4.1	3.3	3.2	3.1	3.0	2.9
Norway	7.0	4.6	4.0	3.2	2.6	2.5	2.3	2.3	2.2	2.0
France	7.4	4.8	4.4	3.8	3.5	3.5	3.5	3.6	3.6	3.5
Italy	8.3	6.4	4.7	3.7	3.4	3.3	3.2	3.1	3.0	2.9
Germany	7.0	5.3	4.4	3.9	3.5	3.4	3.3	3.3	3.2	3.1
Japan	4.6	4.1	3.3	2.7	2.4	2.3	2.2	2.1	2.1	2.0
Source: World Health Organization. Global Health Observatory Data Repository. Available at: <a href="http://apps.who.int/gho/data/view.main.CM1320R?lang=en">http://apps.who.int/gho/data/view.main.CM1320R?lang=en</a>										

In 1999–2009, the number of women aged 18–34 increased by more than two million; this fact contributed to the increase in the number of births after 1999. According to the forecast of the Institute of Demography under the National Research University Higher School of Economics, by 2020, the number of women of active reproductive age will have declined by 4.7 million, and by 2025 – by more than 7 million<sup>3</sup>.

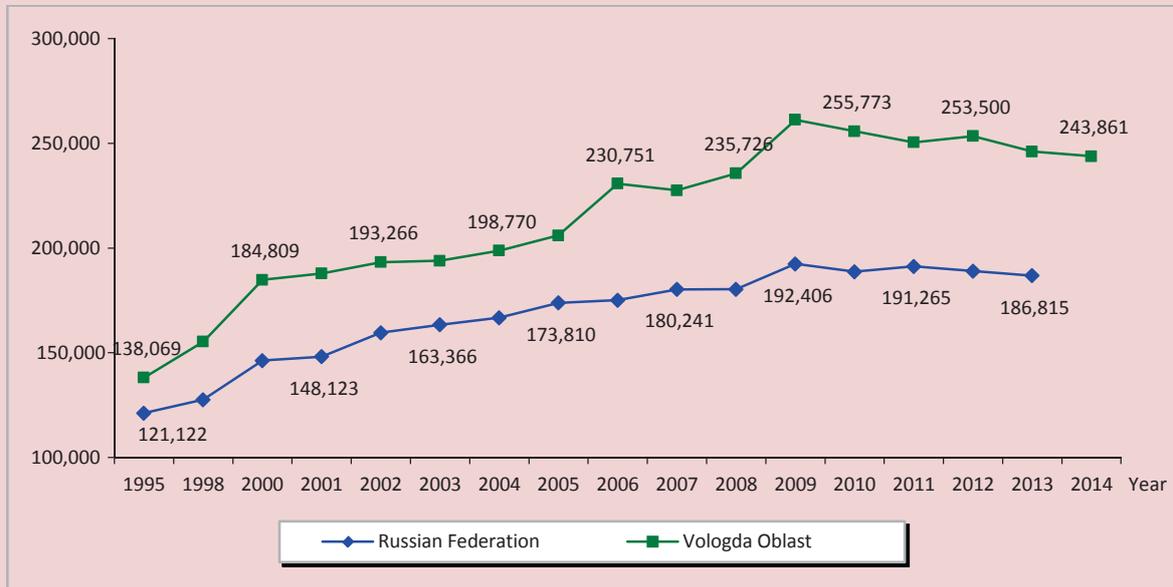
In addition, of particular concern is the fact that, despite the increase in LE and HALE, the level of infant and child mortality remains high (*tab. 2*). The decrease in the proportion of young people in the population of European countries and Russia is one of the serious global challenges of our time.

<sup>3</sup> Vishnevskii A. Rossiya: demograficheskie itogi dvukh desyatiletii i blizhaishie perspektivy [Russia: Demographic Results of Two Decades and the Near-Term Prospects]. *Mir Rossii. Sotsiologiya. Etnologiya* [World of Russia. Sociology. Ethnology], 2012, vol. 21, no. 3, pp. 3-40.

The reduction in birth rates and increase in life expectancy were the main reasons for the change in the proportions of the age structure. Demographers are concerned about the fact that for the first time in the history of Russia the share of children became lower than the share of elderly population. In 2013, in 56 Russian regions, the share of children and adolescents was less than 20% of the total population (in early 2000, the number of such regions was 41, in 1990 – three).

In this regard, an important challenge for Russia is to preserve the health of the younger generation. Children's health potential decreases from early childhood, it is shown by the increase in their incidence rate. About 35% of children in Russia are born sick or become ill in the near future, this figure is about 30% in the Vologda Oblast (*fig. 3*).

Figure 3. Incidence rate in children aged 0–14 (per 100,000 children)



Sources: *Rossiiskii statisticheskiy ezhegodnik: stat. sb.* [Russian Statistical Yearbook: Statistics Collection]. Rosstat. Moscow, 2001–2014; *Osnovnye pokazateli deyatel'nosti uchrezhdenii zdravookhraniya Vologodskoi oblasti za 1999–2014 gg.: stat. sb.* [Main Performance Indicators of Healthcare Institutions of the Vologda Oblast for 1999–2014: Statistics Collection]. Vologda: Departament zdravookhraniya Vologodskoi oblasti, GUZ DZ VO “MIATs”, 1999–2014.

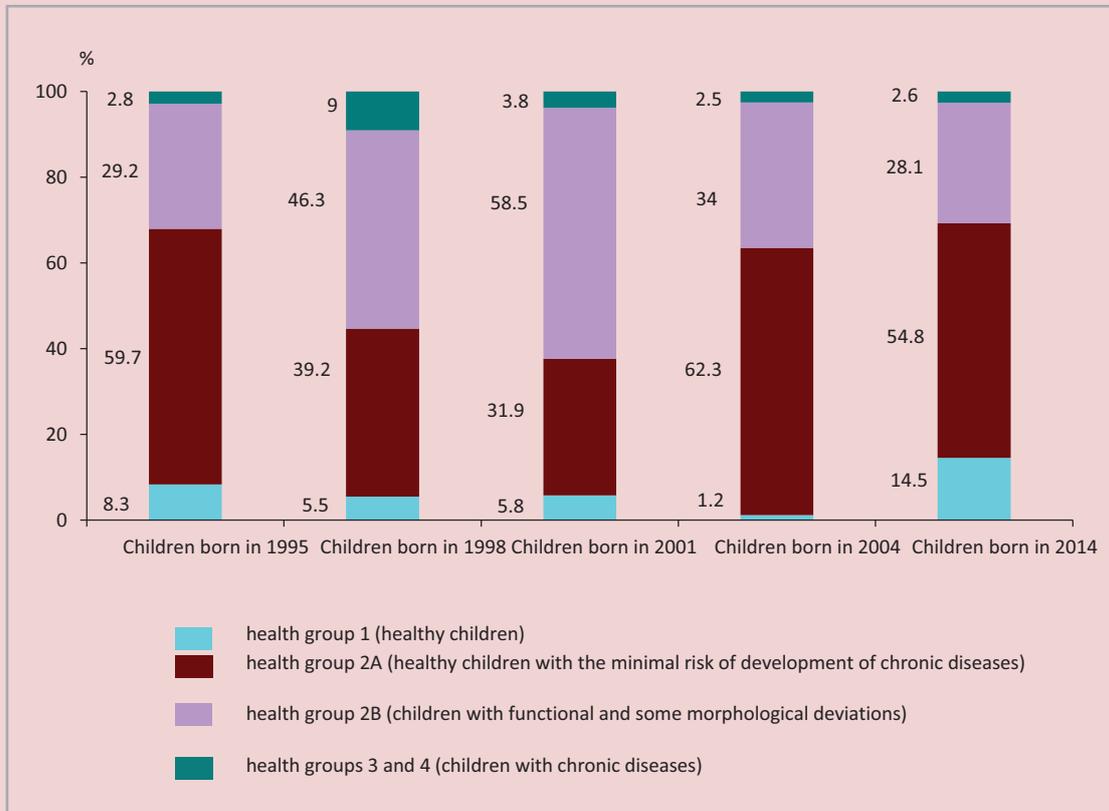
State statistics materials describe the current condition and trends in the health of children’s population as a whole and help assess it as a component of public health. Special studies help understand changes in children’s health. For this purpose, a medical and sociological monitoring of the health and development of children is carried out in the Vologda Oblast on a regular basis since 1995. It covers four cohorts of families in which the children were born in the spring of 1995, 1998, 2001, 2004 and 2014 (*fig. 4*). The study provides a unique opportunity to figure out how children’s health changes and to understand what factors have greater influence on its formation. The medical and

sociological monitoring reveals children’s health and illness at a qualitatively different level and helps discuss the issue in more detail.

The study reveals that health is deteriorating in stages, stepwise and determines main critical periods of childhood:

- the first twelve months of life (the proportion of healthy children and children with minimal risk of loss of health among newborns is 60–40%; it decreases to 20–15% as they reach 12 months of age);
- 6–7 years old (the proportion of children with chronic diseases increases by an average of 5–6%, which is connected with the most important periods of social adaptation);

Figure 4. Health of newborn children (based on the monitoring data), %



• 12 years old (by this age, due to physiological factors, children’s immune system becomes stronger, the proportion of children who often fall ill with cold-related diseases reduces; however, the incidence of musculoskeletal disorders and gastrointestinal diseases increases, visual acuity decreases, on the whole, the number of chronic diseases increases).

In this regard, of particular concern is the fact that medical personnel pay less attention to the category of children with health group two. It often happens that such children are

viewed as healthy only because they seldom visit medical institutions<sup>4</sup>.

According to observations made by health workers, 70% of disorders formed in children in primary school develop into chronic diseases by the time of graduation;

<sup>4</sup> Shabunova A.A. Zdorov’e i zdorov’esberezhenie podrastayushchego pokoleniya [Health and Health Protection of the Younger Generation]. *Deti i obshchestvo: sotsial’naya real’nost’ i novatsii: sb. dokladov na Vseros. nauch.-prakt. konf. s mezhdunar. uchastiem, g. Moskva, 23-24 oktyabrya 2014 g.* [Children and Society: Social Reality and Innovations: the Collection of Reports at the All-Russian Research-to-Practice Conference with International Participation, Moscow, October 23–24, 2014]. Moscow: ROS, 2014. pp. 851-861.

Table 3. Prevalence of risk factors in the population

Factors	Prevalence in the population
Unsatisfactory health of the mother	In 2014 in the Vologda Oblast 8% of women of reproductive age assessed their health as bad or very bad; 43% considered their health satisfactory.
Low level of hemoglobin in women during pregnancy	Anemia accounts for 33% of morbidity in pregnant women.
Maternal smoking	The prevalence of smoking among pregnant women increased significantly (from 3% in 1995 to 10% in the cohort of 2014). 29% of women in the reproductive age smoke in the Vologda Oblast. Their share is increasing.
Work conditions of the expectant mother that do not meet sanitary standards	In the Vologda Oblast in 2006, 26% of women worked in the conditions that did not meet sanitary norms, while in 2000 this indicator did not exceed 7% (according to Vologdastat).
Low incomes of families	In Russia, about 20% of children aged under 16 live in poverty. Some improvement was revealed in this period in subjective assessments of the purchasing power of the families participating in monitoring. There was an increase in the proportion of respondents who have enough money for all current expenses – from 27 to 38%, respectively. The number of families who say that they have enough money only for daily expenses, but buying clothes and other things is difficult for them, decreased respectively from 53 to 37%.
Adverse housing conditions	13–18% of families that participate in the monitoring live in bad houses and apartments or in those requiring major repairs.
Unsatisfactory environmental conditions at the place of residence	28% of children (according to their parents' assessments) live in poor or very poor environmental conditions.

moreover, the incidence of ophthalmological diseases increases 4–5-fold; the incidence of digestive system disorders and musculo-skeletal disorders increases threefold, and the incidence of neuropsychiatric disorders – twofold<sup>5</sup>.

The prevalence of the above risk factors is quite high. Only 6% of families have no problems in this respect; in other families, the risks are present in different combinations. More than one-third of families have two risk factors combined; about 20% of families have a combination of three risk factors. The largest share of healthy children is found in the families in which negative impacts are absent or minimal (about 30%). The highest proportion of children with chronic illness is observed in the families in which four (25%) and five (33%) risk factors are combined. It is

<sup>5</sup> Shabunova A.A. *Ibidem*.

noteworthy that risk factors are concentrated in families with low incomes. The prevalence of identified risk factors in the population is presented in *table 3*.

The data obtained indicate the formation of a specific pattern: the prevalence of risk factors in the population causes children's health deterioration; this, in turn, leads to the low level of young people's health and ultimately affects the health of adults; poor health of parents is one of the reasons for illnesses in children. The so-called "social funnel" is being formed, into which all young cohorts are being drawn: health issues shift from older age groups to the groups of children and young people<sup>6</sup>.

<sup>6</sup> Rimashevskaya N.M. *Sotsial'no-ekonomicheskie i demograficheskie problemy sovremennoi Rossii* [Socio-Economic and Demographic Issues of Modern Russia]. *Vestnik Rossiiskoi akademii nauk* [Bulletin of the Russian Academy of Sciences], 2004, vol. 74, no. 3, pp. 209-218.

Negative conditions and life factors weakened the immune protection, caused the development of pathological processes, depression, and other psychiatric deviations. The feeling of “exhaustion” and “fatigue” in the population leads to the fact that the generation of children does not reproduce the generation of parents not only quantitatively, but also qualitatively<sup>7</sup>.

In Russia, there is a continuous increase in the number of adolescents aged 15–17 who have severe mental disorders (schizophrenia, schizoaffective psychosis, schizotypal disorder and affective psychosis). Since 2000, their number has grown by 45% (from 50.8 to 73.3 cases per 100 thousand adolescents)<sup>8</sup>. The decrease in this indicator among children aged 0–14 also increased by 20% (from 12.7 to 15.2 cases per 100 thousand children, respectively<sup>9</sup>).

The spread of mental and behavior disorders associated with consumption of psychoactive substances among adolescents aged 15–17 is shown by the following trend. If at the beginning of the 1990s the most acute was the issue of substance abuse, then in the second half of the 1990s – early 2000s – the problem of rapid growth of drug abuse came to the fore; and in the 2000s, there emerged

the issue of alcoholism, which was also acute among the adult population<sup>10</sup>. The registered incidence of drug abuse reached its peak in 2000, when 6,122 adolescents (82 persons per 100 thousand people of this age) were taken under observation; 9,062 adolescents (121 persons per 100 thousand adolescents) were registered with health care institutions; 16 thousand (218 persons per 100 thousand) were on the preventive account by the end of the year. The incidence of adolescent drug abuse declined sharply by 2003, and then continued to decline at a moderate pace. In 2012, only 143 young people were taken under observation with drug addiction diagnosed for the first time (3.4 per 100 thousand people aged 15–17); 284 adolescents (6.9) were registered with healthcare institutions at the end of the year. Mental and behavioral disorders associated with substance abuse are recorded in children aged under 14. In 2000, 216 children were taken under supervision in this regard. Since 2010, their number is 7–8 per year on average<sup>11</sup>. In 2012, 13 children aged up to 14 diagnosed with drug addiction were registered with medical and preventive organizations. In addition, 427 children were on the preventive account in connection with the use of drug substances with harmful consequences.

<sup>7</sup> *Analiticheskii material k razrabotke kontseptsii gosudarstvennoi migratsionnoi politiki RF* [Analytical Material for the Development of the Russian Federation State Migration Policy Concept]. Available at: [http://www.proektnoegosudarstvo.ru/materials/analiticheskij\\_material\\_k\\_razrabotke\\_kontseptcii\\_gosudarstvennoj\\_migratsionnoj\\_politiki\\_rf/](http://www.proektnoegosudarstvo.ru/materials/analiticheskij_material_k_razrabotke_kontseptcii_gosudarstvennoj_migratsionnoj_politiki_rf/)

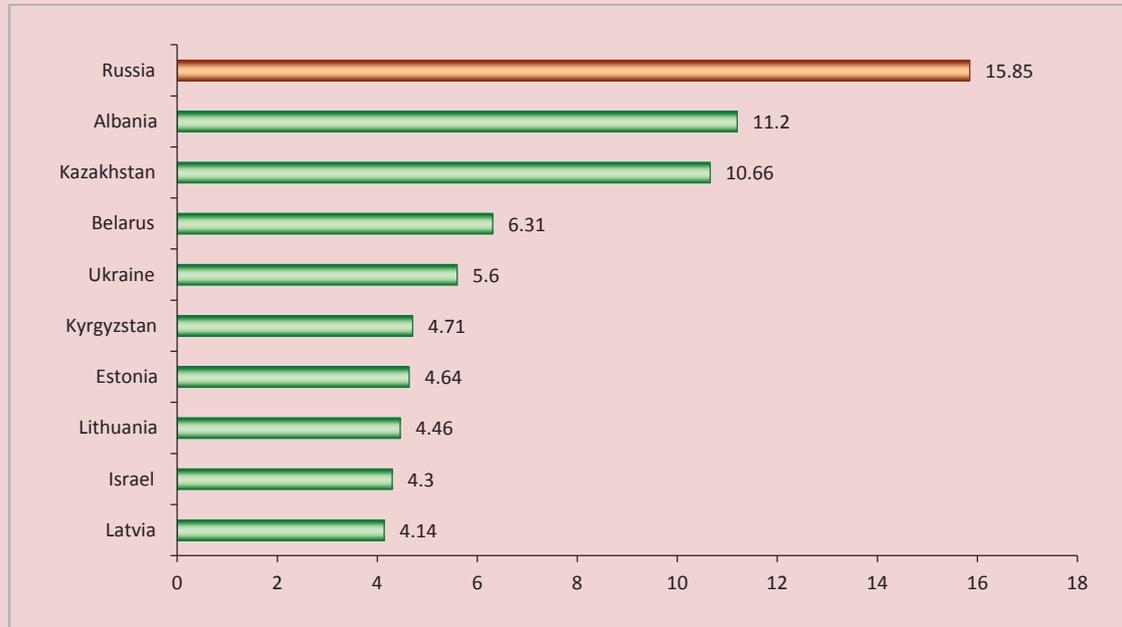
<sup>8</sup> *Zdravookhranenie v Rossii. 2013: stat.sb.* [Health Care in Russia. 2013: Statistics Collection]. Rosstat. Moscow, 2013. P. 147.

<sup>9</sup> *Zdravookhranenie v Rossii. 2013: stat.sb.* [Health Care in Russia. 2013: Statistics Collection]. Rosstat. Moscow, 2013. P. 131.

<sup>10</sup> Shcherbakova E. Chislo sostoyashchikh na uchete s diagnozom alkogolizm i alkogol'nye psikhkozy, narkomaniya i toksikomaniya, v 2011 godu prodolzhalo sokrashchat'sya [The Number of Those Registered with the Diagnosis of Alcoholism and Alcoholic Psychosis, Drug Addiction and Toxic Substances Addiction Continued to Decline in 2011]. *Demoskop weekly* [Demoscope Weekly], 2013, no. 547-548, March 18-31.

<sup>11</sup> *Zdravookhranenie v Rossii. 2013: stat.sb.* [Health Care in Russia. 2013: Statistics Collection]. Rosstat. Moscow, 2013. 380 p.

Figure 5. Countries with the highest death rate from violent causes in persons aged 10–29 in Europe (number of deaths per 100 thousand population)



Source: *European Report on Preventing Violence and Knife Crime among Young People*. World Health Organization, Regional Office for Europe, 2010.

The Russian Federation tops the list of European countries with the highest level of mortality from violent causes in young people aged 10–29 (fig. 5). According to the WHO, about 40 young people aged 10–29 die in violence in Europe every day, or more than 15 thousand people every year<sup>12</sup>. Violence is the third leading cause of death in this age group. For comparison: in Western Europe the death rate in people aged 10–29 is significantly smaller – for example, it is 0.5 cases per 100 thousand population in Germany and Austria.

<sup>12</sup> *Evropeiskii doklad o predotvrashchenii nasiliya i prestupnosti sredi molodezhi* [European Report on Preventing Violence and Knife Crime among Young People]. World Health Organization, 2010.

In 2013, the suicide rate in the Vologda Oblast decreased in all age groups of the population (tab. 4). It should be noted that the decline is going on at the smallest rate in the group of those aged 10–19.

This can be explained by the fact that representatives of these groups (mainly children and adolescents) have a high level of lability of their psyche and, at the same time, they do not have enough life experience to react properly to psycho-traumatic situations, which increases the risk of their committing suicide. This indicator experienced significant improvement only in 2013.

Thus, we see that the issue of suicidal behavior is critical for the entire Russian society, and especially with regard to children

Table 4. Age structure of mortality from suicide in the Vologda Oblast (deaths per 100 thousand population in this age group)

Age group	Year											2013 compared to 1998
	1998	1999	2000	2002	2004	2006	2007	2008	2009	2010	2013	
10–19 years old ( <i>from 1998 to 2000 – 0-19 years old</i> )	6.7	6.3	8.8	15.2	12.8	8.8	11.9	7.2	7.0	9.7	4.5	67.2%
20–39 years old	59.8	68.4	61.0	57.0	55.6	43.2	37.5	25.3	33.7	27.8	26.0	43.5%
40–59 years old	88.2	94.7	84.5	74.7	64.3	56.0	46.8	37.8	38.6	33.8	30.7	34.8%
60 years old and more	54.8	81.0	71.4	63.0	62.0	57.8	47.3	36.7	45.3	38.1	29.7	54.1%

Source: Federal State Statistics Service database. Available at: [www.gks.ru](http://www.gks.ru)

and adolescents. Suicide among children and adolescents poses a series of threats to social development<sup>13</sup>; we consider the following threats to be most important.

1. *Social-psychological threat.* Social alienation is, in essence, the inability of an individual to adapt to social reality; i.e., it is a definite negative reaction of an individual to the influence of social conditions. There should be no such reactions in childhood, since the representatives of this age group are only getting to know the world, and their interaction with society is “covered” by the guardianship of their parents and family. The fact that social alienation is manifested in childhood and adolescence, and to such a degree that they are expressed at the physical level, at the level of social pathologies, arouses particular concern with regard to the future of the young generation and the country as a whole.

2. *Economic threat.* The younger the age of death from suicide, the greater the loss of human and labor potential of the territory. This

<sup>13</sup> Morev M.V., Shmatova Yu.E. Sotsial'nye patologii v detsko-podrastkovom vozraste (na primere issledovaniia suitsidal'nogo povedeniya) [Social Pathologies in Childhood and Adolescence (Case Study of Suicidal Behavior Research)]. *Voprosy territorial'nogo razvitiya* [Territorial Development Issues], 2014, no. 10 (20). Available at: <http://vtr.isert-ran.ru/article/1456>

was shown by the assessment of economic damage from premature death due to various causes<sup>14</sup> including some forms of destructive and self-destructive behavior: the assessment was carried out by ISEDT RAS in the Vologda Oblast in 2013<sup>15</sup>.

The total loss of man-years of productive life from mortality due to suicide was 3,241 PYLL in 2013 (*tab. 5*), in money terms – about two billion rubles or 0.6% of GRP (for comparison: the damage from homicide – 2,096 PYLL or 0.4% of GRP). Alcohol abuse causes even more significant damage to the

<sup>14</sup> One of the key indicators for calculating the value of socio-economic impacts of premature mortality is the cost of economic damage from the loss of a member of the society, expressed in standardized units of “potential years of life lost (PYLL)”. The per capita gross regional product (GRP) of the Vologda Oblast calculated based on the number of people employed in the economy in a given year was used as a measure of the value of the damage. This allowed us to determine the amount of profit lost in the region due to mortality of working age population, under the assumption that it is all economically active. For each case of death the number of years of “life lost” until retirement age (men – under 60, women – under 55) was determined, all the cases were summed up, and the resulting number of man-years of potential life lost was multiplied by the average annual gross regional product (GRP) per employee in the economy. The result was the GRP lost due to mortality from suicide.

<sup>15</sup> Korolenko A.V. Dinamika smertnosti naseleniya Rossii v kon-tekste kontseptsii epidemiologicheskogo perekhoda [Dynamics of Mortality in Russia in the Context of the Epidemiologic Transition Concept]. *Ekonomicheskie i sotsial'nye peremeny: fakty, tendentsii, prognoz* [Economic and Social Changes: Facts, Trends, Forecast], 2015, no. 4(40), pp. 192-210.

Table 5. Structure of the burden due to the death rate of the Vologda Oblast population in 2013 from various groups of causes

Cause of death in 2013	Death rate				PYLL			Damage	
	In men, %	In women, %	Total cases	% to crude death rate	Men, %	Women, %	Total	Million rubles	% to GRP
All causes	81.5	18.5	4,783	100.0	80.9	19.1	54,684	32,667.1	9.4
Malignant neoplasms	72.8	27.2	691	14.4	69.9	30.1	5,818	3,475.6	1.0
Cardiovascular diseases	86.1	13.9	1,550	32.4	86.6	13.4	13,555	8,097.5	2.3
Diseases of the digestive system	97.3	2.7	258	5.4	99.0	1.0	4,889	2,920.6	0.8
Alcohol*	86.3	13.7	388	8.1	88.1	11.9	5,109	3,052.0	0.9
External causes:	83.9	16.1	1,327	27.7	85.6	14.4	23,511	14,045.0	4.0
suicides	87.6	12.4	177	3.7	89.8	10.2	3,241	1,936.1	0.6
homicides	84.3	15.7	102	2.1	88.9	11.1	2,096	1,252.1	0.4
road traffic accidents	78.7	21.3	183	3.8	80.9	19.1	4,119	2,460.6	0.7

\* This group of causes of death includes mental disorders (alcoholic psychoses), degeneration of the nervous system caused by alcohol abuse, alcoholic polyneuropathy, alcoholic myopathy, alcoholic cardiomyopathy, alcoholic gastritis, alcoholic liver disease, chronic pancreatitis of alcoholic etiology, fetal alcohol syndrome, accidental alcohol poisoning, intentional alcohol poisoning, poisoning by and exposure to alcohol with undetermined intent.

Table 6. Dynamics of PYLL in different age groups of the population in the Russian Federation

Cause of death	Age groups										
	5–9	10–14	15–19	20–24	25–29	30–34	35–39	40–44	45–49	50–54	55–59
Ischemic heart disease	47	42	3,146	10,276	25,922	48,541	72,757	109,537	175,137	169,830	60,134
Malignant neoplasm	12,715	10,881	20,656	28,413	40,380	53,263	63,737	84,667	132,767	125,041	44,832
Accidental alcohol poisoning	0	136	2,077	12,534	29,580	42,136	42,833	36,123	37,503	21,740	4,758
Road traffic accident	13,342	16,119	68,327	138,348	113,427	82,378	52,997	37,639	29,036	13,881	2,634
Homicide	2,631	2,408	21,944	53,928	64,600	65,788	52,168	35,366	28,861	13,749	2,578
Suicide	515	10,613	71,571	135,401	133,027	105,111	71,107	48,737	41,590	22,823	4,566

region's labor potential. The study shows the need for more attention to the issue in order to prevent self-destructive and destructive behavior, especially among adolescents.

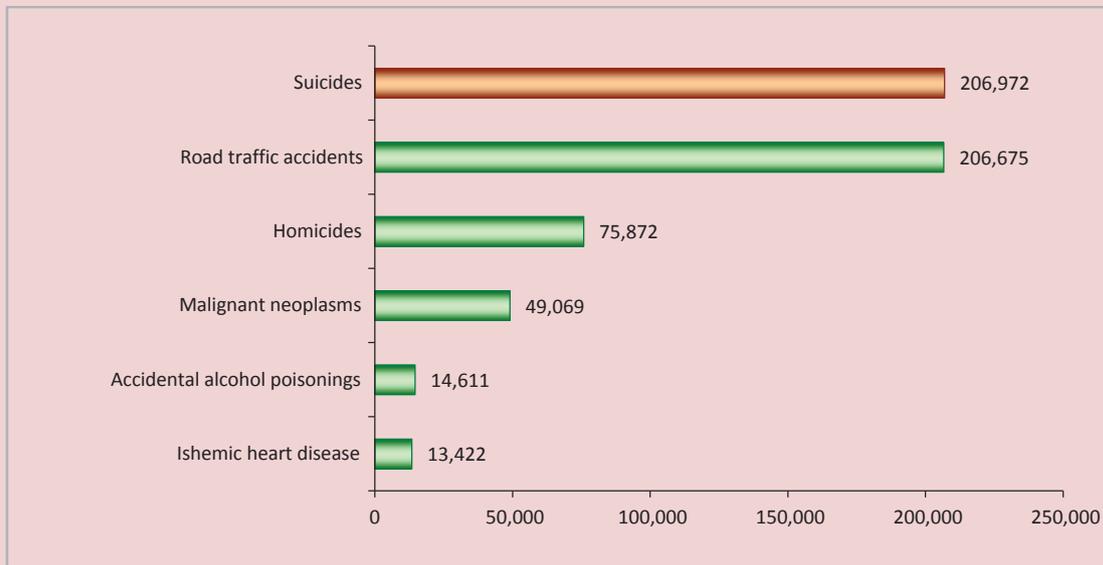
In comparison with other causes of death, PYLL due to suicide are the greatest among people of young age (20–29 years old; *tab. 6*). Overall, this group accounted for 37% of all PYLL. A similar situation is observed only among traffic accidents. The biggest losses from homicide are recorded in the group of persons aged 25–35, from alcohol intoxication – in the group of persons aged 30–39, from

neoplasms and ischemic heart disease – in the group of persons aged 45–55.

The losses from suicide among young people (group of persons aged 15–24) are almost 207 thousand man-years, which is higher than the losses from all causes of death under consideration (*fig. 6*).

In general, young people (aged up to 24) account for one third of the total PYLL from suicide. For comparison, the losses from ischemic heart disease are about 2%, from neoplasms – 15%, from alcohol poisoning – 7%, traffic accidents – 43%. Therefore,

Figure 6. PYLL in the age group 15–24



suicide causes the highest socio-economic losses because of its wide distribution among young people.

3. *Demographic threat.* Mortality from suicide is not only a psychological and socio-economic threat, it also causes demographic losses. Thus, according to our calculations<sup>16</sup>, life expectancy losses due to mortality from suicide, homicide and causes related to alcohol consumption are 1.3 years. The peak of demographic loss falls on the age group up to 19 (*tab. 7*), in the case of mortality from alcohol consumption – on young people aged 20–24.

Summarizing the above, we can conclude that suicidal behavior among children and adolescents carries socio-psychological, demographic and economic threats. All this

negatively affects the formation of labor and human potential. The ability to eliminate this phenomenon determines the importance of development and adoption of preventive measures.

The reduction in the size of young cohorts is associated with a significant risk for the development of the country, which is manifested primarily in the reduction of creative potential, the main carrier of which is the younger part of human resources.

The young generation of modern Russia is one of the resources of modernization; the potential of this resource is still not utilized to the fullest extent. Young people accumulate historical experience and they are, in a sense, an indicator of resilience of society and a powerful innovation factor. The President of Russia Vladimir Putin in his Address to the Federal Assembly on December 3, 2015 noted: "...preserving the nation, bringing up

<sup>16</sup> The methodology is described in the book: Val'chuk E.A., Gulitskaya N.I., Antipov V.V. *Zabolevaemost' naseleniya: metody izucheniya* [Morbidity: Methods of Study]. Minsk 2000. P. 23.

Table 7. Life expectancy (LE) losses due to mortality from the causes related to the deterioration of social health, 2012, years

Age	Average life expectancy	Total loss of years due to mortality from				Average life expectancy excluding mortality from suicide, homicide and alcohol-related causes
		suicide	homicide	alcohol consumption*	suicide, homicide and alcohol-related causes	
0–1	70.35	<b>0.32</b>	<b>0.19</b>	0.62	1.13	71.48
1–4	69.7	<b>0.32</b>	<b>0.19</b>	0.62	1.13	70.83
5–9	65.73	<b>0.32</b>	<b>0.19</b>	0.62	1.13	66.86
10–14	60.79	<b>0.32</b>	0.18	0.62	1.12	61.91
15–19	55.86	<b>0.32</b>	0.18	0.62	1.12	56.98
20–24	50.98	0.3	0.17	<b>0.63</b>	1.1	52.08
25–29	46.26	0.26	0.14	0.62	1.02	47.28
30–34	41.6	0.23	0.11	0.6	0.94	42.54
35–39	37.18	0.2	0.1	0.56	0.86	38.04
40–44	33.13	0.15	0.07	0.46	0.68	33.81
45–49	28.87	0.12	0.05	0.36	0.53	29.4
50–54	24.77	0.09	0.04	0.27	0.4	25.17
55–59	21.13	0.05	0.02	0.18	0.25	21.38
60–64	17.88	0.02	0.01	0.1	0.13	18.01
65–69	14.84	0.01	0	0.02	0.03	14.87
70 and more	11.88	0	0	0	0	11.88

our children and helping them develop their talents constitute the basis of the power and future of any country, including Russia”<sup>17</sup>.

The younger generation<sup>18</sup> in the new social and economic environment is experiencing significant changes in their interests, attitudes, values [6, pp. 5–6]; and the social values that they choose will largely determine the future of society. Today the young age is a concept that is not so much demographic, as social and political. The attitude of society toward young people, their place and role in society indicate

<sup>17</sup> *Poslanie Prezidenta RF Federal'nomu Sobraniyu ot 3 dekabrya 2015 g.* [Address of the President of the Russian Federation to the Federal Assembly on December 3, 2015].

<sup>18</sup> In the Russian Federation, people aged 14–30 are officially considered young people (in Europe – from 15 to 29 years old); but researchers have the differentiated approach to the definition of age limits of the younger population. For example, in the study of substance abuse among young people, age limits are defined from 11 to 24 years old, professional orientation – from 15 to 26 years old, and in the study of economic and political issues – from 18 to 30 years old (considering the electoral rights of the population).

the ability of society to develop rapidly. Young people are bearers of new ideas, significant intellectual potential, enhanced creative abilities (due to inherent high sensitivity, perception, visual thinking, etc.), critical views and attitudes toward the existing reality that are especially necessary in a time of change in society. Being by nature the enemy of conservatism, the young generation helps to accelerate the introduction of new ideas, initiatives, and new ways of life. Being young, a person easily acquires basic knowledge, skills and abilities. The importance and value of youth in the modern world increases also due to the necessity to expand the volume and depth of professional training, which is inevitable in the conditions of modernization of society.

When analyzing young people as the future labor potential of the country, it is necessary to take into account that according to the laws

of succession (the law of negation of negation), they develop the inherited social relations, spiritual and material values of a particular society, and subsequently reproduce them. The type of reproduction – simple or expanded – depends also on the level of social development of young people and on the values that they develop.

The results of a sociological survey<sup>19</sup> of the young cohort in the Vologda Oblast population indicate that young people show relatively high political and information activity, they are interested in self-realization in the cultural and socio-economic space of the region. Young people consider the following values to be most important: health, financial security, family, love (4.5 points out of 5, *tab. 8*). The youngest group (aged 16–18), the majority of which have not started a professional career, is characterized by strong attachment to traditional values (family, happiness). The middle group (aged 19–24), the representatives of which are studying at college to obtain professional education, consider the values of freedom and independence to be most important; this fact reflects the actual situation –

<sup>19</sup> The study was conducted in the form of the survey of young people. The form of the research was door-to-door survey in the cities of Vologda and Cherepovets and in eight districts of the Vologda Oblast (Babaevsky, Velikoustyugsky, Vozhegodsky, Gryazovetskiy, Kirillovsky, Nikolsky, Sheksninsky and Tarnogsky districts). The study sample included 1,000 people aged 16–29 (the general population was 217,841 people). The purposeful and quota sample was used. The quotas of the sampling were made in accordance with the following parameters: 1) place of residence; 2) gender and age characteristics. The survey sample consisted of the young people:

- who live the city of Vologda – 32.8%; in the city of Cherepovets – 28.1%; in the Vologda Oblast districts – 39.1%;
- aged 16–18 – 14.7%; 19–24 – 39.2%; 25–29 – 46.1%;
- men – 51%; women – 49%.

these people have made their choice of profession, many have started an independent life separately from their parents. As people get older (age group of 25–29), the priority of labor increases.

Health tops the list of values important for young people. They give higher assessments of health than the entire region's population (4.5 vs 4.4 points on the five-point scale). However, young people point out that the ability to take care of one's own health is the least important for the people in their social circle, which means that the culture of self-preservation behavior is developed insufficiently. The study reveals that, when planning their employment, young people do not take into consideration the health aspect of a job with regard to their own capabilities, which results in further deterioration of health, loss of productivity and lower wages (differences in productivity among young people with different levels of health reach 19%, differences in remuneration – 34%). As they reach adulthood, they more often try to find a job in accordance with their capacity; and certain health issues are partially compensated by greater professionalism, which positively affects the effectiveness of labor (difference in productivity is 11%, in remuneration – 6%; *tab. 9*).

As for the value of art, representatives of all the groups placed it close to the bottom of the ranking. On the one hand, it is associated with greater significance of financial priorities in modern life: the value of creativity for those who do not have financial difficulties (64%) is by ten percentage points more important than for those whose income covers only everyday expenses (54%).

Table 8. Degree of importance of different aspects of life for young people in different age groups (in points, 1 – not important, 5 – very important)

Answer option	Average for the survey		By age					
			16–18		19–24		25–29	
	Points	Ranking	Points	Ranking	Points	Ranking	Points	Ranking
Health	4.5	1	4.5	1	4.5	1	4.5	1
Financial security	4.5	1	4.4	2	4.5	1	4.4	2
Happy family life	4.5	1	4.5	1	4.5	1	4.5	1
Love	4.5	1	4.4	2	4.5	1	4.5	1
Good and faithful friends	4.4	2	4.4	2	4.4	2	4.3	3
Freedom, independence	4.3	3	4.3	3	4.4	2	4.3	3
Interesting job	4.2	4	4.1	5	4.3	3	4.2	4
Dignity, honor	4.2	4	4.1	5	4.2	4	4.2	4
Emotional peace, inner harmony	4.2	4	4.1	5	4.2	4	4.2	4
Entertainment	4,1	5	4,2	4	4,1	5	4	6
Social justice	4,1	5	4,1	5	4,2	4	4,1	5
Active and dynamic life	4,0	6	3,9	7	4	6	4	6
Learning	4,0	6	3,9	7	4	6	4	6
Social position, status	4,0	6	4,1	5	4	6	4	6
Continuous physical and moral advancement	4,0	6	4	6	4	6	4	6
Social recognition, authority	3,9	7	4	6	3,9	7	3,9	7
Approval of other people	3,8	8	3,9	7	3,8	8	3,8	8
Creativity, art	3,7	9	3,7	8	3,8	8	3,7	9

Source: Sociological survey carried out among young people of the Vologda Oblast, 2015, N = 1,000 people

Table 9. Performance efficiency of work depending on people's age and state of health

Age	State of health	Labor productivity, average score	Average labor remuneration, rubles	Social capacity index, points	
		2014	2014	2000	2014
Under 30	Excellent, good	7.7	18008	0.700	0.710
	Satisfactory	7.0	14606	0.662	0.676
	Poor, very poor	6.2	11850	0.613	0.597
Over 30	Excellent, good	8.0	20829	0.676	0.701
	Satisfactory	7.4	17991	0.641	0.654
	Poor, very poor	7.1	19535	0.581	0.582

Source: Monitoring of the quality of labor potential of the Vologda Oblast population, N=1,500 people.

On the other hand, this is connected with the widespread lack of demand of this quality of the employee at his/her workplace. About 20% of the interviewed young people express their creativity only if they get the corresponding assignment from their superior,

or if there is a practical necessity to do so; and only a small part of the population is engaged in creativity and invention on a regular basis<sup>20</sup>.

<sup>20</sup> *Molodezh' sovremennoi Rossii – klyuchevoi resurs modernizatsii* [The Young People of Modern Russia – a Key Resource of Modernization]. Under the general editorship of A.A. Shabunova. Vologda: ISERT RAN, 2013. 151 p.

Here there is an ambiguous situation: young people have a certain amount of creativity and invention (this will be discussed below), and the economy has not yet managed to adjust to innovation requirements that young professionals face.

World historical experience of modernization shows that the absence of government policy in the sphere of management of resources of young people forms mixed trends in the society. On the one hand, it is the opportunity for the participation of young people in public life, on the other – “erosion and leakage of this resource”. The country needs an efficient modernization program, which would determine the role of this resource. In this case, the involvement of young people in socio-economic development of the state is one of the most probable scenarios of their establishment as modernization subjects.

At the same time, the efficient development and productive use of the potential of the young becomes the main advantage of countries with innovation economy. In his Address to the Federal Assembly on December 3, 2015 the RF President said: “Russian schools, additional and professional education, and support for children’s creative work should be aligned with the country’s future, the requirements of ... young people in this case, and the demands of the economy in the context of its prospects. These guys will have to resolve even more complicated tasks and should be ready to be the best. They should become not only *successful in their careers* but also simply decent people with a *firm moral and ethical background*”<sup>21</sup>.

<sup>21</sup> *Poslanie Prezidenta RF Federal'nomu Sobraniyu ot 3 dekabrya 2015 g.* [Address of the President of the Russian Federation to the Federal Assembly on December 3, 2015].

The success of young generations, their achievement of worthy position in the Russian society largely depends on the timely encouragement of initiative of each student at school and at college, and on their degree of adaptation to the constantly changing world and society. The goal of building competencies<sup>22</sup> was introduced in the normative and practical basis of education (new Federal State Educational Standards) simultaneously with the adoption of the Law “On education in the Russian Federation” (2012). This goal enables students to combine theoretical knowledge and their practical application to solve not only life tasks but also problem situations. Modern society needs the workers who are well adapted to the professional space, and whose educational potential may contribute to public acceptance and being in demand in society<sup>23</sup>.

The study of development of competences in young people conducted with the use of the data of the survey of young people of the Vologda Oblast<sup>24</sup> shows that a higher level of competences promotes innovation activity (projects, developments and inventions) of students (3.93 points vs 3.69 points – in the absence of developments; *tab. 10*).

<sup>22</sup> In Latin the word “competence” means the range of issues in which an individual has the knowledge and experience.

<sup>23</sup> Koroleva L.V. *Sotsial'nye kompetentsii i vospitanie uspeshnosti* [Social Competences and Training to Be Successful]. *Nachal'naya shkola plus do i posle* [Primary School Plus Before and After], 2010, no. 12, pp. 30-37.

<sup>24</sup> The pilot survey (October 2015) aimed to identify the level of competences of students of higher professional educational institutions and secondary vocational educational institutions of Vologda (500 people) and its effect on innovative activity of young people. The sample was formed taking into account the share of students of a given educational organization in the total number of students and different academic progress in order to avoid data displacement.

Table 10. Distribution of young people by inventions they made depending on the level of competences, %

Level of development of competences (average score)	Inventions are available	Type of invention			
		Device	Technique	Computer program	Methods and technologies
Grouping based on the mean and standard deviation					
Less than 3.18	9.3	0.0	0.0	8.3	20.0
3.18–3.71	11.6	11.1	8.4	16.7	0.0
3.71– 4.25	60.5	77.8	58.3	58.3	60.0
More than 4.25	18.6	11.1	33.3	16.7	20.0
Division into 3 groups (division of the scale from 1 to 5 into 3 equal groups)					
Low level (less than 2.33)	2.3	0.0	0.0	0.0	20.0
Median level (2.33...3.66)	16.3	11.1	8.3	16.7	0.0
High level (more than 3.66)	81.4	88.9	91.7	83.3	80.0

Source: Pilot survey aimed to determine the level of competences of students of higher and secondary professional education, Vologda, 2015, N=500 people.

Table 11. Availability of inventions and their patenting, as a percentage of the number of respondents

Answer option	Average	Higher professional education, total	including:		Secondary professional education, total	including:	
			first year	final year		first year	final year
Yes, I have made inventions and they are patented	0.8	1.1	1.7	0.6	0.0	0.0	0.0
Yes, I have made inventions, but they are not patented	8.3	7.2	7.8	6.7	12.3	13.1	11.3
No, I have not made any inventions	90.9	91.6	90.6	92.7	87.7	86.9	88.7

Source: Pilot survey aimed to determine the level of competences of students of higher and secondary professional education, Vologda, 2015, N=500 people.

Nine percent of the students who study in universities and colleges in the region said they belonged to the innovation-active society. About 1% of the students who have patents for invention and 8% of those who have inventions but do not have patents answered affirmatively to the question: “Did you have to invent something in the past year?” (*tab. 11*). This generally correlates with the statistical data on the level of innovation activity of the population.

In 60% of the cases, the availability of inventions was ensured due to the fact that students with the competencies “above average” (3.71–4.25 points on a five-point scale) participated in the innovation process. The dependence of inventive activity of young

people is connected to a greater degree with the level of development of innovation skills (research skills, project management skills, creativity; *tab. 12*).

Therefore, the most important geopolitical challenges for the Russian Federation are to preserve and increase the population size and human potential. There is a decrease in the share of young people in the total population. For the first time in the history of Russia the share of children became lower than the proportion of the population of older ages. In 2013, in 56 regions of the country, children and adolescents accounted for less than 20% of the population (in the early 2000, there were 41 such regions, in 1990 – three). In addition

Table 12. Level of development of certain skills and the presence (absence) of inventions, the average score on a five-point scale

Competences in ...	There are inventions	There are no inventions
Project management	3.9	3.4
Manifestation of creativity and inventiveness	4.2	3.8
Building professional prospects	4.0	3.6
Ability to define objectives	4.0	3.8
Ability to communicate and interact with others	4.1	4.0
Ability to take into account the norms and values of other cultures	4.1	4.0

Source: Pilot survey aimed to determine the level of competences of students of higher and secondary professional education, Vologda, 2015, N=500 people.

to reducing the population size, child health potential is also deteriorating: about 35% of children in Russian are born sick or become ill in the near future (this figure is 30% in the Vologda Oblast).

The number of adolescents aged 15–17 who are diagnosed with severe mental disorders is continuously increasing. The greatest socio-economic damage to the society is caused by suicide among young people, a cause of death that is widespread in their environment (the younger generation – aged under 24 – accounts for one third of all the PYLL from suicide). At the same time, the importance of self-preservation behavior is underestimated by young people.

Effective development and use of productive potential of the young is the main advantage of countries with innovation economy. A higher level of development of professional competencies provides higher innovation activity.

Attention to the problems of children and young people in modern Russia increases in light of new global challenges. The expected result is presented in the actualization of intellectual, vocational, demographic, socio-cultural and personal potential of the younger generations.

It is necessary to intensify measures to minimize demographic losses, both quantitative and qualitative. It is important to organize the main efforts to promote health protection so that the greatest effect from their implementation was visible in the age group 20–24.

It is necessary to introduce the task of children's socialization as a priority in the work of educational organizations. Educational programs in the framework of the Federal State Educational Standard and also special variable courses on moral education should be based on the principle and objective of formation of ethical norms as an integrative philosophic, humanistic, theological, axiological and legal component of world cognition. At the level of educational organizations it is necessary to monitor the psychological and emotional state of students and carry out preventive activities aimed to form a favorable psychological climate at school and in the family.

It also becomes relevant to form a system for monitoring the current and perspective demand of employers for the personnel of necessary qualification and different professional competencies. This requires the promotion of cooperation between educational organizations and employers, enhancement of

career guidance among young people who study in educational institutions of different levels. It is also necessary to provide services for the purpose of detection of abilities in students with emphasis on the choice of activities in accordance with the level of skills development. In addition, it is necessary to forecast the socio-economic impact of employment outside one's specialty and without taking into consideration one's functional abilities.

The innovation activity of young people can be promoted through the following measures: greater involvement of students in research and development, strengthening their practical orientation, the creation

of "platforms" for the development and implementation of interdisciplinary research projects, the formation of conditions for the accumulation of general erudition, research skills, the ability to analyze specific situations, the ability to communicate with experts from other areas.

It is necessary to develop effective mechanisms for modernization, which would determine the strategies for "survival" of today's young people. In this case, the involvement of young people in the socio-economic potential of the state is viewed as the likely scenario of the formation of the group as a subject of modernization in the framework of forming an adequate response to global challenges.

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# INDUSTRIAL POLICY

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## National Industrial Policy of Russia in the Framework of Neo-Industrial Vector of Development: Conceptual Approaches



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**Abstract.** Currently, the majority of scientific and expert community and politicians recognize the key role of “new industry” in economic growth of countries and their competitiveness in world markets. The new industrial policy – characterized as “industrial Renaissance” – of some leading countries (after the 2008 global financial crisis) combines focus on the development of breakthrough technology and a new approach to cooperation in the framework of formation and implementation of industrial policy. The existing Russian practice of formation and implementation of industrial policy is poorly linked to national priorities and the objectives of ensuring sustainable economic growth and increase in welfare. This hampers the effective use of the country’s own resources in order to ensure competitiveness and progressive development. The author considers “national industrial policy” to be a set of measures that aim to develop the industrial sector and increase its competitiveness through the system interaction between the government, business and society; this set of measures also aims to provide sustainable economic growth and increase national

welfare. Russia needs a convergent approach that combines, in definite proportions, the advantages of vertical and horizontal measures, because the break-up of vertical (inter-sectoral) and horizontal (cross-sectoral) relationships and the antagonism between the interests of the main actors became Russia's specific features resulting from the chaos of post-Soviet reforms. Industrial policy should be carried out with the use of system-wide target-setting associated with the solution of economic tasks, and also establish specific effective mechanisms of its implementation in the framework of the "network" approach.

**Key words:** neo-industrialization, industrial policy, national interests, network approach

The global financial crisis, which peaked in 2008–2009 clearly demonstrated the vulnerability of the economic model, divorced from real production. In the crisis years high growth rates were retained only in those countries that refused from de-industrialization and the catching-up modernization model (China, India, Indonesia, Vietnam, Chile, Turkey, Taiwan, Malaysia, Singapore, etc.) [1].

We believe Russia has exhausted growth opportunities of the current economic model. The transition to a new model requires radical transformation of the industrial policy. In this regard, it becomes relevant to consider the essence of the new model of economic growth, principles and tools of the modern industrial policy, basic directions and problems of its formation and implementation in Russia, as well as the development of approaches to change the situation.

The purpose of this publication is to present conceptual approaches to the formation and implementation of the industrial policy aimed at boosting the industrial sector, enhancing its competitiveness, ensuring sustainable economic growth and increasing national welfare.

On this basis the following tasks are solved: analysis of modern trends in industrial development and industrial policy of various countries; study of the experience to form

and implement industrial policy in various historical and socio-economic conditions; identification of the key problems, connected with the formation and realization of industrial policy in Russia; development of the proposals on improvement of existing approaches and management mechanisms.

Nowadays the significant part of the scientific and expert community and politicians recognizes the key role of "new industry" in the economic growth of countries and their competitiveness on the world markets [4]. Neoindustrialization is characterized by technological trends, such as reduction in the number of personnel engaged in industrial production with a simultaneous increase in the level of automation and use of modern technology, skills of the labor force; a rise in the productivity of the machinery, improvement of its performance and use of robotics; an increase in the intensity of the innovation process and a decrease in changeover time of new technology generations, means of production, a rise in the share of knowledge-intensive sectors; intensification of the movement in the direction of "disposability" and "human-less" in the field of technological development.

In the post-crisis period the leading world countries promoted and formalized the processes associated with development of

“new industry”” and “return of jobs”. The new industrial policy of some developed countries (after the 2008 global financial crisis), characterized as “industrial renaissance”, combines the priority to encourage breakthrough technologies and the new approach to cooperation in the framework of its formation and implementation.

There is another especially important issue, such as the problem of ensuring energy and resource efficiency, including through increasing transition to “alternative” sources of energy. In these circumstances, Russia’s position as a fuel-and-energy exporter will subsidize.

In 2010 the European Commission announced a new approach to economic development, focused on manufacturing and “knowledge economy”. The EU development strategy until 2020 identifies six key priority areas of innovative development of European industry for the next decade: advanced manufacturing processes (3D-technology, energy- and material-efficient processes, renewable energy resources, recycling of materials, and sustainable hybrid business models); key promotional technologies (micro- and nanoelectronics, new materials, industrial biotechnology, photonics, nanotechnology, new production systems); products based on biotechnology; sustainable construction and raw materials; “clean” vehicles; “smart” grids.

In order to form the European industry on a qualitatively new basis they plan to implement a complex of measures, including functioning of the new coordination structures, including framework regulators of the Single market, coordinated development of infrastructure, coordination of research, innovation, HR policies, staffing.

In 2014 the joint communication of governing structures of the European Union “For a European Industrial Renaissance”, which considers the strong industrial base as a key factor in European competitiveness and European economic recovery [23].

In 2009 the French Government initiated a large-scale strategy for creating powerful competitive industry, which should become the engine of economic development and prosperity of the country. The national program “Investing in the future” (2010) is its key element. The government of F. Hollande created the specialized Ministry of Industrial Renewal [30].

In 2013 the new strategy “New Industrial France” came into force [24]. This document includes 34 plans to reconstruct industry on the basis of the latest achievements of science and technology. The plans lay foundation of industrial policy for the next 10 years; their main objective is to bring France back into the ranks of advanced industrial countries.

The main features of the document are the following: joint efforts of the state and the private industrial sector in the determination of those sectors where France can become a leader; active participation of business in the development and implementation of these plans. Most projects (about 80%) were selected on the basis of industrialists’ proposals and will be managed by large businesses.

The emphasis is laid on such incentives for business, as government orders, regulation of various norms and standards, provision of tax credit in case the company conducts research actively. The government believes that in these circumstances private investment should play the key role in the implementation of the plans.

In 2012 the UK published the long-term industrial strategy (with a “speaking” title: “Industrial Strategy: Government and Industry in Partnership”) [25]. The new combined (“matrix”) industrial policy of the coalition government is for the first time a combination of sectoral measures, support of the development of key technologies and measures of “horizontal” nature.

The priority industrial sectors – “locomotives” of British industrial growth and competitiveness on the world markets – include 3 types of industries:

1. Progressive industries that create a product with the highest added value: aerospace and automotive, biomedical and agricultural sector.
2. Sectors, ensuring new possibilities of environment: wind, oil and gas, nuclear power and construction.
3. “Cognitive” services: international education, information economy, professional and business services.

The industrial policy is characterized by partnership with the private sector in the formulation of sectoral strategies taking into account industry specifics in line with the general trend of “reshoring” and developing “national” competences; a significant increase in state funding priorities, including through the system of state order for the purpose of creating new opportunities for companies and efficient functioning of production chains; establishment of innovation centers promoting commercialization of R&D work at the premises of universities; enhancement of the personnel’s professional level in key sectors.

It is possible to single out key features of the new industrial policy:

- expansive approach to industrial policy, positioning of the neo-industrial paradigm as the core of the overall socio-economic policy;
- emphasis on “new” industries development, while maintaining support for basic industries;
- integrated approach to industrial policy, constructively combining sectoral and institutional support measures aimed at the development of network structures and the increase in the multiplier effect;
- “consensus” principle of formation and implementation of industrial policy, combination of equal actors’ interests focused on achieving common goals.

The concept of the new industrial policy is as follows: the modern model of industrial policy includes dialogue between public and private agents with the help of PPP tools. It is reasonable to identify problems and opportunities and address specific issues on an individual basis by means of interaction between networks, actors and institutions and a continuous process of learning (D. Rodrik [11], N. Crafts and A. Hughes [27], K. Aiginger and S. Sieber [26], K. Warwick [8], etc.).

The analysis of foreign trade turnover by type of economic activity of the Russian Federation shows that import of machine building has increased 10-fold for the last ten years. Export of fuel and energy complex products has increased 7-fold. We observe growth in export of low-technology raw goods and import of high-tech engineering products (*tab. 1*).

Table 1. Foreign trade turnover by type of economic activity of the Russian Federation (export/import/balance; billion U.S. dollars)

Economic activity	2000			2010			2014		
	Export	Import	Balance	Export	Import	Balance	Export	Import	Balance
Machine building	9.1	10.6	<b>-1.5</b>	21.3	102.0	<b>-80.7</b>	26.3	136.0	<b>-109.7</b>
Agro-food sphere	1.6	7.4	<b>-5.8</b>	8.8	36.4	<b>-27.6</b>	18.9	39.7	<b>-20.8</b>
Light industry	1.1	2.1	<b>-1.0</b>	1.1	15.3	<b>-14.2</b>	1.5	17.6	<b>-16.1</b>
Timber, woodworking and pulp and paper industry	4.5	1.3	<b>3.2</b>	9.6	5.9	<b>3.7</b>	11.6	5.9	<b>5.7</b>
Fuel and energy complex	55.5	2.1	<b>53.4</b>	272.0	5.2	<b>266.8</b>	350.0	7.2	<b>342.8</b>
Chemical industry	7.4	6.1	<b>1.3</b>	24.5	37.0	<b>-12.5</b>	29.1	46.4	<b>-17.3</b>
Metallurgical industry	22.4	2.8	<b>19.6</b>	50.3	16.8	<b>33.5</b>	52.4	20.3	<b>32.1</b>
Services	9.6	16.2	<b>-6.6</b>	49.1	75.2	<b>-26.1</b>	65.8	121.0	<b>-55.2</b>
Other	1.6	1.4	<b>0.2</b>	9.6	10.5	<b>-0.9</b>	6.9	12.6	<b>-5.7</b>

Source: calculated on the basis of the data of the Federal State Statistics Service of the Russian Federation. Available at: <http://www.gks.ru>

By indicator “Share of medium- and high-tech industries in the structure of industrial production and the amount of export of the “Great Eight” and China” Russia, as in the structure of industrial production (23% in 2011) and the amount of export (22%), occupies the last place; the lag is considerable (for comparison: the first indicator in the rest countries of this group ranges from 37 to 57%, the second – from 54 to 79%) [22].

In 2000–2013 the revenue receipts from technology export increased (in current prices) by 3.8 times (from 204 to 771 million U.S. dollars), payments for import of relevant product groups – by 13.5 times (from 183 to 2,464 million U.S. dollars). Foreign trade balance changed from positive to negative (from 21 million to -1,693 million U.S. dollars), i.e. the degree of country’s technological dependence continues to increase [2].

According to the rating, compiled on the basis of the economic complexity index

developed by Cesar A. Hidalgo and Ricardo Hausmann, scientists from Harvard University, Russia ranged 43d in 2013. Moreover, compared with 1995, the country moved lower by 9 points (*tab. 2*).

Commenting on these calculations, V. Korovkin notes that in Russia there is great variation across industries orientated on export: goods from different industries with low value added are exported. It is not possible to achieve “network effect” where the costs on homogeneous export items are combined. For example, it would be reasonable to use this approach in terms of marketing costs and logistics. It is necessary to consider “network effect to create products with high added value”. This is evident in the comparison of chemicals exported from Russia and the UK. If Russia exports separate products from unrelated industries, the UK – processing chains, all kinds of products manufactured in the same process [9].

Table 2. Ratings of countries by economic complexity index [3]

1995			2003			2013		
Country	Rank	Index	Country	Rank	Index	Country	Rank	Index
Japan	1	3.05	Japan	1	2.74	Japan	1	2.35
Germany	2	2.64	Germany	2	2.40	Switzerland	2	2.33
Switzerland	3	2.48	Sweden	3	2.29	Germany	3	2.04
Sweden	4	2.37	Switzerland	4	2.21	South Korea	4	1.93
Finland	5	2.29	Finland	5	2.12	Sweden	5	1.82
Austria	6	2.26	UK	6	1.97	Finland	6	1.80
UK	7	2.06	Austria	7	1.93	Austria	7	1.77
USA	8	2.04	USA	8	1.84	Czech Republic	8	1.76
France	9	1.95	Czech Republic	9	1.72	UK	9	1.71
Italy	10	1.77	France	10	1.69	Slovakia	10	1.66
Russia	34	0.45	Russia	29	0.70	China	22	1.11
China	50	0.16	China	37	0.37	Russia	43	0.40

The main causes of the low economic complexity index in Russia, in our view, are the following: weak integration ties within the manufacturing sector (using the language of sociology, we can talk about “atomization” of production) and an insufficiently systematic approach to management of the industry.

Nowadays there are many approaches to the definition of industrial policy. Following the objectives of this article, let us group them according to the criterion of goal-setting: from the perspective of structural modernization in terms of sectoral competitiveness; from the perspective of economic growth and welfare (*tab. 3*).

Taking into account these approaches, we consider the “national industrial policy” as a complex of measures to develop the industrial sector and improve its competitiveness, implemented through the system of interaction among government, business and society, aimed at ensuring sustainable economic

growth and raising national welfare. Hence, “regional industrial policies”, on the one hand, is a necessary system component of the national policy, ensuring its productivity; on the other hand, they serve to fulfil socio-economic potential of the territories.

In the system of national strategic interests the industrial policy is one of the basic elements and it should interrelate with the socio-economic and scientific-innovative policy. In our view, the combination and the balance of national interests and interests of human development are mandatory requirements (*fig. 1*).

There are 3 types of industrial policy: vertical, horizontal, integrated. Their comparative characteristics are presented in *Table 4*.

Each type of industrial policy has its advantages and disadvantages. The adequacy of choosing one or another depends on specific historical and socio-economic conditions.

Table 3. Grouping of approaches to the definition of industrial policy (by goal-setting)

Type	Characteristic	Typical example
Structural modernization	Aimed at maintaining the current structure of production or its change	Set of governmental measures to <u>reallocate resources between industries or change the organizational and business structure of the industry</u> ... when the market competitive mechanism fails to achieve this goal [6].
Industry competitiveness	Aimed at improving sustainability and competitiveness of the industrial sector in general	Complex of legal, economic, organizational and other measures to <u>develop industrial potential of the Russian Federation, ensure manufacture of competitive industrial products</u> [7].
Economic growth and increase in welfare	Aimed at ensuring economic growth and enhancing welfare	Any type of intervention or government policy aimed at improving business environment or changing the structure of economic activity in terms of sectors, technologies or tasks, which is expected to <u>offer better prospects for economic growth or social welfare</u> [8].

Figure 1. Industrial policy in the system of national strategic interests

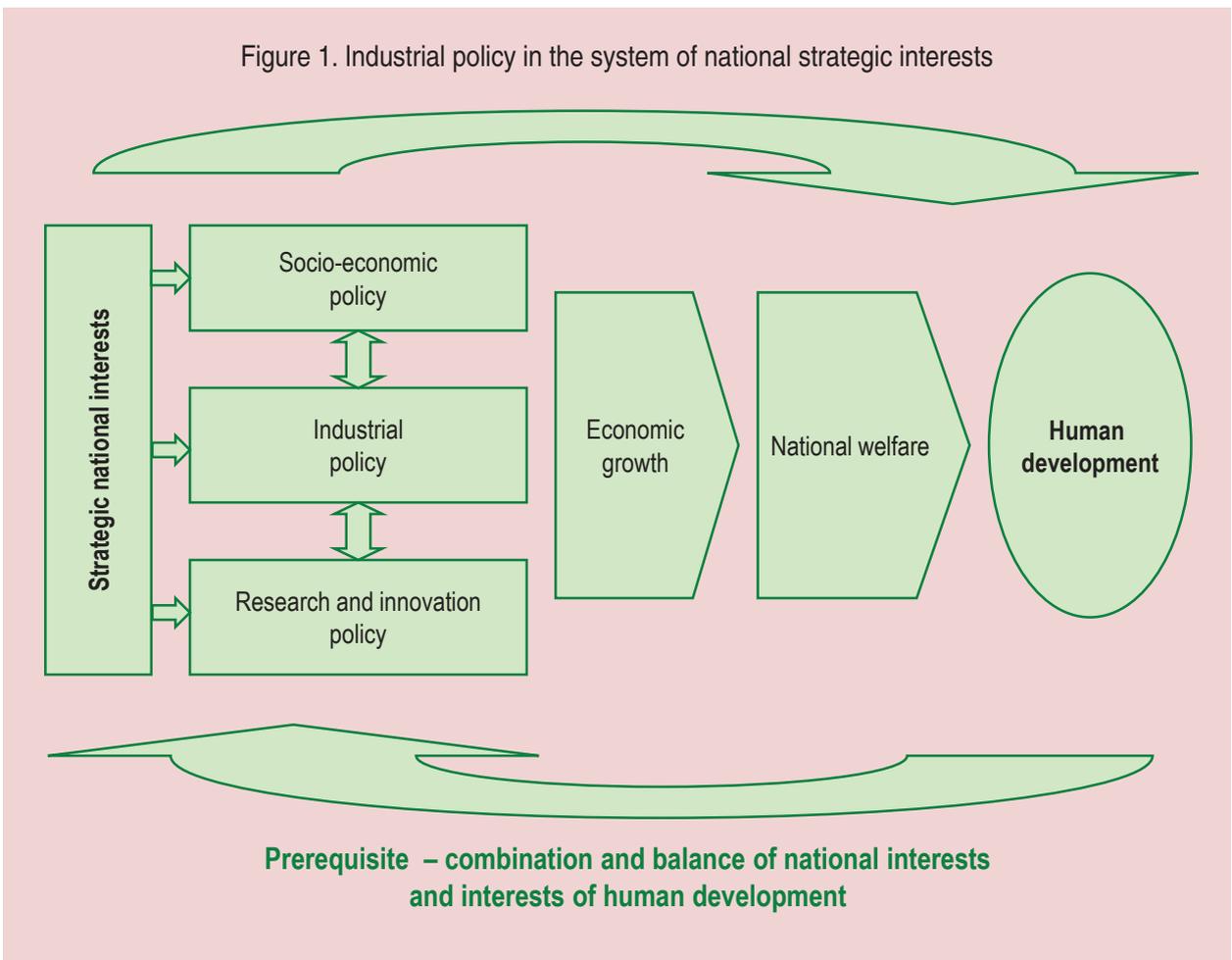


Table 4. Comparative characteristics of industrial policy types

Type of IP	Example of implementation	Advantages	Disadvantages
Vertical	Japan USSR (the 1930s industrialization)	Support of the sustainability of “basic” sectors. Relatively low organizational costs.	Low efficiency together with absence of strict control. Discouragement of competition.
Horizontal	USA	Equal opportunities for access to preferences and infrastructure. Development of competition	“Dispersion” of resources. Low controllability: reliance on market regulatory mechanisms.
Integrated	Republic of Korea	Combination (balance) of national, corporate and private interests. Strategic manageability	Relatively high set-up costs (at the initial stage).

The disadvantages of vertical algorithms in the Russian context are the following:

1. The vertical measures reproduce the imbalances in the economic structure and industrial production. As noted by President of the state corporation “Energy” Sergey Guskov, support of the major companies at the cost of others is one of the biggest distortions in the current system of state support. This approach raises many questions: most companies are established due to privatization, i.e. owners got them almost for nothing. It is unclear why the state should back an ineffective owner, as he/she was not able to organize profitable activities even at zero cost. It would be better to help medium-sized business, which is often set up from scratch and motivated to growth and profitability [12].

2. There are no mechanisms to exercise effective control over socio-economic efficiency of spending the allocated funds. The inspections conducted by the Accounts Chamber of the Russian Federation show significant violations of the spending of budgetary funds allocated for the development

of major industrial infrastructure projects due to the low quality of administration and various disorders (recent case – Vnesheconombank [32], projects of the Ministry of Communications and Mass Media of the Russian Federation [20, 21]). However, there are no legal procedures.

3. In the current economic relations the Russian budget has obligations associated with the costs of international business. According to experts, in Russia large companies can not determine industrial policy, because their owners are not the Russians in terms of place of located assets, permanent residence and all economic interests. Only 10% of the companies are registered in the Russian jurisdiction, more than 50% of the agreements and 57–90% of the contracts are signed abroad. In 2011 65% of the Russian companies had shares and deposits abroad (there were 8% of such firms in China, 4% – in Brazil, 14% – in India). Up to 90% of the large private companies are owned by offshore holdings. As a result, the capitalization of 30 largest Russian companies in 2012 was lower than of Apple Inc. (530 billion U.S. dollars) [13].

There are certain limitations in the Russian conditions and horizontal algorithms.

1. Negative specifics of market regulatory mechanisms.

The Post-Soviet “market environment” has led to the fact that economically viable business activities are found in the sectors that provide a quick turnover of capital. Production is an unattractive activity in terms of funds and investment.

Due to the low profitability of manufacturing industries and high interest rates on borrowed funds, the loan as a tool of the industrial complex development is almost inaccessible. In Russia the most profitable products are manufactured by enterprises of extractive industries, petroleum products production, steel and chemical manufacturing companies. They have the largest share in the structure of the industry, the greatest volume of shipped production and export.

2. Weakness of institutions that can ensure competitiveness of industrial production on their own.

The destruction of the R&D sphere in the 1990s has led to the fact that nowadays the inventive activity is at a very low level and the mechanisms to ensure implementation of technical and technological developments in production are weak. The lack of necessary links between science and industry leads to unproductive government spending on research and development.

3. Sustainable deep contradictions of business, government and third sector.

Due to the absence of the clear strategy and cross-sectoral interactions, poor communication infrastructure, the unstable

and inefficient tax system we observe antagonistic relations between the state and private business based on mutual distrust.

When choosing the type of industrial policy it is important to consider the world experience. There is a classic example of “how not to do”, such as the experience of some Latin America countries “repeatedly stepping on a rake” due to the ill-thought-out realization of both vertical and horizontal measures. As noted by Luis Alberto Moreno, the President of the Inter-American Development Bank, “the experience of industrial policy in Latin American countries shows that the main key to successful industrial policy is the authorities’ ability to distance themselves from private and political interests, which should not influence the formulation of industrial policy” [10].

According to L.A. Moreno, “the basic issues the government should address before starting carry out industrial policy are as follows: whether there is a clear failure in market self-regulation that justifies government intervention; whether the proposed measures will help effectively eliminate shortcomings of the market; whether the country has institutions necessary for conducting industrial policy?” [10].

According to one of the most respected experts in the field of industry D. Rodrik, today increasing support is provided to the point of view that in the developing countries the private initiative needs to be embedded in the set of government measures that promote restructuring, diversification and technological development to a greater extent than it would occur in the free-market environment. This is most obvious in those countries where

the market reforms went furthest and the disappointment in the results is greatest. The mitigation and convergence of extreme positions are stipulated by a “middle course” of economic policy. The market forces and private entrepreneurship should play a leading role, and the government, besides providing property rights, contracts and macroeconomic stability, should also take on the execution of strategic and coordinating functions in the manufacturing sector [11].

In our opinion, the choice between different forms of industrial policy (vertical, horizontal, or their symbiosis) should be based not on the criterion of the “rightness/wrongness”, but on the criteria of suitability (effectiveness) in some or other economic/specific historical conditions. For example, in the United States, where there is powerful regulatory potential of the market, the horizontal algorithms are effective. In Japan, traditionally oriented on the foreign market and “national champions”, the vertical approaches show high efficiency.

Regardless of the existing approach the government is a key player in the industrial policy. The amount of state participation is not associated with its type. So, in the USA, where the term “industrial policy” is taboo, the regulatory and promotional roles of the state are in fact extremely high.

Russia, characterized by breaks of vertical (inter-sectoral) and horizontal (cross-sectoral) relationships and antagonism between key actors’ interests emerged in the chaos of post-Soviet reforms, requires a convergent approach, which in certain proportions combines advantages of vertical and horizontal measures. In this regard, we propose a

network approach. The concept of social networks has been formed in Western studies for the last 30 years. The modern scientists most famous in this area are L. Freeman, D. Knoke, P. Marsden, S. Wasserman, K. Faust, B. Wellman, C. Berkowitz [5]. Domestic science has experience to apply the network approach in studies in various fields of humanitarian knowledge. So, O.N. Yanitskii considered environmental policy as a network process [15]; A.V. Kurochkin studied institutionalization of networks in management of the Russian educational system [16].

We distinguish the following specific features of industrial policy based on the network approach:

1. It is designed and implemented not to meet private or sectoral interests, but strictly in the context of national socio-economic policy.
2. It is of strategic nature: the vector to support activities (projects) that have potential of long-term effects.
3. It is not contrary to the principles of competition policy: support of most competitive activities (or projects).
4. It is characterized by the transition from the subject-object to the resource-actor principle: the government acts not as a “chief”, but as one of the actors performing important functions (disposal of public resources, development of infrastructure, including communication, etc.).
5. To change the usual bureaucratic approach “projects are based on available finance” there appears the approach “finance is allocated for a particular project”.

6. The multiplier effect is maximized due to priority support of complex projects in the framework of value chains.

7. Regional industrial policy transfers from a “poor cousin” into one of the key elements of highly productive national industrial policy, as the regions perform the functions of joining resources.

The essence of the network approach is in optimal combination of various (material and non-material) resources aimed at implementing production projects of all kinds, lowering transaction costs, maximizing the multiplier effect and increasing the added value of products.

**The network approach is focused on creating conditions for the formation of “industrial-oriented networks”:** differently formalized interactions of three and more actors in order to implement most effective forms of organization of production, sales and service of industrial products.

The key characteristics of industrial-oriented network can be formulated as follows.

**Elements of networks:** *base* (manufacturing sector enterprises); *supporting* (financial and investment structures, educational institutions, logistics organizations, etc.); *connecting* (bodies of state and municipal authorities, development institutes, consulting organizations, etc.).

**Scale of networks:** *local* (within individual territories); *inter-regional* (within two or more contiguous regions); *national* (combining various networks elements from a large number of regions, federal structures); *transnational* (these include enterprises providing and uniting structures from different countries).

**Type of networks:** *intra-sectoral* (cooperation between enterprises within the same economic activity); *inter-sectoral* (cooperation between enterprises within different economic activities); *clusters* (production-supply chains – complex network structures); *global value chains* (GVC) on the basis of non-equity forms of international manufacture (NEMs).

Networks can be also divided into problematic (they are formed with the purpose of solving one or another problem and most often are short-term in nature), design (created for a project or series of projects).

The government took important steps associated with the promotion of industrial policy: it elaborated a complex of state programs and a number of normative-legal documents of “anti-sanction character”.

The system of state programs to support the industrial complex of the Russian Federation includes the following programs: “Development of industry and increase of its competitiveness” for 2012–2020; “Development of aviation industry” for 2013–2025; “Development of electronic and radio-electronic industry” for 2013–2025; “Development of pharmaceutical and medical industry” for 2013–2020, “Development of shipbuilding” for 2013–2030.

The state also implements the system of anti-sanction measures in the field of import substitution, stipulated by:

– Presidential decree “On adopting special economic measures to ensure security of the Russian Federation” of August 6, 2014 No. 560;

– 4 RF Government decrees on establishment of the ban to import light industrial

and machinery products from foreign states for the purposes of procurement for federal needs, as well as products for the needs of national defense and state security;

– 20 orders of the RF Minister of Industry and Trade on approval of plans on import substitution in key industries. Currently the Ministry organizes the work to implement sectoral plans, including through the provision of communication between consumers and producers of import-substituting products. It is assumed that the Ministry's support measures will be tied to specific projects of import substitution.

The year of 2015 witnessed the significant and long-awaited event: the entry into force of the federal law "On industrial policy of the Russian Federation" [7]. It stipulates the formation of high-tech, competitive industry, ensuring the state economy's transition from the export-raw material type to the innovative one.

The law involves various forms of incentives in the industry: provision of financial, information and consulting support to enterprises, support of scientific and technical activity and innovation in industry, encouragement of development of personnel potential of an enterprise and foreign economic activity, guaranteeing state and municipal preferences, etc. We can single out concrete forms of support, such as state funds for industry development, special investment contracts, industrial parks, and industrial clusters.

At the same time, we believe that the law does not fully meet the challenges and tasks

relevant at the present stage of country's development. So, the law does not clearly define the place and role of industrial policy in the country's economic development. The issues of correlation of the industrial policy and the national development strategy are not reflected sufficiently.

In this regard, it seems that the law should be supplemented by the article "Basic documents of the industrial policy strategy", which would regulate the industrial policy's incorporation into the system of state strategic planning by adopting documents, such as the Doctrine of industrial development (Industrial doctrine) of the Russian Federation; the Basic directions (Concept) of industrial policy of the Russian Federation; the State program for RF industry development; the National report on the implementation of the state program for industry development [29].

To ensure the system availability it is necessary to include provisions that oblige the government to regularly (at least once a year) report on the results of the state program. These reports should contain information not only about the amount of budget expenses on those or other events, but also about the results of industrial development and their impact on the country's socio-economic situation.

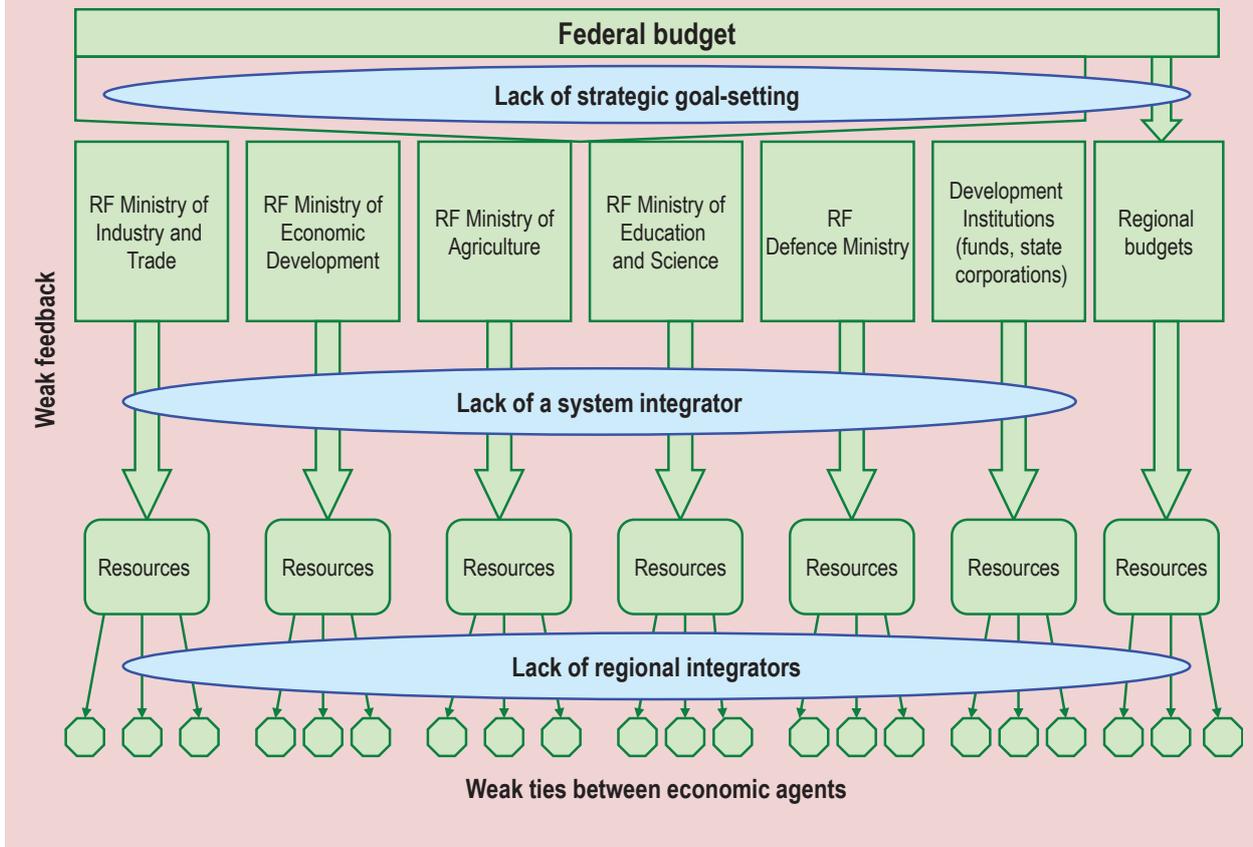
The amendments should be made in the Budgetary, Tax, Customs and Civil codes, and the federal laws regarding the industrial sphere. It is required to work out and adopt the federal law "On amendments to the legislation of the Russian Federation in connection with adoption of the federal law "On industrial policy of the Russian Federation" [29].

The new RF federal law “On strategic planning of the Russian Federation” regulates the development of strategic and program-target documents of different levels [31]. Hence, the urgent task is to include a base section associated with industrial policy in the strategy for socio-economic development of the Russian Federation for the period up to 2030. Besides, it is necessary to elaborate and adopt a sectoral strategic planning document – an industrial development strategy, based on the principles of network integration with regard to requirements of the neo-industrial paradigm.

Today the budget and resource provision of activities in the sphere of industrial policy is carried out by various ministries, development institutions, and regional governments. However, this practice cannot be considered effective. The lack of strategic goal setting, the lack of a “system integrator, the lack of a “regional integrator”, and weak “vertical” and “horizontal” ties are, in our view, key reasons for this inefficiency (*fig. 2*).

It should be noted that this problem is recognized at the political level, there are the first steps towards its solution, but these steps are not of systemic nature yet.

Figure 2. Inefficiency of resource support of industrial policy



So, JSC “State Corporation on Development of Small and Medium Enterprises” was set up in 2015. According to Director of the Department of Development of Small and Medium Entrepreneurship and Competition of the Ministry of Economic Development of the Russian Federation N. Larionov, “the Corporation addresses an important task, which up to date has not been solved by any of the structures – formation of the programs to develop together with large state companies the supplier system among small and medium businesses. It is advisable to understand how the world lives, and how competitive products are manufactured. It is always a wide network of suppliers competing for the access to orders of large enterprises; in this competition innovation develops faster. It is necessary to transfer to the technologies of building effective and sustainable business models. The task for the next year is to built partnership with big companies and work out a joint program... learn to understand each other, pursue the same goal and form a line of tools, using which we will achieve it” [17].

In 2015 the Ministry of Industry and Trade of the Russian Federation announced the development of the state information system of industry. It will help form the measures of support and stimulation at all management levels, provide feedback in order to monitor demand and effectiveness of incentive measures. The main tasks are outlined:

creating and developing modern industrial infrastructure; encouraging introduction of intellectual activity results and promoting manufacture of innovative products; supporting technological upgrade; modernizing basic production assets [18].

These facts show that different departments take steps in the right direction. However, if there is no inter-correlation within the framework of a unified system of strategic management, these measures are unlikely to yield tangible positive effect.

To build this system is necessary given the existing theoretical and practical experience.

The Republic of Korea has an interesting and productive example of smooth combination of industrial and regional policy. The South Korean experience is regarded as a kind of benchmark in this regard.

The new industrial policy of the Republic of Korea is aimed at the transition to new drivers of socio-economic development. This implies systematic and comprehensive solution of the issues of continuous economic modernization in accordance with the high-tech mode, a fundamentally new approach to the disclosure of growth sources and the distribution of productive forces. The country implements the program of measures formulated at the local level with the active participation of business circles, research institutes, universities, the public, and based on cooperation and coordination of central and local authorities.

Some features of “geographically oriented” industrial policy are the following [28]:

- rejection of a sectoral approach in favor of cross-sectoral in order to strengthen inter-industry ties in the conduct of R&D and the introduction of their results;

- identification of promising types of long-term production facilities and working out of targeted programs of investment in their development;

- transfer from the functional approach in the formation of the national innovation system (NIS) and the mechanisms of industrial innovation to the territorial one, creation of regional innovation systems with organizational and management structure, mechanisms of participants’ interaction with each other and at the inter-regional level;

- search for new forms of knowledge exchange, commercialization of R&D results, and promotion of their wide introduction in economic practice;

- structuring on the basis of outsourcing and subcontracting of technology transfer mechanisms in the field of industrial production and attraction of SMEs; large companies act as agents in the development and dissemination of innovation;

- increased mobility of skilled labor resources in R&D and industrial innovation and ensuring continuous training of employees in the economy.

There is an example of theoretical elaboration of this question, such as the concept of interactive management of growth proposed by Academician V.M. Polterovich

[14]. According to him, the socio-economic situation cannot be significantly improved within existing administrative structures. To make efficient indicative plans and monitoring of their performance it is necessary to complement the current management system with institutions-intermediaries, providing interaction of administrations, business, science and civil society. At the regional level this function could be fulfilled by regional development agencies (RDA). Their tasks are to ensure the cooperation of government, business and society; conduct institutional experimentation, render information and advisory services, set up a center for regional forecasting and planning, and carry out coordination of development institutions in the region.

Unlike public-private partnership or a technological platform the development agency is not tied to a specific project or fulfilment of narrow targets, but it solves large problems. The main functions of the agency are to ensure mutual trust of the main actors and on this basis – identify their preferences and select the most effective ways to improve public welfare. In this case, gaining yield can be only a secondary purpose of the agency [14].

It can be assumed that the wide-scale strategy will boost activity of only a few centers at the initial stage. It is important to determine the mechanisms of results’ diffusion to other regions or sectors. We cannot rely on the market: it generally intensifies the uneven development. The lack of effective diffusion

mechanisms is one of the significant reasons for the failure of modernization in many countries.

Our proposals on the organizational system of network industrial policy are as follows:

1. Creation of a network of effective decision making. Solution: national industrial council; regional industrial councils.

2. Creation of a “system integrator”. Solution: federal committee on national industrial policy.

3. Creation of a network of “regional integrators”. Solution: network of regional centers for the implementation of national industrial policy.

The functions of “regional integrators” (regional centers for the implementation of the national industrial policy) are the following:

1. Functions associated with providing network collaboration, embedding of small and medium enterprises in value chains, reducing transaction costs:

- interaction with the “system integrator” (federal committee on national industrial policy);

- cooperation with state corporations, large companies with state participation and other joint-stock companies;

- interaction with regional administrations and subordinated to them organizations;

- cooperation with development institutions, investment structures;

- work with high-tech companies operating in the region;

- identification, support and maintenance of start-up projects focused on producing

hi-tech products and having capacities to join the value chain.

2. Functions connected with attraction of financial resources for various purposes, due to the implementation of projects: conduct of R&D, working capital financing, implementation of upgrade and technical re-equipment of production facilities, launch of modern competitive industries to manufacture high-tech import-substituting and export-oriented products, etc.

At the same time, the centers will help businesses get financial assistance allocated by federal ministries and departments and provided on a preferential basis by Russian credit organizations and development institutions and receive non-repayable funds for innovative projects, tax incentives and various subsidies of RF subjects, etc.

So, we can draw the following key conclusions.

1. Nowadays the socio-economic, socio-political and technological spheres are characterized by a number of trends, allowing us to speak about a qualitatively new stage in the development of industry and industrial policy, which can be defined as a neo-industrial paradigm.

2. The practice to work out and implement industrial policy in modern Russia is poorly linked to the national priorities and the objectives of ensuring sustainable economic growth and welfare. In the end it hinders the effective use of their resources in order to ensure competitiveness and sustainable development.

3. The formation of industrial policy should be carried out in terms of the system target-setting associated with the decision of economic tasks; it should also envisage the creation of certain productively operating mechanisms of its implementation in the framework of the “network” approach.

4. The national industrial policy should be complemented by the measures to develop industry carried out at the regional level. Regional industrial policies, on the one hand, are a necessary system component of the national policy, ensuring its productivity; on the other hand, they help the territories realize their socio-economic potential.

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# SOCIAL DEVELOPMENT

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## Typological Features of Economic Development in Russian Regions under the Conditions of Development of Continuous Education\*



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**Abstract.** In the modern conditions the socio-economic paradigm is changing, on the one hand, due to the transition to knowledge economy and, on the other hand, due to the need to develop innovation that determine competitiveness and the development level of national economies in the world. It is obvious that the progressive upgrade and the improvement of production processes (change in technological modes) can not be implemented without the increase in the level of human capital in the society and the enhancement of potential and qualification of the workforce. These changes largely depend on the education system. In almost all world countries there is an active process of modernization and change in the system of training. New forms and approaches appear, for example lifelong education (concept “Lifelong education”), informal forms of learning, self-education, etc. Without the development of these approaches it is not possible to become a competitive state in changing social, political and economic environment. This is particularly true for countries, which experience changes in the technological mode and have the necessity to transfer to new technologies. Russia is among such countries nowadays. In our opinion, the modern reforms do not give the opportunity to fulfill the main task of education – to ensure and create conditions for self-determination and self-moralization of an individual in the society, achieve the desired level of knowledge for development of innovation in the regions. In the framework of the conducted research we get the classification of all Russian regions by indicators, such as “innovation” and “investment attractiveness”, with the levels of education being taken into account. This approach, on the one hand, shows the heterogeneity of socio-economic development of the country’s regions and, on the other hands, – allows us to reveal the fact that the same federal district can include both regions-locomotives and problematic regions. In view of the heterogeneity of the results we identify the prospects for modernization of the proposed regions classification.

**Key words:** typology of regions, lifelong learning, economic development of regions, classification of regions, socio-economic development of regions.

The modern society changes its socio-economic development paradigm of the country’s development due to the transition to knowledge economy. The world economy determines the competitiveness of national economies depending on the level of innovation and knowledge, which, in turn, stimulates the growth of investment flows.

Today education is the most important factor in national security and welfare of the country and every citizen. Under the pressure of new conditions the rational choice is complicated; it will probably result in the impossibility for an individual to assess socio-

economic prospects of his/her development correctly. J. Rawls considers this situation as a “veil of ignorance” [5]. The choice of the society as a whole and the individual in the short term can be evaluated as true in the context of obtaining short-term advantages and non-productive in the long term [3]. The rejection of education in a specific period of time can become more efficient as resources are re-distributed in favor of increasing the income of a person, but in the long term it can lead to the loss of professional competitiveness of an individual and the society as a whole [4]. The costs of educational

services are repaid over several production cycles. The period of acquired knowledge validity can be defined as a payback period of investment in education and the change in the length of demand for knowledge leads to the containment of professional competence level growth [2].

According to the World Bank assessment, human capital, which includes education, accounts for 64% of the total wealth of the country [6]; in the countries, such as Germany, Japan and Switzerland, – for 80% of the total capital. Education is one of the most important components of human capital, with universal coverage and quality of services being taken into account.

A number of international organizations have their own ranking of countries by education level. The index (Education Index), regularly published by the UN with the help of UNESCO, is most famous. For this structure it is one of the components of the overall index of human development (Human Development Index), which indicates the development of countries in general. According to the 2014 data, our country ranged 57th among the countries with a high human development index (Belarus – 53, Latvia – 48, Lithuania – 35th, Georgia – 79, Ukraine – 83). By education index in 2013 Russia ranged 36th (Belarus – 21, Latvia – 24, Lithuania – 8, Georgia – 40, Ukraine – 30).

However, it should be understood that this well-known index characterizes not so much the quality of education, as its affordability. Ratings of public organizations are much

more interesting from the point of view of an individual, choosing foreign higher educational institutions. There is the following example: Universitas 21 ranking [12], formed by the consortium of leading academic universities in the world. Its compilation involves the overall efficiency of education systems in different countries, as well as their popularity among foreign students. The overall assessment of the country is influenced by 4 main categories [12]:

- available educational resources (25% in the rating);
- educational environment (15%);
- cooperation in education (20%);
- performance (40% rating).

Hence, the leaders of the rating are differently distributed. In 2013 the first five places went to the U.S., Sweden, Switzerland, Canada and Denmark. New Zealand, leading in the UN rating, ranged 14th, Russia – 32th.

Obviously, to some extent the quality of education depends on the level of expenditure on its development. According to the World Bank: World Development Indicators 2014 (Ranking of world countries by level of expenditure on education) [13], the Russian Federation ranges 98th (4.1% of the national revenue), Belarus – 83 (4.5%), Latvia – 42 (5.7%), Lithuania – 46 (5.6%), Georgia – 119 (3.2%), Ukraine – 57 (5.3%). The given data are calculated as at 2010–2012 (published in 2014). However, according to the Federal Treasury, in Russia over the past 10 years the expenditure on education has been slightly more than 11% on average (in relation to the

consolidated budget expenditures). Despite the fairly serious investment in domestic education during this period, the competitiveness on the world market of educational services is very low. Physico-mathematical and chemical training areas are the only exceptions.

The studies of foreign (E. Denison, R. Easterling, U. Schweke, H. Haynes) and domestic (S.Y. Glazyev, N.D. Kondrat'ev, N.M. Rimashevskaya) scientists suggest that the population with a higher level of education makes the economy more productive.

In addition, such important attributive characteristics of human capital, as a degree of qualification, competence of employees and management personnel, i.e. so-called

“soft factors” for economic growth [1], have dualistic nature and are institutional determinants along with capital and labor in innovative economy.

The educational process is constantly being interpreted and the new social-economic paradigm will be transformed, creating the prerequisites for formation of the continuous professional education system (*table*). The current pace and the quality characteristics of scientific and technological progress involve the development of cognitive and intangible production factors; it, in turn, actualizes modernization of work organization and forecasting the consequences of scientific and technological progress.

Evolution of the educational process paradigm

Paradigm	Paradigm 1	Paradigm 2		Paradigm 3
	<i>Scientific</i>	<i>System</i>		<i>Network</i>
Type of an educational organization	Scientifically managed	Open		“Skilled” (effective)
		Adaptive	Entrepreneurial	
Period	the 1960–1970s	the 1980s	the 1990s	the beginning of the 21st century
Structure of an organization	Hierarchical, divisional, functional	Adaptive (matrix), organic	Global, business, small	Network, adhocracy
Type of a graduate	Generalist	Innovator	Entrepreneur	Managing knowledge
Core competencies	Broad professional knowledge	Ability to adapt	Ability to leadership and changes	Ability to leadership and education
Dominant programs	Canonical	Flexible	Customer-oriented programs	Lifelong education program
Educational institutions	Classic university	Diversified university	Corporate university, training and consulting center	Virtual university, training centre
Dominant departments	Departments	Programs-departments (matrixes)	Designers-programs-departments	Research, training networks, training centers

Source: compiled by Zh.K. Leonova.

Obviously, the assessment of the prospects for medium- and long-term development of the national economy in modern conditions requires the definition of the role of the continuous education system, which is a significant element of intellectual capital formation in the country, in general, and regions, in particular.

The demand on the modern labor market depends not only on the scale of a given activity, but also on the level of labor resources quality. Collectively, formal and informal social determinants that affect aggregate demand on the labor market are associated with institutional changes [7], which illustrate a hypothesis about the change of external factors in one sphere and the manifestation of institutional change in another. On the basis of the concept of technological mode substitution, we can assume that the emergence of fundamentally new means of production will affect institutional factors in the labor market development.

Reforming of the Russian education system is very protracted and starts to “falter”. The main task of education is to provide and create conditions for person’s self-determination and self-realization in the society, as the acquired education level will give a person the opportunity to adapt to social and economic conditions and improve the society and raise the country’s competitiveness. Reforming of the system in the country compels the regions to take a fresh look at the problem of optimization of educational

institutions – their number and quality. The modern approach to the acquisition of knowledge requires the development of new forms of learning, such as self- and non-formal education, that become crucial in implementing the concept of lifelong learning.

Considering the described above, we can state that the lifelong learning concept involves adaptation to the changes in professional activity and formation of the ability to perform a social and economic role in a modern man. Upgrade of Russian economy, implementation of import substitution and refusal from the “raw material” development vector are impossible without analysis of the education system and clear idea of the age-sex population dynamics, which determines not only the nature and characteristics of the labor market, but also investment and innovative attractiveness of the regions. It is necessary to take into account differentiation of Russian regions in many areas and different approaches to their typology (classification).

Having the variety of models of socio-economic development of Russian regions, we should understand that the level of education is heterogeneous. In the framework of this research (RFH grant No. 15-02-00066 “Lifelong education in the conditions of recession and demographic transition as a factor to increase competitiveness of Russia”) the article analyses economic development of some territories of the Russian Federation with different education levels and demographic structures of the population.

The analysis includes various classifications of the regions [8, 9, 10, 11]. The classification by innovation and investment characteristics is most relevant in terms of import substitution and necessity to develop own production in the regions. Using the classification of Russian regions by innovation indicator we can single out 3 types [8].

1. **Static regions.** These subjects are at the stage of economic growth that occurs within the existing technological system. Motivation for the emergence of a new trajectory of economic and technological development in such regions is weak or absent. As a rule, the necessity of transition to innovative way of development meets resistance from the current (existing) system.

2. **Innovatively developing regions** (or growing regions). These subjects form innovative approaches to the replacement of elements of the old system. There is a tendency to develop new intra-regional relations. In such regions the development of investment processes requires support from the federal center.

3. **Depressed regions** – these regions are at the low stage of socio-economic development, they are not able to make some significant changes and are focused on getting support from the state.

To pursue our task, we modify the method to classify regions by investment indicator, based on the findings of domestic scientists [9, 10, 11]. According to this approach, the regions are divided into 7 categories: “locomotives”, “supportive regions”, “growth

poles” and “growth points”, “problematic regions”, “regions with undecided prospects” and “regions of special attention”.

Our analysis of investment attractiveness of Russian regions at the moment of time makes it possible to group them as follows [9, 10, 11]:

1. **“Locomotives”, “supportive regions”, and “growth poles”** are subjects that have high investment potential and considerable internal resources (31 regions, such as the Moscow Oblast, Moscow, the Rostov Oblast, etc.). Thus, they can develop without significant assistance from the federal government. If the whole Russia had the same socio-economic indicators and political preferences, as in “locomotives”, it would join the most advanced countries in the world.

2. **“Growth points”** are regions with small population, insignificant economic power, low investment risks, which in the next 10-15 years will “hit a ceiling” in their development (8 subjects, such as the Lipetsk Oblast, the Republic of Mordovia, etc.).

3. **“Problematic regions”**. Increasing the investment attractiveness, they can even “jump” over “growth points” and be among steadily-growing areas of Russia (13 regions, such as the Bryansk Oblast, the Komi Republic, etc.).

4. The largest group – **“regions with undecided prospects”** – is completely dependent on skills and professionalism of the regional authorities (20 regions, such as the Murmansk Oblast, the Ryazan Oblast, etc.).

5. “*Regions of special attention*”, apparently, will “always find themselves” in the discouraging zone of heightened attention (11 regions, such as the Magadan Oblast, the Kamchatka Oblast, etc.).

The Appendix presents the comparison of classifications of all Russian regions by “innovativeness” and “investment attractiveness”.

In modern conditions the consideration of investment and innovation dependency becomes critical. This article classifies regions by these indicators and analyzes the education level in the regions on the basis of indicators of the employed population structure by education level (according to the sample survey of the population by problems of employment; in percentage to total) for 2011–2013.

The study reveals, on the one hand, the heterogeneity of socio-economic development of the country’s regions and, on the other hand, the same region can include regions-locomotives and problematic regions:

1. Central region includes 2 problematic regions, 8 regions with undecided prospects, 4 regions-growth poles, 2 regions-locomotives, and 3 regions-growth points.

2. Northwestern Federal District includes 1 problematic region, 4 regions with undecided prospects, 1 region-pole growth, 1 region-locomotive, and 2 regions-growth points.

3. Southern Federal District includes 2 regions with undecided prospects, 1 region-growth pole, and 2 supportive regions.

4. North Caucasian Federal District includes 1 problematic region, 5 regions of special attention, and 1 region-growth pole.

5. Volga Federal District includes 1 problematic region, 4 regions with undecided prospects, 5 supportive regions, 2 regions-growth points, 2 regions-growth poles.

6. Ural Federal District includes 1 problematic region, 2 regions-locomotives, 1 supportive region, 1 region-growth pole, 1 region-growth points.

7. Siberian Federal District includes 1 problematic region, 1 region of special attention, 2 regions with undecided prospects, 2 supportive regions, 4 regions-growth poles”.

8. Far Eastern Federal District includes 4 problematic regions, 2 regions of special attention, 3 regions-growth poles.

Obviously, such heterogeneity of the acquired results requires additional study to identify the causes and indicators that lead to such results. To identify the dependence of innovativeness and investment attractiveness on the level of education and the development of lifelong education we have decided to extend the proposed classification in the future: include the dependence of the level of economic development of the region on the educational level of economically active population. It is very interesting to analyze the possible implementation of lifelong education principles and the level of unemployment in the region, since this problem correlates with the need to work

out the system of retraining and training with regard for regional characteristics. Aggregate demand on the labor market in modern conditions depends not only on the scale of production, but also on the level of innovation. Actively developing regions increase aggregate demand on the labor market through the production of goods and services. Therefore, we can say that innovative development, as a specific mode of material values production, is characterized by the specific content of social reproduction and the original system of economic relations. Any modern consumer wants the products to be innovative, but such products can not be created by specialists with a low level of education (primary, secondary). Innovations are created by professionals, whose training

requires significant resources. For the innovative policy to be efficient, the Russian Government should provide the public with the ability to obtain the necessary level of education not only in central, but also in all other regions. Refusal from raw materials, implementation of import substitution and transition of the Russian economy to the innovative way of development are largely determined by human capacity: level and quality of education and training of specialists, possibility to realize a continuous process of re-training, all forms of self-education and informal education. The development of new professions and obtainment of required skills define the boundaries of technological, economic and social modernization of Russian regions and the country as a whole.

## Classification of Russian regions by investment innovation indicators and education level

Classification by indicators		Location of the subject	Location of the subject	Education level of the economically active population			
Innovative-ness	Investment attractiveness	Oblast	Federal district	Basic general	Primary vocational	Secondary professional	Higher professional
Static region	Growth pole	Belgorod Oblast	CFD	2.7	22.3	25.5	28.8
	Region with undecided prospects	Vladimir Oblast	CFD	4.5	23.4	25.2	23.9
	Region with undecided prospects	Ivanovo Oblast	CFD	4.6	23.3	21.9	26.2
	Growth pole	Kaluga Oblast	CFD	3.6	22.6	28.3	26.8
	Region with undecided prospects	Kostroma Oblast	CFD	5.0	23.7	33.6	25.2
	Region with undecided prospects	Ryazan Oblast	CFD	4.2	22.6	30.6	26.2
	Region with undecided prospects	Smolensk Oblast	CFD	3.9	16.9	32.4	28.6
	Region with undecided prospects	Tambov Oblast	CFD	4.6	17.7	29.7	23.9
	Growth pole	Tula Oblast	CFD	3.7	14.7	30.3	25.7
	Region-locomotive	Moscow	CFD	0.6	16.2	27.2	49
	Problematic region	Komi Republic	NWFD	5.1	32.8	22	24.8
	Growth pole	Leningrad Oblast	NWFD	3.1	26.3	25.2	25.9
	Region with undecided prospects	Pskov Oblast	NWFD	4.9	20.8	30.1	23.1
	Region with undecided prospects	Astrakhan Oblast	NWFD	5.5	18.3	30	27.6
	Problematic region	Mari El Republic	VFD	4.1	22.9	27.3	26.3
	Region with undecided prospects	Udmurt Republic	VFD	3.5	28.4	22.1	25
	Growth pole	Orenburg Oblast	VFD	5.1	21.4	30.2	22.9
	Problematic region	Kurgan Oblast	UFD	6.7	22.6	25.9	24.6
	Supportive region	Chelyabinsk Oblast	UFD	4.0	16.5	35.4	28.2
	Problematic region	Altai Republic	SFD	6.7	18.3	25.8	30
	Growth pole	Altai Krai	SFD	5.3	21	23.6	22.2
		Tomsk Oblast	SFD	3.5	21.4	20.4	31.9
	Growth pole	Primorsky Krai	FEFD	4.2	22	24.2	30.4
Growth pole	Khabarovsk Krai	FEFD	4.9	19	25.7	31.9	

Continuation of the appendix

Classification by indicators		Location of the subject	Location of the subject	Education level of the economically active population			
Innovativeness	Investment attractiveness	Oblast	Federal district	Basic general	Primary vocational	Secondary professional	Higher professional
Growing region (innovatively developing region)	Growth pole	Voronezh Oblast	CFD	2.9	11.8	26.4	27.4
	Growth point	Lipetsk Oblast	CFD	2.56	24	28.1	25.1
	Region-locomotive	Moscow Oblast	CFD	1.8	12.2	27.5	38.7
	Growth point	Orel Oblast	CFD	3.1	25.8	23.8	29.6
	Region with undecided prospects	Tver Oblast	CFD	4.36	23.6	31.1	23.2
	Growth point	Yaroslavl Oblast	CFD	4.8	27.8	30	23.5
	Growth point	Novgorod Oblast	NWFD	6.7	21.2	27.2	23.9
	Region-locomotive	Saint-Petersburg	NWFD	0.83	15.2	23.2	44.5
	Region with undecided prospects	Republic of Adygea	SFD	4.03	13.4	22.6	33.7
	Growth pole	Volgograd Oblast	SFD	3.6	18.5	29.6	27.3
	Supportive region	Rostov Oblast	SFD	5.2	15.8	27.3	29.6
	Region of special attention	Republic of Dagestan	NCFD	5.2	6.2	16.6	29.2
	Region of special attention	Kabardino-Balkar Republic	NCFD	5.6	12.7	19.6	29.6
	Region of special attention	Karachay-Cherkess Republic	NCFD	2.3	18	19.2	34.8
	Region of special attention	Chechen Republic	NCFD	7.2	4.6	11.4	25.2
	Growth pole	Stavropol Krai	NCFD	4.5	11.5	25.1	31.2
	Supportive region	Republic of Bashkortostan	VFD	3.3	28.8	25.9	23.6
	Growth point	Republic of Mordovia	VFD	2.2	19.4	23.5	28.8
	Supportive region	Republic of Tatarstan	VFD	2.6	21.3	19.4	30.8
	Growth point	Chuvash Republic	VFD	3.8	24.7	21.9	27.3
	Supportive region	Perm Krai	VFD	4.6	28.6	27.1	23.2
	Region with undecided prospects	Kirov Oblast	VFD	5.3	26.6	26.1	22.2
	Supportive region	Nizhny Novgorod Oblast	VFD	3.5	23	27.9	27
	Region with undecided prospects	Penza Oblast	VFD	3.6	16.4	27.2	27.1
	Supportive region	Samara Oblast	VFD	2.4	15.4	29.8	35.9
	Growth pole	Saratov Oblast	VFD	4.9	18.7	27.9	28.2
	Region with undecided prospects	Ulyanovsk Oblast	VFD	4.2	17.9	27.6	25.8
	Region-locomotive	Sverdlovsk Oblast	UFD	5.3	22.4	25.9	25.8
	Growth pole	Novosibirsk Oblast	SFD	4.8	19.3	21.9	31.2
	Growth pole	Omsk Oblast	SFD	5.76	19.7	24.7	25.2
Region of special attention	Magadan Oblast	FEFD	2.57	12.7	21.4	30.8	

End of the appendix

Classification by indicators		Location of the subject	Location of the subject	Education level of the economically active population			
Innovative-ness	Investment attractiveness	Oblast	Federal district	Basic general	Primary vocational	Secondary professional	Higher professional
Depressed region	Region with undecided prospects	Kursk Oblast	CFD	3.6	24.4	24.3	28.4
	Region with undecided prospects	Republic of Karelia	NWFD	4.36	27.2	28	24.2
	Region with undecided prospects	Arkhangelsk Oblast	NWFD	4.9	29.1	29.4	24.3
		Vologda Oblast	NWFD	6.03	26	26.2	22.3
	Growth point	Kaliningrad Oblast	NWFD	4.03	17.1	31.2	31.8
	Region with undecided prospects	Murmansk Oblast	NWFD	2.56	27.8	21.9	28.4
	Region of special attention	Republic of Kalmykia	SFD	2.7	12.3	25.2	34
	Supportive region	Krasnodar Oblast	SFD	3.8	16.2	28.3	26
	Region of special attention	Republic of Ingushetia	NCFD	1.2	10.1	28.8	31
	Problematic region	Republic of North Ossetia – Alania	NCFD	3.96	14.3	26.4	36.5
	Growth point	Tyumen Oblast	UFD	3.3	18.2	26.8	29.5
	Region with undecided prospects	Republic of Buryatia	SFD	5.5	23.1	24.7	27.6
	Region of special attention	Tyva Republic	SFD	3.9	16.4	25.6	33.5
	Region with undecided prospects	Republic of Khakassia	SFD	5.6	14	26.9	24
		Zabaykalsky Krai	SFD	7.5	16.4	22.9	21.8
	Supportive region	Krasnoyarsk Krai	SFD	5.96	16.9	28.2	26.1
	Growth pole	Irkutsk Oblast	SFD	6.9	21	23.2	25.8
	Supportive region	Kemerovo Oblast	SFD	5.3	23.9	26.5	24.7
	Growth pole	Sakha (Yakutia) Republic	FEFD	3	19.2	24.9	28.4
	Region of special attention	Kamchatka Krai	FEFD	3.16	20.4	22.6	34.9
Problematic region	Amur Oblast	FEFD	6.6	20	27.6	27.7	
Problematic region	Sakhalin Oblast	FEFD	4.4	25.1	25.3	24.3	
Problematic region	Jewish Autonomous Oblast	FEFD	10.7	18.9	23.9	19.8	
Problematic region	Chukotka Autonomous Okrug	FEFD	5.5	20	25.3	26	

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## Effectiveness of Labor Market Regulation in the Region (Case Study of Crisis Response Measures)



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**Abstract.** The paper analyzes public administration efficiency in the social and labor sphere. It examines main theoretical and methodological approaches to the concept of “administration effectiveness” depending on different criteria such as the status of the managed object, internal effectiveness of management, social effectiveness, achievement of the target values of indicators, the “cost–result” ratio. The author attempts to analyze a relative effectiveness of labor market management in Russia in each of the federal districts and in the regions of the Northwestern Federal District with special attention paid to the situation in the Vologda Oblast. The article gives a general description of the main crisis response measures that Russia’s regions apply in an effort to reduce tensions at their labor markets: proactive training of the workers who are at risk of being dismissed; promotion of self-employment; organization of public works; promotion of employment of persons with disabilities. The effectiveness of these measures is assessed through the cost-effective method, because it is usable and the relevant official statistics is easy to access. On the basis of the data analysis the author presents a rating of relative effectiveness of labor market policy in the federal districts and in the regions of the Northwestern Federal District. The study reveals the following features of anti-crisis regulation of the labor market: significant regional differences in the costs per participant, gradual decrease in the relative effectiveness of labor market regulation, reduction of the list of events, abrupt changes in the positions of territories in the rating. It is proposed to enhance the monitoring of the program measures aimed to stabilize the situation on the labor market at the regional level. This requires that the information concerning the expenditures on the development of the labor market be included in the public accounting of state authorities that regulate social and labor relations in the Russian Federation subjects.

**Key words:** administration effectiveness, labor market, crisis response measures, region.

Public administration of the social and labor sphere in modern Russia is carried out under market conditions in compliance with the situation concerning supply and demand; this was not so at the earlier stages of Russia's development, and therefore we can say that the essence of this administration is innovative; its effectiveness may determine the course of modernization processes. However, at present, Russian economic science lacks any unified approach to understanding the effectiveness of public administration. This paper attempts to evaluate the effectiveness of workforce management in the federal districts and in the northwestern regions of Russia on the example of certain measures that seek to stabilize the labor market. To achieve this goal, the author considers the main theoretical and methodological approaches to the concept of "administration effectiveness". The cost-result method is applied for the purpose of analyzing the costs of implementing the program measures to reduce tension on the labor market and identify the main problems and trends in the field of workforce management in the region.

In a general sense, effectiveness can be defined as the ability to produce an effect or have the desired impact [1, p. 1442]. One of the important methodological problems of effectiveness analysis is to choose an approach to understanding its essence. Depending on the criterion applied, there are several approaches to evaluating the effectiveness of public administration (*tab. 1*):

- 1) assessment of the status of the managed object;
- 2) assessment of the internal effectiveness of control;

- 3) assessment of social effectiveness;
- 4) assessment of achievement of the target values of indicators;
- 5) cost-effective approach.

1. Assessment of the status of the managed object is based on the assumption that the state of the object (regional economy, regional labor market, etc.) is a direct consequence of a management action applied thereto. In the framework of this approach, a favorable situation indicates the high effectiveness of administration, and an unfavorable situation, respectively, shows that the effectiveness is low. An advantage of this concept is that it helps assess the actual state of the managed object and provides an answer to the question of how this state corresponds to the standard chosen (goals set out). A disadvantage of this approach is that it identifies the state of the managed object with management effectiveness and does not take into account external environmental conditions (regional economic specifics, market situation) and, thus, does not help assess the role of managerial impact on the object. In modern Russia, this approach is used in accordance with the decrees of the President of the Russian Federation "About assessing the effectiveness of executive authorities' performance" of June 28, 2007 No. 825 (repealed) [11] and of August 21, 2012 No. 1199 [12].

2. Assessment of internal effectiveness is related to the organization of an object administration process. At that, it is not the object that is assessed, but the process of administration: the structure of administration bodies, the professional and qualification characteristics of their staff. This approach is based on the fact that the way the work of

Table 1. Methodological approaches to assessing the effectiveness of administration

Approach to effectiveness assessment	Concept of effectiveness	Assessment criterion	Usage examples
State of the managed object	State of the managed object measured by concrete indicators	The set of indicators achieved by the object in relation to other objects or in dynamics	World Bank Global Competitiveness Report
Internal effectiveness of administration	Quality of organization and process of management; level of training of staff in a division	Performance indicators of the particular division or enterprise	Key Performance Indicators (KPI) Method
Social effectiveness	Achievement of social effect that is manifest in the reduction of economic or social losses inevitable if the events that have been carried out are not taken into consideration	Economic or social loss	State Program "The promotion of employment, improvement of working conditions and occupational safety in the Vologda Oblast for 2014–2018" approved by the Resolution of the Vologda Oblast Government of October 28, 2013 No. 1101
Achievement of target indicators	Achievement of planning, baseline, target indicators by the object of management	Compliance of the indicators actual achieved with the target values	Decree of the President of the Russian Federation of May 7, 2012 "On the main directions for improving the system of public administration"
Cost-effective approach	Costs of resulting unit	Amount of costs for one productive unit	State Program "The promotion of employment, improvement of working conditions and occupational safety in the Vologda Oblast for 2014–2018", approved by the Resolution of the Vologda Oblast Government of October 28, 2013 No. 1101
Sources: compiled by the author on the basis of [1, pp. 1442-1443; 17, p. 662; 18].			

an authority is organized and the quality of the labor potential of its staff are factors that determine administration effectiveness. The system of Key Performance Indicators (KPI) can be pointed out as an example [19, p. 233]. At that, the direct results of the work are not taken into account. This approach has its disadvantages such as a relative complexity of obtaining information, and a lack of its presentation in a uniform way.

3. Management impacts can be assessed through social efficiency that is defined as the ratio of costs for the implementation of social events and the possible damage that will be inflicted if these activities are ignored [15, p. 662]. It seems that this concept is best suited

for assessing administration effectiveness of an enterprise, but it is not quite suitable for assessing administration effectiveness of social and labor relations at the regional level, because in the management of social and labor relations the damage from neglecting the program activities may be lower than the expenditures on these programs; nevertheless, it is desirable to carry out these events, since it is conditioned by the social purpose of the state.

4. Assessment of effectiveness of achieving the target values of indicators defined in strategic documents is widely used throughout Russia's regions. As a rule, techniques based on this approach are developed and applied

by public authorities [10]. This approach has the following disadvantage: it ignores the data on the expenditures made and sometimes does not substantiate the choice of indicators and their target values established by strategic documents. Therefore, this approach requires not only the achievement of results to be assessed, but also the quality of goal-setting to be examined by experts.

5. Cost-effective approach. This approach understands effectiveness as the efficiency of economic activity, events, programs and mechanisms, which is characterized by the ratio of the obtained economic effect (achieved result) to the costs of resources of a certain value that are used for the purpose of obtaining this result [2, p. 1443]. Thus, under this approach, economic effectiveness is equated with performance. This understanding of efficiency seems to be most suitable for the economic analysis of social and labor relations in the region. If there is information about the tools that were used to implement various administration mechanisms (programs to promote employment, its sub-programs or individual activities), and the results (number of program participants, number of jobs created), it is possible to calculate the cost per effective unit (in this paper, an effective unit is a participant of the labor market who took part in an anti-crisis event) and, based on this, to assess the relative effectiveness of these mechanisms in the regional context, and to evaluate the dynamics of effectiveness for a certain period of time. This paper understands the administrative mechanism as a combination of management methods

that are used by authorities and promote the achievement of a specific outcome [6, p. 495].

The application of this approach is associated with a number of methodological problems. First, a question arises: what should be considered as the cost of regulation of social and labor relations and the results of this regulation. Second, it is often impossible to assess the effect that the implemented activities had on the functioning of the regional labor market: in the framework of the cost-effective approach, it is only possible to assess reliably the effectiveness of specific mechanisms (events or trends). However, when assessing the situation on a regional labor market and its dynamics, we can indirectly judge the adequacy of mechanisms applied. The problem of the choice of indicators in the framework of the present study was solved as follows. The indicator of departmental expenditures of regional consolidated budget was recognized as unsuitable, because not every region has a separate government body that regulates labor relations. It often happens that a department responsible for labor market management regulates other social relations as was the case in the Vologda Oblast until 2011, when there existed the Department of Labor and Social Development of the Oblast [8]. Besides, there is no uniformity in specifying the items of expenditure. Therefore, the present study assesses public administration effectiveness on the example of specific measures that aim to reduce tensions on the labor market, involving the majority of Russia's regions in 2009–2010, including the Vologda Oblast. These activities included the following mechanisms: proactive professional training of workers in case of a threat of mass dismissal; public works,

temporary jobs and internships to acquire work experience; assistance to the development of small business and self-employment of the unemployed; assistance with finding jobs for unemployed persons with disabilities. The choice of activities and time periods depends on the availability of statistical information about mechanisms used and the expenditures on their implementation. A disadvantage of this approach is that it helps estimate only the quantitative aspect of activity of the object under consideration. However, we think that in the conditions when it is necessary to alleviate tension in the labor market this method can be considered sufficient.

Since this paper analyzes the program activities, their participants are chosen as productive units in most cases. In some cases (activities to promote self-employment and employment of persons with disabilities), the number of jobs created was considered along with number of participants. Management effectiveness is expressed in money terms and is estimated as the amount of funds spent per participant of program activities or per workplace created:

$$\text{Effectiveness} = \frac{\text{costs}}{\text{coverage of the population}} \cdot$$

Thus, the regions that could produce lower costs per participant of the events had the opportunity to cover a greater number of participants with program activities, and the management of social and labor relations in these territories can be described as relatively more effective. The choice of this indicator may be relevant when there is a shortage of funds, which is typical of economic recession, such as a budget crisis.

For the purpose of inter-regional assessment of effectiveness, the index method was used, according to which the cost per productive unit were estimated in rubles and in percentage of national average. To assess the change in effectiveness, the costs were adjusted to reflect the changes in consumer prices and were presented in the prices of 2014. Recalculation is applied in order to compare the expenditures on the regulation of the labor market in different periods of time and thus present the data in a comparable form.

The necessity of organizing the proactive training of employees emerged in 2009, when the economic crisis has affected Russia's labor market, and many workers were at risk of dismissal. This mechanism is preventive in nature and aims to increase the competitiveness of workers and prevent the release of workforce.

In 2009, measures to reduce tensions on the labor market in the whole country covered 216,017 people; in 2010, when the situation on the labor market somewhat stabilized and the threat of mass dismissals became less pronounced, this figure dropped to 113,148 people. The number of participants of the program decreased almost everywhere, except for nine areas. In the context of Russia's federal districts, expenditures for the activities were the least in the North Caucasian Federal District, and the largest – in the Far Eastern Federal District (*tab. 2*). However, it should be noted that the coverage of participants in the North Caucasian Federal District was the smallest, given the fact that it has an excess of labor resources and is characterized by a relatively high unemployment level (in 2009, its overall unemployment rate amounted to 44.8%). It follows that despite a relatively high

Table 2. Expenses on the participants of activities aimed at proactive training of employees who are at risk of being dismissed\*

Territory	Actual number of participants, people		Costs per participant			
			Thousand rubles		% of national average	
	2009	2010	2009	2010	2009	2010
<i>Russian Federation and federal districts</i>						
North Caucasian	3,611	797	8.5	5.2	86.7	51.8
Central	49,584	23,679	9.2	8.6	93.6	86.0
Siberian	35,647	15,073	10.8	9.1	110.2	90.9
Ural	22,202	13,416	10.9	9.4	111.9	93.6
Southern	9,736	2,513	9.7	9.7	98.7	97.0
Northwestern	21,060	8,522	11.6	10.4	118.7	104.1
Volga	68,000	45,676	7.9	11.3	80.8	112.7
Far Eastern	9,788	3,472	16.7	13.0	171.1	130.3
Russian Federation	216,017	113,148	9.8	10.0	100.0	100.0
<i>Northwestern Federal District regions</i>						
Novgorod Oblast	238	254	6.7	3.8	68.8	38.1
Republic of Karelia	719	120	9.8	4.2	100.5	42.0
Kaliningrad Oblast	3,241	728	9.8	5.8	100.0	58.2
Vologda Oblast	3,066	2,117	7.7	8.4	79.2	84.1
Komi Republic	2,311	1,353	9.7	8.5	98.9	85.3
Pskov Oblast	1,458	941	11.3	9.0	115.6	89.7
Murmansk Oblast	926	353	11.7	10.0	119.7	100.4
Arkhangelsk Oblast	861	182	7.4	13.1	75.3	131
Leningrad Oblast	2,116	874	14.9	16.4	152	164.4
Saint Petersburg	6,124	1,600	15.8	16.7	161.8	166.6
* Territories are ranked according to the costs per participant in 2010. Sources: [15]; author's calculations.						

cost-effectiveness, labor market regulation measures were insufficient.

Russia's national average cost per participant of the program amounted to 9.8 thousand rubles in 2009 and 10 thousand rubles in 2010. Thus, we can say that the effectiveness of activities in the field of proactive education in Russia on the whole changed only slightly.

In general, however, the effectiveness of organization aimed at proactive training increased in the majority of RF subjects (in 57 out of 82), the increase varying in the range from 3 to 60%. This significant range can be explained by differences in socio-economic

conditions in which regional authorities fulfill their functions. The mechanisms under consideration are least effective in the Northwestern Federal District. The highest training costs per participant were observed in Saint Petersburg and the Leningrad Oblast. However, the effective use of funds in these areas decreased in a year in Saint Petersburg from 162 to 167% of the national average, in the Leningrad Oblast – from 152 to 164%. The situation in these RF subjects is caused neither by high prices nor by high unemployment. The correlation between them is also absent. Accordingly, we can say that the effectiveness of labor resources management in these

regions is relatively low. In the Vologda Oblast, the efficiency of carrying out the activities aimed at proactive training was higher than in Russia in general: in 2009, the cost of proactive training per employee amounted to 79% of the national average level (7.7 thousand rubles per participant), in 2010 it was 84% (8.4 thousand rubles). Thus, the effectiveness of implementation of this mechanism in the region decreased in a year.

Promotion of self-employment of unemployed citizens is a complex of measures that comprises the provision of information on the opportunities for entrepreneurial activity, testing of the unemployed in order

to identify entrepreneurship capabilities, training in the basics of entrepreneurship, and financial support [1]. The necessity of application of these mechanisms is due, on the one hand, to the important role of entrepreneurship in the economy of modern Russia; on the other hand, it depends on the fact that the entrepreneurial sector in Russia in its present form has been formed relatively recently [14].

In 2009 and 2010, the activities to promote self-employment of the unemployed in Russia covered 279,060 people, including 127,609 in 2009, and 151,451 in 2010 (*tab. 3*). The costs per participant increased by 16%.

Table 3. Expenditures per participant to promote self-employment of unemployed citizens and stimulate the creation of additional jobs by unemployed citizens who started their own business\*

Territory	Actual number of participants, people		Costs per participant			
			Thousand rubles		% of national average	
	2009	2010	2009	2010	2009	2010
<i>Russian Federation and federal districts</i>						
North Caucasian	662.6	29,356	853.3	79.3	0	73.8
Southern	30,147	11,444	90.2	92.2	98.1	85.8
Central	15,029	17,300	95.1	103.3	103.4	96.1
Volga	42,545	51,124	95.8	115.3	104.2	107.3
Ural	10633	11,114	75.1	116.5	81.6	108.5
Northwestern	6615	7,400	94.2	117.7	102.4	109.5
Far Eastern	3474	3,851	104.1	123.6	113.2	115
Siberian	19166	19,862	92.6	136.2	100.7	126.8
Russian Federation	127609	151,451	92	107.5	100	100
<i>Northwestern Federal District regions</i>						
Komi Republic	299	418	88.1	78.9	95.8	73.4
Novgorod Oblast	613	609	90.0	96.7	97.9	90.0
Republic of Karelia	394	1,133	120.2	98.0	130.6	91.2
Arkhangelsk Oblast	700	573	97.1	102.3	105.6	95.2
Murmansk Oblast	850	672	91.7	102.5	99.7	95.4
Pskov Oblast	1,877	1,367	98.0	119.7	106.5	111.4
Vologda Oblast	1,633	1,707	97.3	121.8	105.8	113.3
Kaliningrad Oblast	230	785	87.3	184.3	94.9	171.5
Leningrad Oblast	19	43	190	282.7	206.5	263.1
Saint Petersburg	0	93	0	355.4	0	330.8

\* Territories are ranked according to the costs per participant in 2010.  
Sources: [15]; author's calculations.

The number of participants of these activities in 50 regions also declined. The largest expenditures per participant were observed in Saint Petersburg (in 2010 – 355.4 thousand rubles; in 2009 the events were not held) and the Leningrad Oblast (190 thousand rubles in 2009; 282.7 thousand rubles in 2010); the lowest – in the Tyumen Oblast (53.4 thousand rubles in 2009; 74.9 thousand rubles in 2010) and the Republic of Ingushetia (86.4 thousand rubles in 2009; 57.4 thousand rubles in 2010). The resources were spent most effectively in the North Caucasian Federal District, less efficiently – in the Siberian Federal District. During the period of implementation of program activities the efficiency was increased (costs per participant were reduced) in 21 RF subjects. However, in the regions of North Caucasus, given the adverse market conditions of their labor market, the activities covered the smallest number of participants.

Among the regions of the Northwestern Federal District, the greatest number of unemployed in the two years of the program implementation (3,340 people) was observed in the Vologda Oblast, the second place was occupied by the Pskov Oblast (3,244 people). This indicator and the indicator of costs per participant do not have significant correlations with labor market indicators – the number of registered unemployed and the number of the unemployed calculated by ILO methodology, as well as the number of employed in the economy. Neither is the number of participants connected with the investment climate in the regions, which is an indicator of conditions for business activities. The investment climate

was evaluated according to a rating developed by Expert RA Rating Agency; according to this rating all the regions of the north-west of Russia in 2009–2010 had low or insignificant investment potential at a high (or moderate) investment risk (the exception was Saint Petersburg, experts characterized it as an area with a high potential and moderate risk) [13]. In addition, the number of participants and the amount of funding had no significant correlation with the change in the number of individual entrepreneurs due to adverse effects of the economic crisis: the number of entrepreneurs in the Vologda Oblast decreased by 5%, the total revenue (taking into account the change in the level of consumer prices) – by 3%; at the same time, the coverage of participants and the amount of funding were higher than in all other regions of the Northwestern Federal District. This indicates a lack of consistency in the events carried out: when determining the number of participants, neither the scale of the labor market nor the business environment in the regions was taken into consideration. Self-employment was promoted most effectively in 2009 in the Komi Republic (88.1 thousand rubles per participant) and the Kaliningrad Oblast (87.3 thousand rubles); in 2010 – in the Komi Republic (78.9 thousand rubles) and the Novgorod Oblast (96.7 thousand rubles).

The costs per participant in the Vologda Oblast exceeded the national average, the effectiveness of promoting self-employment decreased over the period of the program implementation: if in 2009 the costs per participant amounted to 106% of the national average (97.3 thousand rubles), then in 2010

they were 113% (121.8 thousand rubles). However, thanks to the activities carried out in the Vologda Oblast, 830 jobs were created (according to this indicator, the Oblast ranked second among the Northwestern Federal District regions), which is a positive development, given the fact that the Vologda Oblast is among the areas most affected by the crisis.

Another important measure aimed to stabilize the situation on the labor market

is the organization of public works that pursues two socially significant goals: meeting the needs of territories and organizations in the performance of temporary or seasonal work, and the preservation of motivation to work in the individuals that did not work for a long time or do not have any work experience [13].

In 2009, the total number of participants of public works was 2,434,473 people, in 2010 – 1,328,996 (*tab. 4*).

Table 4. Expenditures for the participants of the events aimed at the organization of public works, temporary employment of employees at risk of dismissal, as well as the citizens recognized as officially unemployed, and people looking for a job\*

Territory	Actual number of participants, people		Costs per participant			
			Thousand rubles		% of national average	
	2009	2010	2009	2010	2009	2010
<i>Russian Federation and federal districts</i>						
Volga	930,249	551,873	14.5	11.7	88.6	90.4
Ural	277,730	159,068	16.7	12.9	102	99.5
Southern	192,384	46,225	18.1	13.3	110.4	102.5
Central	503,905	268,592	16.9	13.4	103	103.1
Siberian	303,449	169,417	19.2	15.1	117.2	116.6
Northwestern	149,389	68,410	17.1	15.5	104.4	119.2
Far Eastern	77,367	39,160	21.8	15.8	132.9	121.6
North Caucasian	-	26,251	-	16.7	-	129
Russian Federation	2,434,473	1,328,996	16.4	13.0	100	100
<i>Northwestern Federal District regions</i>						
Leningrad Oblast	6,985	5,333	12.9	11.8	78.7	91
Kaliningrad Oblast	25,295	5,202	20.1	12.1	123	93.3
Novgorod Oblast	9,344	5,292	18.6	13.1	113.5	100.9
Arkhangelsk Oblast	7,482	2,571	14.4	13.4	88.1	103.1
Komi Republic	5,379	6,574	17.1	13.8	104.5	106
Republic of Karelia	10,073	3,388	22.4	14.1	136.9	108.6
Murmansk Oblast	3,796	3,568	18.9	15.6	115.1	120.2
Pskov Oblast	13,464	7,614	18.3	15.8	111.7	122
Saint Petersburg	13,287	5,397	18.7	18.0	114.1	138.4
Vologda Oblast	54,284	23,471	15.4	18.7	93.8	143.9
* Territories are ranked according to the costs per participant in 2010. Sources: [15]; author's calculations.						

Public works were organized most efficiently in the Volga Federal District: in 2009, the costs per participant amounted to 14.5 thousand rubles, in 2010 – 11.7 thousand rubles. Such activities were least effective in the Far Eastern Federal District (21.8 thousand rubles in 2009) and in the North Caucasian Federal District (16.7 thousand rubles per participant in 2010).

During the period under consideration, there was a 20% reduction in expenditures per participant in public works nationwide; federal districts experienced a 10–30% reduction. This indicator increased in ten regions, in others it decreased – by 2% in Chukotka Autonomous Okrug, and by 50% in the Omsk Oblast.

Among the regions of Russia's North-West in 2009, the Leningrad Oblast was the most effective region in this respect, the Republic of Karelia (22.4 thousand rubles per participant) and the Vologda Oblast (18.7 thousand rubles) showed the least efficient performance. The Vologda Oblast had the largest number of participants in public works – 77,755 people. This indicator has no significant correlation with the number of the unemployed, as well as with its change during the period under consideration. At that, if in 2009 the Vologda Oblast occupied the third place in the rating of effectiveness (after the Leningrad and Arkhangelsk oblasts), spending 15.4 thousand rubles per employee, then in 2010 it occupied the bottom position in the rating. It should be noted that the Vologda Oblast was among the territories in which the effectiveness of organization of public works decreased: in 2010, the costs per participant in the region

amounted to 121% of the 2009 level. The costs per participant in public works in Russia's regions do not correlate with the level of prices and, thus, may be determined by the needs of the territories in the implementation of public works and the specifics of organization of these events. Despite the high costs per participant, the organization of public works in the Vologda Oblast in comparison with other regions of the Northwestern Federal District is the most accessible to the public, which is an important characteristic for a crisis response measure.

The labor market is regulated by the activities to promote labor rehabilitation of people with disabilities, too. This issue is important for any state, the employment policy of which is socially oriented. If anti-crisis mechanisms such as public works and the promotion of self-employment can be cyclical in nature, the social policy concerning disabled persons must be carried out regardless of the state of economic environment, since disability as a social phenomenon is always present in every society. Therefore, the activities aimed at labor rehabilitation of disabled people were not limited only to the period of 2009 to 2010, when the impact of the economic crisis on the labor market was the highest and covered the years 2010–2014. It should be noted that the activities are complementary and are conditioned largely by the specifics of implementation of basic mechanisms for employment of people with disabilities that are also present in each constituent entity of the Russian Federation. The majority of program activities under consideration are implemented through the reimbursement of the costs incurred by employers. The

increase in the expenditures for the equipping of workplaces means improving working conditions and increasing labor productivity, so it cannot be characterized definitely as a decrease of cost-effectiveness.

Thus, it is organizations that are directly involved in the equipping of workplaces. The costs per participant depend also on his/her health condition and characteristics of the workplace (cost of special equipment and software, creation of availability infrastructure, changes in interior, etc.). Thus, the effectiveness of spending on the equipment of workplaces for disabled people is in direct proportion to

their health status and infrastructure of the territory. However, although the costs per participant of events are increasing, the issue of unemployment of disabled people remains unresolved, and the majority of economically active disabled people are unemployed: in Russia in 2012, 35% of disabled people who applied for assistance to the employment service got jobs.

It can be pointed out that during the period under consideration the number of participants in the programs to facilitate the employment of people with disabilities increased in 3.7 times (*tab. 5*).

Table 5. Expenditures on the participants of the events to promote the employment of persons with disabilities\*

Territory	Actual number of participants, people		Costs per participant			
			Thousand rubles		% of national average	
	2010	2014	2010	2014	2010	2014
<i>Russian Federation and federal districts</i>						
Ural	902	973	32.9	87.6	98.0	79.2
Far Eastern	284	509	26.8	93.8	79.9	84.8
Siberian	679	1945	47.9	94.6	142.5	85.6
Southern	54	1497	42.7	99.9	127.1	90.3
Volga	1,129	3,447	29.3	103.4	87.1	93.5
North Caucasian	40	2,328	37.7	111.4	112.2	100.7
Central	548	3,317	29.8	129.4	88.7	117.0
Northwestern	373	991	32.1	164.5	95.5	148.7
Russian Federation	4,009	15,007	33.6	110.6	100	100
<i>Northwestern Federal District regions</i>						
Republic of Karelia	3	64	26.3	86.2	78.3	77.9
Komi Republic	7	100	16.5	98.1	49.2	88.7
Kaliningrad Oblast	22	99	40.6	105.5	120.7	95.4
Arkhangelsk Oblast	48	84	36.0	105.7	107.3	95.5
Novgorod Oblast	3	94	0	106.4	0	96.2
Vologda Oblast	113	213	37.3	108	111	97.6
Leningrad Oblast	26	181	31.2	109.5	92.9	99
Pskov Oblast	24	71	38.0	113.1	113.2	102.3
Murmansk Oblast	17	36	37.5	124.3	111.6	112.3
Saint Petersburg	110	49	25.8	1,270.7	76.9	1,148.9
* Territories are ranked according to the costs per participant in 2014. Sources: [15]; author's calculations.						

In all the regions, except for the Republic of Mari El, there is a significant increase in the costs per participant of the activities. In Russia on the whole, this indicator increased in 3.3 times (from 33.6 to 110.6 thousand rubles). Among Russia's federal districts, the measures to promote the employment of persons with disabilities were carried out most effectively in the Far Eastern Federal District (26.8 thousand rubles per participant in 2010), the Ural Federal District (87.6 thousand rubles in 2014). The least effective were the Siberian Federal District (47.9 thousand rubles per participant in 2010) and the Northwestern Federal District (164.5 thousand rubles in 2014).

It is noteworthy that from the point of view of cost effectiveness, Saint Petersburg was the most effective region of the Northwestern Federal District in 2010 (25.8 thousand rubles per person), and in 2014 it was the least effective region (1,270.7 thousand rubles). The reasons for such high costs in 2014 are not obvious and require further research.

The Vologda Oblast became leader by the number of participants in the program activities in 2010–2014 (572 people). This indicator has no significant correlation with the number of disabled people of working age; however, the growing coverage of employment of disabled persons suggests that the regional authorities are intensifying the social orientation of their policy. During the period under review the cost per participant has increased in 2.9 times – from 37.3 thousand rubles (111% of the national average) to 108 thousand rubles (98%).

In 2009–2014, the number of participants covered with the measures to reduce tensions

on the labor market reduced significantly: in 287 times – in the Vologda Oblast, in 187 times – in Russia as a whole, in 157 times – in the regions of the Northwestern Federal District. These processes are due to the stabilization of the situation in the labor market. Thus, in the Vologda Oblast, unemployment reduced from 8 to 5.5%, registered unemployment reduced from 3.7 to 1.3%, the ratio of tension on the labor market decreased from 3.7 to 1.1 units. If in 2009 it was 1,113 participants of additional activities per 1,000 unemployed (according to ILO methodology) in the Vologda Oblast, then by 2014 their number dropped to three. This indicator in the Russian Federation has changed from 440 to 9 people, in the regions of the Northwestern Federal District – from 329 to three people. The excess in the number of participants over the number of the unemployed is explained by the fact that many administration mechanisms were preventive in nature and they were focused not only on the unemployed but also on the employees who were at risk of being dismissed. The necessity of such measures is doubtless, since the positive developments in the labor market, mentioned above, were due not only to changes in the economic situation, but also due to the impact of management mechanisms. The greatest impact of public administration on the functioning of the labor market was observed in 2009–2010, when the coverage of participants with additional activities was the highest.

The cost per participant of the activities increased in the Vologda Oblast in 5.8 times, in the Russian Federation – in 5 times, in the regions of the Northwestern Federal District –

in 6.7 times. This can be explained by the fact that with the fall of unemployment the cost structure of the additional activities has undergone significant changes. By 2012, many regions, and also the Vologda Oblast, carried out only measures to promote the employment of disabled persons; and by 2014, this category of measures became the only one in additional events. The increase in the costs per participant of the activities in the reduction of the overall costs and the scope of participants suggests that the measures of state support for the unemployed are becoming more targeted. To assess the

relative effectiveness of the activities carried out in the Vologda Oblast, the regions were ranked by the amount of costs per participant of the events.

Often the change in the ranking positions was radical in nature – both in the regions and in federal districts. For example, during the period under consideration, the Central Federal District shifted from the first to the seventh place, the Far Eastern Federal District – from the sixth to the second place. This can be explained by differences in the economic development of the territories and the nature of the activities (*tab. 6*).

Table 6. Total costs per participant of the activities to reduce tensions in the labor market\*

Territory	2009		2010		2012		2013		2014	
	thousand rubles	position								
<i>Russian Federation and federal districts</i>										
Ural	18.5	3	19.3	2	35.1	1	47.6	1	82.0	1
Far Eastern	24.7	6	25.1	5	47.4	4	66.9	5	84.6	2
Siberian	22.8	5	26.3	6	44.1	3	48.4	2	88.2	3
Southern	27.3	7	26.9	7	42.6	2	56.4	3	88.6	4
Volga	18.3	2	19.8	3	49.6	5	67.8	6	92.3	5
North Caucasian	39.4	8	47.2	8	60.5	8	56.5	4	96.6	6
Central	18.3	1	17.9	1	53.0	7	186.6	8	115.6	7
Northwestern	19.3	4	23.5	4	51.8	6	112.4	7	129.4	8
Russian Federation	19.8	-	21.7	-	49.8	-	67.2	-	99.1	-
<i>Northwestern Federal District regions</i>										
Republic of Karelia	25.1	59	32.9	63	50.3	37	86.4	79	85.1	25
Komi Republic	17.6	19	16.2	10	45.4	17	62.4	20	96.4	44
Kaliningrad Oblast	19.5	32	30.3	56	46.0	22	73.1	51	96.5	46
Leningrad Oblast	13.7	4	14.4	4	55.4	62	73.5	52	96.7	49
Novgorod Oblast	22.6	50	20.7	33	51.4	42	67.4	26	97.3	51
Arkhangelsk Oblast	20.2	35	27.9	51	48.3	32	69.4	31	99.4	59
Vologda Oblast	17.2	16	24.0	47	54.7	59	62.2	18	99.7	61
Pskov Oblast	26.6	62	28.8	54	53.1	49	74.3	60	100.8	79
Murmansk Oblast	28.7	68	27.2	50	59.9	75	80.2	76	111.1	80
Saint Petersburg	17.8	20	21.7	37	-	82	302.1	81	275.9	81
* Territories are ranked according to the costs per participant in 2014. Sources: [15]; author's calculations.										

The uneven effectiveness of regulating the tension in the labor market is different in various constituent entities of the Russian Federation. This heterogeneity is not explained by the level of prices in the regions because none of the activities had significant correlation between their effectiveness and the price of the fixed set of consumer goods and services; rather, it is explained to a greater extent by the dependence on the institutional characteristics of administration of territories and on their socio-economic status.

In this case, the position of the Vologda Oblast in the rating of efficiency of the Russian Federation subjects was gradually decreasing. In 2009, the Oblast ranked 16th, in 2010 – 47th, in 2012 – 59th, in 2013 – 18th, in 2014 – 61th. Although the costs per participant are growing, which indirectly indicates an increase in the quality of rendering public services to the population, the number of participants is reducing, while some issues (particularly the problem of employment of persons with disabilities) remain unresolved. Thus, it is possible to talk about the relative loss of effectiveness of labor market regulation in the Vologda Oblast.

The fact that the Vologda Oblast moved to a lower position in the rating of effectiveness was accompanied by institutional change – the creation of a specialized body – the Department of Labor and Employment

of the Vologda Oblast Population, whose powers include the regulation of socio-labor relations. This may indicate that the change in the structure of state authorities involved in the management of socio-labor relations does not always lead to an increase in the efficiency of their work. In addition, it should be noted that the coverage of the Vologda Oblast population with the activities was the highest among all the subjects of the North-West of Russia.

In order to improve the efficiency of socio-labor relations in the region, it is advisable to develop and improve current administration mechanisms. One of these mechanisms is the annual presentation of public reports on the work of the Vologda Oblast Department of Labor and Employment within the framework of open data. These reports must contain information about the activities undertaken and planned targets achieved.

As we see, it would be useful that the public reporting on the activities of the Vologda Oblast Department of Labor and Employment include information on the expenditures for the implementation of measures for development of the labor market. Such an addition would help improve the quality of control over budget spending and, consequently, increase the efficiency of ongoing activities.

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## Free Port of Vladivostok: Development Conditions, Prospects, Risks



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**Abstract.** One of the priority directions of Russia's state policy with regard to territories' development is the development of the Far Eastern region. The free port of Vladivostok is one of the key projects that are currently being implemented in the southern part of Primorsky Krai and they focus on boosting the socio-economic development of Vladivostok city, Primorsky Krai and the Far Eastern region as a whole. The goal of this research is to consider the conceptual issues of the free port of Vladivostok, to outline the conditions and prospects of its operation and identify risks associated with its future development. The article defines the modern concept of "free port", characterizes historical experience of the "free port" regime in Vladivostok in the end of the 19th century, substantiates the strategic importance of using the free port of Vladivostok as a tool of intensive growth of Russian Far Eastern territories. The article also discloses the essence of the free port of Vladivostok as a means to promote free entrepreneurship, which is used to increase freight traffic through the port of Vladivostok, increase foreign trade, attract new investments, create new industries and develop the port's infrastructure. The article provides a review of the main tax benefits and perspectives of the free port of Vladivostok in terms of the gross regional product formation.

Analyzing the mechanisms of effective functioning of the free port of Vladivostok, the authors identify the short-term (mid-term) and long-term priorities and operational risks for the free port of Vladivostok. The article also touches upon some issues concerning the response of some foreign countries to the creation of the free port of Vladivostok.

**Key words:** free port of Vladivostok; customs regime, port infrastructure, tax privileges, economy of Primorsky Krai, integration into the Asia-Pacific region, support for entrepreneurship, attraction of investments, gross regional product.

The law No. 212-FZ “On the Free Port of Vladivostok” came into force October 12, 2015 [11]. The main purpose of its realization is to accelerate socio-economic development of the Far Eastern region. Nowadays the functioning of the Free Port of Vladivostok (FPV) and areas of advanced development is a key vector of the regional socio-economic strategy. Geographical location, technical and economic infrastructure of the modern port Vladivostok are considered as the key element to fulfil the international transport and transit function of Primorsky Krai, and used as the basis for Russia’s inclusion into the international economic space of the Asia-Pacific region (APR). Vladivostok together with other seaside ports serves as Russia’s gateway to Asia, so it is no exaggeration to say that in the modern era of economic harmonization between countries and increased international integration Southern Primorye becomes a major center of Far Eastern territories development. Now and in the future Vladivostok is represented as a center of international economic, scientific-innovation and cultural cooperation, a focus of socio-economic activity, a growth point with huge potential for development, which implementation is largely promoted by the

regime of the Free Port. In this regard, there are particularly relevant issues, such as those related to the intensity and efficiency of ongoing economic integration of the Free Port of Vladivostok in the Asia-Pacific region, the development and improvement of mechanisms for the FPV effective functioning, as well as the main risks the Free Port residents face and will face.

The concept “free port” appeared due to the Italian term “porto-franco”, which has historically meant a harbor with the right of duty-free importation of foreign goods. This term has entered the economic lexicon due to the fact that the first free ports were opened in Italy in the 16th century. Being one of the types of free economic zones, available ports are areas with preferential tax, customs and currency regimes that stimulate the inflow of foreign capital and boost joint productions and export-import operations, etc. The ultimate goal of a free port is economic development of adjacent to territories through the realization of its dramatically increasing foreign trade and investment potentials.

Russia has certain experience in the establishment and operation of free port zones: in 1819–1859 the Porto-Franco regime was used in Odessa, 1828–1838 – in Kamchatka.

In 1856 the right of free trade was introduced in Nikolayevsk-on-Amur, later in Vladivostok, Posiet and other ports in the Primorskaya Oblast. In 1860–1862 there was duty-free bilateral trade of all goods, except tea and bread wine, through the land border with China. In fact, until the beginning of the 20th century the right of free trade, established on the entire territory of the Russian Far East, was abolished in 1909 after some hesitation [7, pp. 459-450].

The one-hundred history shows how the region has benefited due to the status of a free port, though its development occurred in conditions of isolation from the rest of the country, lack of capital, low quality of life, residential and administrative turmoil. According to experts, in the second half of the 19th century the Far East stimulated foreign trade. Only the volume of US export passing through the ports of the Pacific Ocean increased from 3.3% to 207.1 thousand dollars, or by 63 times in 1866–1881. In 1883–1899 the cargo turnover of Vladivostok grew from 47.8 thousand tons to the 333.3 thousand tons, or by 7 times. According to the Priamurye officials' reports, American agricultural equipment was sold to peasants on favorable terms, and many imported products were cheaper and of better quality than domestic produced locally or, for example, transbaikalian. According to contemporaries, "such trade and supply activity has brought undoubted benefit to the Far East" [4]. Then and now the Free Port of Vladivostok is a kind of window to Asia towards greater opportunities for the promotion of free

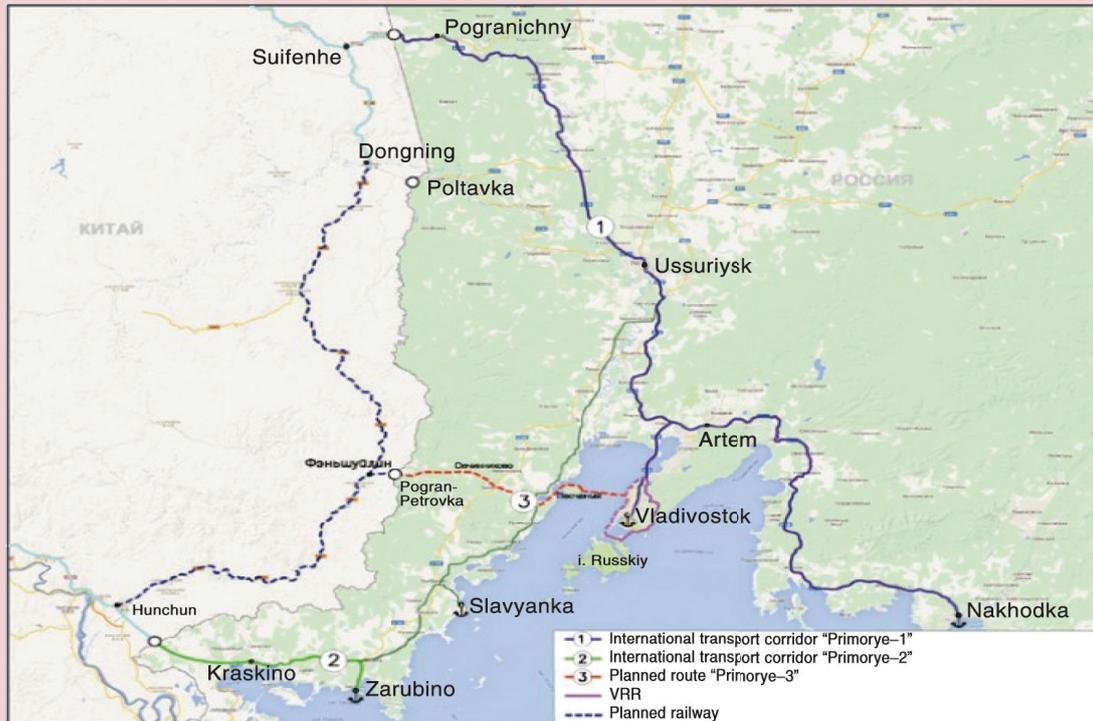
international trade. Suffice it to recall that the world major ports – Hong Kong, Singapore – have become such due to the duty-free regime of free trade and the world's best practices of port infrastructure development.

The Free Port of Vladivostok today is a territory with special status, which includes 15 municipalities of Southern Primorye along the border with China, North Korea and the coast of the Sea of Japan. The Free Port area comprises 28.4 thousand km<sup>2</sup>, its population is equal to 1.4 million people, accounting for more than 20% of the population in the Russian Far East.

Geographically the FPV territory is the center of the international transport corridors "Primorye–1" and "Primorye–2" and planned "Primorye–3", which connect the key points of Southern Primorye and near-border China (*fig. 1*), which provides Russia with obvious strategic advantages.

The area around Vladivostok separates a significant part of China – Heilongjiang, Jilin and Inner Mongolia (with the total population of 90 million people and the production volume of 750 billion U.S. dollars) from the sea. Nowadays the goods produced in these provinces are delivered to the ports of Dalian and Yingkou or loaded onto vessels at the distance of 1,100–2,300 km from the place of production. According to the Director of the Centre for Research of Postindustrial Society Vladislav Inozemtsev, the port in the southern part of Primorye together with Chinese railways and highways could become very attractive for Chinese companies. Shipping a product at the enterprise, one could deliver

Figure 1. Free Port of Vladivostok and main international transport corridors of Primorye



Source: photo from the presentation of the project of the international transport corridor "Primorye-3". Vladivostok Administration press-service. Available at: <http://primamedia.ru/news/economics/28.08.2015/458123/>.

it to the vessel for a few hours and export it without customs formalities. The demand for such transshipment would be 150–200 million tons per year, or a quarter of the total capacity of Russian ports. The expansion of the zone by means of industrial parks would lead to the localization of production and the creation of dozens of thousands of jobs [1]. Thus, transit handling of cargo from Northeastern China to Russia and from Russia to Northeast China via the port of Vladivostok is the first phase of the FPV functioning. The benefits will be vivid already in the short term in the form of increased turnover and expanded

activity of Russian transport companies. In the long term they will be manifested in the creation of the integrated macro-regional system of multimodal transportation based on a fundamentally new – global – level of development of port infrastructure, rail and road infrastructure in Primorye.

The promotion of the East China direction of goods transit through the FPV will encourage interaction between East China and Russia, East China and South China, East China and other Asian countries, particularly Japan and North Korea and South Korea. Though China has a branched network of rail-and

highways, Chinese goods can be conveniently, cheaply, and quickly transported by sea via the Sea of Japan and the East China sea – from Vladivostok to any Chinese port. In addition, the FPV development coincides with the development of the Northern Sea Route and in the future will naturally link the trade of Asia-Pacific countries and Europe. All this will significantly expand logistical capabilities of Southern Primorye. Today part of its territory, resembling an uneven triangle (see fig. 1), is one of the most promising international trade zone in Northeast Asia.

The Free Port of Vladivostok as a tool of effective territorial development is focused on establishing special measures of state support for entrepreneurial activities aimed at boosting export-import operations of foreign economic activity (FEA) subjects and extending commodity turnover through Russian Eastern ports. This will inevitably involve new investment on the part of both domestic and foreign economic activity subjects and integrated upgrade of port infrastructure: transport, energy, utilities, engineering, social, innovative, etc. In other words, the FPV is the base for attracting additional investment, working out and realizing new economic projects, and developing new industries. The financial burden on the creation of port infrastructure will be shared by budgetary and non-budgetary funds with the use of public-private partnership. Such a mechanism make the difference between the Free Port and other projects financed mainly by the federal budget, as it gives an opportunity to mitigate,

optimize the financial burden and better control the target use of allocated funds.

The special measures of state support are provided to the FPV residents – economic entities registered in the established order, setting up new productions or implementing new projects and willing to invest in production and upgrade of port infrastructure in the amount of not less than 5 million rubles for 3 years. It should be noted that the Pacific Investment Management Company is the first resident of the Free Port of Vladivostok. It plans to allocate about 5 billion rubles to construct a five-star hotel in the village of Slavyanka in Khasansky district, Primorye [14]. Today residents have tax privileges and preferences (*tab. 1*).

Tax policy of the state is one of the main factors that influence the formation of favorable business environment; therefore the reduced tax burden on residents of the Free Port of Vladivostok creates possibilities of obtaining additional revenue [3, p. 84]. So, the decreased tax burden on the wage fund and the creation of new jobs will contribute to the growth in the average wage and improve the overall welfare of citizens. Additional income tax receipts will increase revenues of the city and provincial budgets and help implement the projects related to development of the social sphere and socio-economic infrastructure of the city.

The entrepreneurs of the Free Port can use tangible tax benefits, advantages of a free customs zone, the absence of restrictions on foreign labor recruitment, and the number of industry preferences.

Table 1. Privileges and preferences for FPV residents

Privileges and preferences	State support measures
Corporate profit tax relief	Federal share: a zero rate for 5 years; regional share: the 5% rate for 5 years, next 5 years – not less than the 10% rate, federal share is not less than 2%, a simplified VAT refund – 10 days
Reduced rates of deductions to non-budgetary funds	For 10 years the total amount of contributions – 7.6%
Free customs zone	Duty-free and tax-free: - import, storage, consumption (utilization) of foreign goods; - import of goods (equipment); - import of foreign goods (equipment); - export of foreign goods (equipment)
Hire of foreign workers	Hiring foreign workers without quotas
Orderly state and municipal control (supervision)	Joint inspections, short time of control and supervisory inspections, coordination of inspections with the Ministry for Development of the Russian Far East
Simplification and acceleration of customs control	Single window for cross-border crossings, non-stop operation of checkpoints
Special rules for certain types of activities	- medical activity; - educational activity; - aquaculture (fish farming), fisheries and conservation of aquatic biological resources

Table 2. Tax burden of FPV residents, rubles per rouble of revenue

Index	2015	2016–2020	2021–2025	since 2026 et seq.
Corporate tax	0.05	0.02	0.03	0.05
VAT	0.13	0.13	0.13	0.13
Deductions to non-budgetary funds	0.07	0.02	0.02	0.07
Corporate property tax	0.01	0.00	0.00	0.00
Land tax	0.004	0.00	0.00	0.00
Total tax payments and payments to non-budgetary funds	0.26	0.16	0.17	0.24
Amount of tax burden reduction	-	0.10	0.09	0.02

Corporate profit tax relief and reduced rates of deductions to non-budgetary funds come into effect January 1, 2016. *Table 2* presents tax rates for FPV residents given the provided benefits in conventional calculation per 1 rouble of revenue. For 2015 there

are current payments, for the subsequent periods – calculations based on benefits and preferences. According to the table, in the first five years of the FPV functioning, tax savings will be 10 kopecks per rouble of revenue, in the next 5 years – 9 kopecks.

According to the developers of the law “On the Free Port of Vladivostok”, such as experts of the administrations of Vladivostok and Primorsky Krai, the Ministry for Development of the Russian Far East and business representatives, in 2021 gross regional product of Primorsky Krai will be equal to 1.106 trillion rubles (growth by 1.7 times to 2015), in 2025 – 1.402 trillion rubles (growth by 2.2 times to 2015), in 2034 – 2.157 trillion rubles (growth by 3.4 times to 2015). The number of created job places can reach to 84.7 thousand people in 2021, 108 thousand people in 2025, 468.5 thousand people in 2034. The growth in GRP of the Far Eastern Federal District will account to 1.97 trillion rubles in 2025 [8]. According to Mayor of Vladivostok I.S. Pushkarev, it is possible to expect tripling of GRP of Primorsky Krai for the next 10 years; it corresponds to a 34% increase on the scale of the Far Eastern Federal District [5]. It is expected that the production growth will be achieved by increasing the volume of transport and logistics operations, establishing processing, science-intensive industries, and raising the volumes of educational and health services.

Analyzing the law No. 212-FZ “On the Free Port of Vladivostok”, we can say that the economic content of the FPV goes beyond the classical definition of a free port and involves the formation of a special economic zone, characterized by complex development of region’s infrastructure and a high degree of international integration. The FPV objectives and targets correspond to the concept of

accelerated development of the Far Eastern region and strengthened economic and geopolitical positions of Russia in Asia and largely aligned with the guidelines of the Strategy of Development of Russian Sea Port Infrastructure up to 2030 [9], complementing and deepening the latter. To elaborate the mechanism of FPV effective functioning, it is useful to distinguish short-term (medium-term) and long-term targets of its activity. In particular, **the short-term and medium-term priorities** include *support of entrepreneurship and promotion of international trade*:

1. Increase in full capacity of the port of Vladivostok. Today the proportion of its uncommitted capacity is 44.4% [9]. The efficient operation of the port requires capacity equal to at least 80%.

2. Technical and technological upgrade of port facilities to increase their productivity, transfer capacity, and capacity of major transportation hubs of Southern Primorye [12, p. 434].

3. Deepening specialization of transportation hubs of the Primorsky port complex, development of container transportation as the most relevant, cost-effective and secure way of maritime transportation at the premises of the Vladivostok port. Thus, the share of container transportation in the total world turnover is more than 60%, and the containerization of general cargo in the world practice is practically 100%. The global annual growth in the amount of container shipping is about 10%, and this positive trend will only increase [9; 12, p. 435].

4. Encouragement of the interaction between the port and road and railway approaches, increasing the capacity of the latter. We should take into account that road transport is the main mode of transport, used to export goods from Russian ports (more than 60% of shipped goods), and Vladivostok are among the cities, along with Saint Petersburg and Novorossiysk, which have the problem of the interaction between seaports and approaches to them [9].

5. Ensuring tariff and tax attractiveness of the port of Vladivostok and, consequently, reducing the cost of transport and related transport services for economic entities – subjects of foreign economic activity.

6. Improving technological characteristics of port operations, particularly reducing vessel demurrage in the port, customs clearance, etc.

7. Simplification and acceleration of customs procedures, ensuring a single window for cross-border crossings, as well as liberalization of the visa regime for incoming individuals and, especially, entrepreneurs.

It is achievement of balance of growth rates of port capacities and volumes of cargo transportation. The enhancement of port infrastructure is to be accompanied with increasing turnover and it is, in fact, an adequate response to the increased demand for transportation services on the part of FEA subjects.

The FPV priority **in the long term** is to *increase competitiveness of the city of Vladivostok and the entire region through the development of the port zone of Southern Primorye*, particularly:

1) ensure the efficient development of port infrastructure of Southern Primorye, raise competitiveness of the port of Vladivostok to the level of other leading ports in the Asia-Pacific region;

2) enhance the role of the ports of Southern Primorye in the implementation of Russia's transit potential in the Asia-Pacific region, raise transit cargo traffic and, as a result, transfer part of foreign trade flows of the Asia-Pacific region to the seaside ports;

3) create new workplaces, increase incomes of foreign economic activity subjects and a level of wages;

4) raise opportunities to implement projects of accelerated development of Primorsky Krai and the Far Eastern region, in particular development of tourism, mining and manufacturing industries, hotel business, different services, etc. and, as a consequence, set up extended zones of innovative development – key growth points of long-term development [6];

5) use new organizational mechanisms of public administration of port infrastructure, including an institute for public-private partnership (IPPP), concessions, management companies, technology platforms and territorial clusters, etc.) thus, raise efficiency of the state management of port activity.

There are the following results of functioning of the Free Port of Vladivostok at the macroeconomic level, which will qualitatively improve the economic performance of Far Eastern territories:

1) creation of the modern international transport and logistics complex in Primorye at the premises of the Vladivostok port [12, p. 434];

2) establishment and development of modern high-tech industries to manufacture products that are competitive on the market of the APR countries both by quality and price in Southern Primorye;

3) provision of a steady flow of all types of revenue onto the territory of Vladivostok and Primorsky Krai as a whole;

4) acceleration of socio-economic development of Vladivostok and enhancement of standard of living of the population in Primorye, which, in turn, will contribute to stabilization of the resident population, growth of migration attractiveness, expansion of the Vladivostok agglomeration and improvement of the overall socio-demographic situation.

The mechanism to realize FPV priority development directions is the use of geo-

Figure 2. Geographical zones of the economic impact of the Free Port of Vladivostok



Source: the photo from the business weekly "Competitor". Available at: <http://konkurent.ru/ekonomika/690-sotvorenie-porta.html>.

graphical and economic advantages of Primorsky Krai for integration in the Asian economic space through the development of international trade with APR countries and the port's inclusion in the Asian market.

*Figure 2* shows that over 400 million people live at the distance of 1,000 km from Vladivostok, and the productive capacity of this territory is about 7 trillion U.S. dollars. Let us note that less than 100 million people live at the distance of 1,000 km from Moscow. At the distance of 2,000 km from Vladivostok 1.1 billion people live and the productive capacity is 14.3 trillion U.S. dollars. At the distance of 3,000 km the productive capacity reaches a value of 17.3 trillion U.S. dollars, which accounts for 16% of the global GDP in 2014. The geo-economic role of the port of Vladivostok is difficult to overestimate: the surrounding territory is a huge market for own products, there are great opportunities for the development of transport logistics facilities and complex innovative economy due to attracting domestic and foreign investment.

The benefits of economic development as well as the problems arising from the FPV operation, actively discussed in scientific and political communities at various levels, are today perhaps the most popular topic for consideration. The countries-neighbors of Russia in the Asia-Pacific region have already expressed their opinion about the Free Port in the South of the Russian Far East. Among the responses there are measures, aimed at increasing competition, and deep interest in the

development of partnership and cooperation. In particular, China's first retaliatory action was to introduce the simplified customs regime on the territories bordering with Russia, such as Harbin, Dalian, Shenyang, Changchun, Hohhot and Manzhouli, and grant additional rights to the companies engaged in foreign trade. Then China proposed to promote partnership within the Free Port, in particular form a logistics hub of online trade, construct a high-speed railway between Suifenhe and Vladivostok, create joint enterprises to process agricultural products, and develop innovative technologies, mining industry, medicine, tourism and some other areas. The Chinese government and business claim to continue the ongoing policy of entering the Russian market and searching new sources of scarce raw materials [13, p. 19].

The Republic of Korea and the Republic of Vietnam assessed the establishment of the Free Port of Vladivostok quite positively. The Korean side is ready to share the experience to form and develop free economic zones that exist in each of the eight Korean provinces with Russia. We can mention the first projects at the premises of the FPV, announced by the Korean side, such as the construction of a plant to process water biological resources with minimum investment in the amount of 10 million U.S. dollars and the opening of medical centers on the territory of Vladivostok to render high-tech medical services. Vladivostok Mayor I.S. Pushkarev mentioned in his interview about the social importance of the Russian-Korean medical project: "If we let high-quality

and ultra-modern technologies be introduced into Vladivostok, we will not only reduce the cost of these services (price of flights and accommodation in Korea) by half, but also will give our people a choice: be treated according to our standards or for another price according to Korean standards... This decision will not damage domestic medicine; on the contrary, we will create conditions for technology exchange, improvement of our doctors' skills" [5].

The Socialist Republic of Vietnam is a long-standing partner of Russia, particularly, of Primorsky Krai, in many sectors of economic activity. According to Deputy Consulate General of Vietnam on Economic Issues Mr. Trinh Xuan Hieu, the Vietnamese business and community is interested in the opportunities associated with the emergence of the Free Port of Vladivostok. The Vietnamese side believes that the adopted law on the FPV and the agreements on a free trade zone between Vietnam and the EEU member-states create favorable conditions for the development of relations between Vietnam and Russia, in general, and the Far East, in particular. The projected turnover in 2020 amounts to 10 billion US dollars, i.e. compared to 2014 and 2015 it is expected to grow by 2–2.5 times. The significant share of the increase in bilateral trade account for foreign trade projects within the Free Port. Power engineering, woodworking and textile industry are most promising sectors of the Russian-Vietnamese cooperation. Joint food production, construction and repair, real estate operations, and transport have also great potential [2].

If the benefits of the Free Port are obvious and connected with great hopes for long-term development of the city and the region, the project weaknesses is primarily associated with doubts about the realism of free trade in Russia. According to the results of the public opinion analysis, the weakest links in the chain of the FPV development are the following.

First, it is conservatism of state authorities, a red-tape management system, and administrative pressure on business, traditional in the Russian practice. The experience of the largest world ports shows that the main competitive advantage of any port is not so much the financial accessibility of its services as the organizational simplicity of customs procedures and operations, short downtime in the port, etc. It should be noted that the current Russian leadership makes ambitious economic decisions and has a strong political will; however, the mechanisms of these decisions realization are hampered by rigidity, slowness of the current administrative structure, inconsistency of views on those and other issues, and the system of prohibitions, barriers and Russian standards in international activities. To overcome the authorities' conservatism, it is necessary to develop fundamentally new approaches to management and ensure high dynamics of regulatory bodies' activities due to new personnel and training policies.

Second, it is inconsistency of current transport and logistics infrastructure of Vladivostok and Primorsky Krai with

requirements and requests of a free port, a lack of trained personnel. Indeed, despite its important geopolitical role, Vladivostok and other Russian ports lag far behind other Asian ports by level of economic and port infrastructure development. To attract new investment and form advanced economic infrastructure as a locomotive of the territory's further development are objectives of the Free Port. Usually when a free port is established, the increase in the volume of transport operations is accompanied by the enhancement of port infrastructure. In this case we can expect gradual but steady development due to the Free Port functioning.

Third, it is corruption and criminal risks. Unfortunately, Primorye has a very disappointing statistics by level of crime in the economic sphere. Thus, in 2014 the number of corruption offences in the economy grew by 34.4%, compared to 2013; of them the largest share of violations is observed in public procurement, state control implementation, state (municipal) property use, land and budgetary legislation. The 2015 data also indicate the increased number of offences relating to bribery, graft and official forgery, including in the field of customs and foreign trade. According to experts, developing the Free Port, the authorities of all levels should consolidate efforts to minimize criminal corruption risks, which can reduce macroeconomic effect of the FPV [10, pp. 84-85].

Fourth, it is a threat of uncontrolled export of resources from Russia. Working out legislative and institutional mechanisms of the Free Port functioning, the government should consider not only the development of export-oriented commodity activities, but also the conditions and opportunities for establishing processing facilities that manufacture products of high readiness, including knowledge-intensive.

Thus, the Free Port, which is nowadays the main factor to increase competitiveness of the southern Far-Eastern territories and attract new investment, is affected by purely Russian problems. To successfully implement the law "On the Free Port of Vladivostok", it is necessary to improve the Russian normative-legal base in the sphere of customs, tax, fiscal, pricing, tariff policy, enhance and simplify the organizational mechanism of collaboration with residents and foreign partners and, importantly, extend experience and hone daily practices of the port in a new environment. The time of doubt and promises has passed. It is high time for the city and Primorsky Krai to act on the basis of a constructive dialogue of government, business and society. The most urgent tasks in the short term are the following: quality and detailed monitoring of economic processes on the territory of the Free Port of Vladivostok, consideration and adoption of the measures coordinating the work of all FPV participants in order to make the Free Port of Vladivostok a successful socio-economic project unprecedented in the country's history in a relatively short time.

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# BRANCH-WISE ECONOMICS

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## Accounting of Multiplier Effect as a Required Element in Assessing the Effects of Social Programs



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**Abstract.** The article substantiates the importance of taking into account indirect effects of the programs, projects, activities (mainly social) when deciding on the need to implement them. The problem of providing society with decent living conditions is studied. The article proves that in spite of some positive trends in the Russian construction market the issues of housing availability do not lose their significance. It notes that a variety of approaches to solving this problem have been developed, that is why it is critical to assess

the effectiveness of each solution in order to choose the most suitable one. One of the tools for alleviating this problem – a program of housing construction savings – is discussed in detail; by means of the specially designed universal computational model we determine fiscal effectiveness of this program application in the Sverdlovsk Oblast. The analysis shows that the accounting of multiplier effect reveals the full range of possible effects of the program that can significantly affect the adoption of the decision to initiate actions necessary for their implementation.

**Key words:** assessment, social programs, multiplier effect, living conditions, housing capacity, budgetary efficiency, housing construction savings.

The provision of the population with worthy living conditions represents one of the most important factors in the development of contemporary society: high-quality and comfortable housing, access to all necessary amenities and developed infrastructure are indicators of the population's material well-being, characterizing a degree of satisfaction of some basic social needs and defining its properties as a economic development resource.

However, one should take into consideration that the problem to ensure a comfortable living environment that best meets the society's interests can not be solved with the application of slight effort and in a short time – it is characterized by complexity, multidimensional nature and requires a joint action of different actors (authorities, business structures, population), involvement of significant amounts of means (not only financial) and constant activity in the field of the existing system transformation (the living environment should be modified in accordance with changing needs of the population; the creation of new elements is also dictated by the need to replace worn components). In the modern conditions

of growing political instability and increasing risks of termination (significant lowering of intensity) of economic relations with a number of foreign partners, many problems (including of social nature) worsen, although attention to them (especially on the part of authorities) is abated due to the emergence of new serious threats to the development of the national socio-economic complex and its individual parts.

Thus, at present the urgency to solve the problem of providing the society with decent living conditions is not diminished, however, it is important to find the ways to alleviate this problem, characterized by maximum performance, but requiring the use of significant resources. In this regard, it is necessary to carefully assess the effects achieved due to the conducted measures: consideration of only direct impacts does not often allow us to make an adequate conclusion about the validity of subject's implementation of the planned activity. As for socially valuable programs and projects (including, measures aimed at improving living conditions of the society), the measurement of indirect effects is particularly significant: the results

are often difficult to quantify; however, the consideration of indirect effects helps evaluate the whole range of changes and identify, for example, how socially-oriented measures promote growth of economic potential of the system.

To illustrate the thesis about the significance of discussing all effects when characterizing the importance of measures (including addressing social problems) we should apply to the practice of estimating the effectiveness of measures aimed at raising the degree of satisfaction with living conditions.

\* \* \*

The problem to increase the degree of satisfaction with living conditions is complex. To alleviate its urgency, it is advisable to carry out a significant number of tasks (meet people's needs in housing, enhance quality of infrastructure facilities, render services for their repair and reconstruction timely, etc.), requiring their own sets of measures (although, obviously, the results of their use can influence the solution of other problems). Thus, we should consider one of the systemic problem aspects, identifying the implications of measures aimed at changing the situation in this sphere. In particular, the insufficient provision of citizens with housing can be one of the obstacles to increasing the degree of satisfaction with living conditions.

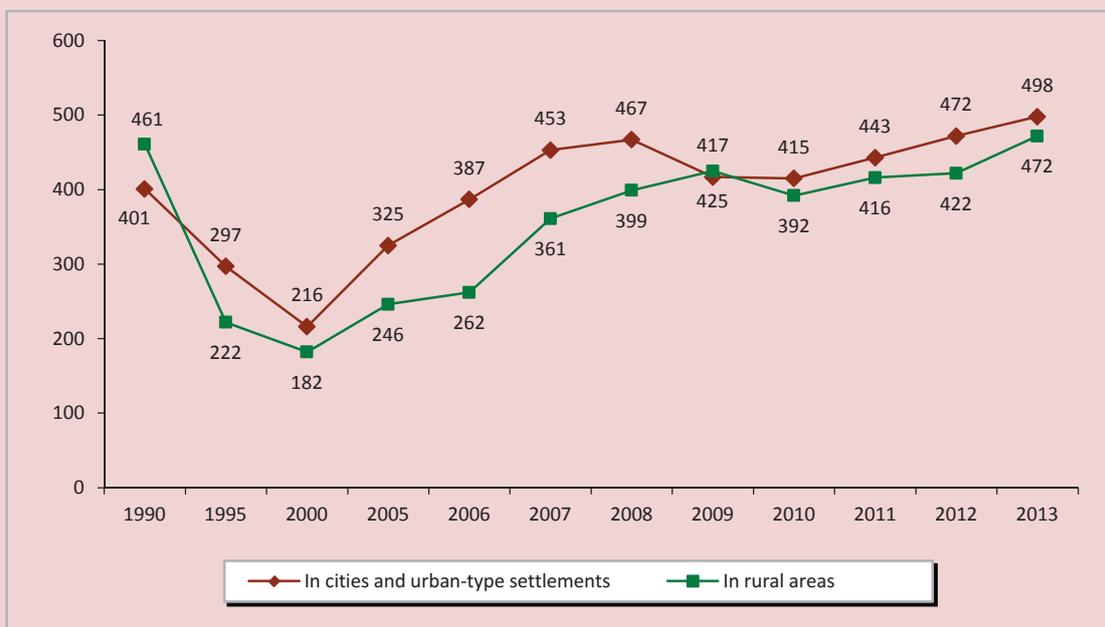
In recent years the situation with housing construction in Russia been has changing for the better, as evidenced by the data describing the parameters of commissioning of residential

real estate. According to the Ministry of Construction, Housing and Utilities of the Russian Federation, in 2014 the value of this indicator amounted to 81 million m<sup>2</sup>, almost by 15% higher than in 2013. Besides, the parameters of housing commissioning exceed the value of the 2014 target stipulated by the program "Provision of citizens of the Russian Federation with affordable and comfortable housing and communal services" (71 million m<sup>2</sup>) [5].

The analysis of the dynamics of residential real estate commissioning, expressed using a relative indicator (m<sup>2</sup> per 1 thousand people) also testifies stable growth in this indicator (*fig. 1*).

The intensification of construction activity has a positive impact on the supply of housing: the value of total area of residential premises per person has steadily increased (*tab. 1*). However, the value of this index is still quite far from the global indicators: in accordance with the UN standards, one person should have no less than 30 square meters of housing area; however, in the largest European cities on average a person possesses about 30–40 m<sup>2</sup> of housing area, in the USA – 70 m<sup>2</sup> [2].

Moreover, the characteristics of some residential premises do not correspond to conventional ideas about quality housing. So, the wear rate of 37.5% of the units exceeds 31%, the share of housing with wear of more than 70% amounts to 1% of the total housing stock [6]. Although at first glance the proportion of old and dilapidated housing stock does not seem significant in the total area of all housing

Figure 1. Commissioning of residential real estate per 1000 people, m<sup>2</sup>

Source: Stroitel'stvo v Rossii. 2014: stat. sb. [Construction in Russia. 2014: Statistics Digest]. Rosstat [Federal State Statistics Service of the Russian Federation]. Moscow, 2014, p. 53.

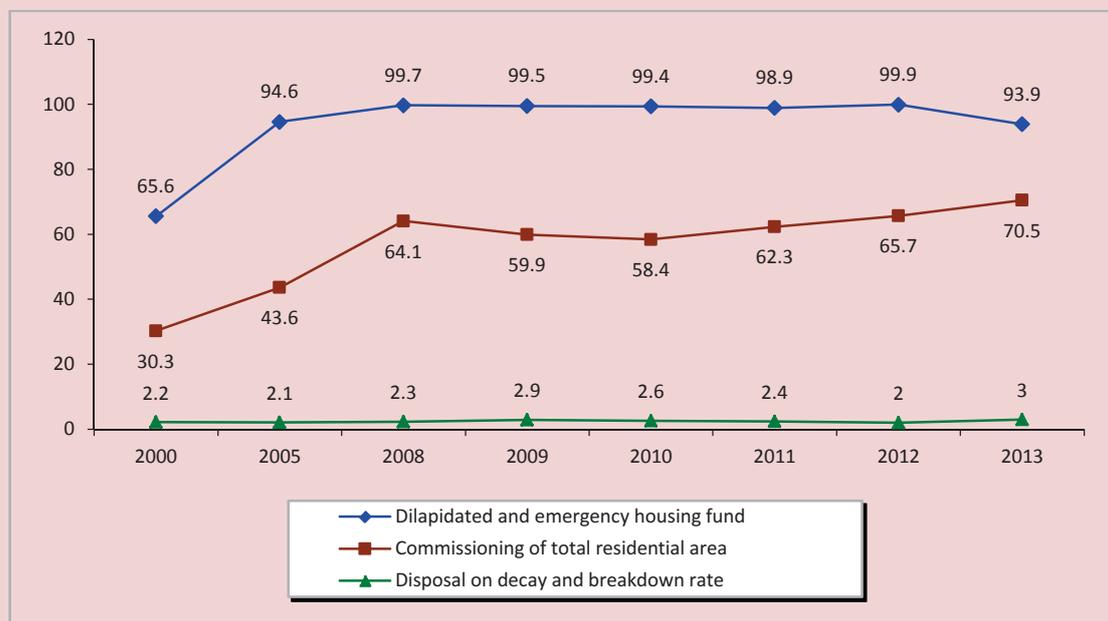
Table 1. Total area of residential real estate per person (at the year end), total (m<sup>2</sup>)

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Total area of residential premises per person (at the year end) – total, m <sup>2</sup>	20.8	21.0	21.4	21.8	22.2	22.6	23.0	23.4	23.4	23.7
of it:										
in urban areas	20.4	20.7	21.1	21.4	21.8	22.1	22.5	22.9	22.9	23.3
in rural areas	21.9	22.0	22.5	22.9	23.4	24.0	24.5	24.8	24.7	25.0

Source: Osnovnye pokazateli zhilishchnykh uslovii naseleniya: ofitsial'nyi sait Federal'noi sluzhby gosudarstvennoi statistiki [Main Indicators of Housing Conditions of the Population: Official Web-Site of the Federal State Statistics Service]. Available at: [http://www.gks.ru/wps/wcm/connect/rosstat\\_main/rosstat/ru/statistics/population/housing/#](http://www.gks.ru/wps/wcm/connect/rosstat_main/rosstat/ru/statistics/population/housing/#)

stock (in 2013 the value of this indicator was 2.8% [10]), there is no gradual displacement of housing with a high level of deterioration: the volumes of new housing do not exceed volumes of dilapidated and hazardous housing stock (fig. 2).

The low level of housing affordability is another serious problem. To assess this parameter we use a special coefficient – a housing affordability index, which shows how many years it takes a family to save up to buy an apartment using the entire amount of

Figure 2. Old and dilapidated housing stock, million m<sup>2</sup>

Source: Stroitel'stvo v Rossii. 2014: stat. sb. [Construction in Russia. 2014: Statistics Digest]. Rosstat [Federal State Statistics Service of the Russian Federation]. Moscow, 2014, p. 55.

received income for these purposes. Its value depends on the variables, such as average cost of one square unit, area of housing, average per capita family income, number of persons in the family [13, c. 336]. Housing is considered affordable if the value of this coefficient calculated for a family of three people interested in the purchase of a standard apartment with the area of 54 sq. m., is equal to 3 (i.e. for 3 years a family can save up and buy an apartment, not spending available means; in practice this means that it takes the average family about 10 years to buy an apartment, provided it uses about one third of income for this purpose). If the coefficient is equal to 3–4 years, the accommodation is considered

“not very affordable”, to 4–5 years – “acquisition of an apartment is seriously complicated”, and above 5 years – “housing is essentially unavailable”. The average ratio in Russia is 3.9 years, in Central Russia – 4.6, the Northwestern Federal District – 4.5, the Southern Federal District – 3.9, the North Caucasian Federal District – 2.9, the Volga Federal District – 3.3, the Ural Federal District – 2.9, the Siberian Federal District – 3.6, the Far East Federal District – 3.5. [2]

Thus, despite the revival of the Russian construction market, the annual increase in commissioned areas and the issues of housing are still relevant. However, we should take into account that due to the high social

significance of this problem, the authorities are very interested in it, and the housing policy conducted in the country is a matter of high priority in the system of state regulation.

The issues of meeting the population's needs in housing are widespread not only in the practice of management subjects of various levels (federal, regional, local), but also in the scientific literature. In particular, the specifics of real estate economics were studied by foreign researchers, such as J. Friedman, J. Daniell, G.S. Harrison, J.D. Fisher and domestic experts, such as S.V. Ananskikh, L.V. Dolgova, N.Yu. Bogomolova, E.I. Tarasevich, S.A. Vaksman, N.B. Kosareva, R.Z. El'darov and others.

When addressing this problem, both the theorists and practitioners propose a wide range of mechanisms and tools to facilitate its solution. They suggest conducting the activities aimed at attracting funds for construction projects implementation (giving a real estate developer the right to obtain a preferential loan, issuance of securities, for example, housing bonds, formation of real estate funds – construction, development, etc.) that will help reduce construction costs and make housing more affordable for end users; material support of the population (provision of mortgage loans at a reduced rate, development of social housing, financing of some costs of consumers, etc.); provision of the conditions for the real estate market development. It is obvious that the use of any mechanism mentioned above requires the authorities' active participation. Although their participation is not always of

financial nature (e.g. organizational assistance to the project), more often the implementation of activities in the framework of housing policy implies the involvement of quite substantial amounts of budgetary funds. In this regard, when selecting the most appropriate tool to influence the housing market the authorities consider a number of aspects:

– first, the socio-economic effect from conducted measures (it involves comparison of the results obtained and the costs incurred on the part of those entities that were somehow involved in the implementation process – developers, consumers, banking organizations). Its consideration is important due to the fact that the government's key target is socio-economic development of the management object – a territorial complex and its elements;

– second, budgetary effect (it takes into account effects the budget has due to the implemented measures). Its calculation is reasonable due to the fact that if the budgetary expenditures incurred in the process of program or project realization exceed the revenues, the budget will lack funds and compensate them at the expense of other directions (for example, by reducing funding for other activities) that will have a negative impact on the parameters of socio-economic development of the territorial complex.

The calculation of socio-economic effects is associated with certain methodological difficulties: it is necessary to consider both material and non-material consequences, the measures will have for every participant

(expressed as a quality characteristic or in measurable quantities). In turn, the calculation of the budgetary effect, at first glance, is a fairly simple task: it is necessary to estimate the volume of all budgetary funds, required for the conducted measures, calculate how the changes will affect the economic system (mainly the tax base), how much additional funds the budget will receive in the end. Meanwhile, the process to identify the scale of the budgetary effect also involves a number of difficulties: only the assessment of direct consequences of the implemented actions is not adequate and can not be used to decide whether it is necessary to implement a program (project) or not.

To justify this conclusion, we will consider the draft program aimed at improving housing affordability for the population, estimating the effect that its implementation will have for the budget, subsidizing funds for its realization, and describing how the forecast value of budget revenue can vary when calculating all indirect results.

As mentioned earlier, the problem of housing affordability is very acute in the Russian Federation. It determines the authorities' constant interest in it. However, particular attention is paid to housing policy, focused on supporting the most vulnerable low-income citizens, i.e. those subjects, who can not improve their living conditions themselves. The proportion of households registered as in need of accommodation is quite large (as of 1 January 2013, the indicator value in the Russian Federation accounted for 5% of the total number of families [3]).

The program of housing construction savings ("Housing Construction Savings Bank") is one of the programs currently implemented in several Russian regions (Krasnodar Krai, the Republic of Bashkortostan) in order to reduce this indicator. It is aimed at increasing the level of people's provision with affordable housing and it requires natural persons' involvement in target accumulation of funds for future mortgage lending at a preferential interest rate (with part of the funds accumulated in a bank account being subsidized from the regional budget). In particular, the main objectives of this program in the Republic of Bashkortostan, where it has been implemented since the beginning of 2014, are the following: development and support of targeted housing savings to promote housing loans and boost housing construction; attraction of alternative sources to finance housing construction; ensuring mortgage lending availability for low- and middle-income families [8]. Thus, the realization of the housing savings program is focused primarily on supporting families that have low income and are not ready to engage in the process of saving money to improve their housing conditions in normal conditions (although within a year after the launch of the program in the Republic of Bashkortostan, anybody who wanted to could take part in it).

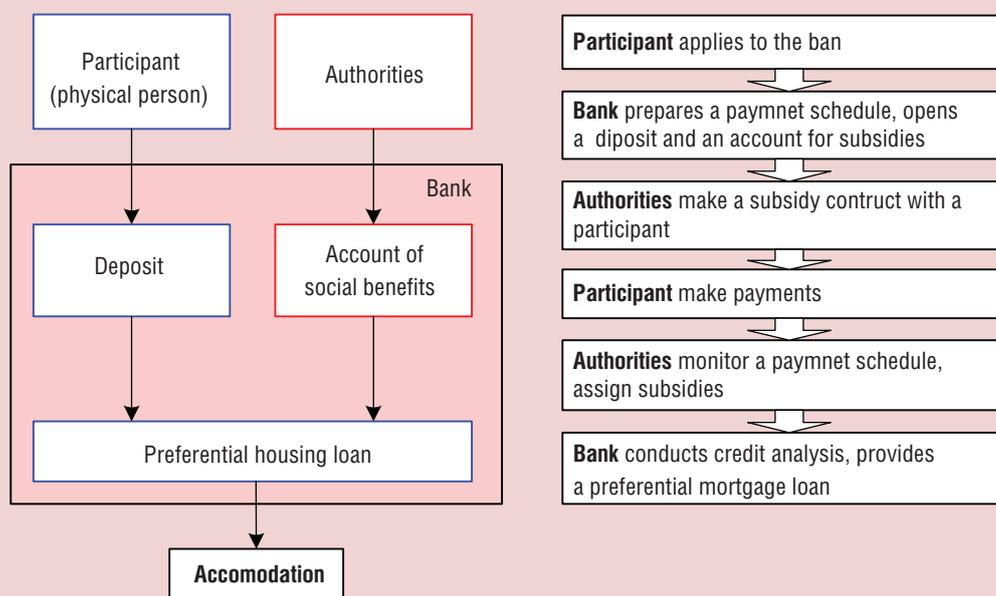
The interest in the mechanism of housing construction savings banks on the part of those willing to buy an apartment (about 6 thousand people participated in the program in Bashkortostan [9]) and the revitalization of construction companies, forecasting growth

in demand for housing, have encouraged other regions to consider the possibilities of implementing similar programs on their territories.

So, the Sverdlovsk Oblast, where the issues of providing families with housing are also relevant (the proportion of families registered as in need of residential premises amounts to 4.5% of their total number [3]), is currently evaluating the prospects to apply the tool of housing construction savings, similar to that used in the Republic of Bashkortostan. The following scheme is supposed to be implemented (*fig. 3*): a participant (natural person) opens a savings account at a

bank, monthly refilling his/her account in accordance with the agreement with the bank; subsidies from the budget also arrive in the savings account every month (in the amount of 30% of the sum placed by the participant, but not more than 3 thousand rubles); the bank, in turn, raises the amount according to the values of basic parameters of the deposit (the deposit rate is 1–2% per annum). It is planned that this stage of funds accumulation will last 3–5 years on average, then the accumulated amount will be used to make an initial mortgage payment. The remaining funds (in the amount not exceeding the sum of an initial mortgage payment) will be assigned

Figure 3. General scheme of participation in the program of housing construction savings “Housing Construction Savings Bank”



Compiled by: *Programma "Stroitel'nye sberegatel'nye kassy": Tsentr investitsii i stroitel'stva* [Program "Construction Savings Bank": Center for Investment and Construction]. Available at: <http://centrinvest-ufa.ru/ipoteka/sberbank/s-01012014-g-strojsberkassy>

by the bank at a special concessional rate, which will allow the program participants to take possession of residential property after completion of the funds accumulation stage. Over a thousand families (about 1,100) are expected to be involved in the program.

In order to determine how the region is interested in applying this program, it is required to assess the totality of arising effects, relating injections and results for each subject involved in its realization. It is obvious that the population (natural persons) as participants meeting their needs in housing benefit from the program realization: they receive a mortgage loan on preferential terms, and the part of an initial payment is provided from the budget (in this case, program participants do not provide additional injections). The program also has a positive impact on the construction industry (the program does not cover the fundraising side of business, however, increases the demand for housing under construction). For banking institutions and authorities the benefits from participation in the program are not so obvious.

To estimate the budgetary effect from the creation of housing construction savings banks, it is necessary to compare the amount of budgetary resources required for the successful implementation of this process with the volume of funds that the budget will receive due to boosted construction activity in the region. For these purposes the universal computational model is developed; it allows us to understand the difference between additional budget revenues and expenditures, which occurrence is caused

by the program implementation: the change in key features of the program (timing of its implementation, conditions of participation, etc.) helps evaluate its effectiveness for different regions or compare different scenarios of its implementation with each other by selecting the most suitable option.

If we assume that each participant (of 1,100 involved) opens a savings account for 5 years, every month adding 10 thousand rubles to it, then the total volume of budgetary expenditure (for the five-year accumulation period) will amount to 199,800,000 rubles (monthly amount of subsidized budgetary funds is 3,300,000 rubles). The total amount of funds accumulated in each account (according to the savings conditions stipulated by the program) will be 800,154 rubles (i.e., each participant will be able to use this amount as an initial mortgage payment). Therefore, the similar sum can be allocated by the banks participating in the program as credit resources, and the total amount of funds to be spent on acquiring housing under the program will be equal to 1,776,342,000 ((initial payment in the amount of 800,154 rubles + sum of lent money in the amount of 800,154 rubles) \* number of program participants). Thus, the regional construction complex will receive additional revenue in the amount of 1,776,342,000 rubles.

The construction sector development will lead to the growth of budgetary revenues (mainly, due to the increase in tax revenue from enterprises that are part of the building complex). The program implementation involves the use of regional budget funds;

therefore, when assessing the budget revenues it is necessary to consider those taxes, part of which goes to the RF subject budget. These include:

- revenue tax (a 20% rate, 90% of the received funds go to the regional budget);
- personal income tax (a 13% rate, 70% of the received funds go to the regional budget);
- property tax (a 2,2% rate, all collected funds go to the regional budget).

If we assume that the average profit rate is equal to 20%, then the obtainment of 1.7 billion rubles of additional income by the construction organizations will ensure the rise in revenue tax in the amount of 71,054,000 rubles (of which 63,948,000 rubles is revenues of the regional budget). Besides, there will be an increase in payments of personal income tax (assuming that the cost of labor remuneration accounts for about 30% of the total expenses incurred by construction companies, the regional budget will receive additional 38,795,000 rubles) and property tax (21,885,000 rubles).

Thus, the amount of receipts received in the budget (acquired by summing calculated tax deductions) will be 124,628,000 rubles (by 75 million rubles less than the volume of budgetary injections provided by the program).

On the basis of the estimated timing of the program and the indicators set during the assessment, we can consider the values of budget revenues and expenditures within each period, during which it is expected to fulfill the program (*tab. 2*). However, we should take into account that the intensification of construction activities will be carried out at the stages, close to the time of accumulation of funds required for an initial payment.

The calculations reveal insufficient budget effectiveness of the program. They demonstrate that the regional authorities are not interested in its implementation. However, this assessment ignores the impact that the construction sector development stimulated by the program makes on the socio-economic territorial system. In turn, the positive transformation of the socio-economic system directly affects the amount of budget revenues (in this case, the

Table 2. Calculation of the budget effectiveness of the program “Housing Construction Savings Bank” (only direct effects), thousand rubles

	2016	2017	2018	2019	2020	Total
Regional budget expenses	39,960.0	39,960.0	39,960.0	39,960.0	39,960.0	199,800.0
Regional budget revenues	0.0	0.0	41,542.7	41,542.7	41,542.7	124,628.1
<i>Difference between revenue and expenses</i>	<i>-39,960.0</i>	<i>-39,960.0</i>	<i>1,582.7</i>	<i>1,582.7</i>	<i>1,582.7</i>	<b><i>-75,171.9</i></b>
Discounted costs	39,960.0	37,345.8	34,902.6	32,619.3	30,485.3	175,313.0
Discounted revenues	0.0	0.0	36,285.0	33,911.2	31,692.7	101,889.0
<i>Difference between discounted revenues and costs</i>	<i>-39,960.0</i>	<i>-37,345.8</i>	<i>1,382.4</i>	<i>1,292.0</i>	<i>1,207.4</i>	<b><i>-73,424.0</i></b>

regional authorities do not make any additional investment); therefore, the consideration of the scale of such effect can correct the conclusions about fiscal effectiveness of the program.

The estimation of the indicators to increase economic potential of the complex due to the grown scale of activities of one of its elements is closely connected with the phenomenon of multiplication.

A multiplier (from lat. *Multiplicare* – to multiply, increase, raise) is a factor that measures the multiplying impact of positive feedback on the output value of the controlled system [12], showing how the dependent variable increases when the independent variable increases by one.

The multiplier concept in economic theory is introduced by R. Kahn [14], who suggests that the boost in investment activity leading to increased revenue and job opportunities in one of the economy's sectors contributes to the growth in aggregate consumer demand and, as a consequence, the transformation of the level of production and employment within the entire economic system. This concept is developed by J. Keynes, [4] who proves that there is a close relationship between the aggregate employment and profit, on the one hand, and the scale of investment, on the other hand. It is due to the fact that the part of revenues received in the course of business activity (triggered by the inflow of investment funds) is spent on consumption, i.e., becomes investment in related industries (which, in turn, increases revenues of these industries and provides dependent sectors with production resources).

Thus, the appearance of the multiplier effect due to the program implementation (accumulation of construction volumes) is caused by the revenue growth in the industries associated with the construction complex of the region. In order to make a quantitative assessment of this effect, it is necessary to calculate a multiplication factor, and this process can involve the use of various methods. In particular, to consider the scale of the impact of each evaluated object on the economy is possible by means of the method based on the analysis of "input-output" tables (based on the model proposed by Wassily Leontief, a Nobel Prize Laureate, and helping estimate inter-industry relationships formed in the national economy within the framework of the reproductive process [1]).

The researchers, calculating the multiplier effect by means of the system of "input-output" tables, are interested in section I of the table indicating the use of resources [11] and reflecting the formation of added value by economic sectors: the columns include the types of economic activity involved in the production process and the rows – the types of economic activity producing resources consumed in the production process; thus, the table cell reflects the value of goods and services (for each activity) spent for production needs (in terms of each activity). Having data on demand some activities have for the products of other activities, one can identify resource ratios. The quantities of resources of different types should be divided into the total cost incurred in the production process of each industry.

Relying on these data it is possible to assess the impact of changed costs in terms of one activity on the amount of product manufactured by related activities. For example, we can identify how the need for construction of an additional amount of housing in the region will affect the construction companies' demand for construction materials and equipment. We should take into account that the growth in output in the industries that supply the construction sector with necessary resources will boost production in related sectors (thus, the multiplier factor value will increase; however, the consideration of interconnections at each successive stage of the calculation will ensure its growth at a smaller scale than at the preceding stage).

The analysis of the "input-output tables", aimed at uncovering links between sectors and determining their tightness, allows us to conclude that the multiplier factor value for the construction sector exceeds 4 (this suggests that the increase in output in the construction industry by 1 ruble leads to a rise in the output amount in other industries, where the increase value is not less than 3 rubles). Based on the assumption that about 75% of the construction companies' costs on the purchase of goods (receipt of services) produced by other industries account for manufacturing industries, among which the share of the Sverdlovsk Oblast enterprises products amounts to about 78% (half of construction equipment and over 90% of construction materials come from local manufacturers, despite the fact that the ratio

of fixed assets and working capital is 3 to 7), the correction factor (to adjust multiplication parameters) will be equal to 0.59. Thus, if we consider the rise in output volumes of the Sverdlovsk Oblast enterprises connected with construction, tax revenues, estimated in terms of the budgetary effect received due to the program implementation, will significantly increase.

To assess the increase in profit tax deductions to the regional budget due to the considered multiplier effect, it is necessary to calculate the value, the tax base will be changed to. For it, we should subtract the amount of return and the funds allocated for wages from the value of revenue received by the construction sector, then multiply this value by the identified multiplier factor characterizing changes in related construction industries, (3), the previously calculated correction factor (0.59) and the profit rate (0.2). The growth in the tax base due to the program implementation will be more than 349 million rubles, which will provide the regional budget with additional funds in the amount of 62,848,000 rubles. Similarly we can determine the value of corporate property tax deductions (38,407,000 rubles).

The value of personal income tax deductions to the budget will also be changed. The value of the employment multiplier for the construction industry is around 6–7 (creation of one job place in the construction industry involves the creation of 5–6 jobs in related industries) [7]. Taking into consideration

Table 3. Calculation of the budgetary effectiveness of the housing construction savings program "Housing Construction Savings Bank" (including the multiplier effect), thousand rubles

	2016	2017	2018	2019	2020	Total
Regional budget expenses	39,960.0	39,960.0	39,960.0	39,960.0	39,960.0	199,800.0
Regional budget revenues	0.0	0.0	116,114.6	116,114.6	116,114.6	348,343.8
<i>Difference between revenue and expenses</i>	<i>-39,960.0</i>	<i>-39,960.0</i>	<i>76,154.6</i>	<i>76,154.6</i>	<i>76,154.6</i>	<b>148,543.8</b>
Discounted costs	39,960.0	37,345.8	34,902.6	32,619.3	30,485.3	175,313.0
Discounted revenues	0.0	0.0	101,419.0	94,784.1	88,583.3	284,786.3
<i>Difference between discounted revenues and costs</i>	<i>-39,960.0</i>	<i>-37,345.8</i>	<i>66,516.4</i>	<i>62,164.8</i>	<i>58,098.0</i>	<b>109,473.4</b>

this parameter and the difference in wages between different industries (in the region's construction sector average salary amounts to approximately 39.5 thousand rubles, in the sector of manufacturing construction equipment and building materials – 25 thousand rubles), we can assume that the wage fund (i.e. the tax base for calculating personal income tax) will increase by more than 1.3 billion rubles (in terms of related industries). As a result, the budget will receive about 122,460,000 rubles. Thus, the total receipt due to the program implementation (including the multiplier effect) will be 348,343,000 (*tab. 3*).

The adjustment of the previously made calculations using the multiplier effect helps reflect non-obvious benefits from the program implementation and get a more accurate assessment of its possible outcomes (that radically changes the idea about its efficiency for the regional budget).

To further verify the program effectiveness indicators, it is possible to characterize other

consequences of the conducted measures. In particular, one should take into account that the increase in demand for property will intensify the construction complex development at the scale greater than the change in consumer activity (the practice of the similar program implemented in the Republic of Bashkortostan shows that the growth of demand on the housing market due to its implementation resulted in the increase in supply, and the value of that increase exceeds the change in demand parameters by more than 3 times) that have a positive impact on the development of related industries.

\* \* \*

The correct assessment of consequences of the realized measures of any level and direction should include the obligatory consideration of all direct and indirect results and the calculation of the multiplier effect: the analysis of all possible outcomes of the implement set of actions helps understand how much they are

necessary in the circumstances and how the results of these activities compare with the costs required for their conduct.

At the same time, the comprehensive approach to effectiveness assessment is of special importance for social programs and projects. Their implementation often involves obtainment of implicit benefits, so the economic evaluation of only direct effects can give a false impression of the significance of such measures (along with the social impacts, which are not always easy to compare with costs incurred, it is also necessary to estimate indirect results).

Using the universal computational model we have analyzed the effectiveness of one of the social program (programs of housing construction savings “Housing Construction Savings Bank”), which prospects are now being evaluated in the Sverdlovsk Oblast. The consideration of the consequences triggered by actions of the persons who are directly involved in the program implementation raises the quality of current assessment; this, in turn, allows the actors, whose resources are needed to implement activities, to make an appropriate conclusion about their necessity.

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## Methodological Aspects of Analyzing and Assessing the Per Capita Consumption of Fish and Seafood in the Russian Federation



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**Abstract.** Globalization of the economy and increased competition leads to the need to strengthen the functions of the Russian government to ensure food security of the country and, accordingly, the consolidation of mechanisms of state regulation of agricultural economy and food markets. The importance of solving the problems of information security, a high degree of reliability of the information provided by the Government of the relevant statistical authorities is growing. The relevance of obtaining high-quality statistical information for the adoption of timely and informed decisions by the government on the management of the national economy has increased significantly during the period of political and economic confrontation between Russia and the West in terms of sanctions and counter-sanctions. Taking fishing industry and its product – the water biological resources – as an example, the author of the present study carried out a structural analysis of the methodology for composing the balance of fish and fish products to determine the per capita level of consumption, described the different approaches to assessing the level of consumption of water biological resources, structured export indicators of water biological resources gathered from various official sources, on the basis of which the author revealed significant differences in the assessment of the situation. The subject of statistics as the problem was raised at the Presidium of the State Council from October 19, 2015 devoted to the development of the fishing industry of the Russian Federation and was reflected as a separate item in the Order of the President following the results of the State Council. Established by the Order of the Federal State Statistics Service dated October 21, 2013 No. 419, the new method of determining the level of per capita consumption of fish and fish products, based on the compilation of the balance of water biological resources, and composed after the requirements of

the UN Food and Agriculture Organization (FAO), has the potential for improvement from a practical point of view. The author proves the necessity of changing the existing method of statistical reporting and analysis in order to improve its reliability.

**Key words:** fishing industry, aquatic biological resources, per capita consumption, export, import, methodology, food security, total allowable catch, quota.

Food security in the Russian Federation is one of the main spheres of national security in the medium term, a factor in the preservation of statehood and sovereignty, the most important component of demographic policy and a prerequisite for the implementation of strategic national priority such as improvement of the quality of life of Russian citizens by ensuring high standards of living.

The Decree of the President of the Russian Federation “On the adoption of the Food Security Doctrine of the Russian Federation” dated January 10, 2010 No. 120 set out a strategic goal for food security – to provide Russians with safe agricultural products, fish and other products from aquatic bio-resources, and food. The achievement of this goal is guaranteed by the stability of domestic production, as well as availability of necessary reserves and stocks.

The aim of the present study is to make a theoretical overview of existing methodological approaches to the analysis and evaluation of per capita consumption of fish and seafood in Russia. The practical importance of the research consists in the possibility of using the proposed techniques of statistical accounting in determining the average per capita consumption of fish and seafood.

Russia’s food security reflects the state of its economy, which provides food independence, guarantees that citizens have physical and economic opportunity to

obtain food products that correspond to the requirements of the Russian legislation on technical regulation and in amounts not less than the rational norms of consumption of food necessary for active and healthy living.

Rational norms of food consumption form a set of products that consists of food products in amounts and ratios that meet modern scientific principles of optimal nutrition and take into account the current structure and eating habits of the majority of the population [14].

It is especially important to note that the Doctrine specifies the significance of the products made from aquatic biological resources that aim to ensure Russia’s food security.

Fish is a source of easily digestible and complete protein, the biological value of which is equal to that contained in meat protein. Fish protein contains some amino acids that the human organism does not synthesize. Cod-liver oil – a valuable fish product – consists of oleic acid (by more than 70%), palmitic acid (by almost 25%), polyunsaturated fatty acids omega-6 (by about 5%) and omega-3 [12]. Salmon is exceptionally valuable due to the fact that it contains omega-3 fatty acids, which produce an antioxidant effect on the human body, slow down the aging process and improve memory. Fatty fish species (salmon, herring, mackerel, halibut, etc.) are rich in vitamins A, D and E. Among B vitamins, it

is necessary to point out vitamin B<sub>12</sub> found only in foods of animal origin. Fish also contains minerals: potassium, magnesium, calcium, phosphorus, iron; microelements: selenium, zinc and iodine, which are lacking in the diet in many regions of the Russian Federation. Salmon meat is an effective remedy for the prevention of atherosclerosis and cardiovascular diseases; it also reduces the risk of cancer, and normalizes blood sugar level.

Seafood exerts point out the following useful effects: it normalizes blood clotting, lowers blood cholesterol, improves sight, normalizes the work of the nervous system, improves memory and sleep, reduces irritability, benefits the state of one's skin, hair, nails, bones and teeth, normalizes metabolism.

The state pays considerable attention to the development of the fisheries industry (FI). In 2007, Astrakhan hosted a meeting of the State Council Presidium on Effective Management of the Fishing Industry in Russia. Food security and availability of a wide range of high quality fish at affordable prices were named as fundamental principles of development of the fisheries complex.

As a result of the State Council session, the fisheries sector received the following incentives:

- opportunity of the wide usage of tax concession such as unified agricultural tax (UAT), which resulted in almost twofold tax savings;

- concessional rate on payment of the fee for the catch of aquatic biological resources (ABR) in the amount of 15% of the face rate; consequently, enterprises save over five billion rubles annually;

- consolidation of the “historical” principle of endowing fishing companies with the quotas of the total allowable catch (TAC) for 10 years, which provides an opportunity of planning the investments for quite a long period.

When adopting these preferences, the Government was counting on the inflow of investments, increase in labor productivity and in the output of products with high added value.

However, the country's accession to the WTO resulted in additional risks, particularly for the Northern and Arctic territories [3].

Moreover, it can be noted that neither the plans, nor the forecasts of the development of the fishing industry use the indicators that characterize the efficiency of processing of raw materials; and it is contrary to the objective of the transition of the fisheries sector from the export-raw material development to innovation development by 2020, which is envisaged by the Concept for development of fishery of the Russian Federation until 2020 and other forecast tools [1].

The session of the Presidium of the State Council for the Development of the Fisheries Complex held in Moscow on October 19, 2015 summed up the activities of the fisheries industry for the period from 2008 and identified significant problems and ways of their solution.

It is planned that a system of state priorities, their implementation mechanisms, federal laws and departmental orders will be adopted after the meeting [15].

An important measure is to upgrade the system of economic indicators, which helps assess objectively (reliably) the development dynamics of the fisheries sector. The

Government of the Russian Federation was to submit to the President of the Russian Federation in the period until February 01, 2016 the proposals concerning the improvement of statistical accounting in the fisheries industry of the Russian Federation.

The main indicators of fisheries sector development are the annual catch of aquatic biological resources (ABR) and the per capita consumption of fish and seafood. The latter indicator is the most important from the viewpoint of food security.

It should be noted that there are different approaches to assessing the level of consumption of aquatic biological resources. Statistics agencies of the USSR and, later, Russian Federation based their calculations of the per capita consumption of fish and seafood upon the sampling survey of household budgets, which is a method of state statistical observation of the standards of living in accordance with the approved methodology. Food consumption was calculated as the sum of the total amount of products purchased in the period of the survey (with the exception of those products that were given as food to livestock and pets), processed for long term storage, bought on margin, donated, sold or given away in exchange for other goods, the amount of products spent on personal consumption and received by the household without payment (in payment for labor, in the form of their own production or from self-made foodstuffs, in the form of gifts, in-kind aid, etc.), and the volume of products consumed during the accounting period and purchased before the survey [5].

Per capita consumption of basic food products was determined by dividing the total

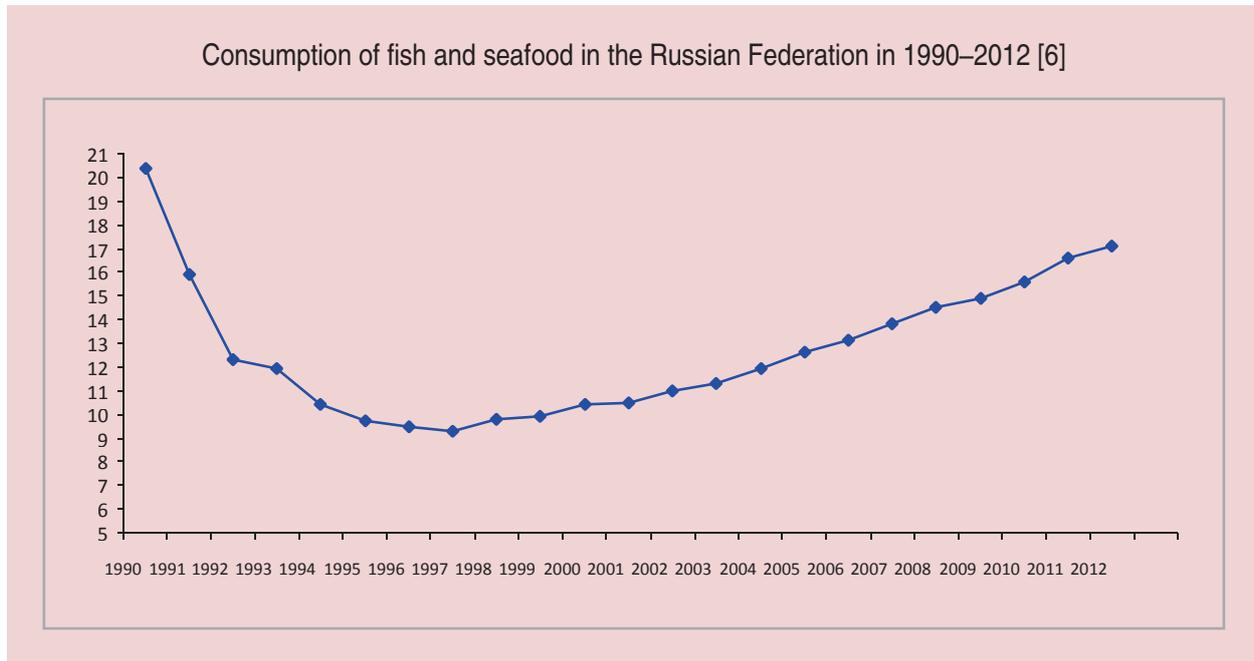
volume of consumed food products by the number of persons actually present in the household.

The Order of the Ministry of Healthcare and Social Development of the Russian Federation “On the approval of recommendations on rational norms of consumption of food products that meet modern requirements of healthy eating” dated August 02, 2010 No. 593n established the rational norms of consumption of fish and fish products in the amount of 18–22 kg per person per year [8]. According to *the figure*, at the present time, fish consumption in Russia is below the rational norms of consumption.

The Order of Rosstat “On the approval of the methodology for producing the balance of fish and fish products for the purpose of determining the per capita level of their consumption” dated October 21, 2013 No. 419 [4] changed the principle of calculation of ABR consumption that was used by state statistics bodies.

The methodology introduced by the order takes into consideration the recommendations of the FAO for the compilation of food resources balances [9], according to which the level of per capita consumption of fish and fish products is determined on the basis of the balance of supply and use of fish and fish products, formed in live weight (weight of raw fish). In this case the estimated per capita consumption increases significantly.

The balance of resources and utilization of fish and fish products in live weight (weight of raw fish) is a system of balanced data on the sources of fish, other aquatic biological resources, products of their processing and areas of their usage.



Balance indicators help forecast the catch (harvesting), cultivation and export of fish and other aquatic biological resources and also assess the situation on the market, the need for imports, determine the fund of personal consumption and calculate the average per capita consumption of fish and fish products in live weight (weight of raw fish).

The balance of fish and fish products contains information on raw materials and products of their processing.

The balance is formed by Rosstat for Russia as a whole with the use of the data provided by Russia's Ministry of Agriculture and the Federal Agency for Fishery (Rosrybolovstvo) on a separate balance sheet for the calendar year in volume terms in live weight (weight of raw fish).

The balance is produced on the basis of federal statistical data, sample surveys of

household budgets, customs statistics and reporting on financial and economic performance of agricultural producers and other sources that characterize the generation of resources of fish and fish products and their use. In addition, when determining certain balance sheet items used the expert assessment and economic calculations [4].

The Rosstat methodology as of October 21, 2013 determines the following procedure of calculation: "The data on the catches of fish and harvest of other aquatic biological resources are formed by Rosrybolovstvo. The catch (harvest) includes all kinds of fish, crustaceans (crabs, crayfish, shrimps, etc.), mollusks (squids, mussels, oysters, scallops, etc.), algae (kelp, etc.), sea beasts and whales, recovered from the aquatic environment, but not yet subjected to the cooling process and other methods of preservation and processing".

Table 1 shows the Rosstat data on the consumption of fish and seafood according to the methodology approved by the Order of Rosstat dated October 21, 2013 No. 419.

The total catch also includes aquaculture: fish, crustaceans, mollusks and algae, grown and harvested in the seas and freshwater bodies (ponds, rivers, reservoirs, lakes, etc.) for the purpose of selling them in live condition subject to appropriate conservation conditions, as well as for producing food and non-food products.

Aquatic biological resources and aquaculture objects are presented in accordance with the national fisheries biological classification that serves as the basis for the statistical form No. 1-P (fish), the Foreign Economic Activity Commodity Nomenclature

of the Customs Union (FEACN CU) and the Russian National Classification of Products, which are, in general, comparable with the FAO Standard Statistical Classification of Aquatic Animals and Plants.

The catch of all aquatic biological resources is recorded in the raw weight of the uncut (not clean and cut open) raw fish (i.e. in live weight). Since the catch is not live fish but raw material intended for further processing (with the exception of aquaculture products sold alive), the term “live weight” means the weight of raw aquatic biological resources rather than live fish.

When calculating the balance of fish and fish products (tab. 2), the harvesting of mammals and algae is excluded from the catch [4].

Table 1. Resources and the use of fish and fish products in the Russian Federation (in live weight – weight of raw fish, thousand tons) [11]

Indicators	2011	2012	2013	2013 in % to 2012	Structure in % to the total	
					2012	2013
Resources						
Reserves as of the beginning of the year	652.2	723.6	846.4	117.0	10.0	11.3
Fish catch and the harvest of other aquatic resources	4,401.7	4,484.5	4,522.0	100.8	62.0	60.4
Import	1,889.2	2,020.5	2,120.4	104.9	28.0	28.3
Total resources	6,943.1	7,228.6	7,488.8	103.6	100	100
Use						
Processed for non-food purposes	401.7	389.5	423.8	108.8	5.4	5.7
Losses	34.6	35.5	36.0	101.3	0.5	0.5
Export	2,500.6	2,400.5	2,694.3	112.2	33.2	36.0
Personal consumption	3,282.6	3,556.7	3,557.8	100.0	49.2	47.5
Reserves as of the end of the year	723.6	846.4	776.9	91.8	11.7	10.3
For reference: consumption per capita, kg	23.0	24.8	24.8	100.0		

Table 2. Fish catch and the harvesting of other aquatic biological resources in the Russian Federation (according to the Federal Agency for Fishery), thousand tons [13]

Indicators	2011	2012	2013	2014
Fish catch and the harvest of other aquatic resources, total	4,275	4,271	4,309	4,235
including fish	4,120	4,110	4,135	4,017

If we compare the data on the catches of aquatic biological resources available at the official website of the Federal State Statistics Service to the data published by the Federal Agency for Fishery, we can see substantial difference.

Let us examine the effect of overstatement of the total catch on the per capita consumption of fish and seafood (*tab. 3*).

Thus, the fact that the statistical data on the volume of the catch was overrated by 4.3%

in the three years under consideration resulted in the formal increase in the per capita consumption of fish and seafood in Russia by 5.6%.

Next, we consider important components of the calculation such as import and export. The data on the import, apparently, are accurate, whereas the methodology for calculating the export of aquatic biological resources is an issue of concern (*tab. 4*).

Table 3. Comparison of the Rosstat and the Federal Agency for Fishery data on the harvesting of aquatic biological resources and consumption of fish and seafood per person in 2011–2012

Indicators	2011	2012	2013
Rosstat data (catch of aquatic and biological resources), thousand tons	4,402	4,485	4,522
Federal Agency for Fishery data (catch of aquatic and biological resources), thousand tons	4,275	4,272	4,309
Difference between the catches, thousand tons	127	213	213
Difference between the catches, %	3.0	5.0	4.9
Per capita consumption taking into account the Federal Agency for Fishery data, kg	22.1	23.3	23.3
Per capita consumption according to the Federal State Statistics Service data, kg	23.0	24.8	24.8

Source: the data were collected, structured and calculated by the author, who used official websites of the Federal Agency for Fishery (fish.gov.ru) [13], and the Federal State Statistics Service (gks.ru) [9].

Table 4. Export of fish, fish products and seafood from the Russian Federation in 2013 (according to the Federal Agency for Fishery), thousand tons

FEACN CU code	Product	Federal Customs Service of Russia	Form No. 8-EER-fish (urgent)	Total
<b>03</b>	<b>Fish and crustaceans, molluscs</b>	<b>1507,01</b>	<b>351,55</b>	<b>1858,56</b>
	out of which:			
0301	live fish	0,01	0,00	0,01
0302	fresh or chilled fish	1,00	0,00	1,00
0303	frozen fish	1372,80	326,90	1699,70
0304	fish fillet	70,90	23,90	94,80
0305	salted, dried fish	6,80	0,60	7,40
0306	crustaceans	36,40	0,10	36,50
0307	molluscs	10,10	0,04	10,14
0308	aquatic invertebrates	9,00	0,01	9,01
	<b>Finished or preserved fish products</b>	<b>24,30</b>	<b>0,50</b>	<b>24,80</b>
1604	Finished or preserved fish	23,10	0,50	23,60
1605	Finished or preserved crustaceans, molluscs	1,20	0,00	1,20
	<b>Total</b>	<b>1531,31</b>	<b>352,05</b>	<b>1883,36</b>

Source: Official website of the Federal Agency for Fishery. Available at: fish.gov.ru

The data on the amount of goods (in real terms – net) made of fish and other aquatic biological resources that entered Russia during the year in accordance with the customs regime of “import” and exported in accordance with the customs regime of “export” to other countries are aggregated by separate commodity positions in accordance with the codes of the Foreign Economic Activity Commodity Nomenclature of the Customs Union on the basis of customs statistics and the data on mutual trade with member states of the Customs Union formed on the basis of the statistical form of recording the movement of goods. The exports included products from fish and other aquatic biological resources, which were unloaded in foreign ports or transferred from Russian vessels to foreign ships at sea, i.e. which were sold outside the customs control zone, according to the data of the federal statistical observation form No. 8-EER (external economic relations) (fish). The volume of import and export (*tab. 4*) from the net weight are recalculated by the Federal Agency for Fishery with the use of coefficients of conversion in live weight (weight of raw material) on specific commodity headings in accordance with the codes of the Foreign Economic Activity Commodity Nomenclature of the Customs Union. The calculation uses the data on the number of products made of fish and other aquatic biological resources for food purposes.

However, the official website of the Barents-White Sea Territorial Administration of the Federal Agency for Fishery (BWSTA) contains the following information:

“The Barents-White Sea Territorial Administration of the Federal Agency for

Fishery, in an effort to strengthen the fight against illegal, unreported and unregulated fishing in the convention areas of the North-East Atlantic Fisheries Commission (NEAFC) and the Northwest Atlantic Fisheries Organization (NAFO), carries out state port control in relation to Russian vessels that intend to unload or transfer fish products in designated foreign ports.

Fish products made of fisheries resources harvested by Russian vessels in the NEAFC Convention Area and in the NAFO Regulatory Area in 2014 were unshipped (transshipped) in six countries. Like in previous years, the greatest number of landings was made by Norway – 331 Port State Control (PSC) form sheets (in 2013 – 287) and the Netherlands – 278 PSC form sheets (in 2013 – 271), the third position was occupied by the Faroe Islands – 188 PSC form sheets (in 2013 – 164). As before, fishing vessels were unloaded in Norwegian ports, where the volume of unloaded fish products amounted to 81.42 thousand tons (in 2013 – 74.12 thousand tons), and transport ships were unloaded mainly in Dutch ports – 110.45 thousand tons (in 2013 – 100.24 thousand tons). The Faroe Islands are leaders by the volume of fish products transferred from fishing vessels to transport ships – 246.18 thousand tons (in 2013 – 224.15 thousand tons). The total amount of fishery products claimed for unloading in 2014 in the framework of PSC amounted to 452 thousand tons, which exceeds by 37 thousand tons the indicators of 2013” [10].

If we approach the question formally, we will see that, according to the port supervision of the Barents-White Sea Territorial Administration, in the zones of the Western

and Eastern Atlantic alone, Russian enterprises unloaded in foreign ports or transhipped from its vessels to foreign vessels at sea 415 thousand tons of fish and seafood out of 352 thousand tons exported from all the basins (according to the form No. 8-EER) in 2013 – that in reality cannot be.

The form 8-EER-fish (urgent) “Information about the export (import) of fish, fish products and seafood” is submitted to the territorial body of Rosstat by all legal persons that are commercial organizations, including small businesses and non-profit organizations of all forms of ownership, which are residents of the Russian Federation and which have independently concluded contracts with foreign partners (non-residents) on the export of fish, fish products and seafood. The statistics report is submitted on a monthly basis.

As a rule, legal entities submit the specified form of the federal statistical observation at the place of their state registration, except for the cases when a legal entity registered on the territory of any subject of the Russian Federation does not carry out its activities on the territory of this subject of the Russian Federation. In this case the federal statistical observation form shall be submitted to the place of actual implementation of activities of this legal entity.

It should be noted that, with high probability, exporters underreport the statistical data. As for the Northern basin alone, the share of which in the overall catch in Russia is 29.7% (1 279,398 tons out of 4 309, 128 tons of the total catch in Russia), the export outside the customs control zone exceeds the total catch in Russia by 63.4 thousand tons (or

17.9%), according to the reports by the form No. 8-EER of the Federal Agency for Fishery.

Thus, the statistical data on exports provided to Rosstat by the Federal Agency for Fishery according to the reporting form No. 8-EER can and should be questioned because of their direct conflict with the data provided by the State Port Control.

The export of aquatic and biological resources from the customs territory of the Northern basin amounted to 105.5 thousand tons. Four hundred and fifteen thousand tons were unloaded in foreign ports and transhipped to transport vessels without going through customs control procedures; thus, the share of exports in the North basin outside the customs control zone in total exports amounted to 79.7%, whereas according to the official information available at the Federal Agency for Fishery website this share for all the basins is only 18.9%.

Thus, the Federal Agency for Fishery significantly underrates the data on the export of aquatic and biological resources; consequently, Rosstat overstates the per capita consumption of fish and seafood by the amount of export that is not reflected in the reports of enterprises according to form No. 8-EER (fish) outside the customs control, and divided by the number of population of the Russian Federation.

The volume of products reserves according to the methodology approved by the Rosstat Order dated October 21, 2013 No. 419 is calculated as follows:

– in the organizations engaged in processing of fish and other aquatic biological resources and wholesale and retail trade: it is defined by Rosstat according to the forms of

the Federal Statistical Observation (Form No. P-1 “Information on production and shipment of goods and services”) with the subsequent recalculation according to conversion factors into live weight (weight of raw material);

- in agricultural organizations: it is calculated by Russia’s Ministry of Agriculture on the basis of the reporting on financial and economic condition of agricultural commodity producers with the coverage of the full range of organizations and subsequent recalculation according to conversion factors into live weight (weight of raw material);

- in households: it is formed by Rosstat according to a sample survey of households’ budgets distributed to the entire population and subsequent recalculation according to conversion factors into live weight (weight of raw material).

Thus, there are both positive and negative sides in the fact of the change in the approach to assessing the level of consumption of aquatic biological resources in the Russian Federation, which was reflected in the adoption by the Federal State Statistics Service of the new methodology for calculating the per capita consumption of fish and seafood, approved by the Order of Rosstat dated October 21, 2013 No. 419.

Calculations made according to the above procedure developed taking into account the recommendations of the Food and Agriculture Organization of the UN (FAO) on the compilation of balances of food resources is comparable with foreign analogues and helps compare the per capita consumption of products in the Russian Federation and other countries within the framework of the same scale of coordinates.

It is necessary to note that foreign experience is not always possible to be adapted to modern Russian conditions.

World practice of statistical reporting involves accuracy of source information for the compilation of balances of food resources.

Let us highlight the following major factors that have significant impact on the final result in the form of the per capita consumption of the product:

1. To calculate the balance of fish and seafood per year, it is required to estimate the number of products made of aquatic and biological resources and stored in warehouses (on board ships) of Russian enterprises at the beginning and end of the year. Source data is taken from the statistical form No. P-1 that small enterprises do not fill in. In the fishery industry, their share in total revenue is 31.5%. In the fish processing industry, the concentration of capital is even smaller. According to our data, in the Vologda Oblast there are no medium and large enterprises of this industry, and, therefore, what remains in the region’s warehouses is not taken into account when calculating the national balance of fish and seafood.

2. The data on fish catches and harvesting of other aquatic biological resources are formed by the Federal Agency for Fishery. Comparison of the data on the catch of aquatic biological resources available at the official websites of the Federal Agency for Fishery and Federal State Statistics Service, revealed their significant discrepancy (up to 5.0% in 2012, which resulted in the overstatement of the per capita consumption of aquatic biological resources by 6.4%). A request submitted to the Federal State Statistics Service did not

help specify the reason for such a significant difference.

3. A significant error in the calculation of the balance of aquatic and biological resources is introduced by indicators of exports of fish and seafood harvested outside the zone of customs control. The calculation of such exports is made on the basis of the data of statistical reporting forms No. 8-EER-fish (urgent) "Information about the export (import) of fish, fish products and seafood" collected from subordinate enterprises by the Federal Agency for Fishery. The Agency has the opportunity to compare the data obtained by the form No. 8-EER-fish, in particular, for the Northern basin to the information of the State Port Control in relation to Russian vessels intending to unload or transfer fish products in designated foreign ports. However, the amount of export outside the customs control zone, according to the State Port Control, for the Northern basin alone exceeds Russia's national export according to the form No. 8-EER-fish by 63 thousand tons. The share of the Northern basin in the catch of all Russian enterprises is 29.7%.

The aforementioned second and third factors have a significant impact on the overstatement of the final figure of the per capita consumption of fish and seafood.

The previous methodology for calculating the average per capita consumption of fish and seafood used in the Soviet time considered aquatic and biological resources in the form of the finished product rather than raw fish. Given the rather high coefficients of processing of raw materials into a finished product (for example, the manufacture of 1 kg of frozen cod requires 1.52 kg of raw fish)

[2], it is possible to improve significantly the "indicators" of consumption by applying the Methodology of Rosstat of October 21, 2013.

It is logical to assume that one of the main objectives of introducing the new methodology was to embellish the existing the current situation and, even in case of the decrease in the consumption of aquatic and biological resources in Russia, to declare its growth, to show that the consumption of ABR in the country corresponds to the rational norms of consumption of fish and fish products.

Recognizing the methodology of Rosstat dated October 21, 2013 as complying with the requirements of the Food and Agriculture Organization of the UN (FAO), we believe it is possible to propose the following:

1. The Federal State Statistic Service should carry out necessary procedures in order to use the data on the annual catch of aquatic biological resources by fisheries enterprises of the Russian Federation agreed with the Federal Agency for Fishery for the purpose of calculating the per capita consumption of fish and seafood

2. When calculating the export outside the customs control zone, the Federal Agency for Fishery should use the data provided by the Port State Control that are more reliable than the data provided by the form No. 8-EER-fish.

3. The Ministry of Health and Social Development of the Russian Federation should bring the Order dated August 2, 2010 No. 593n (its part that concerns the establishment of rational norms of consumption of fish and fish products) into conformity with the existing Methodology of Rosstat; namely, to recalculate the norm of consumption with regard to raw fish rather than finished

product; this will make the indicators of the Methodology and the established norms comparable.

If the above recommendations are applied, it will increase the accuracy of calculation of the per capita consumption of fish and fish

products by the population. If the figures reflect the real picture of providing the population with aquatic and biological resources, then the relevant state authorities can adopt decisions that will help choose the correct strategy for the development of the fisheries sector.

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# DEVELOPMENT OF MUNICIPAL FORMATIONS

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## Territorial Public Self-Government as a Development Institution at the Municipal Level\*



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**Abstract.** Under the conditions of insufficient financial and economic independence of Russia's municipalities, greater importance is attached to various forms of people's self-organization created for the purpose of participating in municipal administration, in the implementation of projects and activities that ensure the achievement of strategic goals and objectives of territorial development with minimum cost. One such form is territorial public self-government (TPSG); but, despite its effectiveness, it is not widespread in Russian regions. This is due both to the passivity of the population and to the fact that the status of TPSG has not been established clearly in the system of local government. That is why it is very important to study the best practices of organization and functioning of TPSG and substantiate its role as a development institution at the municipal level. The present work uses the example of Vologda city and

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several RF subjects to show that TPSG can solve many local issues (in the sphere of social protection, improvement of territories, promotion of comfortable living, etc.). It is a really effective form of people's participation in the management of development of territories. However, in order to achieve the greatest social and economic effect, it is necessary that TPSG receive state support through specially developed programs to co-finance the projects within the framework of territorial public self-government. In this regard, the authors of the present paper offer a conceptual scheme and an algorithm of functioning of TPSG as a development institution at the municipal level and provide recommendations to the authorities about the forms of its support (in particular, the establishment of a council for the development of TPSG under the head of the municipal formation).

**Key words:** development institutions, local government, territorial public self-government, municipalities, Vologda Oblast, Vologda city.

The municipal level of administration is closest to the specific needs and interests of the population. Most of socio-economic development issues are geographically localized precisely at the level of municipalities (municipal districts, urban and rural settlements, urban districts and intracity territories of the cities of federal significance). They are regarded as the main component of socio-economic development of territorial entities at a higher level (constituent entity of the Russian Federation and the country as a whole), since it makes it possible to take into account the entire specifics of territorial development, local resources and conditions.

The purpose of the local government reform of the 2000s was, on the one hand, to bring local government closer to the population, its interests and needs, and to develop this institution into a full-fledged, independent level of administration responsible for a range of issues and powers in the framework of the common policy that would address the comprehensive challenges of the country's development [3]. At the same time, it was

not possible to achieve the main goals of the municipal reform. The main reason for this lies in the number of unresolved issues. *The low financial and economic independence of the majority of municipalities* is the most important of them. The amount of own sources of formation of local budgets in Russia – land tax and individual property tax – and deductions from individual income tax and other taxes are insufficient for the complete and effective resolution of all issues and problems of local importance. The majority (more than half) of local budgets' revenues still consists of gratuitous receipts from the budgets of higher levels (grants, subsidies and subventions). For instance, on average by municipal districts of the Vologda Oblast their share in 2006 was 81%, in 2014 – 72% (*tab. 1*). The ability to fulfill expenditure obligations in urban districts became more dependent on revenues from the regional budget during the “municipal reform”.

Under these conditions there is an objective necessity to find new sources of growth and strengthen the revenue base of local budgets and development institutions.

Table 1. Proportion of gratuitous receipts in the budgets of municipal formations of the Vologda Oblast, in % of the total revenues

Indicator	2006	2007	2013	2014	2014 compared to 2006, +/-, p.p.
Average in municipal districts	81.1	70.4	64.9	72.0	-9.1
Average in urban districts	33.5	37.4	50.0	59.0	+25.5
Average in urban and rural settlements	69.8	78.1	47.1	54.5	-15.2
<b>Average in all municipalities of the Vologda Oblast</b>	<b>54.6</b>	<b>62.6</b>	<b>56.5</b>	<b>64.6</b>	<b>+10.0</b>

Calculation source: Otchety ob ispolnenii konsolidirovannykh byudzhetrov sub"ektov RF i byudzhetrov territorial'nykh gosudarstvennykh vnebyudzhethnykh fondov [Reports on Execution of Consolidated Budgets of RF Subjects and Budgets of Territorial State Extra-Budgetary Funds]. *Ofitsial'nyi sait Federal'nogo kaznacheistva* [Official Website of the Federal Treasury]. Available at: <http://www.roskazna.ru>

The results of a questionnaire survey of heads of the Vologda Oblast municipal formations carried out by ISED T RAS<sup>1</sup> show that the potential of residents is the main qualitative criterion of progressive socio-economic development of the municipality. Therefore, one of the main tasks of local government is to promote the participation of various social groups in solving the issues of territorial development. According to the results of 2014, 28% of municipalities' heads who were interviewed (among them, 54% were heads of urban settlements and 24% were heads of rural settlements) noted that the residents became more interested in the transformations taking place in their municipalities (*fig. 1*).

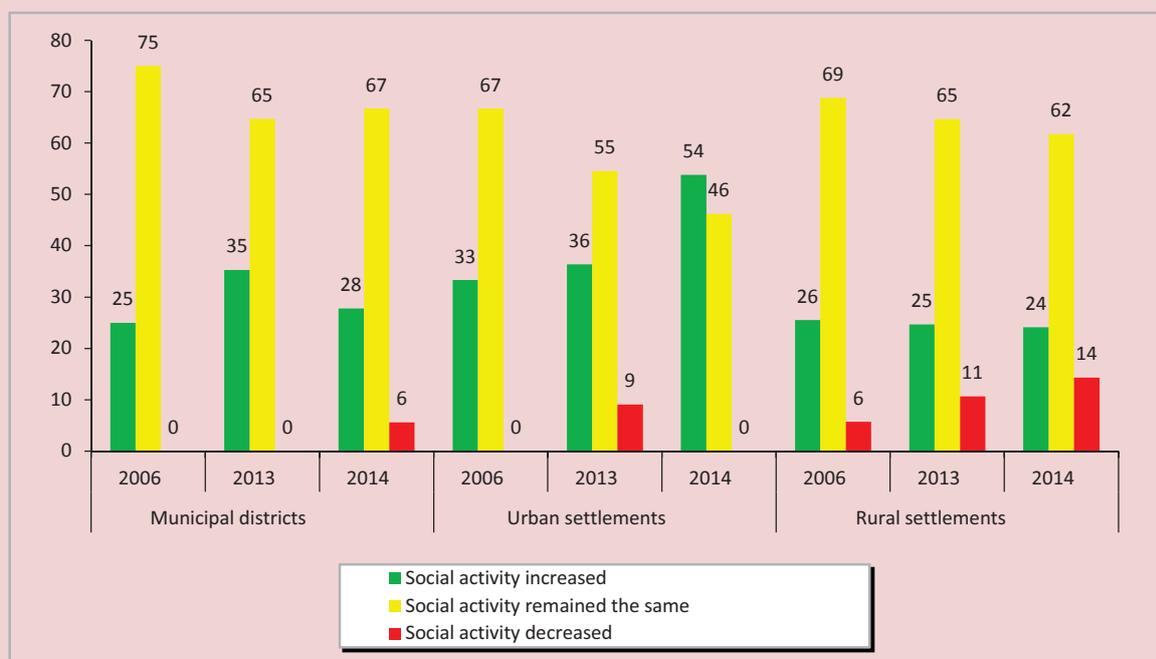
<sup>1</sup> The questionnaire (30–40 questions) is annually filled in by 190–210 heads of municipal formations out of 282–372 (in 2008–2013, there was the process of unification of rural settlements in the Vologda Oblast, after that the total number of municipalities was reduced to 90), which allows for the sampling error of 4–5%. The heads of municipalities give their assessments according to the results of the previous calendar year: for example, in the questionnaire survey of 2015 they estimated the performance in the end of 2014. The main results of this survey are published, for example, in the following article: Voroshilov N.V. Institut mestnogo samoupravleniya segodnya (po materialam oprosa glav munitsipal'nykh obrazovaniy Vologodskoi oblasti) [Local Government Institute Today (according to the Poll of Heads of Municipal Entities in the Vologda Oblast)]. *Problemy razvitiya territorii* [Problems of Territory's Development], 2015, no. 1 (75), pp. 49–62.

However, the proportion of those who said that the situation did not change remains high (46–67%).

The main forms that represent the social activity and direct participation of citizens in dealing with local issues are as follows: voting in the elections of authorities of various levels (74, 31 and 63% of the heads of districts, urban and rural settlements respectively), appeal to the administration on matters of interest (67, 82 and 63%), and participation in meetings and public hearings (32, 62 and 45%; *tab. 2*). The less widespread forms are legislative initiatives and participation in the activities of territorial public self-government (less than 6% of all the respondents pointed that out). The situation in 2014 did not see any significant changes compared with 2009.

Thus, given the fact that municipalities do not have enough self-sufficiency in economic and financial aspect and the population does not take part in local administration and solution of local issues, it is necessary to develop various forms of self-organization of the population at the local level to implement projects on landscaping, improvement of infrastructure, and solve social issues mainly with the use of people's personal funds and resources with little budget support.

Figure 1. Distribution of the answers of heads of municipalities to the question: "In your opinion, how has the social activity of the population changed for the previous year?" (as a percentage of the number of respondents)



Source (here and in table 2): database of the monitoring of the conditions of reforming local government institutions in the Vologda Oblast, ISEDT RAS, 2007–2015

Table 2. Ways in which the residents of the Vologda Oblast municipalities express their social activity (as a percentage of the number of the heads of municipalities who participated in the survey)

Way of expressing social activity	Municipalities					
	municipal districts		urban settlements		rural settlements	
	2009	2014	2009	2014	2009	2014
Participation in voluntary work, sports and cultural events	61.5	42.1	45.5	61.5	56.3	64.9
Voting at the elections of authorities of different levels	80.8	73.7	72.7	30.8	82.9	63.4
Contacting local authorities on matters of interest	61.5	73.7	63.6	76.9	57.0	57.5
Participation in meetings and public hearings on local government	42.3	31.6	18.2	61.5	34.2	44.8
Assistance in organizing events (personal and financial)	38.5	15.8	18.2	23.1	27.2	26.1
Publications in the mass media	38.5	21.1	27.3	7.7	12.7	9.7
Formation and functioning of public organizations and trade unions	46.2	21.1	9.1	38.5	10.1	6.0
Participation in sociological research (e.g., surveys)	19.2	5.3	0.0	15.4	7.6	3.0
Legislative initiative, i.e. citizens initiate decisions aimed to improve the quality of life and standard of living	-	0.0	-	0.0	-	3.0
Membership in political parties	36.6	5.3	0.0	0.0	8.9	1.5
<b>Formation of various forms of territorial public self-government, and nonprofit organizations</b>	-	<b>5.3</b>	-	<b>0.0</b>	-	<b>1.5</b>

*Territorial public self-government* (hereinafter – TPSG) is a very effective way to coordinate interests of local residents and unite the efforts for joint activities. In accordance with the Federal Law “On the general principles of organization of local government in the Russian Federation” of October 6, 2003 No. 131-FZ, territorial public self-government means *self-organization of the citizens* at the place of their residence on the territory of a part of the settlement, intracity territory of a federal city, city district, intracity neighborhood for the purpose of carrying out their own local initiatives at their own responsibility. TPSG can be organized by the dwellers of several apartments of a residential building, by all the dwellers of a residential building, by the dwellers of a group of houses, a residential neighborhood, a rural settlement that is not a village, and other areas of residence.

Territorial public self-government may be carried out: 1) directly by the residents at the meetings and conferences; 2) by specially created bodies (a collective executive body is the board or committee headed by the chairman, and a control and revision body). Each TPSG body established in municipalities must be registered either as a legal entity (a nonprofit organization), or without forming a legal entity (in this case it is only necessary to register the Charter of the TPSG body).

A modern Russian TPSG performs the following functions: protection of the rights and interests of residents; implementation of social projects; work with children and adolescents; control of trade and the quality of provision of different services; harmoniza-

tion of issues concerning the use of land; participation in the protection of public order; organization of leisure of residents; maintenance of the territory and landscaping; repair and maintenance of the housing stock; organization of charity and volunteer events, etc.

The activities of TPSG, if they are supported by authorities in the region and district, can have substantial positive economic and social impact. For example, in the Arkhangelsk Oblast in the early and mid-2000s, local population implemented 54 projects worth 1.75 million rubles in the course of four years; the projects were supported by the Institute for Public and Humanitarian Initiatives and funded by the Arkhangelsk Oblast budget that allocated the money to the activities of TPSG; the projects gave an economic effect of almost 30 million rubles [12]. G. Tyurin in his book “The Experience of Revival of Russian Villages” writes: “This is the level of capitalization, which neither the Japanese nor Americans have with their advanced technology. People obtain small funding, write a project on their own and become the subject of action. Previously, people from the district center made a decision about where to build any object. Now they themselves discuss where and what they will do; moreover, they look for the cheapest solution due to the lack of funding. There is only one coach who helps the initiative villagers. His task is to advice them in their choice and implementation of the project that will help them realize the next one. And each new project will make them more self-sufficient in economic aspect. In most cases

these are not business projects in a competitive environment, but rather a stage of acquiring skills in resource management. But those who have already passed this stage can go further. Generally speaking, it is a form of altering consciousness. The population that comes to know itself, creates within itself a body of territorial public self-government and endows it with the mandate of trust. Essentially, it is the very *zemstvo* [a form of local government in Imperial Russia. – Translator’s note], although it is somewhat different compared to what it used to be in the 19th century. But the meaning is the same: it is a self-organizing system, which is bounded to the territory and is responsible for its development” [12].

Therefore, the Arkhangelsk Oblast has considerable positive experience of functioning of TPSG bodies and joint decision of specific local issues by the authorities and population. In 2006–2015, the number of registered TPSG bodies

increased almost 18-fold: from 47 to 830. As of January 1, 2015, most of them (631) were created in rural settlements, 154 – in urban settlements and 45 – in urban districts [4].

In 2006–2013, TPSG bodies in the Arkhangelsk Oblast implemented 1,212 projects, of which 758 – over the past three years. In 2014, municipal contests received applications for 442 projects, 284 of them obtained state support. Almost half of the projects (44.7%) dealt with the issues of settlements’ improvement; a quarter (26.0%) – with the preservation of local historical and cultural heritage and folk traditions, 17.2% – with the development of physical culture and sports; 9.5% – with the provision of support to socially vulnerable groups, 2.5% – with the development of environmental culture and safety [4].

Especially significant tangible results with the participation of TPSG were achieved in 2011–2014 (*tab. 3*). While the annual share

Table 3. Results of implementation of the projects by TPSG in the Arkhangelsk Oblast in 2011–2014 [4; 5]

Project	2011	2012	2013	2014	Total for 2011–2014
Repair and reconstruction:					
– local roads, thousand square meters	52.6	44.5	41.0	75.0	213.1
– sidewalks, thousand running meters	16.0	6.0	10.0	1.5	33.5
– bridges, units	20	15	8	7	50
Improvement, units:					
– stand-pipes, water towers and other sources	41	38	43	23	145
– memorials to those killed in the Great Patriotic War	6	14	22	28	70
– monuments of spiritual heritage	8	16	14	9	47
– playgrounds for children	27	33	35	34	129
– sport facilities	29	33	48	22	132
– cultural houses, leisure centers, museums	24	24	33	24	105
– tourist sites	10	16	22	12	60
– art centers	2	8	8	5	23
– urban forests, pastures, parks	3	5	13	1	22
– firewater ponds	0	1	15	7	23
Amount of implemented projects for improving courtyard territories, units	48	62	89	84	283

of budgetary funds allocated in this period for the implementation of socially significant projects was less than 50%<sup>2</sup>.

A somewhat different model is applied in the Komi Republic, where 3/4 of the funding of the projects initiated by TPSG bodies comes from the budget. For instance, in 2013, TPSG bodies implemented 23 projects, for which the funds of their initiators (citizens and business) amounted to 2286.7 thousand (25.3%) and subsidies from the regional budget – 6.740 thousand (74.7%) [13].

The Kostroma Oblast carries out an annual monitoring of the development of territorial public self-government, the results of which also indicate the great scope of activities of this institution in the region and its participation in solving various local issues, in helping to raise a significant amount of borrowed funds for projects and activities (8.2 million rubles in 2013) [6].

The city of Vologda also has examples of successful implementation of TPSG activities. The years 2005–2007 witnessed significant development of territorial public self-

government. On the initiative of citizens, TPSG bodies were generated in all major neighborhoods: currently there are 31 TPSG bodies in Vologda.

In 2011–2015, TPSG bodies in cooperation with the Vologda City Administration implemented several hundreds of projects, initiatives and activities with the participation of thousands of people. TPSG bodies carry out their activities in seven main directions (*tab. 4*).

Along with the development of territorial public self-government, the definition of priorities in solving local issues and participation in their implementation shift from local authorities to the population, and this is the basis of efficiently functioning local self-government.

Thus, the analysis of performance results of territorial public self-government suggests that TPSG can help deal with most of the issues related to landscaping, enhancing the comfort of living, and the issues of social protection of citizens.

Doctor of Political Sciences E.S. Shomina, a renowned researcher and one of the ideologists of development of territorial public self-government in Russia, points out: “The success of TPSG depends largely on the attitude of the authorities toward it and on the presence (absence) of different mechanisms and forms of support. There exist various institutions that support the already established TPSG bodies and emerging local initiatives of residents” [14]. These institutions include, for example, *departments established in the local self-government* (Omsk, Novosibirsk, Kirov, Ryazan,

<sup>2</sup> In 2006–2014, the projects were implemented through co-financing from three sources: the regional budget (77.2 million rubles; 30%), local budgets (45.6 million rubles; 18%), the public and philanthropists (131.2 million rubles; 52%). Source: Doklad o sostoyanii, problemakh i perspektivakh razvitiya territorial'nogo obshchestvennogo samoupravleniya v Arkhangel'skoi oblasti, ob effektivnosti mer gosudarstvennoi podderzhki territorial'nogo obshchestvennogo samoupravleniya v Arkhangel'skoi oblasti za 2014 god [A Report on the Status, Problems and Prospects of Development of Territorial Public Self-Government in the Arkhangelsk Oblast, on the Effectiveness of Measures of State Support to Territorial Public Self-Government in the Arkhangelsk Oblast in 2014]. *Internet-portal territorial'nogo obshchestvennogo samoupravleniya Arkhangel'skoi oblasti* [Internet-Portal of the Arkhangelsk Oblast Territorial Public Self-Government]. Available at: [http://www.tos29.ru/images/upload/doclad\\_zh\\_2014\\_god.pdf](http://www.tos29.ru/images/upload/doclad_zh_2014_god.pdf)

Table 4. Spheres of activities of TPSG bodies in Vologda in 2011–2015

Activity	Content
1. Projects for the creation of infrastructure objects	Construction of sports facilities with the participation of TPSG (soccer fields, volleyball courts, hockey rinks), children's playgrounds, recreational areas, small architectural forms, container yards
2. Projects aimed to improve the city	Participation of TPSG in organizing volunteer works on cleaning the territory from garbage, landscaping and repairs of courtyards, porches, playgrounds, landscaping of recreation areas, parks, squares, alleys, ponds, river banks, tree and shrub planting, decoration of yard areas for the New Year holidays, assistance to housing and communal services in removing snow from the yards
3. Control function of TPSG	Monitoring the repairs of courtyards, roads, major repairs of buildings; assistance to the councils of apartment buildings; supervision of the accrual of utility payments; monitoring of the quality of public transport services (headway, the condition of trolleybuses, buses, service culture); monitoring of condition of yard areas and infrastructure objects; monitoring of compliance with trade regulations; identification of places of illegal trade, writings on buildings; identification and prevention of illegal advertising and slot machines
4. TPSG initiatives	Development by TPSG and approval by the Vologda City Administration in 2013 of the projects on integrated development of territories for almost all the city neighborhoods; initiatives on the repair of yard territories and participation in these works; initiatives on installation of signs; projects for street lighting; initiatives on the improvement of embankments; TPSG activities aimed to preserve recreation areas; establishment of "health zones" in the city (smoke free parks, etc.); allocation of parking areas; changes in traffic patterns inside courtyards
5. Culture and sport events	Organization of the following events by TPSG bodies: cultural activities in the city neighborhoods (concerts, theme parties, parties for children); contests, round tables, competitions and sporting activities among adults and children; activities to support healthy lifestyles; measures on the revival of traditions of Russian folk festivals; literary evenings, competitions on the International Women's Day; establishment of interest clubs, the School of Young Parents; exchange of seedlings event; restoration and repair of monuments; honoring the TPSG activists and residents who have made significant contribution to the development of the neighborhood; production of special materials (books, newspapers, leaflets, videos) on the history of the neighborhood and its modern life; participation in citywide cultural events, activities and socially significant projects
6. Educational activity	Organization of the following events: competitions of children's drawings; competition of projects and ideas for improvement of the city; competition of layouts and drawings of snow fortresses among children and adolescents; children's sports festivals and sports events, trips, educational activities (for example, "Cheerful science"); guiding students on road safety; carrying out preventive conversations with students on various topics
7. Volunteer and charity activities	Participation of TPSG in the following activities: preparation of kindergartens and children's homes to the beginning of the school year; collecting gifts for the Dom Malyutki orphanage; participation of TPSG representatives in the Donor's Day; organization of free sports training for children, congratulations of veterans of the Great Patriotic War and home front workers and presenting them with gifts
Source: compiled with the use of [9; 15]	

Birobidzhan, Surgut, Yuzhno-Sakhalinsk, Blagoveshchensk, Magadan, Magnitogorsk, Dolgoprudny, Samara, Nizhny Novgorod, Perm), where TPSG bodies supported by local governments for several years have their own premises and office equipment, and also an opportunity to implement various projects on a competitive basis. The amount of *grant support for individual projects* ranges from 50 to 500 thousand rubles, and the total sums of grant competitions, which are the most important source of support for citizen initiatives, are measured in millions of rubles [14].

In recent years, the development of TPSG started to receive support from *associations of municipalities*, in particular, the Council of Municipal Formations of the Moscow Oblast, which plans to establish a Coordinating Council of heads of TPSG bodies of the Moscow Oblast and support the idea of establishing the Association of TPSG, which would receive the necessary legal and organizational support from the Council of Municipal Formations of the Moscow Oblast [14].

Along with the institutions created under local authorities to support TPSG, there are nonprofit foundations, coordination and other collective structures. For example, the public foundation for providing support to TPSG “Soglasie” was established in Chelyabinsk, coordinating councils of territories – in Angarsk, resource centers for development of local self-government – in Irkutsk. TPSG *associations* are powerful institutions that support TPSG (e.g., Association of TPSG in Rostov-on-Don, in the republics of Komi and Khakassia, in Ivanovo, Voronezh and other oblasts) [14].

The results of the survey conducted by specialists of the Department for Internal Policy of the Vologda Oblast Government among the heads of municipal districts of the oblast point out the main problems in the organization and activities of TPSG bodies. These problems are as follows:

1. The place of TPSG bodies is not defined clearly in the system of local self-government, in particular:

- the range of powers, which can be actually implemented by TPSG bodies on their own or in cooperation with administrations is not defined;

- the mechanism of interaction between TPSG and local administrations, their agencies and public authorities for the purpose of addressing common issues that concern residents of the territory is not clear (complete subordination of TPSG to administrations, full independence from them or a mutually responsible partnership between TPSG and administrations in the solution of problems of territories);

2. Sources of TPSG funding are not established:

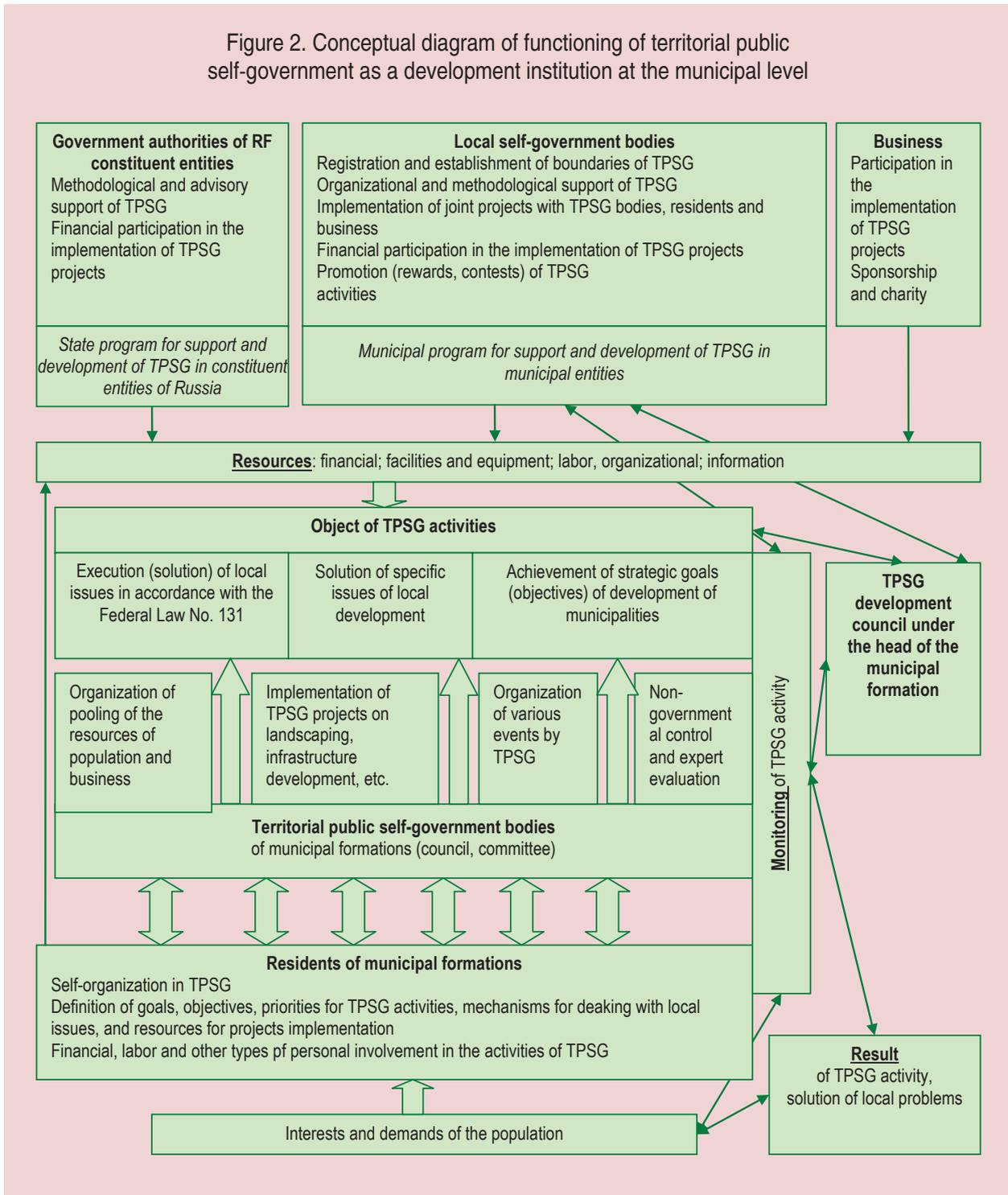
- budget financing: permanent, non-permanent, on a competitive basis;

- the role of TPSG in the monitoring of execution of local budget revenues and expenditures;

- opportunities and challenges in organizing entrepreneurial activities of TPSG, and the issue of how TPSG bodies promote entrepreneurial activity on their territory;

- other sources of TPSG funding (donations, off-budget funds, punitive sanctions, legitimate charges paid by legal entities and individuals).

Figure 2. Conceptual diagram of functioning of territorial public self-government as a development institution at the municipal level



3. Heads of municipalities are not sufficiently informed about the positive experience of TPSG and the results achieved in this regard.

The optimal model of functioning of territorial public self-government as a development institution at the municipal level can be expressed, in our opinion, in the following diagram (*fig. 2*).

Residents of municipalities have their own interests and needs such as comfortable living conditions, landscaping, improvement of the overall level of socio-economic development on the territory of their residence. These common interests necessitate citizens' self-organization at their place of residence.

The most active residents unite into formal groups (through the establishment, registration and functioning of territorial public self-government bodies on a regular basis) and into informal groups (one-time associations aimed to solve joint problems). The authorities of municipalities are also interested in enhancing the role of people in addressing the issues and tasks of local importance. Therefore, various departments for interaction with TPSG and/or centers for community outreach and TPSG in various neighborhoods of the city can be created within local administrations (urban districts and municipal districts).

After the registration of TPSG, the plan of its activities is set out, the bodies of its management are formed, its priority activities and projects that should be realized in a given territory are determined. Next, the available and potential funding sources and the resources of people, government and business are identified for the purpose of projects

implementation. These can include the funds from residents, local business (in the form of donations, charity) and the funds of regional and local programs for co-financing of TPSG projects.

The choice of an optimal model for financing TPSG projects depends on the following factors: the capabilities of regional and local budgets; the number and functioning of TPSG bodies already established; the regional characteristics of municipalities, the purchasing power of incomes of the region's population; the scale (amount of financial expenses) of the projects already developed. In this case, the approaches to the structure of funding TPSG projects can be as follows:

1) 34% (or 50%) – funding from the regional budget (subsidies and grants in the framework of the relevant regional program for TPSG support); 33% (or 20%) – funding from the local budget (subsidies and grants under the municipal program for TPSG support); 33% (or 30%) – funds from non-budget sources (population, business, non-governmental organizations and various extra-budgetary funds, organizations that give grants);

2) 75% (or 50, 33%) – funds from the budget of the RF subject, 25% (or 50%, 67%) – funds from non-budget sources (in the absence of municipal programs for TPSG support);

3) 75% (or 50, 33%) – local budget funds, 25% (or 50%, 67%) – funds from non-budget sources (in the absence of regional programs for TPSG support);

4) 100% at the expense of extra-budgetary sources (in the absence of regional and

municipal programs for TPSG support and other programs in which they can participate, and/or for the implementation of small-scale projects and activities).

After the resources to implement a TPSG project or event have been found, its specific executors are determined (the residents of the territory of TPSG, third-parties working under contract, employees of the municipal enterprises, agencies and local governments with the involvement of their resources).

The annual monitoring of TPSG activities is carried out in order to estimate their specific measurable performance results, make their financial and other reports, identify problems in the organization of TPSG, assess how the needs of the population are satisfied, and set new goals for the next year.

To coordinate the activities of the TPSG in the municipal district (urban district) it is advisable to establish the *Council for development of territorial public self-government under the head of the municipality* as its institutional mechanism. The Council consists of the heads of TPSG bodies and their representatives, the head of the municipality, specialists from the administration, and representatives of public organizations. It is created after the registration of at least five TPSG bodies in the municipality and it assembles at least once a quarter to discuss the most critical issues of TPSG, community development, community-driven initiatives, opportunities to support specific projects of residents, etc.

When developing and updating the strategic and program documents for the development of the municipality, the opinion of each TPSG

body (Council on TPSG development under the head of the municipality) is taken into consideration, and the possibility of specific involvement of TPSG in the implementation of various policy documents is determined.

TPSG plays an important role as an institution of social control at the local level, including that in the implementation of public-private partnership projects on the territory of TPSG.

The effective implementation of this mechanism requires the following forms of support of territorial public self-government on the part of local government of the district and settlements:

1. Normative-legal and organization and advisory support:
  - development of legal framework governing the activities of TPSG;
  - organization of activity of the councils on TPSG development under the head of the municipality (urban district, municipal district);
  - organization of activities of working groups under the administration of the urban district with the participation of TPSG representatives;
  - competitions for grants to support community projects of TPSG bodies;
  - training of TPSG representatives;
  - organization of meetings of officials of local government bodies with the public and representatives of TPSG, organization of personal reception of citizens on the territory of presence of TPSG;
  - organization of thematic seminars, round tables and conferences on organizational issues for TPSG representatives.

2. Promotion of residents' participation in the activities of TPSG:

- through the development of municipal target programs in which TPSG bodies can participate;
- involvement in the activities to preserve the housing stock, to clean the territory, and to plant and beautify the municipality;
- organization of socially significant works;
- development of the system for providing support to TPSG representatives (financial incentives, the awarding of diplomas, letters of gratitude and other forms of support).

3. Strengthening the interaction between TPSG bodies, nonprofit organizations and small/medium business:

- by assisting in the development and implementation of joint community programs and initiatives;
- by organizing and carrying out joint events;
- by generalizing and disseminating positive experience of TPSG bodies.

4. Information support of TPSG activities implemented in the following forms:

- preparation and publication of brochures, newsletters, reference books on TPSG activities;
- issuing of information leaflets by TPSG committees for the public;
- involvement of the media for the purpose of covering the experience and performance results of TPSG committees, the experience of their interaction with local authorities, nonprofit organizations, small/medium business and residents.

People's self-organization and their involvement in municipal management, in improving the efficiency of interaction between government and population can be improved by the development of a *regional and/or municipal target program for support and stimulation of development of territorial public self-government*, which involves co-financing of TPSG projects from the regional or local budget, their provision with organizational, advisory, methodological and other assistance.

The analysis of the programs that are implemented in Russia's regions and municipalities suggests that TPSG are mainly supported through subsidies from regional or local budgets allocated to co-finance TPSG projects (for example, the Arkhangelsk and Volgograd oblasts, the cities of Arkhangelsk, Volgograd, Ulyanovsk), subsidies for co-financing the projects of socially oriented nonprofit organizations (Komi Republic), funding to support the work of TPSG chairpersons (the town of Kotelnich in the Kirov Oblast), subsidies for co-financing of local social initiatives (Kirov Oblast and Kirov).

Organization of TPSG activities provides an opportunity to see local problems from within, find their solutions through joint efforts of the public, business, city authorities and municipal enterprises, thereby forming effective municipal partnership.

Thus, territorial public self-government is an institution of direct democracy, the institute for local self-government. Its role in the development of territories and solution of local issues can be quite significant if there is an effective system of TPSG in the

municipality, and if its financial and other support is provided by state authorities and local government bodies. Therefore, for each municipality it is necessary to define clearly the role of TPSG in the management

of territories' development, in the solution of local problems, to determine the place of TPSG in the single system of development institutions at the municipal level with the help of the mechanism described above.

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# INNOVATION DEVELOPMENT

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## Identification of Characteristic Features of Structural Change in the Research and Innovation Process



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**Abstract.** The paper substantiates and identifies the characteristics and emerging trends of structural change in the research and innovation process in the conditions of formation of post-industrial economy and transition to post-industrial technology. The characteristics and developments concern the structure of the research and innovation process, research and development quality, the role of basic science and high technology, the place of services in research and innovation products, and the spatial context of the structure. The evolution of the concept and content (structure) of the research and innovation process determines the initial trend in the specific features of structural change in the research and innovation process. The authors of the article investigate the dynamics of the main indicators of innovation activity as an integrated result of boosting the efficiency of the research and innovation process, the indicators of development of high-tech industries with special emphasis on nanotechnology and information and communication technology, the indicators of dissemination of post-industrial economic services, in the spatial context as well. The article reveals a tendency towards the implementation of the research and innovation process in the spatial dimension. The authors reveal characteristic features of structural change in the research and

innovation process and several emerging shifts in the structure of the process; this helps to outline certain specific requirements to the organizational-economic mechanism, the feasibility of changing institutional conditions and institutions for the purpose of strengthening the promising trends of development of post-industrial technology and acceleration of innovation development.

**Key words:** characteristics, structural change, research and innovation process, post-industrial technologies, services, spatial context.

The current structure of the research and innovation process in Russia cannot respond effectively to the global challenges and perspective trends of innovation development. For instance, the disadvantages of the research and innovation process include the following:

- at the beginning of the 21st century, the production output in science-intensive industries grew by 11% per year – four times faster than in other industries [2];

- Russia is lagging far behind world's leading countries in the share of medium- and high-tech industries in its industrial production structure [27];

- Russia is falling back in its innovation economic features such as patent activity, especially in high-tech industries (rapid increase in the number of patents is caused by technological innovation mainly in information technology and biotechnology); the volume of export and import of technology on the world market [3]; the volume of high-tech products and their share in the economy; the level of technological development, lagging several-fold [17; 18; 20; 24];

- the G7 nations possess 46 out of the world's 50 macro-technologies, which include a set of technological processes (R&D, preproduction, production and service support of the project). Russia currently maintains control over one or three macro-technologies and still preserves the capacity to develop

several other macro-technologies that can help it catch up with developed countries. That is, the country retains competitiveness in a small number of macro-technologies that require major fundamental results: in the field of nuclear energy, weapons, nuclear engines, bio-nano-, information and cognitive technology, etc.

Any significant changes for the better have not been observed over a long period (more than 10 years) [14, pp. 110, 112, 131, 133].

Not enough attention is paid to the analysis of structural changes in the field of scientific innovation. We can mention the relevant works of A.L. Gaponenko, G. Vechkanov, S. Glazyev, B.M. Grinchel, K. Gulin, V.A. Inozemtsev, V. Karacharovskii, S.V. Terebova, S.Yu. Shevchenko.

The innovation type of development requires widespread and purposeful cultivation of those development factors that are based on innovation. We are talking about different types of innovation – technological, business, marketing, socio-cultural, social; and they are most often based on or entail technological change. Innovation development goes on as an integration interactive process that involves innovation, technology, and economic and social change. *Innovation development has its own specific manifestation in the post-industrial economy*, where information resources become most important, services and consumption

come to the fore, and individuals determine their place in production with the help of new technology of information communication.

The transition to *innovation development in the post-industrial era* leads to unavoidable new significant changes in the structure of the research and innovation process and its characteristics. It becomes very important to identify these trends, both established and outlined; the trends that are hypothetical and preferable for Russia and its regions, but quite real and visible in the countries that have achieved success in their innovation development. Meanwhile, there emerges an issue of inconsistency between the institutional conditions of realization of innovation strategy and developments in the research and innovation process. Identifying these trends will help substantiate a change in innovation development and innovation strategy and establish the necessary institutions to support positive trends and eliminate negative ones, and, ultimately, for successful economic modernization. It should be emphasized that we are talking about *long-lasting qualitative changes* that alter or affect the necessity to introduce new forms and economic mechanisms.

Thus, the novelty of the study consists in the fact that it identifies the characteristics and emerging trends of structural change in the research and innovation process in the formation of post-industrial economy over a long period (1995–2015). *Characteristics and shifts in the postindustrial era affect the structure of the research and innovation process, the quality of research and development, the role of basic science and high technology, the place of services in the research and innovation output, the spatial context of the structure.*

### **Typical features of the evolution of the content of the research and innovation process**

Significant evolution of the concept and content of the research and innovation process sets *the initial trend* in the typical structural change of the research and innovation process. In this case we consider a broad concept of the research and innovation process, close to the idea of the research and innovation development. The research and innovation process is a process of creating, producing and distributing new products and technologies with the aim of increasing the degree of innovation development of enterprises, regions and countries.

Earlier, the research and innovation process was objectively presented as the sequence of stages – research, development, mastering of new technologies in production – distributed in time.

The modern research and innovation process is fundamentally different from this view. The process is gradually becoming more and more “quantized”, i.e. these stages are fulfilled not in direct connection with each other, but according to the need to create the final product – novelty and then innovation. The results of each stage can be ordered, and in some cases – selected with specific revision. This occurs because in a knowledge-based economy there is an opportunity of free access to knowledge (scientific knowledge, developments) on the part of interested persons, primarily, entrepreneurs. At present, the latter can develop innovations on their own. On the other hand, the functions of the subjects can change as the research and innovation process is carried out. All this demonstrates the overwhelming nature of innovation activity.

In order to break the research and innovation process into stages, a feature that characterizes the process as a whole was selected. The content of each stage should reflect a certain step of modeling of production of machines or product – the ultimate goal of the process. The update of the models of machinery is the unified process that involves changes in major decisions, in samples production and in models of machinery, and changes in technology and expansion of its application field as well. This requires that each stage go in strict sequence. Therefore, *the goal of execution of the stages* can be considered as the most appropriate basis for classification. This feature determines the appropriate means and ways of stages implementation, the system of the organizations in which they are conducted, and the ways of using their results. The objectivity of this classification feature has not changed.

There remains a trend in the production of the research and innovation process on the basis of different forms of knowledge – science, invention and experience, *with the strengthening of the role of mutual relationship* between fundamental scientific research and invention activity.

For example, since the 16th century, science and instrument-making have been interdependent, as well as science and craftsmanship: Galileo Galilei made a telescope on his own, for this purpose he polished the glass made by craftsmen. World trade predetermined the demand for telescopes used to watch ships. Invention of the printing press facilitated the spread of Galileo's idea that planets move along their orbits, and only then did the scientific community accept his

idea. Two hundred years later, entrepreneur John Hooker gave money to scientist Edwin Hubble for the purpose of building a telescope; with the help of several inventions (the spectrograph, in particular), the scientist discovered the effect of recession of galaxies.

Meanwhile, the ground was prepared for the development of science as a direct productive force, and an impetus was given to the organization of scientific and innovation activity as the structure relatively independent from the production, with its own organization and management mechanisms.

At present, the interaction between research and invention is developing much faster, especially in high-tech industries.

The goals of basic and applied research remain different; there is a boundary between them. However, *there is an objective tendency towards levelling the boundaries* between these types of research in some high-tech industries where it is otherwise impossible to obtain a practical result, a new product. With the help of specific examples, scientists have shown that in the field of nanotechnology it is fundamentally impossible to separate the implementation of applied research and the production of nanoproducts from fundamental research, because “experiment merges with engineering, and nanoindustry becomes inseparable from scientific experiment” [5]. And then the authors explain: based on the structuralist concept, a theory consists of a core and a set of applications, which is meaningful for modern high-tech science, unlike conventional science.

Breakthrough technologies start to play a leading role in the high-tech economy in the post-industrial era in all branches of production

of goods and services. These are principally new technologies that stem from fundamental scientific research and the consequent further research and innovation process.

It should be emphasized that the dominance of breakthrough technologies in postindustrial economic development can be possible only after *significant enhancement of the role of basic science*, expansion of space of science and that of basic science in particular. Intensified creation of key innovations leads to the inevitability of more frequent and radical technological leaps. For example, according to Academician E.P. Velikhov, all supercomputers today have less power than the brain of one individual, and in five years one new supercomputer will have the power of the brain of the whole mankind. The distribution of major innovations for the realization of prospective efficiency in the wide field of demands significantly complicates commercialization without losing a high degree of novelty and balance in the industries in which they are applied.

*In the future, all this will require changing the ratio of the share of persons employed in science and innovation, the structure of demand in the specializations in the sphere of education associated with this trend, etc.*

Objective changes take place along with subjective changes such as *lagging behind in the quality of the research and innovation process and the quality of research and development*.

The following main structural trends can be highlighted from the standpoint of post-industrial economy:

1. Slow change of research areas that are considered priority in accordance with global trends (marked according to indicators [11,

pp. 61–67; 14, p. 115, 119, 133–135; 15; 19; 23]; absence of changes in the employment structure of the research and innovation process, absence of changes in the fields of knowledge in which patents are issued, absence of changes in the commodity structure of export of innovation goods and services); moreover, it has been going for the last 10–15 years;

2. There is a balance of export and import of technology: however, export in the field of science and scientific services accounts for approximately 70% of the total number of agreements and its cost is 30%, while import is less than 10% both by number of agreements and cost [12, pp. 52–54; 13; 14, pp. 127–131]. Thus, what is sold is (at best) a pilot technology, or, more specifically, apparently, the result of the development. Therefore, first, trading in technologies with foreign countries does not contribute to scientific and innovative reproduction in the country so far; and second, good scientific and technological results are not included in innovations and in production. The structure of the trade in technology according to all indicators – patents for inventions, utility models, know-how, etc. – is dominated by imports. Other authors (see, e.g. [26]) put forward similar conclusions in this regard. Moreover, the situation has stabilized, and it has not changed for the past 10 years or more;

3. Lack of coordination between the stages of the innovation process and its insufficient focus on the final result, especially in the phases of engineering and manufacturing of new equipment, – applications for utility models and advanced production technologies created and utilized, the share of

commercialized patents, etc. which makes the use of imported equipment inevitable [1; 21].

Our calculations, along with the research carried out by other scientists, show that the costs of technological innovation per worker (thousand rubles) are growing significantly faster compared with the volume of innovation products per worker (thousand rubles) in several manufacturing industries. This indicates either a decrease in the efficiency of scientific and technological developments, or an increase in the cost of knowledge “production” or a reduction in the number of operations per workplace a month in the field of innovative products, and the relative increase in the cost of development per unit of output.

Direct evidence of the absence of a quality improvement is the fact that enterprises produce few fundamentally new or just new products, and their share continues to grow slowly (see, e.g. a relevant detailed study [11, pp. 59–64]); besides, innovation development indicators remain low. This reflects the implementation of the *strategy of borrowing* over a long period and the backwardness in creation of high-tech products, the focus on the acquisition of ready-made technologies, industries and enterprises.

Thus, the above-mentioned specific features in the understanding of the research and innovation process in the post-industrial economy and the lack of any shifts in the structure and quality of the process produce certain **specific requirements** to the organizational-economic mechanism, the appropriateness of altering the existing institutional framework and institutions for

effective implementation of the research and innovation process, for innovation development.

Apparently, it is necessary to increase the direct funding of fundamental science, as well as other means, forms and methods of support for fundamental research and promotion of its results, i.e. the creation of a special **institutional environment**. In addition, it is essential to work out special measures to increase the production of fundamental scientific ideas, to carry out exploratory research based on inventive activity in priority areas, as well as an integral research and innovation process in a number of high-tech sectors. The focus on **business venture** that has been recently developing in Russia, including the organization of dozens of venture capital funds and technology companies, can become one of the most important measures for this purpose [4; 25].

#### **Specific development features of high-tech industries and production of services**

In the long run, post-industrial economy is clearly expected to develop two major trends: **the priority development of the role (and, consequently, the share) of high-tech industries, and the expansion of the space (which means – in all the spheres) of production of services.**

Post-industrial technological basis is implemented in the 5th and the 6th technological modes. Knowledge, education and science, information and science-intensive technology, emerging technologies: information technology, nanotechnology, biotechnology, and cognitive science become leading technologies. Science-intensive, resource-saving and information technologies

(“high technologies”) are developing rapidly. Informatization penetrates all spheres of society: not only the production of goods and services, but also household, culture and art.

The study of the dynamics of the main indicators of innovation activity – as an integrated result of boosting the research and innovation process – in the manufacturing sector for the period from 1995 to 2013 [7, pp. 16–25; 8, pp. 16–25], unfortunately, shows the *lack of significant change*; all the indicators of innovation activity experience multidirectional fluctuations, and there is no substantial increase in the volume of innovative goods, works, services per ruble of expenditure on technological innovations.

Still, it is necessary to mention that there is an important development in the last 4 years: the share of innovative goods, works and services in the total exports of goods, works and services increased more than 2.5 times in 2013 since 2010, as well as the share of export of innovative goods, works and services in the total amount of sales of goods, works and services.

On the background of fluctuations and insignificant growth of the overall indicators of development of scientific-innovation activity in recent years, and according to the results of the analysis, it is possible to draw a conclusion about the following changes **in high-tech industries**.

The share of organizations that implement technological, marketing and organizational innovation in manufacturing (and they constitute over 80% of the total number of such organizations) in all the groups of industries by level of technology for the period of 2010–2013 [7, pp. 57–58; 8, pp. 55–56]

varies insignificantly and is as follows: from 13.6 to 14.4% for high-tech industries, from 24.3 to 25.3% for medium-tech industries of the high level, from 17.0 to 17.5% for medium-tech industries of the low level, from 25.4 to 23.1% for low-tech industries. It can be noted that the situation is similar with regard to the industries associated with the so-called **NBIC technologies**, there are small fluctuations in the share of these industries in the total number of organizations: 1.5–1.9% for pharmaceutical production, 3.9–4.1% for the production of electronic components, radio, television and communication equipment, 1.9–2.0% for the production of air- and spacecraft.

In other words, there is *no significant growth in the number of high-tech organizations (excluding pharmaceutical industries)*, including that in comparison with the changes in innovation activity in general.

Other trends – though within a short period of formation – are defined as typical **of the sector of nanotechnology**.

The volume of innovation products in nanotechnology, and the number of industrial production companies engaged in technological innovations in 2009–2011 [14, p. 199, 201] in general by type of economic activities (in fact, these are manufacturing industries) *increased* approximately 60-fold, out of which the volume of new products for the global market grew somewhat less, and amounted to 11–215 million rubles. Moreover, for one of high-tech industries – manufacture of electrical, electronic and optical equipment – the growth is the same, but the volume is relatively small: in 2011 – 3,585.5 million rubles, for the global market – 1.4 million rubles (the figure in 2010 was 65.0 million rubles).

Nanotechnology industry is growing along the increase in the number of researchers at organizations that perform research and development in the field of nanotechnology: during the period under consideration – from 14,500 to 21,166 people, i.e. in 1.5 times given the fact that the number of these organizations remained practically the same (an increase was from 465 to 485 units).

It should be emphasized that nanotechnology as an industry is in the stage of formation: the number of nanotechnologies created in 2009, 2010 and 2011 increased from 108 to 258, and the number of nanotechnologies that were implemented increased from 284 to 526. The number of nanotechnologies created in manufacturing increased from four to 28, and the number of these technologies that were implemented increased from 37 to 146. Meanwhile, the industry has considerable *capacity for growth*, because the majority of nanotechnologies are created and used in scientific research and development (approximately 90%) and in higher professional education (approximately 60%).

According to the results of generalization made by the author, the specific features of **information and communication technologies** (ICT) sector are as follows [9; 10, p. 21, 25; 12, p. 69; 14, p. 152, 154].

The number of people employed in ICT sector in 2005–2010 *decreased* quite significantly – by more than 13% – including that in the activities related to the production of ICT equipment. Regarding the share of ICT in the business sector, our country is lagging behind leading countries in two times. The indicators of innovation activity

of ICT organizations also *decreased by a third* or more in 2003–2013, although since 2007 the dynamics has been aligning; the number of ICT organizations engaged in technological innovation in 2013 amounted to 10–13% of the total number of ICT organizations **in federal districts of the Russian Federation**, which is the same as in other industries.

At the same time, the number of personal computers (PCs) per 100 employees increased in all types of activities in 2005–2011 from 22 to 39, i.e. almost twofold, and in manufacturing industries – from 13 to 24, apparently *due to the imports of PCs*. There has been some *saturation with computers*: the number of organizations that use them (as a percentage of the total number of organizations) was 91.1% in 2005 and 94.0% in 2013. Apparently, therefore, the updating of personal computers in the organizations as a percentage of the total number of PCs is reducing and it was 17.1% in 2005, and 12.6% in 2011 on average for all the types of economic activity (and this is important for post-industrial society); as for manufacturing industries, the figure was 14.7% in 2005 and 11.6% in 2011.

In general, it can be noted that *there are no significant changes* that could distinguish this sector from other high-tech industries.

However, *changes in ICT sector are possible in the near future*, because when the volume of capital investments of ICT sector reduced by 32% in 2005–2010, the investments in ICT production increased by 20% and the investments in ICT services increased in 2.4 times, i.e., apparently, the investments in the production potential and in infrastructural potential.

In general, there are no significant positive structural changes in high-tech industries; therefore, it is **necessary** to take major organizational and economic measures to **promote** high-tech industries, support the employees of the high-tech sector and provide government support in this regard.

It is necessary to emphasize the importance of a new prerequisite for the formation of potential breakthrough technologies, namely, the transition from the production of goods **to the production of services** in postindustrial economy.

The services sector occupies a considerable part of world economy and its share is continuously growing; the same applies to innovation component in the service sector. The distribution of services is a new trend; moreover, fundamentally new post-industrial services are distributed, they include new forms of information and communication technologies, intellectual services, and comprehensive services in the so-called smart cities.

Statistics collections on research and innovation activities place the services sector on a permanent basis during the last 10–15 years in the sections – by types of economic activity – as a subsection of “the services sector” with three types of services – communications, activities related to the use of computers and information technology, and other. According to all the indicators of innovation activity in the services sector, their values fluctuate, changes occur even *less clearly* than in the manufacturing sector, and there are no sustainable changes there. The volume of shipped innovation products produced

by innovation-active organizations in the services sector that implement technological innovations was up to 10% of the total industrial production in this period [14, p. 175, 176, 179].

Meanwhile, according to the results of the analysis, it is concluded that *accelerated development and dissemination of post-industrial services*, primarily in ICT sector, becomes a characteristic feature of the services sector [9; 10, pp. 90–96; 12, p. 69; 14, p. 157, 158]. For instance, the number of organizations that use local networks, on average, in the organizations of all types of economic activities increased by one third in 2005–2011, and almost twice – with regard to global networks. As for manufacturing organizations, the growth in their case is somewhat smaller – in 1.2 times. The number of manufacturing organizations that use networking technology as a percentage of the total number of surveyed organizations in 2011 reached 84.2% for local networks and 94.3% for global networks, and for the organizations of all types of activities – on average a bit less – 71.3% and 85.6%, respectively. Moreover, *the growth was regular and quite even*. The extent of using ICT services in Russia’s federal districts and constituent entities approaches 90–100% (see, for example, the regions of the Northwestern Federal District [6]).

It should be noted that a characteristic feature of “post-industrial time” is the emergence of new indicators of the services sector: the speed of data transmission, broadband Internet, mobile Internet, websites, etc., the range of their application expands – from the sphere of production to households.

*Significant growth and change* is also observed according to these fundamental indicators: the number of organizations that use the Internet (as a percentage of the total number of organizations in all types of economic activity) increased from 53.3 to 88.1% in 2005–2013, and the number of organizations that use websites – from 14.8 to 41.3%, respectively, while the coverage of the population with the services of “postindustrial society” is 50% and more.

Meanwhile, there are no fundamental differences between federal districts according to all the indicators of information society development, which is certainly *a positive feature and a step forward in the development of post-industrial society*.

Services broaden the scope of using advanced technologies, ensuring their promotion to the consumer and, in many respects, their economic efficiency. The extension of innovations in the service sector is, in our opinion, has its drawbacks, namely, a decrease in the attention that society and state pay to basic research and its support, and also the exhaustion of the capacity of the *set of basic innovations*, i.e., in fact, *the exhaustion of the potential of the 4th and 5th technological modes*. It is therefore advisable, probably, to move to an economy based on priority development of fundamental science and the development of new industries and **related intellectual services** such as advisory support in the field of information technology, engineering, design services, etc.

With the advancement and wide dissemination of information services, development of their creativity, diversity, and integration in education increases, *the nature of the research*

*and innovation process becomes more complex*. The complexity of high-tech services in postindustrial economy is manifested especially in the concept of the smart city, when special measures are developed in order to support and promote the comprehensiveness of services in the spatial organization of cities; these services include the automation of city emergency services, the implementation of automated models of social and healthcare services and much more [28].

**The accurate reflection of specific features of the services sector** in post-industrial economy requires adjustments in the structure of the research and innovation process, especially the personnel component of the potential, corresponding changes in statistical indicators, the anticipatory forecast of specializations in the field of higher education.

#### **Characteristic features of structural changes in the research and innovation process in the spatial aspect**

Trends in structural changes in the research and innovation process in spatial context are reflected in the difference in the extent and specifics of *innovation development of regions*. Moreover, the *growth of innovativeness* in virtually all the federal districts and in Russia as a whole is registered during the last four years. Thus, the share of organizations that implement technological innovations in the total number of organizations increased approximately by 15–20% in 2010–2013 (in several districts – somewhat less) [7, pp. 320–324; 8, pp. 243–246].

High-tech industries, services, etc. in the regions have the potential for growth, as it was shown above. However, according to the author of the article, one can note *significant*

*differences* in the rates of creation and use of nanotechnology in Russia's macro-regions [14, p. 197, 199-202].

It should be noted that in 2009–2011 half of the organizations that carry out research and development in nanotechnology, and half of the people employed in such organizations were concentrated in the Central Federal District, and almost half – in the Northwestern, Volga and Siberian federal districts. Moreover, in spite of the fact that the number of organizations remained virtually the same, the number of employees increased during these three years by 10% in the Siberian Federal District, by 20% in the Volga Federal District and twofold in the Central Federal District.

The development of nanotechnologies during the same period increased *in 2.5 times* in the Central and Siberian federal districts, and in 5 times – in the Volga Federal District. The use of nanotechnology increased in *about 1.7 times* in general and in the Central Federal District, in 2.5 times – in the Northwestern Federal District, twofold – in the Siberian Federal District, and in 1.5 times – in the Volga Federal District.

The *greatest increase* in the volume of innovation products in the sphere of nanotechnology, and the growth of industrial production companies performing technological innovations (mainly in manufacturing) in the short period under consideration took place in the *Volga Federal District* – from 449.7 million rubles to 47,134.6 million rubles, i.e. in 100 times, thus providing the entire growth in the amount of goods for global market.

The regions' capacity to carry out the research and innovation process changes, the innovative activity of the regions also changes; therefore, it is necessary to take into account the dynamics of innovation development. Previously, the analysis revealed a trend of *innovation shift* in the spatial context [16; 22]. This trend consists in the acceleration of innovation activity and performance efficiency in several macro-regions in which scientific and scientific-technological potential is not so strong. At the same time, according to the analysis, the last decade did not face any significant spatial transformations in the structure of the research and innovation process and in innovation development, the situation stabilized.

**Thus, the study of structural changes in the research and innovation process has shown** that in the conditions of formation of post-industrial economy, and in the transition to post-industrial technologies, there are very few qualitative changes of a long-term nature; there are no **sustainable shifts**, and there are certain multidirectional fluctuations in all the indicators of innovation activity. This also applies to the internal structure of the research and innovation process, to the quality of research and development, and to the enhancement of the role of fundamental science and high technology in innovation development.

We can distinguish only *individual characteristics* and emerging trends: a tendency toward growth is noted in some high-tech industries, such as pharmaceuticals, and some areas of the military-industrial complex; there is the potential of growth in nanotechnology

due to the ongoing research and development in this sector; ICT sector is also developing due to specific investments in technology infrastructure. The information and communication services of post-industrial economy are being created and widely spread, **in the spatial context as well**, the range of high-tech services is expanding, but mainly through the use of imported technologies and devices.

Taking into account the exhaustion of the potential of the fourth and fifth technological modes, it is, apparently, more reasonable to move to an economy based on priority development of fundamental science and the development of new industries and related intellectual services, to enhance the **integrated nature of the research and innovation process** and high-tech services implemented in the smart city concept.

Due to the identification of characteristic structural changes in the research and innovation process and emerging shifts in the structure of the process, there arise certain **specific requirements** to the organizational-economic mechanism, to the feasibility of altering the institutional conditions and institutions for the purpose of promoting the promising trends of development of post-industrial technologies and accelerating innovation development.

Thus, the research is based on the author's own theoretical and methodological approach to the formation of the institutional

environment and corresponding institutions of innovation modernization. The approach takes into account the dependence of the institutional environment on the essence of the research and innovation process and its task steps, the trends of structural changes in the research and innovation process in the post-industrial economy, and on the existing or emerging structural changes or characteristic features of the research and innovation process.

This approach makes it possible to propose conditions for the modernization of research and innovative development with recommendations on the development of institutions for implementing research findings. The key terms of the mechanism for promotion of the innovation process are as follows: institutional support for comprehensive execution of the research and innovation process and transfer of its results; selection of institutions for individual stages, particularly important in the post-industrial economy; selection of institutions for accounting characteristic features and trends in the research and innovation process of the post-industrial era; institutional support for the interaction between the subjects of scientific-innovative sphere; allocation of institutions to account for trends in the spatial aspect; institutional provision of equal access to resources for all the subjects of scientific-innovative sphere.

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## Investments of Banks in Securities: the Essence and Development Trends under Current Conditions



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**Abstract.** The implementation of modern banking activities involves the realization of investments. Investment is a complex discussion economic category, characterized by a number of features. The types and forms of investment are manifold and can be transformed with account of the state of the economy and the level of development of industrial relations. The faster growth of the financial sector in the economy has stipulated the development of financial investment. Banks as financial and lending institutions actively make financial investments in securities. Banks' investment in securities pursues a number of purposes which determine the selection of securities for investment and their quality. The article identified the targets of bank investments in securities and their development trends under current conditions on the basis of the analysis of the actual data for 2010–2014. Negative revaluation and the actual decrease in the value of corporate securities of Russian issuers reduce their commercial appeal. Banks refuse to speculate on the stock market in favor of the securities that ensure liquidity. Banks' investments aim to purchasing securities from the Lombard List of the Bank of Russia in order to obtain loans and participate in the

repo transactions. Thus, during the analyzed period, banks' investments in securities transformed from systemically important assets that generate substantial profit into the mechanism that provides liquidity. It should be noted that a significant part of investment resources of Russian banks services the debt obligations of Russia's Government. The article also identified a trend of banks' increasing investment in the participation portfolios of subsidiaries and associated joint stock companies. The official data of the Central Bank of the Russian Federation (Bank of Russia) [15], and the Federal State Statistics Service [14] were used as the information base for the study.

**Key words:** investments, securities, commercial banks' investments in securities, debt obligations, Lombard List, bank liquidity, earnings, shares of subsidiaries and associated companies.

The development of the Russian financial market and the situation in the national banking sector actualize the issue of banks' investment in securities. Attracting funds of population and economic entities, commercial banks should place resources in terms of profit, liquidity, risks mitigation and assets diversification. Investment of commercial banks, including investment in securities, meets these requirements. The effective management of banks' investment in securities requires determination of the essential aspect and identification of the features of investment process development in modern conditions.

Investment is one of the most debated concepts in both scientific literature and modern economic practice.

Originally investment (it. *Investition* – lat. *investio* – attire, apparel) is inputs of capital for profit [2, p. 84].

Foreign dictionaries of economic and financial terms also state that *Investment* (Engl.) – *investition* (German) – *inversion* (Spanish) is purchase of means of production; acquisition of capital for the purpose of earning revenue. In a general sense it is inputs in the securities [1, p. 103].

Various aspects of investment, investment activity were studied in the works of J.M. Keynes, J. Sachs, G.N. Mankiw, K.R. Macconnell, W. Sharpe, J. Schumpeter, P. Samuelson, L. Mises, J. Clark, M. Porter, etc.

Many researchers rightly believe that investment plays an important role in boosting economic processes and achieving sustainable economic growth (E. Domar, R. Harrod, W. Solow, J.M. Keynes, L. Erhard, W. Sharpe, I. Lipsits, A. Bulatov, A. Shakhnazarov, A. Andrianov, E. Rumyantseva, and others) [13, p. 9].

In modern economic literature there are various definitions of “investment” that reflect the ambiguity of interpretation and understanding of their economic substance. This is largely “caused by different methodological approaches of different authors and economic evolution, specifics of stages of historical and economic development, dominant forms and methods of management [4, p. 14].

The development and complication of economic relations produce the diversity of investment activity forms, investment types, with each having specific features.

The review and systematization of definitions “investment” proposed by various authors allows us to identify characteristic features of investment as an economic category:

1. Costs character – every form and type of investment involves costs, placement, inputs of capital [12].

2. Target character – investment as a special form of injecting always has a certain goal: attainment of profit and (or) achievement of another useful effect [7].

3. Urgency, urgent character – investment always involves a certain period of capital allocation. It is necessary to specify that unlike loans and credit relations the period of investment can be initially undetermined; however, to “invest” means to “leave money today to get a large sum in the future” [16, p. 17].

4. Risky character – as any efficient operation, investment involves risk, i.e. the possibility (probability) not to achieve objectives and instead of profit incur losses or receive a negative overall effect. “Two factors are usually associated with this process – time and risk” [16, p. 18]. However, it is worth emphasizing that risk is a probabilistic characteristic, and not every investment yields losses or has negative outcomes (effects) for an investor.

5. Innovative character – there is a possibility to develop and improve activity, create new qualities, technologies, and products due to received profit or other beneficial effects from investment activities.

The last 20–30 years observe the spread of financial investment in the world economy,

that is inputs of capital in financial instruments, mainly securities.

Financial investment involves purchase of reliable stocks, bonds [12, p. 87].

According to the Decision of the Council of CIS Heads of Government “On the Interstate Program for Innovation Cooperation of CIS Member-States for the Period until 2020”, “financial investment is a purchase of securities, interest-bearing bonds of federal, sub-federal and municipal loans, shares in the charter capital of legal entities, loans to other legal entities...” [11].

The formation of a transnational global financial system, liberalization and relative accessibility of financial markets and financial tools for vast sectors of the population determine a relationship of investment with financial transactions and securities in the mass consciousness.

In the conditions of the modern financial market one can realize both the passive investment strategy focused on generating revenue in the form of payments on securities (interest, dividends) and the aggressive investment practices involving attainment of profit in the form of a spread (price difference) between the selling price and the buying price of a financial tool. High mobility, volatility of the world financial market gives an opportunity to receive speculative income due to transactions with securities within the same trading day, minimizing the time of investment. Thus, there is short term, mid term, long term and indefinite financial investment. In other words, financial investment acquires a new quality – versatility in terms of capital investment.

Commercial banks, as special financial institutions, act as key operators of the financial investment market. Banks' investment in securities is a certain direction that has a distinct form of the investment object – securities, indicating its financial basis. It should be noted that the term “banks' investment in securities” is not defined in the Russian legislation, but the normative documents of the Bank of Russia formalize this notion indirectly and, in fact, equate it to “placement in securities” [9].

According to the academic community representatives, “banks' investment is placement of bank resources in high-yield securities for extended lengths of time; indirect injections in the economy, which help achieve deconcentration of inputs and gain additional profit” [10, p. 34].

By depositing funds in securities, bank credit organizations pursue multiple objectives:

- attainment of revenue (profit) from investment in securities due to paid interests and dividends and receipt of speculative income due to the increased market value of securities (speculation with securities);

- provision and maintenance of liquidity due to purchased high-quality securities accepted as collateral for loans of the Central Bank and REPO transactions;

- diversification of assets, risk management, carried out through the purchase of highly reliable securities, attributed to riskless assets by the Central Bank – a state regulator;

- obtainment of control over the issuer or significant influence on the activity of the issuer, a joint stock company, by means of forming a portfolio of participation of subsidiaries and affiliated joint stock companies.

These goals are achieved through the use of different securities as investment instruments. The correspondence of bank-investor's investment objectives and securities, investment instruments, is presented in *Table 1*.

The modern economy considers securities passed the listing procedure of the trade organizer and admitted to public circulation on the organized stock market (stock exchange) as liquid. However, the undeveloped stock market with shrinking financial capacity,

Table 1. Objectives and instruments of banks' investment in securities

Investment objective	Tools for investment (securities)
Obtainment of revenue (profit)	Securities traded on the organized stock market (stock exchange)
	Bills for accounting
Provision and maintenance of liquidity	Securities eligible as collateral for interbank loans
	Securities used as collateral for REPO operations by the Central Bank
Diversification of assets, risk management	Securities eligible as collateral for interbank loans
Getting control over organization management (joint stock company)	Shares in the portfolios of participation of subsidiaries and related joint stock companies
Source: compiled by the authors.	

low capitalization, an insufficient number of investors and shortage of investment resources determines that not all publicly quoted securities can be liquid, i.e. sold on the stock market at any moment at a higher price than the purchase one. In these circumstances, liquid securities are only those that ensure mobilization of funds from the Central Bank by conducting refinancing operations (Central Bank loans, direct REPO transactions), where such securities act as means of providing solvency of a commercial bank.

In domestic practice, the Central Bank of the Russian Federation (the Bank of Russia) for the provision of liquidity to national credit institutions conducts operations of direct REPO and grants collateral loans. Only securities included in Lombard list<sup>1</sup> are accepted as collateral. The Lombard list (changes and amendments) is published in the "The Bulletin of Bank of Russia" and (or) on the official website of the Bank of Russia on the Internet [8].

Forming the Lombard list by including or excluding securities from it, the Bank of Russia exerts a direct impact on the attractiveness of these or those securities as investment targets for banks. This opinion is shared by the experts of the Financial University under the Government of the Russian Federation: "The inclusion of certain securities in the Lombard list lends them more security in the eyes of investors, which is extremely important for banks. The aspect that increases investment attractiveness of the securities included in the Lombard list is that the rest of the securities listed on the balance sheet of the bank are

<sup>1</sup> The Lombard list is a list of securities eligible as collateral for the Bank of Russia loans.

liquid assets. Commercial banks in respect of each acquired security evaluate the ability to: a) quickly realize it on the stock market; b) use it when obtaining loans from the Bank of Russia; C) use it in REPO transactions. These aspects influence the choice of specific securities, banks invest in, in favor of the ones included in the Lombard list" [3].

Securities, securing obligations of commercial banks when obtaining loans from the Bank of Russia and REPO transactions, are transferred to the counterparty, the Bank of Russia, on a reimbursable basis. In the modern domestic practice, banks' investment in these securities are classified as investments in "securities, transferred to counterparties for operations conducted on a repayable basis, whose recognition was not terminated" [6].

The analysis of Russian banks' actual investment in securities will determine the investment objectives pursued by commercial banks and the trends of banks' investment at the present stage.

The analysis of the composition and the structure of commercial banks' investment in securities are presented in *Table 2*. It should be noted that the structure of banks' investment in securities is relatively stable – the major share, about 80%, comprises debt obligations. For the period from January 1, 2011 to January 1, 2015 the most noticeable structural changes are observed for investment in equity securities. Thus, the proportion of investment in shares for the purpose of obtaining speculative income decreased by more than 2 times and as of January 1, 2015 it amounted to only 5% of the total investment against 12.2% as of January 1, 2011. On the other hand, banks' stakes in subsidiaries and affiliated joint stock

companies increased – the share of investment reached 14% in 2015 against 6.3% in 2011.

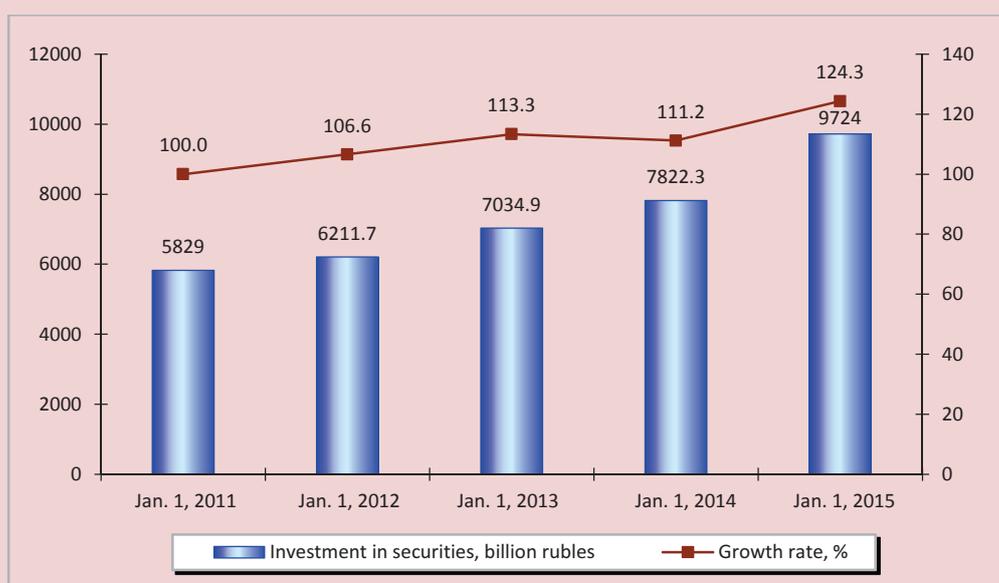
Dynamics of RF banks' investment in securities is presented in *Figure 1*.

Table 2. Composition and structure of RF commercial banks' investment in securities (as of January 1, 2011 – January 1, 2015)

Securities purchased by banks	January 1, 2011		January 1, 2012		January 1, 2013		January 1, 2014		January 1, 2015	
	billion rubles	%								
Total	5,829.0	100	6,211.7	100	7,034.9	100	7,822.3	100	9,724.0	100
Including: debt obligations*	4,419.9	75.8	4,676.2	75.3	5,265.1	74.8	6,162.9	78.8	7,651.4	78.7
equity securities	710.9	12.2	914.4	14.7	791.6	11.3	790.4	10.1	488.7	5.0
bills (discounting)	330.0	5.7	233.9	3.8	398.8	5.7	274.1	3.5	218.0	2.2
shares of subsidiary and affiliated joint stock companies	368.2	6.3	387.3	6.2	579.4	8.2	594.9	7.6	1,365.9	14.0
of them: shares of subsidiaries and affiliated credit institutions-residents	168.4	2.9	159.3	2.6	184.2	2.6	189.2	2.4	503.4	5.2

\* Debt obligations – volume of investments of credit organizations into debts, which are related to debt securities according to the RF legislation.  
Sources: the Bank of Russia data; the authors' calculations.

Figure 1. Dynamics of RF commercial banks' investment in securities (as of January 1, 2011 – January 1, 2015)



Source: calculated by the authors according to the Bank of Russia data.

During the study period there is a steady growth in these investments both in absolute terms and relative dynamics. As of January 1, 2012 the index amounted to 106.6% and as of January 1, 2013 – 113.3%. In early 2014, compared to 2013, there was small relative decline – 111.2%. However, as of January 1, 2015 there was a significant increase in investment in securities – 124.3% (9,724 billion rubles). The changes of banks' investment in securities for the last five years are presented in *Table 3*.

In 2011–2014 there was a rise in commercial banks' investment in securities (growth rate – 166.8%). However, the dynamics of banks' investment in various securities is diverse. Banks increase investment in subsidiaries and affiliates (by 3.7 times during the study period) and debt obligations (by 1.7 times) rapidly. The boost in banks' investment in shares of subsidiaries and affiliated credit institutions-residents indicates the formation of banking groups and the consolidation of financial

resources of credit organizations. At the same time, banks clearly lose interest in investment in equity securities (shares) and discounting bills.

The dynamics of RF commercial banks' investment in the portfolios of participation of subsidiaries and affiliated joint stock companies is presented in *Figure 2*.

The data show that the volume of Russian banks' investment increased significantly for the study period. The growth rate amounted to 229.6% as of January 1, 2015. Moreover, investment in shares of subsidiaries and affiliated credit institutions-residents increased by 273.8 billion rubles in the portfolio of Russian banks over the same period and amounted to 503.4 billion rubles. The volume of investment is about one third of the bank's portfolio of shares of subsidiaries and affiliated joint stock societies.

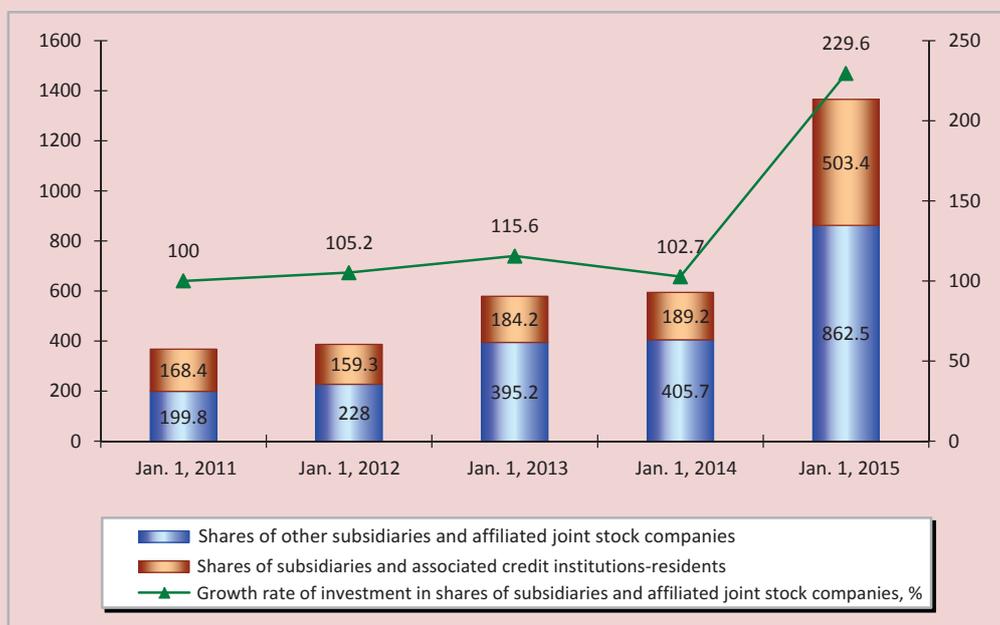
The reorientation of banks' investment in debt state securities and portfolios of participation in subsidiary and affiliated joint

Table 3. Dynamics of RF commercial banks' investment in securities for 5 years

Securities purchased by banks	As of January 1, 2015 to January 1, 2011		
	Dynamics (+, -), billion rubles	Growth rate, %	Change in structure (+, -), %
Total	3,895	166.8	-
Including: debt obligations*	3,231.5	173.1	2.9
equity securities	-222.2	68.7	-7.2
bills (discounting)	-112	66.1	-3.5
shares of subsidiary and affiliated joint stock companies (participation portfolio)	997.7	371	7.7
of them: shares of subsidiaries and affiliated credit institutions-residents	335	298.9	2.3

Sources: the Bank of Russia data; the authors' calculations.

Figure 2. Dynamics of RF commercial banks' investment in the portfolios of participation of subsidiaries and affiliated joint stock companies (as of January 1, 2011 – January 1, 2015)



Source: calculated by the authors according to the Bank of Russia data.

stock companies and the reduction in banks' investment in domestic corporate stock market instruments indicate a decline in speculative attractiveness of the Russian stock market and, hence, a decrease in speculative profits of banks-investors. Presumably, this will have a negative impact on banks' revenue in the short term, but force them to find new sources and instruments to raise their profitability.

The detail analysis of investment in securities will identify the interests pursued by the banks investing in securities more clearly. The composition and the structure of commercial banks' investment in debt securities are presented in *Table 4*.

The presented data characterize the structural changes that occurred during the study period in the portfolio of RF banks' investment in debt securities. The share of investment in debt securities in the total portfolio was stable. However, there were inner changes. This is observed in the dynamics of investment in debt securities, transferred without derecognition. If as of January 1, 2011 the share of such investment was 6.1%, as of January 1, 2015 it was 43.8%.

Let us describe this indicator dynamics more clearly; its growth rate of amounted to 269.7% as of January 1, 2013 (*fig. 3*). In the following periods the growth rate remained

Table 4. Composition and structure of RF commercial banks' investment in debt securities (as of January 1, 2011 – January 1, 2015)

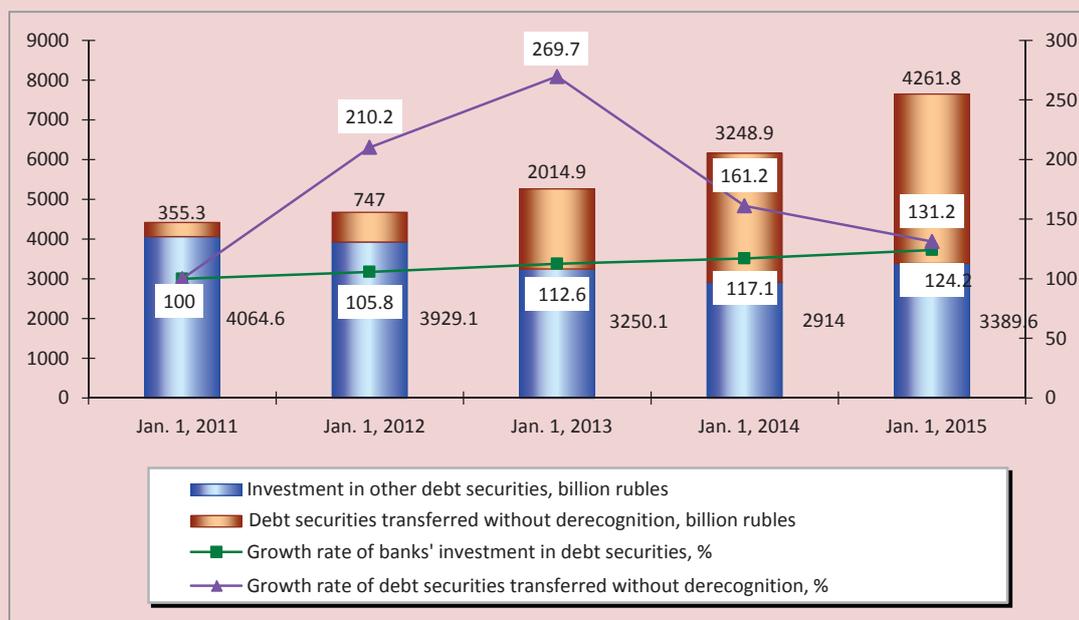
Debt securities acquired by banks	January 1, 2011		January 1, 2012		January 1, 2013		January 1, 2014		January 1, 2015	
	billion rubles	%								
Securities purchased by banks, total	5,829.0	100	6,211.7	100	7,034.9	100	7,822.3	100	9,724.0	100
Debt securities, total	4,419.9	75.8	4,676.1	75.3	5,265	74.8	6,162.9	78.8	7,651.4	78.7
Including: obligations of the Russian Federation	1,177.5	20.2	1,496.3	24.1	945	13.4	814.1	10.4	1,268.4	13.0
Liabilities of the Bank of Russia	588.5	10.1	0	0	0	0	0	0	0	0
Obligations of RF subjects and bodies of local self-government	284.3	4.9	223.7	3.6	98	1.4	131.8	1.7	108.9	1.1
issued by credit institutions resident*	365	6.3	408.5	6.6	492.9	7.0	410.3	5.2	456.4	4.7
issued by nonresidents*	718.9	12.3	839.4	13.5	791.3	11.2	883.2	11.3	1301	13.4
other debt obligations of residents	901.1	15.5	997.5	16.1	863.8	12.3	687.8	8.8	666.4	6.9
debt obligations transferred without derecognition	355.3	6.1	747	12.0	2,014.9	28.6	3,248.9	41.5	4,261.8	43.8
debt not repaid on time	12.3	0.2	12.6	0.2	8.4	0.1	6.3	0.1	5.2	0.1
revaluation of debt obligations**	17	0.3	-48.8	-0.8	50.6	0.7	-19.5	-0.2	-416.8	-4.3

\* Residents/nonresidents – the notions “residents” and “nonresidents” used for the formation of this table indicators are determined in accordance with the federal law “On currency regulation and currency control” as of December 10, 2003 No. 173-FZ.

\*\* Revaluation of debt obligations (equity securities) – negative and positive difference between the balance sheet value of securities and their current (fair) value.

Sources: the Bank of Russia data; the authors' calculations.

Figure 3. Dynamics of RF commercial banks' investment in debt securities (as of January 1, 2011 – January 1, 2015)



Source: calculated by the authors according to the Bank of Russia data.

stable – 61% and 31%, respectively. At the beginning of 2015, compared to the beginning of 2011, the absolute increase amounted to 3,906.5 billion rubles.

In the study period there were structural changes, defined by a number of factors. Commercial banks were forced to refuse such an investment instrument as debt obligations of the Bank of Russia due to the termination of the Bank of Russia operations to issue its own bonds. The bonds of the Bank of Russia are widely used in banking practice as a form of collateral in REPO transactions. The termination of their issue and distribution among credit institutions was also aimed at re-orientating commercial banks to invest in government securities and covering the federal budget deficit. Besides, we can observe a comparable growth in the volume and the share of investment in debt obligations of the Russian Federation and debt obligations transferred without derecognition (REPO

transactions) (*tab. 5*). These changes observed in 2011 have been developing in the subsequent years.

During the study period the greatest growth rate (1,199.5%) was observed January 2015 for commercial banks' investment in debt securities transferred without derecognition, i.e. the securities used in REPO transactions. Debt obligations transferred without derecognition had the greatest share (43.8%) January 1, 2015 in the securities portfolios of commercial banks. The significant amount of banks' investment in REPO instruments also indicates the national banks' high demand for the resources of the Bank of Russia and maintaining their liquidity.

The attractiveness of securities for a bank-investor is largely determined by their market value and the possibilities of securities to increase that value. Securities are financial assets; their market value is determined by a number of factors. The state of the stock market

Table 5. Dynamics of RF commercial banks' investment in debt securities for 5 years

Debt securities acquired by banks	As of January 1, 2015 to January 1, 2011		
	Dynamics (+, -), billion rubles	Growth rate, %	Change in structure (+, -), %
Total	3,231.5	173.1	2.9
Including: obligations of the Russian Federation	90.9	107.7	-7.2
Liabilities of the Bank of Russia	-588.5	0	-10.1
Obligations of RF subjects and bodies of local self-government	-175.4	38.3	-3.8
issued by credit institutions resident*	91.4	125.0	-1.6
issued by nonresidents*	582.1	181.0	1.1
other debt obligations of residents	-234.7	74.0	-8.6
debt obligations transferred without derecognition	3,906.5	1,199.5	37.7
debt not repaid on time	-7.1	42.3	-0.1
revaluation of debt obligations**	-433.8	-2,451.8	-4.6

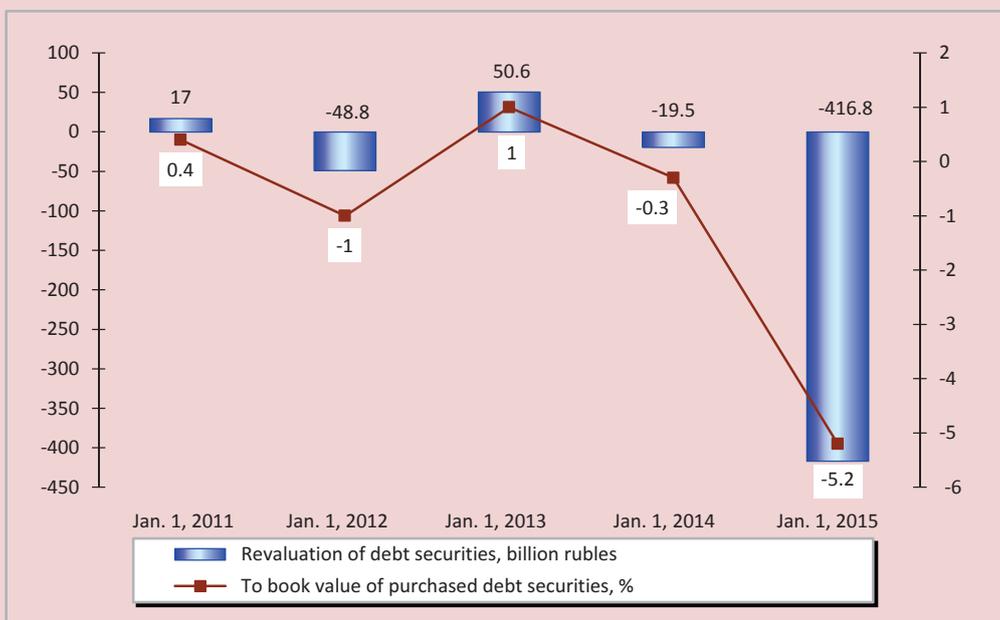
Sources: the Bank of Russia data; the authors' calculations.

is the key one; it includes demand and supply levels and the market situation in general. It is considered that the change in the market value of a certain security can not be connected with the financial condition of a separate issuer; however, the status of the national stock market reflects the general situation in the national economy accurately. The increase in the market value of securities in the medium and long term attracts investors and capital to the stock market and promotes the growth of the financial market. The negative changes in the economy deter investors, causing capital outflow from the stock market, decline in market values of securities and deterioration of market conditions.

The revaluation of debt securities purchased by commercial banks in 2011–2014 is presented in *Figure 4*. Its data reflect the change in the market value of debt securities in relation to book value – the price at which debt securities were acquired by banks. During the study period there was both positive revaluation – the increase in the market value of bonds and loans (as of January 1, 2011 and January 1, 2013) and the negative revaluation – the decrease in the market prices of debt securities.

The record negative revaluation of debt securities was recorded January 1, 2015 – debt obligations lost 4.6% in value, showing crisis phenomena on the domestic debt securities market.

Figure 4. Revaluation of debt securities purchased by RF commercial banks (as of January 1, 2011 – January 1, 2015)



Source: calculated by the authors according to the Bank of Russia data.

The positive facts include the reduced volume and share of investment in debt securities that are not repaid on time, indicating decreased risks of banks' investment in securities. The decline in the volume and share of investment in debt securities of residents together with the increase of investment in bonds of resident banks reveals decreased attractiveness of corporate bonds of the non-financial sector. The reduction in the volume of banks' investment in debt obligations of the RF subjects and local self-government bodies by 2.6 times also shows declined attractiveness of these securities for banks. The significant increase in investment in bonds of non-residents in 2014 was rather due to the exchange rate dynamics than to the changes in banks-investors' investment behavior (see tab. 4 and 5, fig. 4).

The analysis of the composition and structure of commercial banks' investment in equity securities shows that banks' investment in shares traded on organized stock market are related to the changes in their market value (tab. 6). The adverse changes in the amount and share of banks' investment in shares occur on the background of general growth of banks' investment in securities. The revealed trend indicates a loss of banks' interest in equity securities and requires a detail analysis.

We should take into account that banks' investment in equity securities differ in nature and investment objectives. Thus, the presence of equity securities, transferred without derecognition in the investment portfolios means that these shares are pledged for loans of the Bank of Russia and used by commercial banks as a means to obtain additional liquidity from the Central Bank.

Table 6. Composition and structure of RF commercial banks' investment in equity securities (as of January 1, 2011 – January 1, 2015)

Equity securities acquired by banks	January 1, 2011		January 1, 2012		January 1, 2013		January 1, 2014		January 1, 2015	
	billion rubles	%								
Securities acquired by banks, total	5,829.0	100	6,211.7	100	7,034.9	100	7,822.3	100	9,724.0	100
Equity securities at current (fair) value, total	710.9	12.2	914.4	14.7	791.6	11.3	790.4	10.1	488.7	5.0
Equity securities at book value (without revaluation), total	673.9	11.6	929.1	15.0	810.8	11.5	807.9	10.3	411.2	4.2
Credit institutions- residents	5.7	0.1	10.6	0.2	8.5	0.1	5.1	0.1	4.1	0.04
non-residents	50.3	0.9	78.4	1.3	82.2	1.2	94.5	1.2	84.5	0.9
other residents	588	10.1	786.6	12.7	646.1	9.2	591.7	7.6	197.8	2.0
Equity securities transferred without derecognition	29.9	0.5	53.5	0.9	74	1.1	116.6	1.5	124.8	1.3
revaluation of equity securities	37	0.6	-14.7	-0.2	-19.1	-0.3	-17.5	-0.2	-16.4	-0.2

Sources: the Bank of Russia data; the authors' calculations.

Investment in other shares pursue commercial goal – profit. Banks buy shares, anticipating the increase in their market value in the future, in order to resell them at a higher price. It is classified as financial speculation.

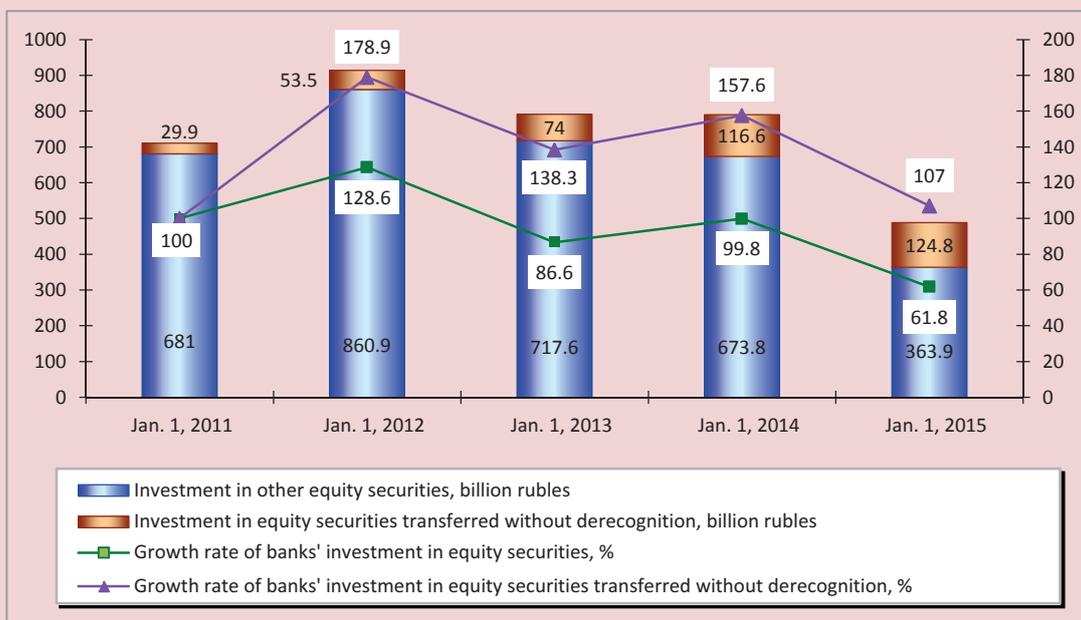
Figure 5 shows the dynamics of banks’ investment in equity securities in 2011–2014 taking into account their target investment performance. The analysis of the data reveals that by 2015 banks have significantly reduced investment in other shares that have potential to bring speculative profit. The maximum interest in speculative investment in shares was recorded in 2011 – a period of relative prosperity, when there was growth on the domestic stock market. In 2012 with the

growth of negative phenomena in the economy banks started to reduce investment in shares in order to speculate on the stock market. Banks’ investment in equity securities of a speculative nature reached the minimum value in the crisis year of 2014.

Banks’ investment in equity securities transferred without derecognition is characterized by a completely opposite trend. Banks’ investment in shares transferred without derecognition grows steadily throughout the study period. These changes confirm banks’ demand for additional liquidity.

The dynamics of commercial banks’ investment in equity securities for a five-year period is presented in Table 7.

Figure 5. Dynamics of RF commercial banks’ investment in equity securities (as of January 1, 2011 – January 1, 2015)



Source: calculated by the authors according to the Bank of Russia data.

Table 7. Dynamics of commercial banks' investment in equity securities for 5 years

Equity securities acquired by banks	As of January 1, 2015 to January 1, 2011		
	Dynamics (+, -), billion rubles	Dynamics (+, -), billion rubles	Dynamics (+, -), billion rubles
Investment in equity securities	-222.2	68.7	-7.2
Total book value (without revaluation)	-262.7	61.0	-7.4
Including:			
credit institutions-residents	-1.6	71.9	-0.06
non-residents	34.2	168.0	0
other residents	-390.2	33.6	-8.1
equity securities transferred without derecognition	94.9	417.4	0.8
revaluation of equity securities	-53.4	-44.3	-0.8
Sources: the Bank of Russia data; the authors' calculations.			

The increase in the value of equity securities in 2011 was accompanied by the growth of banks' investment in shares and, vice versa, the negative revaluation of equities observed since 2012 – by the decrease in the volume of banks' investment in equity securities.

In general, the dynamics of banks' investment in equity securities was negative in the analyzed period. Nowadays banks consider stocks of domestic companies outside the financial sector as least attractive for investment. It should be noted that the decrease in banks' investment in securities of domestic companies outside the financial sector occurs in the conditions of Russian economy recession [6]. Investment in shares of Russian companies outside the financial sector decreased by 390.2 billion rubles. The ruble amount of banks' investment in shares of non-residents – foreign companies – grows, but the share of these securities in the overall financial investment banks is stable. This situation can be associated not so much with the real increase in investment in shares of non-residents, as with the exchange rate dynamics.

There is a significant increase in investment in equity securities transferred without derecognition – by more than 400% over five years. These securities are used as collateral for loans of the Bank of Russia and in REPO transactions.

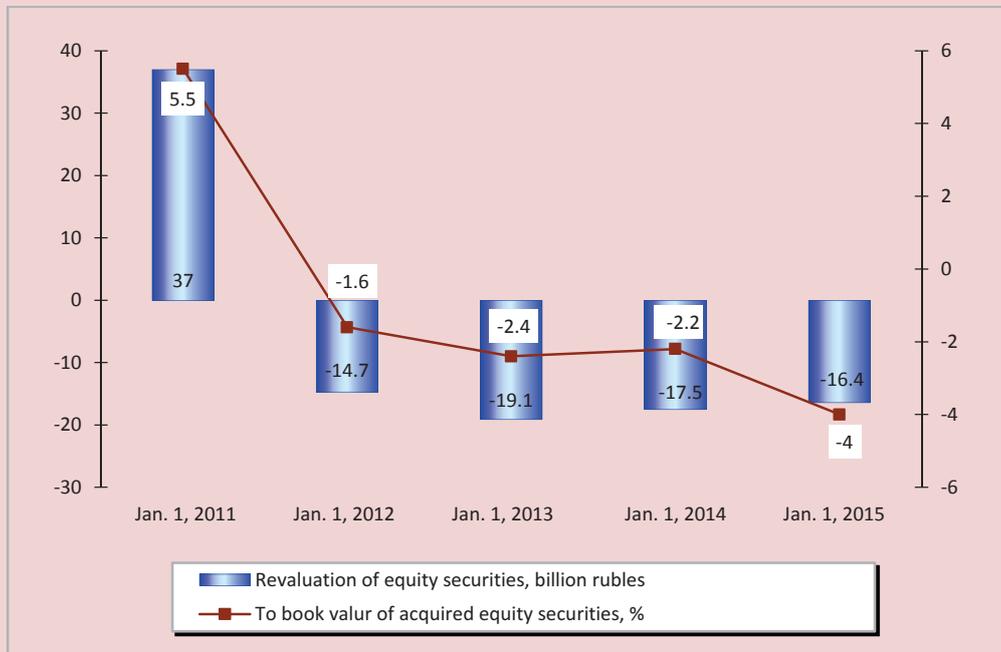
The data about revaluation of equity securities acquired by banks is presented in *Figure 6*.

Since 2012 there has been a negative revaluation of equity securities. In other words, the market value of shares relative to their book value (purchase price) has been constantly decreasing, banks' investment in equity securities have been depreciating that significantly reduces their attractiveness for investors.

Characterizing banks' investment in securities in 2010–2014, we can conclude that the banking credit institution, making financial investment, is primarily aimed at ensuring their own liquidity.

A noteworthy fact is that a considerable part of investment resources of Russian banks serves the RF Government debt obligations or the federal budget deficit. Banks use debt

Figure 6. Revaluation of equity securities purchased by RF commercial banks (as of January 1, 2011 – January 1, 2015)



Source: calculated by the authors according to the Bank of Russia data.

and equity securities from the Lombard list of the Bank of Russia to receive loans from the Bank of Russia and in REPO transactions. The negative revaluation and the actual reduction in the cost of equity and debt corporate securities of Russian issuers reduce their commercial attractiveness. Speculative operations of banks-investors on the stock market decline; therefore, the profitability of financial banking investment reduces. Banks increase portfolio participation, raising financial investment in the capital of subsidiaries and affiliated joint stock companies. The results of the analysis

obtained during the study allow us to state that in the current period banks' investment in securities changed goals and transformed from the systemically important assets yielding considerable profit into the mechanism to ensure the liquidity necessary for banks to implement other operations and perform revenue-generating activities. In general, this testifies the decrease in efficiency of banks' investment in securities. It seems that in the case of maintaining the current course of monetary policy by the Bank of Russia this trend in banks' investment will continue in the medium term.

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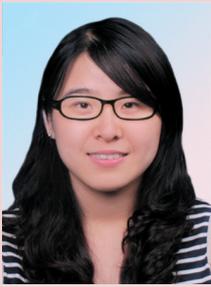
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## Research on Issues of Public Participation in Environmental Protection in China



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**Abstract.** Public participation is an important principle of environmental protection. Public participation in environmental protection is an significant way of environmental protection as well as an indispensable social force in the environmental protection field. Environmental non-governmental organization plays a very important and irreplaceable role in the environmental protection. Basic connotation, main principles and purposes of public participation are explained; current status and issues of public participation in environmental protection in China are introduced in this paper. Causes of insufficient public participation in environmental protection in China are analyzed; countermeasures and suggestions are put forward from the aspects like legal safeguard, development of non-governmental environmental groups, expansion of public participation channels, improvement of environmental protection awareness of the public and system of environmental information disclosure and so on.

**Key words:** environmental protection; public participation; China.

Over 30 years of reform and opening up, China has become the world's second largest economy shining on the world stage. However, in the meantime, China paid a heavy ecological environmental cost for the outstanding economic development. Especially, in recent years, as the urbanization process in

China is accelerating, the urban ecological environment problem is increasingly prominent. While the persistent haze weather in dozens of cities in China at the beginning of 2014 made various circles of society pay unprecedented attention to problems of urban ecological environment.

## **I. Public participation in environmental protection**

### **1. Basic concept**

Environmental protection is a general term of all activities carried out by human to solve actual or potential environmental issues, coordinate the relationship between human and environment, protect and improve environment. The subject of environmental protection may be government, enterprise, non-governmental organizations and the public and so on. The public hereby refers to individual public rather than the concept of public in social groups.

Public participation in environmental protection refers to that citizens have right to participate in all decision making activities related to environment in the environmental protection field to make the decision conform to vital interests of the public. Participation includes decision participation, process participation and end participation. Decision participation refers to public participation in formulation of economic and environmental policy, planning and plan and before implementation of development construction process. Process participation refers to public participation in formulation of environmental law, regulation, policy, planning and plan and in the implementation of development construction project. End participation refers to public participation after occurrence of environmental pollution and ecological damage.

### **2. Main principles of “public participation”**

“Public participation” originated from the rising wave of environmental protection and deep understanding of human on environmental issues since the late 1960s. Influenced by traditional mainstream economics, people previously believed that environmental protection was a public product only provided by the government, so the partial understanding of “environmental protection by the government” was formed and the public was excluded from environmental protection field. As the environmental crisis was increasingly serious, people have gradually recognized that environmental protection only by the government was not enough. On the one hand, corresponding to “market failure”, there was also “government failure” phenomenon. On the other hand, due to characteristics of environmental issues (such as universality and sociality), environmental crisis must be solved by the cooperative efforts from the government and the public.

Principles of public participation include following aspects: (1) public participation is a constituent part of all decision-making processes; (2) public participation process should be effective and meaningful, which may not postpone the decision-making process; (3) the public can obtain relevant information and put forward valuable advices; (4) public participation process should be objective and balanced, especially opinions from those

people influenced by the decision should be listened to. The above principles can enable the government to make effective decision, while the acceptance degree of public must be considered. Actually, public participation is a powerful way to maintain continuity of policy. In the design process of public participation, although not all advices of all people can be adopted, the public may feel their advices are considered.

### **3. Purposes of public participation**

The core purpose of public participation is to solve interest demands in conflict with each other of different groups while the best solution is to reach a consensus. In other words, public participation firstly enables the public to find out possible environmental issues, and then find out methods and ways to eliminate environmental issues, so as to mediate conflicts of different interest groups as much as possible, lower the anxiety and doubts of the public for the possible environmental issues and solve possible environmental issues that the public may face. The core concern of public participation is to safeguard any party's interests from being adversely influenced by the development and achieve a win-win development and environmental protection.

## **II. Current status and issues of public participation in environmental protection in China**

Compared with developed countries, there are four shortcomings for the system of public participation in environmental protection in China:

### **1. Incomplete laws and regulations for safeguarding public participation in environmental protection and poor implementation**

For laws and regulations, although there are laws and regulations like Environmental Protection Law, Law of the People's Republic of China on Environment Impact Assessment, Law of the People's Republic of China on Prevention and Control of Water Pollution, Law of the People's Republic of China on Prevention and Control of Pollution From Environmental Noise, Measures for Environmental Protection and Civil Participation, etc. Chinese public is still facing issues like poor implementation of rights and interests like right of knowing environmental information, right of participating in environmental protection, right of supervising the environment, etc.; and incomplete feedback systems of public supervision, impeaching and prosecution, so the public's right of environmental protection cannot be effectively protected.

### **2. The function of ENGO in environmental protection yet to be given full play**

From 1990s, the development of Chinese environmental non-governmental organization (ENGO) took shape primarily and the ENGO number was in rapidly rising trend. During 1980 and 1990, there was only one ENGO in China. During 1990 and 1994, there were less than 20 ENGOs. During 1995 and 2004, ENGO increased rapidly at the increasing rate of 25%. In 2005, the total registered number of ENGO exceeded 130 and by the

end of 2014, there were over 3,000 ENGOs in Mainland China and there were over one million participants.

In recent years, although Chinese ENGO development was recognized by the public to a certain extent, the stable status of ENGOs in environmental protection was also gradually established. In aspects like implementation of environmental policy and planning and internal environmental governance, ENGO, as relevant participant, is significant; but compared with ENGOs in foreign countries, there are still many issues like less quantity, small scale, poor influence, capital shortage, poor contact with the government and lack of international contact, etc.

According to data provided by Innovation and Social Responsibility Research Center of School of Public Policy & Management, Tsinghua University in September 2015, the annual income of about 15% Chinese social environmental protection organizations was basically zero, and only 8.6% of organizations realized annual income of above 10 million yuan. Only about 15% social environmental protection organizations kept close contact with local environmental protection department, 20% social environmental protection organizations nearly had no contact with local government, and 41% social environmental protection organizations expressed that they failed to establish the cooperative mechanism of information communication and sharing. In average, each local environmental

protection organization has about 25 full-time employees. Among civil voluntary environmental groups, nearly 30% ENGO only has part-time employees rather than full-time employees.

### **3. Lacking awareness of public participation**

As Chinese environmental issues are gradually prominent and environmental propaganda and education strength is increasing, the environmental awareness of the public is enhanced to some extent, but the solution of environmental issues is still dependent on the government. Although the public recognizes enterprises and individuals are main subjects for environmental pollution and ecological damage, the public still regards environmental protection as main responsibility of the government, so individuals and enterprises are lack of social responsibility and participation awareness of environmental protection.

The formation and improvement of the environmental protection awareness of the public is basically based on the cognition of environmental protection knowledge. The research done by Shanghai Jiaotong University in 2013 showed that the cognition degree of the public on basic environmental knowledge was not optimistic and the public only knew some common senses in aspects like renewable energy sources, energy-saving power generation ways, etc. (*fig. 1,2*). Only 66.3% expressed that they heard of “garbage classification”, and 27.8% heard of “biodiversity”. It’s worthy of concerning that

Figure 1. Cognition of energy-saving power generation ways

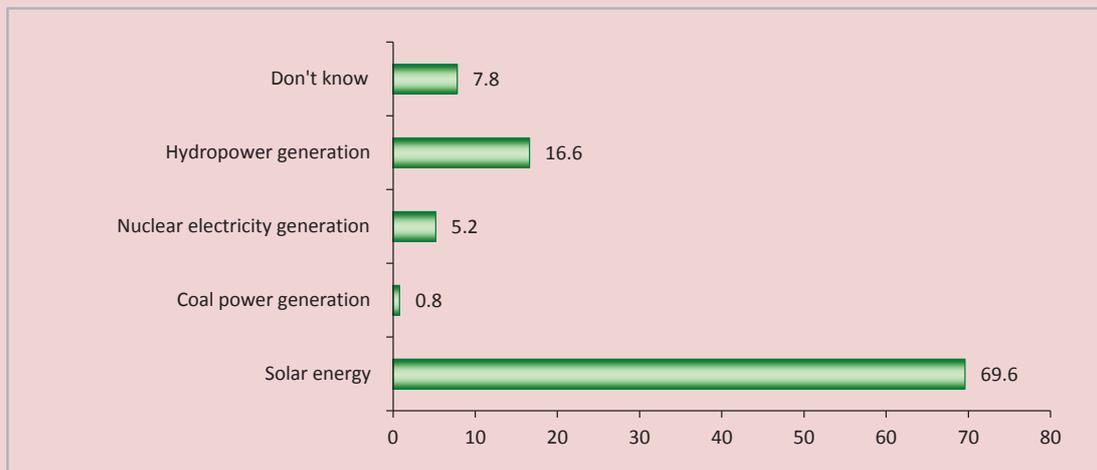


Figure 2. Cognition of renewable energy sources

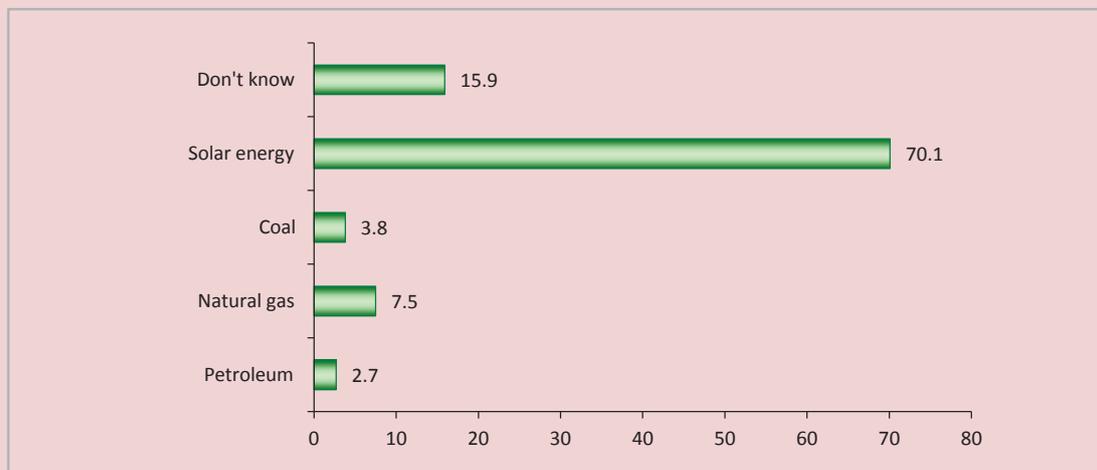


Figure 3. Cognition of PM2.5, climate warming, causes for environmental pollution

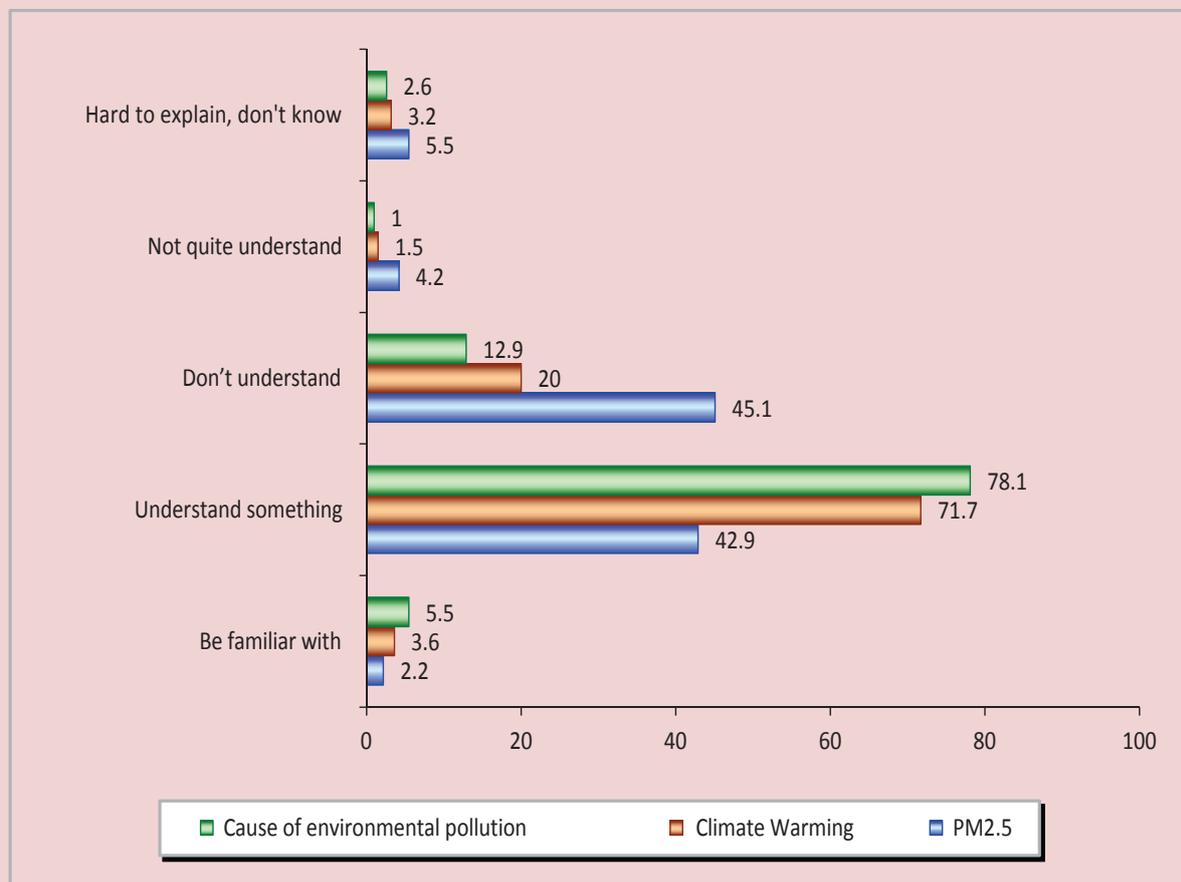
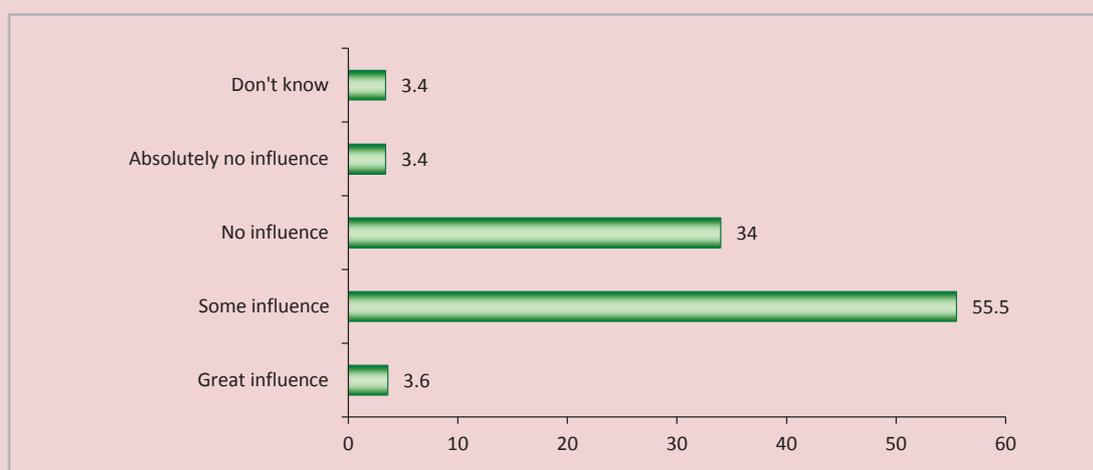


Figure 4. Cognition of influence of daily behaviors on environment



although dozens of cities in China suffered haze weather, the public's awareness of PM2.5 was not high. 54.8% didn't know or were not familiar with it (*fig. 3*). Meanwhile, 37.4% believed that their behaviors might not influence the environment (*fig. 4*).

#### **4. Limited channel for the public to obtain environmental information and participating in environmental protection**

Nowadays, with the improvement of the public attention to environmental protection issues, the channel for Chinese citizens to obtain environmental information is very limited. Existing environmental information channels cannot meet the requirements of public participation in decision making. 2015 survey report of Chinese urban residents' environmental protection attitude behaviors published by Public Opinions and Public Sentiment Survey Research Center of Shanghai Jiaotong University shows that over a half of respondents believe the publicity degree of environmental pollution information by the government is not enough. Compared with local government (58.9%), the public is more confident in the Central Government (65.7%) for solving pollution. The public are unable to obtain sufficient environmental information, which must cause the public to have partial understanding of environmental information. Only the public master basic environmental information of living areas in a sufficient and timely manner, and are aware of the influence of environmental quality condition on their own immediate interests,

can the public express their opinions, put forward their views so as to obtain expected effect of public participation in environmental protection process.

Although citizens with higher education background have a strong consciousness of environmental protection, as lacking of practical and effective participation channel, some public are unable to participate in environmental protection.

While Chinese laws and regulations haven't clearly granted rights of obtaining information and participating in decision to the public in the legislation, and effective procedures and system guarantee are in shortage. To make the public actively participate in the environmental protection, the participation channel must be smooth.

### **III. Analysis of causes for insufficient public participation in environmental protection**

#### **1. Absence of policies and regulations.**

At present, although the right of public participating in environmental supervision is affirmed by law, however, it's lack of clear and detailed laws and regulations on specific conditions, ways and procedures of participation. In case that the public is facing specific environmental issues, the public have no idea of the way of participation and the most reasonable and legal way of participation.

#### **2. Adverse impact of long-term government-oriented participation.**

Looking back the development of the Chinese and foreign environmental protec-

tion career, different from environmental industry of western countries that was primarily promoted by the public, the environmental protection in China was firstly promoted by the government. Good political idea must be with response from the public, implemented with public participation and executed under a complete set of supervision mechanism. Experience from developed countries shows that public participation is not only the intrinsic factor for maintaining long sustaining environmental quality, but also effective new force and huge social power for supervising the government and enterprises and so on to performing environmental management and protection obligations. For a long time, to promote environmental protection from top to bottom by the government actually neglected public participation, and suppressed the public's opportunity to voluntarily participate in environmental protection. In this case, the public is hard to participate in the environmental protection process, and even if participation is allowed, it's passive involvement.

### **3. Disadvantages of social context and public opinions atmosphere of Chinese environmental protection.**

The cultivation of environmental protection concept will be influenced by the public opinions atmosphere. But for a long term, some local governments neglected the environmental protection as they were redundantly pursuing rigid economic benefits for economic development in the actual

work. The positioning of development goals reduced necessary propaganda of environmental protection, which not only influenced the maintenance and development of ecological environment but also hindered the improvement of the public's awareness of environmental protection and implementation of environmental protection behaviors. In addition, there is misunderstanding in the public's awareness of environmental protection. The public are highly sensitive to adverse environmental issues rather than sustainable development, natural reserve and other positive environmental issues. In fact, environmental protection, with wide extension, is the general term of various behaviors carried out by human to solve actual or potential environmental issues, coordinate the relationship between the human and the environment, protect sustainable development of economic society. The misunderstanding and reserve deficiency of environmental knowledge by the public seriously hindered the actual public participation in environmental protection.

### **4. High information and economic cost of public participation in environmental protection.**

Rio Declaration on Environment and Development once pointed out that "all countries should provide lots of data to encourage public recognition and participation", "everyone should obtain relevant environmental information held by the public authority, including information about hazardous substance and activities

in the community". However, some local governments only disclosed little information about environmental issues to the public so that the public's right to be informed was hindered. The public must spend much cost and make field visit to obtain relevant information about environmental issues. If the expenses and technology are not guaranteed, public participation may not be motivated.

#### **IV. Suggestions for promoting public participation in environmental protection in China**

##### **1. Completing legal system of public participation**

Public participation is an important principle and system of environmental protection. Focusing on newly revised Environmental Protection Law and Law of the People's Republic of China on Environment Impact Assessment, and supported by other environmental laws, regulate the system of public participation, and build complete legal system of public participation. In terms of legislative language and content, Chinese Environmental Basic Law shall specify relevant content of public participation in a general manner. In terms of legislative framework, the Law shall specify principles of public participation and the right of public participation in general rules, set up specific rules of public participation and specify legal responsibilities for violating public participation in the legal responsibility. Other environmental laws shall play

supplementary function under the general regulation of Environmental Protection Law. For environmental laws and regulations, Environmental Protection Law specifies public participation in a general manner, so corresponding legislation is required to specify public participation in a detailed manner. Therefore, the complete system of public participation in environmental protection is formed with Environmental Protection Law and Law of the People's Republic of China on Environment Impact Assessment, and supplemented by other environmental laws. Finally a complete system of public participation with various laws mutually coordinated and supported is formed.

##### **2. Greatly developing ENGOs and expanding participation channels for the public**

The ENGO is the most effective organization mode for public participation in environmental protection. On one hand, the ENGO can enhance the cooperation between the public and the government for environmental governance; on the other hand, the ENGO can intensify the influence of public participation, establish healthy and active "regulatory mechanism" between citizens and the government to gather expectations and interests of citizens. Therefore, China must actively support and lead ENGOs from legal system, participation procedure and other aspects, cultivate, encourage and support ENGOs to carry out various social supervision and public welfare activities of environmental

protection, and provide effective channel for public participation. While the ENGOs should also enhance international exchange and cooperation, obtain diversified financing and improve the ability of participation in environmental protection.

ENGOs should constantly learn domestic and foreign advanced experiences. For enriching the capital source, firstly obtain financial support from the government in the form of environment-related funds rather than complete appropriation and subsidy and establish competitive mechanism. Secondly, ENGOs should constantly complete the organization and improve the survival ability. Some ENGOs in western developed countries provide paid service to gain income and develop the organization. For example, provide market survey and commodity development and so on for the environmental protection industry. Raise money by heart-moving activities like charity performance, advertisement, etc.

### **3. Improving environmental protection awareness of the public**

The high environmental protection awareness of the public is the starting point and core driving force of ecological civilization construction. For the current stage of China, following aspects work shall be properly done to improve the environmental protection awareness of the public. Firstly, make full use of social resources, enhance the publicity and popularization of basic environmental protection knowledge, give full play to function

of mass media, enhance the popularization of environmental protection knowledge, and lead the public to learn scientific environmental knowledge in an accurate and timely manner. Secondly, keep transparency of basic environmental protection information and improve the government credibility. As the core advocator and organizer of ecological civilization, the government is in urgent need to change the image and improve the credibility of the public. Finally, establish advocacy alliance decision making mode and strengthen interaction of diversified subjects. Cooperation and communication is the only way to eliminate environmental crisis events, so the government should absorb diversified interest subjects like community, non-governmental organization and common public and so on in the decision-making process, which is good for intensifying the systematic cooperation awareness of the public for coping with crisis.

### **4. Completing the system of environmental information disclosure**

Environmental information disclosure is the premise of public participation in environmental protection. Formulate relevant laws and regulations, establish uniform system of right to know, and specify the channel for the public to obtain information and content in the legislation. Meanwhile, establish effective information feedback system. The subject of environmental information disclosure not only contains government and administrative

environmental protection organizations, but also covers various production enterprises. Urge local governments, environmental protection departments and enterprises to take more effective environmental protection

mechanism and measures, improve the transparency and responsibility consciousness of environmental protection and make the public to give suggestions and properly play the function of supervision.

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## The Phenomenon of Social Institution and Its Theoretical Definition



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**Abstract.** Theoretical description of institutions as social phenomena requires that their adequate model be constructed. However, the concept of “social institution” has no universally accepted definition. The article discusses the phenomenon of social institution and analyzes its definitions. Researchers consider social institution from several points of view, but the existing definitions do not reflect all the features of social institutions. It has been recently acknowledged that institutions need to be developed slowly, and radical changes in social institutions often cause serious deterioration in their functioning. The theoretical model of social institution should explain the reasons for this stability. A good model should also explain other properties of social institutions, for example, their system and structural features. The paper proposes the model of institution as an open social system with blurred boundaries and an uncertain number of participants. At the macro level, institutions as social systems have a normative, ideal and organizational structure. The elements and the bearers of properties of such a system at the micro level are represented by people with their worldview, ideas, values, behavior standards and thought patterns, their specific recurring social actions and mutual expectations. Such a model explains the persistence of institutions: an abrupt change in the rules and regulations cannot result in equally rapid change in worldview, ideas, values, behavior standards, cognitive patterns, and mutual expectations of social actors. Instead, a radical change in the “rules of the game” causes great stress that affects the actor’s personal qualities. The model opens up new opportunities for forecasting the results of social institutions reforms. The reforms will be successful when it does not require too great a change in behavior standards, thinking patterns, values and ideas of the majority of the subjects that make up the system. Otherwise, it will lead to a deterioration in

the functioning of institutions. The author of the article gives her own definition of social institution on the basis of the proposed theoretical model.

**Key words:** social institution, definition of institution, social system, system approach, social actor, structure of the social system.

The concept of *institution*, although widely used in the social sciences, does not have a universally accepted definition so far. Meanwhile, the theoretical description of institutions as social phenomena requires creating their adequate working model. Therefore, in the process of theoretical description of social reality, sociologists and other social scientists try to put forward a working definition of social institution.

Sociology took the concept of *institution* from jurisprudence where it meant a set of rules governing legal relations [see: Glotov M.B., 2003: 14]. At the turn of the 20th century, this concept entered the vocabulary of sociologists. E. Durkheim defined sociology as “the science of social institutions, their genesis and function” [Durkheim, 1991: 20]. During that period, economists (the first of them was T. Veblen), and then anthropologists, political scientists, etc. began to study institutions.

Even before the emergence of the term *institution*, A. Comte and H. Spencer – the founders of sociology – considered society through the prism of the forms of social organization that were subsequently named institutions. According to A. Comte, society is a system that comprises social institutions such as the state, Church, family, and cooperation. Spencer’s organicist theory compared social institutions to organs of the human body.

Afterwards, the term *social institution* in scientific literature had many different

definitions. In English there is a difference between *institute* and *institution*: the former is more related to social norms and principles, the latter – to social organizations and establishments [see: Bychenkov V.M., 1996: 7]. There is no such distinction in Russian. We shall consider the definitions given by sociologists and economists, because their contents have certain points in common [see, for example: Kirdina S.G., 2001: 137-138]. One of the first definitions of social institution was given by economist and sociologist T. Veblen: “...they [institutions] are of the nature of an habitual method of responding to the stimuli which these changing circumstances afford. The institutions are, in substance, prevalent habits of thought with respect to particular relations and particular functions of the individual and of the community” [Veblen T., 1984: 200-201].

Modern researchers give different definitions of institutions. In some of them, institution is viewed primarily as a system of norms and rules. According to the definition given by economist D. North, institutions are “the rules of the game” in a society that in a certain way organize the interaction between people [see: North D., 1997: 6]. D. Jary and J. Jary give the following definition, which is close to the previous one: “Institute is an established order comprising rule-bound and standardized behavior” [Jary D., Jary J., 2001]. According to the Dictionary of

Modern Western Sociology, the structural functionalism views social institution as “a stable set of formal and informal rules, principles, norms and settings that regulate various spheres of human activity and organize them into a system of roles and statuses that form a social system” [Sedov L.A., 1990: 117]. According to these definitions, institutions are “the rules of the game”, and the individuals and organizations that embody the accepted norms and rules into action are “the players”.

Another sociological tradition tends to consider institutions from a system-wide viewpoint. According to some sociologists, institutions comprise not only the regulatory aspect, but also the social actions of society members. Such an understanding of the term *institution* is given by the following researchers. According to A. Giddens, “Social institutions are the main types of social activities performed by the majority of members of a given society. Institutions include the norms and values that the majority observe; all the institutionalized ways of behavior are protected and supported by tough sanctions. Social institutions form the bedrock of a society, because they represent relatively fixed and stable ways of behavior” [Giddens A., 1999: 673]. According to N. Abercrombie, S. Hill, B.C. Turner, “The term *institution* is widely used to describe social practices that are regularly and continuously repeated, are sanctioned and maintained by social norms, and have a major significance in the social structure. Like the concept of *role*, the concept of *institution* refers to established patterns of behavior; however, *institution*

is considered as a unit of a higher order, a more general one that involves many roles” [Abercrombie N., Hill S., Turner B.C., 2008].

The definitions by Giddens and Abercrombie convey an important idea of a regular long-term repeatability, the *stability* of norms, rules, and behavior standards. A. Giddens gives another definition that emphasizes this very aspect: “Social institutions are the most temporally long-established and spatially widespread practices” [Giddens A., 2005: 60]. However, the stability of institutions consists not only in their regular and long-term repeatability, but also in their independence from the actions of an individual “average” actor. Institutions are also sustainable in the sense that they can be changed only through the effort of large groups of actors who use special mechanisms for this purpose [see: Kleiner G.B., 2004: 17-18].

According to the definition of *institution* given in a textbook under the editorship of G.V. Osipov and L.N. Moskvichev, it includes not only social actions performed by individuals, but also the individuals who implement these actions: “Social institution is a set of individuals, organizations, institutions, equipment and facilities, which satisfies public demands through the functioning of the system of mutually agreed and appropriately focused standards of behavior” [Osipov G.V., Moskvichev L.N., 2003: 876]. This definition uses *the functional approach* to institutions, which ensure that any social need is satisfied. In this case the functional approach is useful because it highlights the role of institutions in society.

Due to the fact that *institutions* are often regarded as a system of rules and standardized patterns of behavior, this definition is applied to a large (including indefinitely large), and to a small number of institutions' participants. In this case we can talk about macro-institutions (that spread their action on the society as a whole), meso-institutions (that act only in certain regions, industries, etc.), micro-institutions (relating to the activities of individual companies and organizations) and even nano-institutions (that determine the actions of individuals) [see: Kleiner G.B., 2004: 24]. On the other hand, there exists a viewpoint that institutions can include only "super-collective" social formations with an indefinite composition of members [see: Bychenkov V.M., 1996], since a purpose of institutions is to meet the needs of the society as a whole. In this case, only macro- and meso-institutions can actually be called institutions. The standards of activity of individual enterprises and organizations are routines [see: Nelson R., Winter S., 2000: 120], and the actions of individuals are determined by their individual psychology and behavior stereotypes.

Institutions can be grouped on the basis of other characteristics as well. For example, formal and informal institutions are distinguished according to the degree of their formalization in legislative framework. S.G. Kirdina shows that this division is also relevant to what should be considered institutions and whether institutions should

include rules and standardized patterns of behavior of individuals and individual organizations. S.G. Kirdina opines that institutions are "inseparable unities of formal and informal rules. It is those rules that, on the one hand, became an integral part of social practice and, on the other hand, were codified into law – upon the tables, in the Code of Laws of the Russian Empire or in electronic form in the current U.S. legal practice – should be regarded as institution, i.e. an element of load-bearing social structure. Society as an integral organism cannot function as an integral organism without institutions [Kirdina S.G., 2001: 137].

S.G. Kirdina also criticizes D. North's approach to institutions as factors that are external in relation to economy; she proposes to consider economy as an institutional complex, and institutions – as a "skeleton" of economy: "When institutions are viewed as a "skeleton" of economy rather than as economic development factors, it helps focus on the identification of "bearing structures" of the modern Russian economy instead of those elements which it constantly rejects" [Kirdina S.G., 2001: 138]. This is consistent with the opinion of other researchers involved in the study of social institutions. They recognize that institutions are "not so much built or designed, as grown" [Kleiner G.B., 2004: 7]. But if institutions are only a set of formal and informal norms and rules, it is not clear why they are difficult to change, "build and design".

S.G. Kirdina herself defines institutions as “deep, historically established and constantly reproducing social relationships that ensure the integration of different types of societies” [Kirdina S.G., 2014: 56].

However, if institutions are viewed as relatively stable social relations or social practices, it does not explain the reasons for their stability. On the other hand, institutions are subject to changes, for example, those introduced by the legislation. Reflecting on the stability and variability of reproduction of institutions, P. Berger and T. Luckmann define institution as a “mutual typification of habitualized actions for figures of various kinds” [Berger P., Luckmann T., 1995: 93]. This definition shows institutions as typical social actions, social expectations, social relations. Berger and Luckmann stress the gradual creation of “mutual typifications” in the course of history: “Institutions always have a history, of which they are the products” [Berger P., luckmann T., 1995: 93]. According to this definition, institutions can include routines and individual habits, even if they are “mutually-typified”. This definition sheds light on the institutionalization of social practices, and creation of institutions; however, it says little about institutions as objective entities and their role in society. Structural properties of social institutions cannot be described if relied only upon actors [see: Giddens A., 2005: 250-251].

N. Luhmann also expresses his ideas in terms of social expectations and social relations. According to his definition,

institution is “a set of actual expectations of relationships, which are actualized in the context of social roles and, as such, can count on social consensus” [Luhman N., 1965: 12]. This definition continues the traditions of the school of structural functionalism that exaggerates the importance of social consensus, which was repeatedly criticized by representatives of other sociological schools.

If we regard institutions as social phenomena, we can see that they have systemic properties, such as a structure, hierarchy and relationships between the elements of a system, and the presence of direct and feedback links typical of any system.

An understanding of social institutions that is close to the above ideas is given by Jonathan Turner in his definition: institution is “a complex of positions, roles, norms and values lodged in particular types of social structures and organizing relatively stable patterns of human activity with respect to fundamental problems in producing life-sustaining resources, in reproducing individuals, and in sustaining viable societal structures within a given environment” [J. Turner, 1997: 6].

Rum Harre’s definition is also productive: “An institution was defined as an interlocking double-structure of persons-as-role-holders or office-bearers and the like, and of social practices involving both expressive and practical aims and outcomes” [Harre R., 1979: 98].

Such definitions represent institutions rather as a kind of *social system* that implements

any social function. This is just what is implied in sociological literature when it discusses social institutions. When speaking about social institutions, sociologists distinguish political, economic, religious institutions, institutions of education and science, communication, family, law, etc. [see for example: Giddens A., 1999: 362-482], which represent not only the “rules of the game” and a set of norms, but also *a set of participants* in those institutions *implementing* the accepted system of norms and rules.

*Social system* is defined as “a structural element of social reality, a holistic formation, the basic elements of which are people, their relationships and interaction; it is viewed as an organized set of people and relations between them expressed in social structures and processes” [Lokosov V.V., 1999: 407-408]. The elements of a social system are people whose behavior depends on their personal characteristics, qualities and motivations as well as on social values and norms, and also on the position that these people occupy in the system, and the functions they perform [see: Osipov G.V., 2010: 110]. At the same time, social systems are open: their boundaries are rather blurred, and one cannot distinguish clearly the whole set of the elements of the system [see: Giddens A., 2005: 242].

Giddens puts forward an important idea that although the boundaries of society are quite blurred and the existence of society does not depend on the activity of any of its members, it is obvious that society would cease to exist

if all its actors disappear [see: Giddens A., 2005: 68]. In fact, the same can be said about social institutions: their boundaries are considerably blurred, their existence does not depend upon the activity of any single actor, but they are formed and maintained by the set of actors included in them.

It should be noted that, when considering social systems, one should not fall into objectivism that leads to the criticized misconceptions of the structural-functional approach such as organicism, too much statics, the underestimation of the role of social conflicts, strict isolation from the environment, etc. Social system should be considered both on the macro- and micro-levels.

At the macro-level, institutions as social systems have a normative structure (that includes norms and social roles), an ideal structure (beliefs, convictions, values, etc.) and an organizational structure (that defines the ways of relating the statuses and the nature of reproduction systems) [see: Osipov G.V., 2010: 111].

*The structure of social systems* is characterized by social positions and roles of individuals, and a set of norms and values inherent in social systems: “A specific way of interaction between the elements, i.e. individuals who occupy certain social positions (status) and perform certain social functions (role) in accordance with the set of norms and values adopted in a given social system, forms the structure of this social system” [Osipov G.V., 2010: 111]. Here it should be noted that the

question concerning the set of values in a social system is complicated, because values can be different among the members of the system, they can be imposed by powerful groups, and one can speak only about the values *prevailing* at the moment. Thus, all the three kinds of structures of the system can be changed from outside the system (e.g. by legislative means: through the adoption of new standards and organizational structures). The change in the “rules of the game” affects institutions as systems and causes response processes as an attempt to adapt to these rules.

At the micro-level, the elements of such a system are represented by *people* with their *worldview, ideas, values, standards of behavior* and *thinking patterns*, with their specific *recurring social actions* and *mutual expectations*. The system itself is, of course, represents something more than just the sum of its members. However, the actors that constitute a system are the *carriers of its properties*. Sustainable social practices, social relations and routine actions are the actions that are continuously reproduced by people. However, people’s behavior even in familiar situations is determined by their interpretation of these situations [see: Giddens A., 2005: 144-152]. This interpretation depends on the meanings that people give to these institutions, as well as their statuses and roles in them.

Thus, it becomes clear why institutions cannot be drastically changed without consequences (often negative) for society,

and why they need to be “grown” slowly. Abrupt changes in rules and regulations that restrict the behavior of agents cannot lead to the same rapid changes in ideas, values, behavior standards, cognitive patterns, and mutual expectations, which do not change immediately even in critical situations. A critical change in the “rules of the game” arouses a feeling of “radical ontological insecurity” in people, which leads to severe stress and affects personal qualities. And resocialization comes only after a while [see: Giddens A., 2005: 114-116].

The change in the “rules of the game” is accepted quickly when it does not require too great a change in behavior standards, meaning structures, values and thought patterns of the majority of the subjects that form the system. If such a change runs contrary to the values, ideas, behavior standards and thinking patterns of actors, it leads to unpredictable changes in the functioning of institutions. In particular, therefore, not only did the radical change in “the rules of the game” in Russia in the 1990s lead to the sharp deterioration in the functioning of all institutions, but it also was a severe cultural trauma for people, and its consequences still linger. Moreover, continuous change in “the rules of the game” and constant reforms of institutions causes damage to the functioning of institutions and to their participants. Currently, economists who advocate the institutional approach recommend to be very careful when reforming institutions: “A really good reform is the one that was supposed to start a long time ago and that

which cannot be disputed by anyone when it is beginning to be implemented” [see: Boyer R. et al., 2008: 23-24].

Having analyzed the concepts and taking into account all the clarifications made in relation to social systems and social structures, we shall now give our definition of social institution: *social institution is an open social system, in which a social actor is the element and bearer of its properties, which aims to satisfy certain social needs, includes a set of formal and*

*informal norms, values, statuses and roles that are expressed in specific normative, ideal and organizational social structures and relatively stable social practices.*

This theoretical model of social institutions not only helps understand the nature of social institutions, explains the reasons for deterioration of their functioning in the conditions of rapid and radical change, but it also provides new opportunities for forecasting the results of reforms of institutions.

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## Russia-Kazakhstan Border-Zone: Sociological Analysis\*



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**Abstract.** The article, based on the research conducted by the Center for Regional Sociology and Conflictology Studies of the Institute of Sociology of RAS, discusses the features of cross-border cooperation of Russia and Kazakhstan. It considers works of Western and Russian scientists to identify major approaches to the study of cross-border cooperation. It discusses strengthening of inter-ethnic and socio-economic integration and cross-border cooperation at the regional level. The borderland as a social phenomenon is an object of our study; the research is focused on local communities, understood as residents of Russian regions bordering with neighboring countries. This means that the research is devoted to local communities of the areas, located on Russia's borders with different states – with the new neighbors, which appeared after the USSR collapse (e.g., Ukraine, Belarus, the Baltic States in the West, Kazakhstan in the East) and the long-existing ones – Turkey, China, Mongolia, etc. For analysis we select the Orenburg Oblast, which has one of the longest border lines with Kazakhstan. We make an attempt to identify whether the border-zone can serve as a frontier base for the creation of a successful brand of the region based on the self-identification of local people and thereby increase the level of socio-cultural and socio-economic development of the region through the attraction of additional tourist flows and investment in the region. What is the specificity of self-identification of the border region population and how can border relations become a tool for development of socio-economic, socio-cultural and inter-state relations?

**Key words:** border-zone, Russia-Kazakhstan border, Orenburg Oblast, regional integration.

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The border territory of the Russian Federation includes a border zone, Russia's part of waters of border rivers, lakes and other water bodies, inland sea waters and the territorial sea of the Russian Federation, where there is a boundary regime and state border checkpoints and also territories of administrative districts and cities, resort zones, specially protected nature territories, facilities and other territories adjacent to the RF state border, the border zone, the banks of border rivers, lakes and other bodies of water, sea coast or checkpoints [Vardomskii, 2008].

Huge space of Russia found itself at the border of the country, forming the so-called zone of the new frontier. Twenty-four Russian regions became bordering for the first time and three RF subjects acquired additional borders, which are considered as state. In the recent past they were absolutely open and formal by basic parameters. At the present time due to the change in their political status openness of borders dropped sharply and the barrier function increased, causing changes in conditions and factors in socio-economic development of the territories of the new frontier of Russia.

The issue of border areas was studied by the supporters of different approaches, including Western, such as geopolitical – K. Haushofer, S. Huntington, A. Chauprade [Haushofer, 2001; Huntington, 2003; Chauprade, 2013]. We should also note research of rational choice theory supporters, in particular P.K. Roberts and M. Lloyd [Roberts, Lloyd, 2000]. As for Russian

scientists, the most interesting works belong to V.V. Markin, I.A. Khalii, L.B. Vardomskii.

The features of Russian-Kazakh cooperation are the following: the longest border – more than 7.5 thousand km – a third of Russia's land border; 13 out of 27 RF subject, located on the frontier with the CIS States, border with Kazakhstan; facilitated border crossing for residents of border regions of the two countries. These factors lend particular urgency to the expansion and deepening of cross-border cooperation between Russia and Kazakhstan, as well as contribute to the development of socio-economic relations, and closer collaboration in the field of small and medium businesses, culture, science, education and sport [Cross-border cooperation., 2012].

In 2011 we carried out a public opinion survey of the population of border areas of the Orenburg Oblast using a representative sample. In total the survey involved 496 residents of Adamovsky, Kvarkensky, Yasnensky and Svetlinsky districts. The sample included 43% of men and 57% of women. Of the total number of respondents young people aged 18–30 accounted for 29%; people aged 31–40 – 23%; people aged 41–50 years – 22%; people aged 51–60 years – 17%; people over 60 – 9%; people having higher education – 20%; vocational secondary – 45%; incomplete higher – 9%; secondary general – 20%, and incomplete secondary – 6%. If we consider the respondents by occupation, the greatest number of them belongs to the category of workers (without specifying posts) – 21%,

followed by professional classes (journalists, educators, cultural professional) – 18%, pensioners – 15%, temporarily unemployed – 10%, and students – 6%.

The study tries to identify whether the specifics of self-identification of local population, as inhabitants of a border region, is different from self-identification of residents of other regions outside the border-zone of Russia. The main questions posed in the research are aimed at determining whether there is a positive opinion about a border-zone; whether the border-zone can become a brand of the Orenburg Oblast; what impact such location of regions makes on their socio-economic development.

According the survey results, more than 46% of the respondents make positive assessments of the border-zone with Kazakhstan and provide their associations that characterize images of the Orenburg Oblast. At the same time, the study reveals the brand of the Orenburg Oblast as a frontier outpost or a region-wall (*table*).

Understanding of the border-zone as an integral part of social space of Russian society involves protection of the state border together with its simultaneous socio-economic development, given the interests of the state, region and local border population. In the modern ever-changing world for successful regional development the border-zone should not be a “no man’s land, but “space for meeting”, which has its own set of cultural patterns.

#### Words that have most positive associations

Word	% (percentage of respondents)
Grain	77.2
Gas	64.6
Virgin land	63.8
Border	46.3
Chernomyrdin	39.4
Mosquitoes	38.6
Gagarin	32.3
Gold	31.3
Lake	30.3
Asbestos	29.1
Road	24.2
Hunting	22.0
Pushkin	20.5
Nickel	20.1
Missiles	19.1
Arkaim	17.1
Chapaev	16.3
Pugachev	14.4
Wild geese	13.8
Cossacks	13.4
Space	10.6
Aksakov	9.8
Rodimtsev	8.5
Zykina	8.3
Flamingo	7.9
Tolstoy	6.1
Dutov	5.1
The Sarmatians	2.2

This opinion is logical, as, in addition to wages and pensions, nearly 35% of the respondents have extra money at the expense of socio-economic relations with Kazakh neighbors. A third of the respondents have relatives and close friends on the other side of the border. Thus, we can conclude that close Russians-Kazakhs relations are based not only on trade and economic ties, but also on deeper ones – kinship and friendship.

However, in reality this is not always the way we would like. Unfortunately, border regions are not most economically developed subjects of the Russian Federation. Their development level can be affected by local resources – objects of material and spiritual culture that underline the formation of a border-zone brand and tourism business. Border and customs agencies can be another significant factor in socio-economic development. It should be noted that the level of districts development varies greatly: relatively developed districts neighbor nearly desolated, the high unemployment rate results in the outflow of population. The latter leads to growing social tensions on the verge of explosion or depression of the remaining population and creates additional risks for the border security [Khalii, 2014, pp. 23-33].

The brand of a territory, according to I.S. Vazhenina, is “a set of unique qualities, enduring human values, reflecting originality, inimitable consumer characteristics of this territory and community, widely known, recognized and demanded by the consumers of this territory» [Vazhenina, 2008, pp. 49-58].

As for successful cross-border cooperation, provided by regional authorities, the respondents’ opinions are divided almost equally: 30.6% of them support it; 35.4% doubt the benefit of cross-border cooperation for the region; 33.4% find it difficult to answer. Perhaps, this is due to biased opinion that the government intervention can, on the one hand, complicate established connections through personal contacts and, on the other hand, use cooperation in some “corporate” interests.

Probably, we can observe the trend of transformation of modern Russian society, mentioned by V.V. Markin. At the regional level it occurs primarily in the sphere of big business, corporations and so-called “elite”. He writes: “*Regional government is between a rock and a hard place (refers to big business and population), all the more so as corporations themselves form their structures of influence in government and promotion of their representatives in these bodies. The population is weakly structured and has virtually no institutional “lobbyists”* [Markin, 2014: 137-143].

Successful border cooperation should be built with account of interaction of population, traditions, kinship and friendship, etc. Despite the ambiguity of opinions about the success of cross-border cooperation, the Russian-Kazakh border area is specific socio-cultural space of Eurasian integration. As can be seen from the above table, positive associations can be used as a platform for the formation of if not single, but common post-soviet Eurasian identity.

At the moment the situation around the border between Russia and Kazakhstan develops quite favorably. However, there is some disparity in regional distribution. The most developed relations with Kazakhstan are observed in five regions: the Omsk, Kurgan, Chelyabinsk, Orenburg and Astrakhan oblasts. These regions account for the essential shares of total commodity turnover. At the same time, the relations between the neighboring territories of Altai Krai and the Novosibirsk Oblast are less developed. The reduction in these disparities is supported by the Russian Federation and especially the Republic of Kazakhstan. Speaking at the Economic Forum in Astana in July 2011, President of Kazakhstan N. Nazarbayev stressed that at a time when other countries respond to the crisis by closing their borders and separating off from the outside world, Kazakhstan calls for strengthening regional cooperation [Toshchenko, 2014, pp. 60-73].

The Orenburg Oblast is a historical center of intercultural communication and a bridge between the Central Asian countries and the Russian regions with Turkic ethnic groups. It defines the strategic importance of the Orenburg Oblast as a RF subject, and the task to overcome the shortcomings of spatial position of the region should be not only of regional, but also of federal importance [Misharin, 2008, pp. 12-17].

The interaction of different cultures creates space of values comparison. Since the values of modern Russians are questioned, people's uncertainty in their culture leads to tensions

when interacting with bearers of "foreign" culture and is interpreted as a threat. For this reason there are contradictory social myths – collective views that interpret neighboring Kazakhstan as a possible threat to national interests of the Russians. Therefore, the formation of the Eurasian content of new identity of the border-zone population should involve the connection of Russian and Kazakh social-cultural values.

The border, as a state political project, presupposes special socio-cultural development of border areas. It implies the existence of a relationship between two parties, no matter whether confrontation or cooperation. The frontier of a modern state involves a paradox: separating people, it causes their interaction, creates new solidarity, and forms new socio-cultural space where different cultures "meet".

This is facilitated by territorial closeness of the border areas on both sides. Not only socio-economic, but also cultural relations develop. The collaboration is characteristic of areas located in the immediate vicinity of the border and each other [Oidup, Kylgydai, 2012].

It is possible to note that Russia faces the phenomenon of its border vulnerability and border buffer space transformation. New identity would allow both sides to develop in the conditions of global processes without prejudice to territorial integrity of both Russia and Kazakhstan and not depending on the center greatly. Cross-border cooperation between Russia and Kazakhstan is an example

of this identity formation. Russia can and should be understood as part of Europe. Thus, the Orenburg Oblast and other border regions can be considered as “windows to Asia” of not only Russia, but the whole Europe and in this case inter-civilizational differences do not become a “stumbling block”.

In general, the border relations of Russia and Kazakhstan are characterized by positive trends for further development, especially if we consider Russia’s economic relations with other CIS countries. In particular, Russia’s commodity turnover is developed better with Kazakhstan than with other countries-former Soviet republics.

Moreover, 7.5 thousand kilometers of the Russian-Kazakh border is a sufficient reason for building quality relationships that are of joint interest of the two states. The Russian leaders’ orientation on strengthening constructive partnership and cooperation with Kazakhstan can be considered as one of the major achievements of the national foreign policy. Comprehensive socio-economic development is an effective way to eliminate real and potential threats. The development of cultural mediation mechanisms in opposite

directions is the most natural function of the border regions and one of the main factors in their development.

Studying everyday behavior of the frontier area residents, it is possible to understand how this new border-zone of dialogue is forming, its elements are functioning, what rules define behavioral strategies of the population and institutions and what role the new frontier is playing in these processes. Objectively existing mutual needs and interests promote cultural exchange, encouraging different regional cultures with their national component to learn all the positive from each other.

The border regions of the Orenburg Oblast act as natural “bridges” of socio-economic cooperation with Kazakhstan due to its geo-economic position; at the same time, to the greatest extent their development depends on the nature of economic and political relations at the interstate level, the ratio of contact and barrier functions of the frontiers. Inter-regional cooperation, as a low level of interaction, is an important form to fill the Eurasian Union with real content [From Asia to Europe, 2014].

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## Russian Specifics of Dacha Suburbanization Process: Case Study of the Moscow Region



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**Abstract.** Topical issues related to the planning of urban agglomerations development include registration and analysis of changes in suburban areas in the process of socio-economic development. It is manifest, among other things, in urbanization, which in relation to larger cities is replaced by suburbanization. Suburbanization process has been developing to the greatest extent in North America and Western Europe. Scientific research confirms that the majority of large urban agglomerations are in the stage of suburbanization. The pace of suburbanization in the world is different – the authorities of individual countries, regions or cities often take measures to limit or simplify it: they reconstruct central cities, set limits to the construction in peripheral areas, etc. In Russia, the process of suburbanization started to develop rapidly only after the socio-economic transformation of the 1990s that led to the emergence of the free market of housing and land. The aim of the present work is to determine the specifics of suburbanization in Russia on the example of the Moscow Region. Suburbanization in Russia is mainly seasonal; therefore, the paper examines suburbanization specific for Russia and related to the distribution of population and its economic activities in the organized summer house settlements in suburban areas, i.e. in dachas. A kind of this activity popular in Russia is gardening and vegetable and fruit farming in the settlements located on specially designated lands. The paper examines the factors determining suburbanization in the Moscow Region, and demonstrates the influence of these factors taking two key areas as examples. Scientific novelty of the work consists in the fact that it clarifies the content of suburbanization factors as applied to the Moscow Region; in addition, it considers the development of dacha-related suburbanization, highlights its characteristics on the example of the Moscow Region, examines current distribution patterns of dacha settlements of different types on the example of key areas.

**Key words:** suburbanization, dachas, dacha housing, second home, institutional factors, socio-environmental factors, population geography, Moscow Oblast.

Dacha settlements are part of modern Russian agglomerations; they surround almost every major city and form new relationships with the suburbs. A.G. Makhrova, A.I. Treivish, and T. Nefedova and others are among Russian scientists who study this issue from a system-wide perspective; the approach of Russian researchers is somewhat different from those in other countries who consider country houses in the context of recreational tourism or real estate analysis [8]. An important part of the study of suburban areas is the definition of the nature of suburbanization, i.e. advanced growth of suburbs compared to the center.

The suburb as a place of residence outside the city that is characterized by low housing density has existed since ancient times; today, however, the vagueness of city boundaries complicates the definition of the term “suburb” itself that has long had a negative connotation. It was only in the middle of the 1820s that the former American slums began to transform into a decent place of living, from which the residents commuted to their work in the city [12]; and today the suburb in the USA is an urbanized area outside the central city (suburb) with the division of the suburbs into groups (“automotive”, “planned”, “California-type”, “external”, “white”, “black”, etc.) [16]. A similar use of suburban areas is an option of classical suburbanization, i.e. moving to the suburbs for permanent residence.

Empirical data show that suburban settlements not only exist in the world, but are also characterized by more or less similar development processes. In France summer residences once surrounded Paris, and now they are moving far off – to the coast and in the mountains. In the UK, many owners of

urban buildings have rural houses too [2]. In Sweden, the first garden plots appeared in the late 19th century when rural residents were moving to cities in search of work. In 1906, the authorities of Stockholm allocated land plots for the first time – their area was up to 0.01 ha; those plots formed small settlements-colonies. After World War II, the country solved its food problem with the help of those land plots; in the 1970s, the size of the plots increased up to 0.07 ha, because their economic function lost its importance and the recreational function came to the fore [15]. In Finland, there are *kesamokki* (summer cottages) – small houses that are often located on the bank of some water body and that have a jetty with a boat; these houses are used for summer living and recreation; and *puutarhamokki* – small land plots used for gardening and vegetable and fruit farming, they have a small cabin, several vegetable beds and fruit and berry bushes, these plots are located on the outskirts of cities and are used for cultivation of berries, vegetables and fruits [14]. In Germany, tiny land plots up to 0.02 ha with small garden sheds appeared in the late 19th century and were called *Schrebergarten* after Moritz Schreber who advocated healthy lifestyle and love of nature; today they are also called *Kleingarten*, which means a small garden, *Familiengarten* – a family garden, *Heimgarten* – a home garden, *Grundstuek* – a land plot. Here one can grow flowers, vegetables, berry bushes, fruit trees and put a ready-assembled shed (it is prohibited to build it on one’s own), it is prohibited to live in it; it is also not allowed to erect other constructions on this land plot [13]. A kind of Polish analogue of the Russian dacha is *dzialka rekreacyjna*, which appeared in the period of the Polish People’s Republic and

performed functions similar to Soviet dachas, and today it is an independent subject of out-of-town property [16].

However, scientific community regards dacha as a specific Russian phenomenon, as *“a special form of spatial organization of human activity and, at the same time, part of urban, suburban or rural landscape”* [3]; dacha, as a socio-cultural institution, has a long history reflecting the process of urbanization in Russia.

The aim of the paper is to identify the specifics of suburban resettlement as a special manifestation of suburbanization in Russia on the example of the Moscow region. In accordance with the aim the following objectives are set out:

1. To consider specific features and characteristics of suburban resettlement as a specific Russian manifestation of suburbanization.
2. To identify main groups of factors influencing the specifics of dacha-related suburbanization in the Moscow region.
3. Using key areas as example, to determine, how the main groups of factors determine dacha-related suburbanization.

The specifics of Russian suburbanization lies in the seasonal nature of suburban housing, which is located primarily in the dacha settlements of various types, which allows us to speak about specific dacha-related suburbanization [6].

Dacha suburbanization dynamics depends on the factors that can be divided into several groups:

- 1) institutional – related to the state policy of regulating population distribution across the country and supporting certain categories of population;

- 2) socio-environmental – related to environmental conditions of suburban areas, demographic situation, social stratification and mobility of population;

- 3) economic-technological – associated with reduction in production costs primarily due to the lower cost of land in the suburbs depending on rental relations, the implementation of scientific and technological achievements and development of transport, which helps create urban infrastructure in the suburbs.

The history of suburbanization in Russia has its specific features. First, the excessive concentration of population in major cities was combined with a sparse network of peripheral towns, which contributed to continuous migration from the village and seasonal migration [4]. Suburbanization in the conditions of Russia’s vast territories resulted in the emergence of phenomenon such as second seasonal housing of urban residents [5]. Moreover, traditional economic, geographic, demographic, and technological factors promoting suburbanization in Russia depended strictly on institutional factors, i.e. government’s permission or prohibition to use lands for dacha settlements. Back in the 17th century, the word “dacha” denoted a land and forest plot allocated by the government, i.e. a plot which is “gratuitous”; this immediately gave the notion of dacha a shade of oneness, which existing to some extent even now [8]. This predetermined potential legal ambiguity of dacha settlements that has been preserved throughout the entire “dacha history” of Russia: for example, in the Soviet period, it was allowed to impose formal restrictions on the type and size of dacha constructions; dachas could even be taken away from their

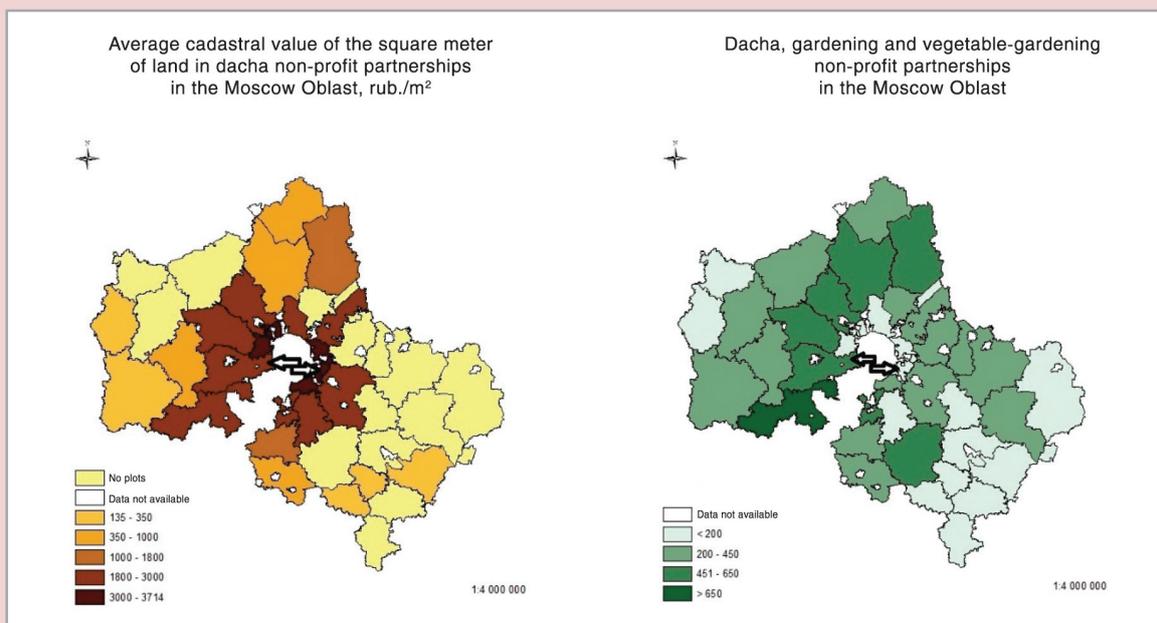
owners if they did not cultivated their plots in time. Today, dacha functions are being virtually transferred to the settlements that formally retain their rural status, which greatly complicates the accounting of their residents.

Like classic suburbanization, dacha-related suburbanization is heterogeneous – the dominance of different factors leads to different types of “dacha areas”, i.e. territories that can perform functions of dachas [1, 11]. As a result, the specifics of dacha-related suburbanization, for example, in the Moscow region, is different even in areas with similar economic and geographical characteristics such as proximity to city boundaries, infrastructure, population, etc. (fig. 1); this is illustrated by example of those regions of the Moscow Oblast that border on

the capital city: Lyuberetsky District in the south-east and Odintsovsky District in the west (table).

The history of dachas in the Moscow region allows us to conclude that the period from the emergence of “dacha areas” up to the development in these areas of single family house settlements (SFHS) – the highest hierarchical type of suburban settlements – can be considered as a “full development cycle” of suburban resettlement [7]. The dacha area that was established spontaneously or was founded on the land especially allocated from the surrounding suburban area gradually develops either into dacha settlements or into a town, with different factors prevailing in either case. The inclusion of dacha areas in the city limits means complete degradation of dacha

Figure 1. Number of dacha settlements in the districts of the Moscow Oblast and the cadastral value of their land



Source: compiled by the author according to the information portal “Northern dachnik” for 2014 (<http://sotok.net/>).

Comparative characteristics of Lyuberetsky and Odintsovsky districts of the Moscow region (as of January 01, 2015)

Indicators	Lyuberetsky District	Odintsovsky District
Year of founding	1929	1965
Area, km <sup>2</sup>	122.31	1,289
Resident population, people	291,510	321,673
Population density, people/km <sup>2</sup>	2383.37	249.55
Share of urban population, %	98	66.8
Number of urban settlements	5	7
Average cadastral value of 1 m <sup>2</sup> of land in suburban settlements of all types, rubles	2,809,41	1,815.13
Number of dacha settlements of all types	45	544
Sources: compiled by the author based on the data of the official portal of the Lyuberetsky District ( <a href="http://www.lubreg.ru/">http://www.lubreg.ru/</a> ); official website of Odintsovsky District ( <a href="http://odin.ru/">http://odin.ru/</a> ); Internet-portal "Northern dachnik" ( <a href="http://sotok.net/">http://sotok.net/</a> ); Federal State Statistics Service ( <a href="http://www.gks.ru/">http://www.gks.ru/</a> ).		

resettlement, but it becomes possible only under the absolute influence of institutional factors, i.e. administrative and territorial transformations of the city. This process is adjustable – during the entire history of dachas in the Moscow region, the city of Moscow absorbed its surrounding dacha neighborhood about 20 times and always in accordance with the specially issued decrees [17]. Thus, it can be assumed that the institutional factors are determined at the macroeconomic (national) level and have the same effect on dacha resettlement in all the surrounding suburbs.

Socio-environmental and economic-technological factors depend much more on microeconomic (district) components and local opportunities. They influence the formation of dacha settlements, which can change their functions, sometimes even preserving their type: for example, the settlement will have the formal status of a village, or a gardening non-profit partnership (GNP), but actually be a dacha non-profit partnership (DNP) or a SFHS in which

people live year-round (used for permanent residence).

Among the main socio-environmental factors in the development of dacha settlements are natural recreational resources of the Moscow Oblast (diverse landscapes, forests, ponds, etc.) and environmental situation, which can be described as “free green west” and “dense smoke-filled east”.

Lyuberetsky District is located in the south-east of Moscow’s green belt and is included into the Central zone of the Moscow Oblast, which represents an almost completely transformed technogenic system with developed industry and transport network. The area is located within the boundaries of one landscape territory – Moscow Meshchera – and its natural vegetation comprises pine forests and broadleaved species, but much of the forest is cut down. According to the level of pollution, the area is unfavorable: the level of air pollution with the most common air contaminants (nitrogen dioxide, sulphur dioxide, suspended substances, carbon oxide) can exceed the maximum permissible

concentration two times or more. The use of the sludge from Lyubertsy aeration station as a fertilizer was one of the main reasons for soil and water pollution in the area. The condition of soils in the area is considered critical due to the presence of heavy metals and, as a consequence, secondary contamination of atmospheric air. According to the level of pollution and other quality indicators of soils, the landscapes of the area fail to cope with technogenic load. Surface water bodies are also highly contaminated, water quality in the water bodies used for recreational purposes often does not meet sanitary requirements because of the sewage from industrial and agricultural enterprises [20]. Lyuberetsky District is marked as critical on the maps denoting the ecological situation in the Moscow region districts [18].

According to the ecological-economic zoning of the Moscow Oblast, Odintsovsky District is part of the Smolensk-Moscow zone located in the north-west of the Moscow Oblast. The degree of anthropogenic transformation of natural environment within the district is low. The region has considerable natural resources favorable for recreation; agriculture and forestry prevail here, and industry is not developed highly. In this regard, and taking into account the presence of the forest and park zone that performs environment protection functions, the district can be classified as environmentally safe areas of the Moscow Oblast. Forests that perform water protection, sanitary-hygienic and recreational functions are included in the first group. The level of air contamination with the main pollutants (nitrogen dioxide, sulphur dioxide, suspended substances, carbon oxide)

in the district does not exceed the maximum permissible concentration. The background pollution level of the atmosphere is favorable. The district ecosystems have preserved the capacity to purify themselves from industrial, transport and agricultural pollution. Basically, the district has satisfactory and favorable environmental conditions for living and leisure, therefore it is among the “elite” places of Moscow suburbs. Here the landscape is able to regenerate itself if environmental works are carried out and the regime of using the territory of specially protected natural and historic and cultural monuments is observed [20]. The environmental maps of the Moscow region districts mark Odintsovsky District as “clean enough” [18].

Another component of socio-ecological factors in suburbanization is the attractiveness of dacha areas for the population. Historically, the development of dacha settlements in Lyuberetsky and Odintsovsky districts started in the second half of the 19th century, after the construction of railways. One of the first Russian railway lines (Ryazan direction) went through the city of Lyubertsy in 1860; after that, there swiftly emerged many dacha areas and infrastructure. Some of them (Veshnyaki, Vyhhino, etc.) became part of Moscow in the early 20th century, having lost their functions as dacha settlements; Malakhovka and Kraskovo – the areas more remote from Moscow – strengthened their status as dacha settlements in the period preceding the Great Patriotic War, and now they belong to the category of old dacha settlements. In summer 2014, a mini-survey of 20 respondents who live in such settlements of Lyuberetsky District showed that people are mostly

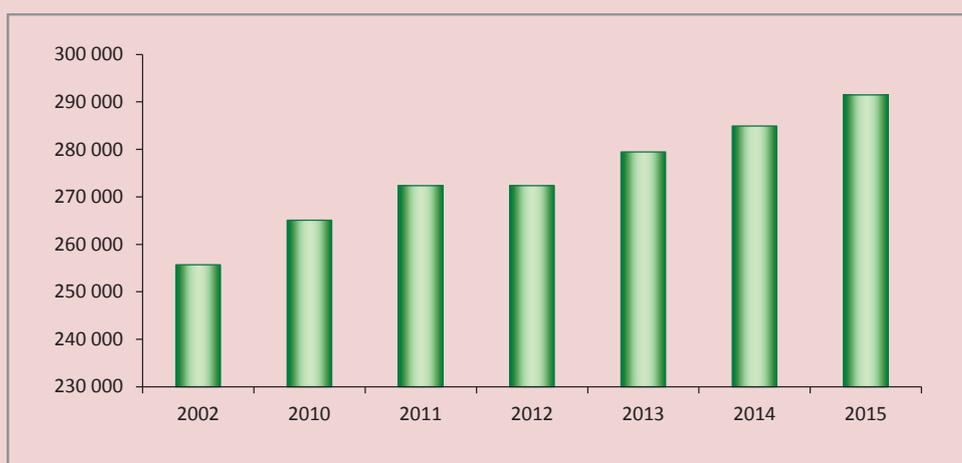
concerned about the “invasion of the city” into traditional dacha settlements, which creates a “mosaic” of low-rise and high-rise blocks. Modern mass housing development is changing the external image of the landscape; high-rise buildings are erected in front of dacha houses, and industrial zones are created nearby. Traditional rural landscapes are vanishing, they do not “fit in” well with the territory and sometimes even endanger life. There are almost no rural residents in the district, and the significant population growth takes place at the expense of new city dwellers (see table; *fig. 2*).

In Odintsovsky District, due to uniqueness of its nature, “dacha-related activities” quickly began to prevail among other activities, and the local population started to focus exclusively on dacha consumer. As a result, at present, GNPs, DNPs, and SFHS’s occupy about 10% of the district’s total area, and they are located according to a definite pattern: SFHS’s are situated closer to the boundary of Moscow,

their density increases along the Moskva River, Mozhayskoye and Minskoye highways. The most expensive and elite SFHS’s are located along the Moskva River and Rublevo-Uspenskoe highway; back in the Soviet period, the luxury suburban residences (“Kremlin dachas”) of high Kremlin officials were situated there, as well as prestigious out-of-town residences in Barvikha, Gorki, Gorki-10, Nikolina Gora and their surroundings [10]. GNPs are located generally according to similar patterns, but some of them are situated near the railway in the Belarus direction. GNPs are distributed most equally, but their density becomes considerably greater as they approach the railway.

In the rural settlement of Zhavoronki in the summer of 2014, twenty problem-oriented interviews were conducted with the residents, they pointed out the social and territorial changes that had occurred in the course of dacha development after the 1960s. All respondents said that as dacha settlements

Figure 2. Dynamics of the number of residents in Lyuberetsky District



Source: compiled by the author according to the data of the Federal State Statistics Service as of 2015 (<http://www.gks.ru>).

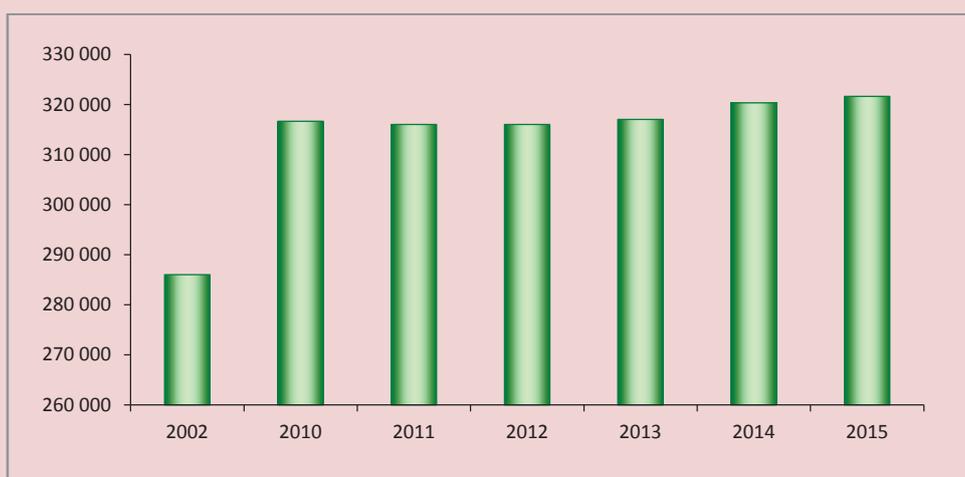
were substituted with single family house settlements, the land started to be used for recreational, rather than agricultural, purposes, and natural landscapes become fragmented. Surviving patches of forests, swamps and meadows are being polluted and become garbage dumps, and those that are within transport accessibility are being built up, despite the risk of fire. People were particularly concerned about it in the period of abnormally hot summer: *“They blocked the way to the river on the thirtieth kilometer of the road, and now the area that used to be a swamp near the forest where we would pick mushrooms is on the point of smoking...”*. Local residents and long-time second homers complained that it is impossible to access forests and water bodies because they are fenced and it is prohibited to pass through protected territories of single family house settlements. Traditional rural landscape of central Russia turned into a geometrically structured pattern with high fences along the highways; “nothing is grown

the other side of the fence, there is only a lawn and a gazebo there...”. The inhabitants of single family house settlements usually hire the migrants who settled in the surrounding villages that had become desolated as a result of the natural loss or movement of their residents in the capital.

The current structure of dacha settlements helps stabilize the number of the district’s population and retain a significant share of rural residents there (see table; fig. 3).

Economic and technological factors influence dacha-related suburbanization in the Moscow District primarily through the transport accessibility of country houses. For those who own a country house in the suburbs close to the city, the convenience and ease of getting to their place of work becomes one of the main points when deciding upon the year-round living in the country, which implies commuting between the home in the country and the office in the city. It becomes important to develop modern means of public transport,

Figure 3. Developments in the number of population in Odintsovsky District



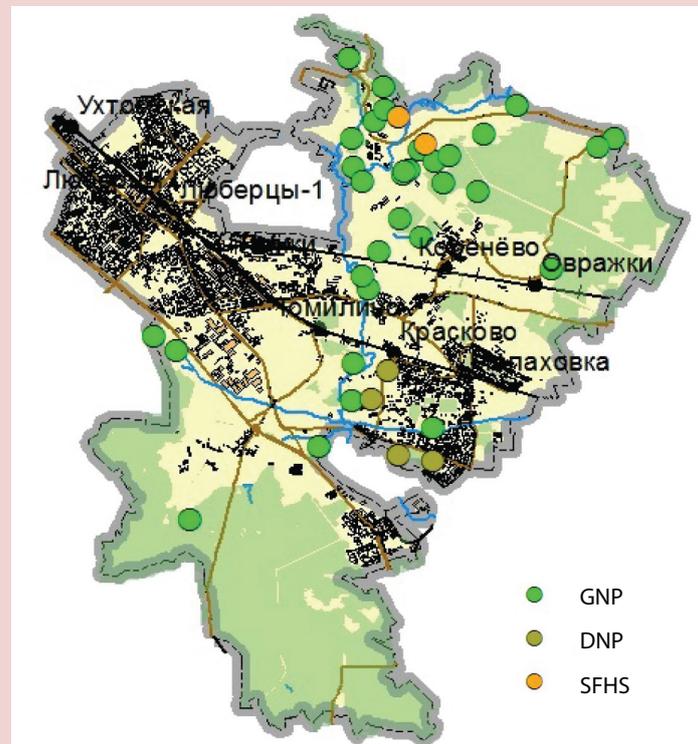
Source: compiled by the author according to the Federal State Statistics Service data for 2015 (<http://www.gks.ru>).

mainly, the subway, which can play a role similar to that of the railway in the late 19th century. However, in high-density areas with a “mosaic” distribution of dacha settlements, the subway may facilitate their replacement by large residential developments, this has happened in Lyuberetsky District. In the near future, it is not planned to build a subway in Odintsovsky District; however, since 1998, a question has been discussed concerning the elimination of the Kuntsevo – Usovo single railway line for the purpose of constructing another motor road as an alternative to the Rublevo-Uspenskoye highway that leads to the most pretentious suburb of the capital.

Moscow suburbs have already witnessed a complete dismantling of the railways in connection with the construction of single family house settlements in their place – it happened in 2008 in Krasnogorsky District between the stations of Nakhabino and Pavlovskaya Sloboda.

*Figure 4* shows that the present-day distribution of dacha settlements in Lyuberetsky District reflects an extremely high level of urbanization there – dacha and gardening associations occupy only 0.13% of the district area. The majority of GNPs are located in the northern part of the district, at some distance from the railroad, and traditional dacha areas

Figure 4. Structure of dacha settlement in Lyuberetsky District



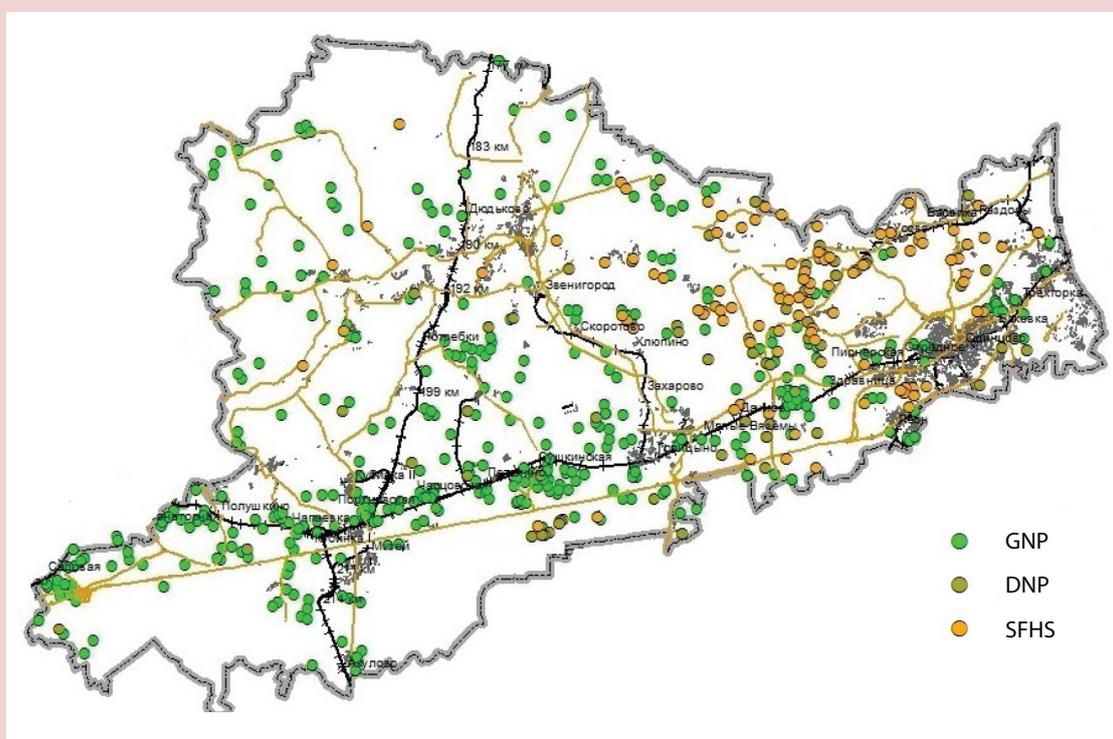
Source: compiled by the author according to the Federal Service for State Registration, Cadastre and Cartography ([wikimapia.org](http://wikimapia.org), [mosposelok.ru](http://mosposelok.ru))

along the railway line of Ryazan direction have been substantially modified through the high-density construction of multi-storey buildings. In the old dacha settlements of Tomilino, Kraskovo and Malakhovka that form a continuous zone stretching further to the south-east in Ramensky District, there are only few GNPs and DNPs, and they exist alongside high-rise residential buildings and industrial facilities. The system of dacha resettlement in the district, which was in the beginning of its development similar to that of the suburbs located near railways and which lived through its heyday in the pre-war period, changed in subsequent years due to the growth

of Moscow: traditional dacha areas became urban residential areas. So far, only Kraskovo retains the official status of dacha settlement, but it has already been greatly modified due to the construction of multi-storey residential buildings there. The northern part of the district can be considered a promising area for the emergence of a modern type of suburban settlements – single family house settlements; but this process is hampered by adverse environmental conditions.

Figure 5 shows that the system of dacha settlements distribution in Odintsovsky District is formed by a large number of dacha settlements of various types, which are widely

Figure 5. Structure of dacha settlements distribution in Odintsovsky District



Source: compiled by the author according to the Federal Service for State Registration, Cadastre and Cartography (wikimapia.org, mosposelok.ru).

spread throughout the territory. This causes conflicts connected with the growing high-rise development within traditional dacha areas, and also due to the emergence of new SFHS's that violate the traditional suburban way of life. A promising process in the system of dacha settlements distribution in the district may be the emergence of new and relatively inexpensive SFHS's, the in location of which, unlike that of more expensive SFHS's, is more clearly focused on the accessibility of the railways of the Belarus direction.

The present study conducted on the example of key districts of the suburbs nearest to Moscow shows that dacha settlements distribution of the Moscow Oblast is a type of Russian suburbanization that differs from its classical analog by the seasonality of suburban housing. Dacha suburbanization factors contribute to the heterogeneity of this process, promote the formation of different types of dacha settlements and different prospects, even in areas with common basic characteristics.

Lyuberetsky and Odintsovsky districts of the Moscow Oblast are noteworthy in this regard, because they both are the closest suburbs of the capital and have railroads that were left since the pre-revolutionary period and now serve as an impetus to dacha development. However, in Lyuberetsky District, the prevalence of economic-technological factors, i.e. the development of industry and associated transport infrastructure led to the degradation of dacha development and to gradual absorption of dacha areas by the city. Here the system of dacha settlement distribution, thriving in the pre-war period,

has been gradually fading away since the 1960s due to the inclusion of dacha areas in the territory of Moscow and due to their large-scale high-rise development. The pressure from the capital continues, aided by the development of modern high-speed transport; however, dacha settlements are still preserved in the form of several dozen local old dacha settlements scattered in the northern part of the district, where the influence of Moscow is not so great.

Socio-environmental factors such as a unique natural environment and recreational appeal prevail in the dacha settlement distribution in Odintsovsky District. The vast territory of the district has more than five hundred suburban settlements of various types, among which the prestigious SFHS's play a "dacha-forming" role for the surrounding dacha areas. Due to this fact, the dacha settlements of lower level are under pressure not only from the multi-storey city development, but also from the newly emerging SFHS's. Currently, a quite clear zoning of SFHS's, DNPs and GNPs is observed, which indicates their evolution, but the future of dacha settlement distribution depends on the mass character and localization of single family housing construction.

In the theoretical aspect, this work can be used to analyze the issues of suburban settlement and suburbanization in Russian socio-economic conditions based on the suburban settlement factors.

The practical significance of the work is determined by its empirical and applied aspects. The empirical aspect is related to the identification of specific factors determining

dacha suburbanization in Russia on the example of the Moscow region. In the applied aspect, the work can be used for developing

an algorithm of the universal model for simulating the development of suburban territories.

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# SCIENTIFIC REVIEWS. OPINIONS

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## Review of the Monograph:

**While Analyzing the Past, to Think about the Future /**  
**under the scientific supervision of Doctor of Economics, Professor V.A. Ilyin. —**  
Vologda: ISEDT RAS, 2015. — 336 p.



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The publication is dedicated to the twenty-fifth anniversary of the Institute of Socio-Economic Development of Territories of RAS (ISEDT RAS). Starting as a Department of the Institute of Economic Problems of Kola Scientific Centre of RAS studying the problems of socio-economic development of the Vologda Oblast, the Institute has gone a long way of creative development and become widely known in Russia and abroad due to superior (and in some cases unique) studies of regional development on the example of the Vologda Oblast.

The book summarizes ISEDT RAS progress in scientific, organizational, technical and administrative development of the Institute. Twenty-five years is a long term in the life of academic institutions, especially

since its story originates in the time period difficult for Russia. ISEDT RAS (and it is well described in this publication) shows how through the chaos of destruction the features of the new begin to form – partly self-invented, partly borrowed abroad, and partly based on the recent experience of academic science development. The regional development is the main idea penetrated in the activity of the new young team.

Awareness of the history is an important stage in the development of any research team. Historical analysis takes on special relevance, when we can understand how the promising vision of reality includes the past and the present of a scientific community, how its future is determined. The twenty-fifth anniversary of ISEDT RAS is a good cause to

make conclusions and work out new plans. The very title of the monograph – *While Analyzing the Past, to Think about the Future* – is very symbolic in this sense.

The book reveals the Institute's history, prerequisites of its creation, critical stages in the development and key events. The publication also discloses the institution structure and the main directions of its activities.

The monograph pays great attention to the activities of ISED T RAS heads, enormous assistance in the formation and development of the Institute provided by the Department of Social Sciences of RAS, scientific and political contribution of the academic community, federal and regional authorities to the activities of the team; discusses key analytical and academic research areas, ISED T RAS contribution to social and political life of the region.

The publication presents information about the main partners and international relations of the Institute, photographs reflecting the twenty-five year life of ISED T RAS; the appendices contain extensive factual material covering the history of the Institute and its personnel.

It is worth noting that since the very beginning the Institute has set ambitious goals of the research in socio-economic development of the Vologda Oblast and common issues of territorial development and proposed constructive solutions to practical problems of the economic and social sphere. This work is a response to those who have recently doubted the

usefulness of academic research organizations and demonstration of understanding of duty to the country, constructive relationship to power and social responsibility.

ISED T RAS has always pursued not so much quantitative growth, as strengthening public impact of the organization. This is achieved by careful selection of research topics and well-thought tasks, its activities are focused on. Maintaining high academic standards is an essential and not an abstract challenge for the team.

In this sense there is an indicative example – the fifteen year survey of health and development of children, conducted by ISED T RAS due to the methodological support of the Institute of Social and Economic Studies of Population of RAS. The research is aimed at studying changes in the health of child population of the region during a long time period. The special monitoring study of health dynamics and its factorial dependency in real-time is unique not only for the Vologda Oblast, but for Russia as well. It allows us to observe the transformation of these changes depending on the factors making a direct and indirect impact on them. The research helps answer a wide range of crucial questions concerning child health: what quality of health is at birth; what causes of children's illness are; what dynamics of health quality is after birth (in the direction of improving or deteriorating); if health changes, what factors influence it, etc. According to the project supervisor Doctor of Economics A.A. Shabunova, "during the

conduct of the monitoring its results become more and more significant and require a deeper interpretation. Looking back, we can say that the potential that was initially laid down in the child health monitoring, was fully fulfilled 15 years. Today it is clear that the data identified in the research are timely, relevant and innovative. They open broad prospects for the preservation and strengthening of human potential”.

There is another example of the ISEDT RAS large-scale long-term research – study of the regional social structure dynamics and the related issues of social inequality. The research helps solve tasks, such as assessment of the extent of socio-economic inequality of the population of the Vologda Oblast (on the basis of data of official statistics and specially organized public opinion polls); identification of normal and excess components of inequality

and its features; it proposes directions for reforming social policy at the federal and regional levels.

In general, the majority of the Institute’s developments are focused on solving practical problems related to the substantiation of socio-demographic policy, forecasts of population development and living standards.

Summarizing the stated above, we can state that the monograph “While Analyzing the Past, to Think about the Future” makes a successful attempt to review the history of formation, current and future work of the talented and productive research team. The book, undoubtedly, will cause interest among social scientists of RAS, economists, sociologists, government officials, post-graduates and students, as well as all persons interested in the problems of studying regional economics and the social sphere.

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The proposed articles should contain the results of the studies characterized by novelty and practical orientation. They should be available in the form of presentation for a wide range of readers and meet the scientific focus of the journal (economic and sociological researches).

The article should generally include the following aspects: the purpose of research; method and methodology of work, its results and the field of their application; conclusions. The findings may be accompanied by recommendations, suggestions and hypotheses, resulting from the contents of the article. When presenting the results of sociological research in the article, it is necessary to state the following information: methods and methodology; the date, place (territory) and organization which carried out the study; the structure of total population; the type, volume and sampling error; the description of methods of data collection and analysis. This information should be arranged according to one of the following options: in the special section (paragraph) of the article; directly in the text; in the footnote. When creating tables, it is necessary to specify, whether the percentage of persons is calculated out of the number of those who answered the question, or out of the total amount of respondents. References should demonstrate the author's professional outlook and the quality of the research.

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