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Federal State-Financed Scientific Institution the Institute of Socio-Economic Development of Territories of Russian Academy of Sciences (ISEDT 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 ISEDT 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 ISEDT 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 ISEDT 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, every year international scientific conferences take place, which result in cooperation agreements.

Every year ISEDT RAS signs 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 Academy of Social Sciences in province Jiangxi (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 Academy of Social Sciences in province Jiangxi (China, 2013).

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

NEW PUBLICATIONS OF ISEDT RAS

Ilyin V.A., Povarova A.I. – Problems of Government Efficiency. Trends in market transformation. The crisis of the budget system. The role of private capital. Strategy-2020: realization problems.

Uskova T.V., Selimenkov R.Y., Anischenko A.N., Chekavinsky A.N. – Food security in the region.

Leonidova G.V. – Problems of Governance. The education sector areas: state and development prospects.

Uskova T.V., Selimenkov R.Y., Chekavinskiy A.N. – Agroindustrial complex of the region: state, tendencies, prospects.

Uskova T.V., Chekavinskiy A.N., Lukin E.V. – Economic development of the city: state, problems, prospects.

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FROM THE CHIEF EDITOR

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Russia must go its own way

The title of this article is a concluding statement by Academician Dmitrii Semenovich L'vov, an outstanding Russian economist. It is taken from the work "Economic manifesto – the future of the Russian economy" [1], written at the end of 1999, when our country was completing the first political cycle of post-Soviet market transformations.

It was based on neo-liberal approaches to reforming the social system, economic and social life in Russia. These approaches were implemented through a shock therapy, on the recommendation of the "Washington consensus" and international financial institutions, which see their priorities in the reduction of the regulatory role of the state in the economy, accelerated privatization and primacy of financial tools.

By destroying effective management mechanisms in the shortest possible time and failing to create new ones, the reformers led the country to a severe economic crisis: the gross domestic product of Russia in 1998 decreased by 44% compared to 1989. Engineering and agriculture were breaking down; science, education and healthcare were deteriorating. The real incomes of the population decreased twice; the demographic situation became unfavorable.

Academician D.S. L'vov was one of those Russian scientists, who drew attention to the anti-popular content of liberal reforms from their very beginning. Under the conditions showing various signs of impending national disaster, he managed to show a large-scale anti-humanistic character of the reforms and to substantiate a scientific hypothesis of the ways to overcome the decline of the Homeland and the main ways of its progressive development. He wrote in "Economic manifesto...": "Analyzing the flow of the events, we will be able to realize what cannot be done, and what has to be done in the future; so that the Russian society and its

[1] L'vov D.S. Ekonomicheskii manifest – budushchee rossiiskoi ekonomiki [Economic Manifesto – the Future of Russia's Economy]. Moscow: Ekonomika, 2000. 54 p. References to this work are given hereinafter in this article within brackets.

***Dmitrii Semenovich L'vov** (February 2, 1930 – July 6, 2007) – RAS Academician. He worked at the Institute of Economics of the Academy of Sciences of the USSR (1966–1972), Central Economics and Mathematics Institute of the Russian Academy of Sciences (since 1972, since 1991 – Deputy Director). In 2003–2007 he was Head of the Economics Section at the Social Sciences Department of RAS. The main spheres of research of D.S. L'vov are connected with the study of socio-economic development and economic growth issues.*

Dmitry Semenovich contributed a lot to the establishment and development of academic science in the Vologda Oblast. He made a significant contribution to the training of scientists at ISEDT RAS and the creation of its material and technnological base. He was Chairman of the Organizational Committee of research-to-practice conferences "Strategy and tactics of implementation of economic reforms" that took place in Vologda.

economy would begin to recover, and would, finally, find a firm basis for their revival" (P. 3).

Unfortunately, socio-economic policy carried out in Russia is still based on the neo-liberal approach adopted in the first political cycle. Some adjustments were introduced in this approach during the second, third, fourth and one third of the fifth political cycles (2000–2014); however, they did not lead to the creation of an economy, the effectiveness of which can be matched with that in developed and developing countries. Furthermore, the gap between Russia's economy and that in other countries increased in many respects. The country managed to restore its GDP to the level of 1990 only in 2012; and that was achieved at the expense of the services sector, while industry and agriculture still did not recover. The pace of economic development in recent years has been falling (GDP growth in 2011 was 4.3%, in 2012 – 3.4% and in 2013 – 1.3%). Russia's backwardness in science and technology development and in labor productivity is becoming more pronounced.

And in this regard, at this stage of the country's development, we think it would be very useful to consider Academician D.S. L'vov's vision of opportunities "that will help Russia to rise from its knees, and once again take a worthy place among the leading countries of the world" that he dwell upon in "Economic manifesto..." (p. 21), to assess the implementation of these possibilities in the last years of market transformations.

In "Economic manifesto..." D.S. L'vov attaches special importance to the disclosure of the essence and content of the doctrine, which is the basis for his vision of the future of Russian development.

He provides a concise description of the history of the capitalist society. Capitalism, as the Academician underlines, has liberated an individual, has relieved people from the

"Neo-liberal slogans and political appeals to build capitalism on the ruins of the socialist system could not stir the energy of the masses, direct it from destruction to creativity. People's conscience was deaf to the call. And even then, in the first years of perestroika, in the frenzy of a pseudo-market euphoria one could see clear signs of social fatigue and disappointment of the society in the reform. A moral component, which the reformers tried hard to conceal, started to show itself more clearly...Unfortunately, the ruling elite failed to understand the fundamental thesis – every authority does not have and will never have the secret of building a fair society on other bases than the beginnings of spiritual and moral revival" (p. 8-9).

bondage of traditional relations, customs and beliefs, and has endowed people with a freedom of choice in the application of their work and distribution of their income. But man became a hostage of the industrial system of his own creation, of huge monsters of modern authorities and the media. Capitalism has not eliminated the reasons for a sharp stratification of society into rich and poor; it has not created conditions for revealing the spiritual potential of a person. The idea of individual freedom for creativity, production and spiritual elevation is reduced by the capitalist system to the idea of individual enrichment and even direct acquisitiveness. The capitalist world is plagued by contradictions more and more; it facilitates social conflicts, regional clashes and local wars (p. 11).

According to unbiased experts, Russia is currently dominated by the worst stage of capitalism – oligarchic capitalism[2]. Under the influence of foreign capital, which under the guise of "free competition" has made every effort to destroy Russia as its strategic competitor, post-Soviet capitalism has degenerated into a kind of comprador capitalism characterized by the growth of economic currency dependence, enrichment of the oligarchic minority and impoverishment of the working majority, the sliding down to a society of injustice and poverty.

Currently , the ratio of the income of the richest 10% to the poorest 10%, which reflects economic inequality in the country (decile ratio), is 16 in Russia, while it is from 4 to 6 in EU countries, Southeast Asia and Japan; the critical threshold value is 8–10. The richest decile group in Russia has 31.9% of the resources of all households, while the poorest has 2.6%. In Russia, according to the tax reporting (as of July 31, 2013), there are 100 thousand dollar millionaires and more than 100 billionaires, who made a fortune mainly in trade, financial and other services[3]. Why are the interests of individuals more important than the interests of the country with the population of 140 million? What will young people seek in such a society?

Criticizing the weakness of modern capitalism, D.S. L'vov proves why the socialist System created in the has been USSR collapsed. The Academician states that it had

[2] In this regard see the arguments presented by S.S. Gubanov in the article "Neo-industrialization of Russia and the poverty of its sabotage critics" published in the current issue of our Journal.

[3] Rossii nuzhna drugaya model' razvitiya: sb. trudov "Shkoly upravlyaemoi ekonomiki" [Russia Needs a Different Model of Development: Proceedings of the "School of Controlled Economy"], no.1. Ed. by P.P. Lobzunov. Moscow: LENAND, 2014. Pp. 9293.

nothing to offer but a collective austerity and the preservation of commanding heights for those few in power (p. 8).

The author of "Economic manifesto..." concludes: "The road that leads Russia to the future, has no return to the socialist System. But it will not cross the path, where it can be absorbed by the capitalist System. In the global conflict between the System and the life World of man Russia should stand on the side of the latter" (p. 12). The spirit of Western European ideology enshrined in Protestant ethics – individual chosenness to salvation – is not compatible with the spiritual heritage of our people, its desire to resolve core issues together, collectively (p. 7).

In this regard, an extremely important fact is that the idea of development based on Russian identity is currently gaining official recognition. It was publicly announced by Russia's President V.V. Putin[4].

This idea was clearly manifested in the fact that the majority of Russia's population had supported the accession of the Crimea to Russia, and rejected the nationalist actions of the current Ukrainian authorities toward the Russian-speaking population in its South-Eastern territories.

Relying on his conceptual doctrine, Academician D.S. L'vov has outlined the main provisions that must be implemented for the future of Russia.

Has the Russian authorities made any progress in the implementation of these provisions?

Professor R.S. Dzarasov in his article published in the Herald of the Russian Academy of Sciences gives a most objective analysis of the solution to this issue on the example of the modern condition of science-and-technology and educational potential[5].

He writes: "In recent years the Russian authorities began implementing a whole range of reforms that challenge not only the future modernization, but also the preservation of educational and scientific level inherited from the Soviet period. An important position among the reforms is occupied by the reform of school education, in particular, the introduction of the Unified State Examination, reduction in the number of universities and sharp reduction in teaching staff. These reforms caused a profoundly

"...We need to focus, first, on the intensive formation of the basic layer of the nation. This is the layer for which creativity and creation are the prime norm of life, and not only and not so much a means of existence. In the true sense of the word – these are the masters, who create scientific school, transmit knowledge, training people for new jobs; they are manufacturers of rare products, who support and restore people's health; they are keepers of spiritual and cultural values; they are workers, able to create and build and not only to distribute what was already accumulated...The whole experience of the post-war development confirms that the role of leaders in the socio-economic competition was always claimed by countries with the highest levels of education, science, health and culture and, of course, spirituality" (p. 21-22).

[4] Putin V.V. Speech at the Meeting of the Valdai International Discussion Club on September 19, 2013. Available at: http//www.kremlin.ru/19243.

[5] Dzarasov R.S. Ekonomika "nasazhdeniya otstalosti" [The Economy of "Cultivation of Backwardness"]. Vestnik Rossiiskoi akademii nauk [Herald of the Russian Academy of Sciences], 2014, vol. 84, no.4.

negative attitude of the public, but this did not prevent the government from completing the list of its ignominious initiatives with the so-called "reform of the Russian Academy of Sciences".

The draft law elaborated by the RF Ministry of Education and Science became a final step to the collapse of domestic science, initiated by radical market reforms of the early 1990s. In Russia in 1990–2007 the number of personnel engaged in scientific research and development reduced by almost 60%[6].

At the same time, the concept of rent-seeking behavior of Russian big business motivated by the desire to derive profit from the control over financial flows of the companies is growing stronger. The source of rent is found in the decline of the share of wages of workers and salaries of managers in the production costs, in the reduction of investment, tax evasion, plundering of amortization fund, and misappropriation of loan resources. A comprador character of Russian big business is evident in its offshoring. According to some experts, Russia is the only country where 90% of large business is registered in offshore zones, 80% of transactions for the sale of Russian securities is conducted through these jurisdictions[7].

D.S. L'vov gives quantitative indicators in price parameters that were in force at the time, when "Economic manifesto..." was written. At present, they are outdated. Nowadays, Russian business has less and less trust in the capacity of the government and exports capital abroad in greater amounts. In 2009 the export of capital from the country reached 135 billion U.S. dollars. For the first quarter of 2014 the capital exceeding 60 billion U.S. dollars has already been exported from Russia.

"...Our priority is the efficiency of using natural resource potential of the country and its territory... As calculated per capita, Russia's resource potential 2–3-fold exceeds the resource potential of the USA, 6-fold – that of Germany, 18–22-fold – that of Japan. Natural deposits in Russia are estimated at trillions of dollars. The annual revenue from the use of the natural resource potential is estimated at 60–80 billion dollars. It is 3–4 times higher than the total budgetary resources available to us at present. Unfortunately, the budget receives only a small part of this total financial flow. The main part of it falls on shadow turnover and is exported; that is, it is working on the development of Western economies... This is the monstrous mechanism of criminalization of the economy, due to which such a rich country like ours, functions in such distorted parameters of reality" (p. 30).

The current liberal-market model used in Russia has a fundamental defect: this model excludes the most effective methods and instruments used by the government in state-managed economies (like Chinese), and in particular such as economic planning and forecasting, organizing, coordination and control. The domestic economy and the state budget became unacceptably dependent on external market factors such as petro-dollars and speculative foreign capital. The private capitalist economic system of the country keeps the intermediate production in isolation from the end production and does not allow the aggregate

[6] In some region of Russia the reduction in the number of people engaged in research and development was significantly larger. For instance, in the Vologda Oblast it decreased from 3.5 thousand to 450 people, i.e. almost in 8 times.

[7] Dzarasov R.S. Op. cit. P. 297.

"Russia is a unique geopolitical space. Russia occupies the north of the Eurasian continent: it is, first of all, the necessary and the shortest connection between the countries of the Atlantic-Pacific region: aviation, railway, automobile, sea, fiber communications. The elaboration of alternatives for the development of infrastructure in Russia's geographical space could become the analogue of the GOELRO plan, which played such an important role in the history of this country. Today as never before we need this kind of far-reaching plan, based on the organization of a huge territory in the framework of modern Russia" (p. 30).

multiplier of value added to be increased cardinally. The structural diversification of the economy is impeded.

However, such focus on the accelerated growth of the Russian economy, highlighted by D.S. L'vov, has not actually been used by the federal government for nearly two decades. Moreover, there was a reduction of labor resources in the vast territories of the Far East. And only recently, the inclusion of this resource into the Common cause has been reconsidered as a possibility. We are talking primarily about the implementation of the Customs Union programs covering Russia, Belarus and Kazakhstan, and the measures for its extension. A major impetus is created by recent strategic agreements between Russia and China, which include not only multibillion-dollar contracts, but also intentions to double trade turnover between these two countries.

The turn of the Russian foreign policy from West to East is an optimistic trend. But in order to enter an equal strategic union, our country should, first of all, change itself. It should actually embark on the path of innovation development, implement new industrialization, and abandon the raw material bias in the economy. It has not happened so far. If in the 1980s the share of mechanical engineering and metal working production in the USSR in the total amount of export was 35%, and raw materials – 23%, then in modern Russia the situation is the opposite: over 70% falls on raw materials and only about 5% – on machinery and equipment[8]. In short, the scale of our work aimed at utilization of the benefits, which our Eurasian geographical position gives us, is huge and it requires considerable administration skills.

We must pay tribute to the activities of V.V. Putin, who, during his third presidency is implementing the interests of Russia in the foreign policy and at the same time is seeking to ensure internal political stability. After assuming office in May 2012, the President issued a number of decrees to increase the efficiency of economic and social development in the country. Unfortunately, they have not had a desired impact on the real situation in a number of areas so far. Why is it so? In our opinion, it is because the right guidelines do not correspond to the existing system of public administration.

We are convinced that it is necessary to change the insolvent neoliberal model with the model of controlled mixed economy, but the one which would reflect Russia's own way, that is the one, which Academician D.S. L'vov points out in "Economic manifesto...".

[8] Kozhemyakin S. Demonstratsionnyi visit [Demonstration Visit]. Sovetskaya Rossiya [Soviet Russia], 2014, May 24, no.36 (14004), p. 3.

«It's time to stop thinking of this country as a virgin land, which must be periodically reploughed, losing each time the layers of fertile soil, accumulated by the previous development. The unique diversity of Russian climatic landscapes and ethno-cultural features should be carefully mastered, transformed into regional diversity of living forms, including economic. We must focus on our own resources and opportunities for growth, the new economic policy, the system of national property, rent, new industrial policy, the activation of social factors. It will guarantee the success of Russia promotion along its way» (p. 54).

In this regard, it is gratifying that in the recent years, students and followers of Academician D.S. L'vov have been developing his ideas about the need for an active role of the state in economic management and give well-grounded recommendations on the enhancement of public administration efficiency. This position has a detailed substantiation in the scientific report of Academician S.Yu. Glazyev[9], and in a new report by the Russian Academy of Sciences ~~“Russia on the~~ way to a modern, dynamic and efficient economy”, edited by Academicians A.D. Nekipelov, V.V. Ivanter, and S.Yu. Glazyev[10], where many reasonable proposals in relation to economic policy are put forward. But let us face it: if an efficient administration model is not established, these proposals will remain on paper. And it is no coincidence that articles published in our Journal pay more and more attention to administration issues[11].

It is also gratifying to know that the President of the Russian Federation V.V. Putin pays more and more attention to the opinion of the Russian Academy of Sciences' associates. In recent months he has had long meetings with the leadership of RAS, researchers from economic institutions under RAS on the issues related to the development and implementation of the strategy of accelerated socio-economic development of the country, on the increase of the role of science in the transition of the Russian economy to innovation path. Several important solutions in this regard were adopted at the recent meeting of the Presidential Council on Science and Education. All this once again testifies to V.V. Putin's desire to implement the large-scale tasks outlined in his pre-election articles and speeches, and in the May (2012) decrees.

[9] Glazyev S.Yu. O tselyakh, problemakh i merakh gosudarstvennoi politiki razvitiya i integratsii: nauchnyi doklad [About the Purposes, Problems and Measures of State Policy for Development and Integration: Scientific Report]. Moscow, January 29, 2013.

[10] Rossiya na puti k sovremennoi dinamichnoi i effektivnoi ekonomike [Russia on the Way to a Modern, Dynamic and Efficient Economy]. Rossiiskaya akademiya nauk [Russian Academy of Sciences]. Moscow, 2013.

[11] Editorial Board attaches special importance to the coverage of aspects related to the improvement of public administration efficiency, especially in the sphere of fiscal policy, and which have been discussed many times in the articles published in our Journal. For example, in 2013 the Journal published works such as: Glazyev S.Yu., Fetisov G.G. On the strategy of sustainable development of Russia's economy, no.1; Ilyin V.A. National and regional security: a view from the region, no.3; New agenda and state management efficiency, no.5; Povarova A.I. Regional budget for 2013 – 2015: stability or survival?, no.1; Savchenko Ye.S. On the necessity and content of the change in macroeconomic policy, no.5; Selin V.S., Selin I.V. Assessment of opportunities and factors promoting innovation development of the regional economy, no.4; Uskova T.V., Selimenkov R.Yu. On the issue of formation of development institutions in the region, no.2. The previous issues of 2014 contain the works: Lapin N.I. On the strategy of integrated modernization, no.1; Minakir P.A. On the key tasks of Russia's economic development (following the Address of the RF President to the Federal Assembly), no.1; Ilyin V.A., Shabunova A.A. Sociological assessment of public administration efficiency, no.2, etc.

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 ISEDT RAS in the Vologda Oblast[1].

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 May–June 2014, these data are compared with the data for 2013, as well as for 2011, when D.A. Medvedev's presidential term was due to expire, and for 2007, when V.V. Putin's second Presidency was coming to an end. We sum up the intermediate results of studying the changes in public opinion in the first half of 2014.

Estimation of performance of the authorities

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

Indicator	2007*	2011*	2013*	Aug. 2013	Oct. 2013	Dec. 2013	Feb. 2014	Apr. 2014	June 2014	Average for the last 6 surveys	Dynamics (+/-). the last 6 surveys in comparison with		
											2013	2011	2007
RF President													
I approve	75.3	58.7	55.3	55.1	54.3	57.3	56.1	62.8	66.6	58.7	+3	0	-17
I do not approve	11.5	25.6	29.4	28.9	28.7	28.9	29.3	25.4	21.8	27.2	-2	+2	+16
Chairman of the RF Government *													
I approve	-	59.3	48.9	50.4	49.0	51.1	49.3	52.5	55.8	51.4	+3	-8	-
I do not approve	-	24.7	32.8	30.4	30.6	32.5	32.9	30.9	26.4	30.6	-2	+6	-
Governor													
I approve	55.8	45.7	44.4	44.8	45.9	44.1	42.8	41.6	38.5	43.0	-1	-3	-13
I do not approve	22.2	30.5	33.2	31.1	32.4	35.3	36.9	39.0	40.9	35.9	+3	+5	+14

* Included into the survey since 2008.

[1] 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. 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 ISEDT RAS polls are available at http://www.vscc.ac.ru/.

In your opinion, how successful is the RF President in coping with challenging issues?*, as a percentage of the number of respondents

Indicator	2007	2011	2013	Aug. 2013	Oct. 2013	Dec. 2013	Feb. 2014	Apr. 2014	June 2014	Average for the last 6 surveys	Dynamics (+/-), the last 6 surveys in comparison with 2013	2011	2007
Strengthening Russia's international standing													
Successful	58.4	46.2	45.7	45.3	47.7	47.5	45.9	48.6	53.7	48.1	+2	+2	-10
Unsuccessful	24.9	33.7	36.2	36.4	33.7	35.8	35.7	35.5	31.7	34.8	-1	+1	+10
Index of success	*133.5*	*112.5*	*109.5*	*108.9*	*114.0*	*111.7*	*110.2*	*113.1*	*122.0*	*113.3*	*+4*	*+1*	*-20*
Imposing order in the country													
Successful	53.2	36.6	39.4	39.9	41.7	44.5	42.7	46.7	49.5	44.2	+5	+8	-9
Unsuccessful	34.0	50.0	47.5	46.7	46.7	45.5	43.7	40.9	39.5	43.8	-4	-6	+10
Index of success	*119.2*	*86.6*	*91.9*	*93.2*	*95.0*	*99.0*	*99.0*	*105.8*	*110.0*	*100.3*	*+8*	*+14*	*-19*
Protecting democracy and strengthening the citizens' freedoms													
Successful	44.4	32.4	31.8	34.7	33.5	32.8	32.3	36.3	40.1	35.0	+3	+3	-9
Unsuccessful	37.0	48.3	51.0	48.5	50.9	51.6	50.1	48.7	43.9	49.0	-2	+1	+12
Index of success	*107.4*	*84.1*	*80.8*	*86.2*	*82.6*	*81.2*	*82.2*	*87.6*	*96.2*	*86.0*	*+5*	*+2*	*-21*
Economic recovery and increase in the citizens' welfare													
Successful	47.2	30.7	31.3	32.6	31.9	32.6	31.5	34.9	35.8	33.2	+2	+3	-14
Unsuccessful	39.1	56.1	56.8	53.4	57.7	59.7	57.1	54.3	53.5	56.0	-1	0	+17
Index of success	*108.1*	*74.6*	*74.5*	*79.2*	*74.2*	*72.9*	*74.4*	*80.6*	*82.3*	*77.3*	*+3*	*+3*	*-31*

* Ranked according to the average value of the indicator for the last 6 surveys. Comparisons with 2012 were not carried out, because 2012 was an incomplete year of V. Putin's presidency (the inauguration took place on May 7, 2012).

What 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	Aug. 2013	Oct. 2013	Dec. 2013	Feb. 2014	Apr. 2014	June 2014	Average for the last 6 surveys	Dynamics (+/-), the last 6 surveys in comparison with 2013	2011	2007
United Russia	30.2	60.5	31.1	33.4	29.4	29.6	26.9	29.5	28.3	29.5	32.7	29.4	0	-2	-1
KPRF	7.0	9.3	10.3	16.8	11.3	12.0	11.9	11.8	10.9	10.7	9.8	11.2	0	+1	+4
LDPR	7.5	11.0	7.8	15.4	7.2	6.8	8.4	8.1	8.9	8.3	6.2	7.8	+1	0	0
Just Russia	7.8	8.8	5.6	27.2	4.6	4.3	4.0	4.4	3.5	3.3	3.3	3.8	-1	-2	-4
Other	1.8	–	1.9	–	0.6	3.4	1.0	0.8	0.4	0.2	0.1	1.0	0	-1	-1
No party	17.8	–	29.4	–	34.9	33.4	37.3	34.4	35.2	34.8	36.0	35.2	0	+6	+17
It is difficult to answer	21.2	–	13.2	–	10.2	10.5	10.5	10.9	12.7	13.1	11.8	11.6	+1	-2	-10

Estimation of social condition, as a percentage of the number of respondents

Indicator	2007	2011	2013	Aug. 2013	Oct. 2013	Dec. 2013	Feb. 2014	Apr. 2014	June 2014	Average for the last 6 surveys	Dynamics (+/-). the last 6 surveys in comparison with		
											2013	2011	2007
Mood													
Usual condition, good mood	63.6	63.1	68.6	68.7	71.5	69.6	65.1	69.3	71.1	69.2	+1	+6	+6
Feeling stress, anger, fear, depression	27.8	28.9	26.2	26.3	24.0	26.2	27.1	24.9	23.7	25.4	-1	-4	-2
Stock of patience													
Everything is not so bad; it's difficult to live, but it's possible to stand it	74.1	74.8	79.3	79.7	81.6	83.1	79.8	81.3	81.0	81.1	+2	+6	+7
It's impossible to bear such plight	13.6	15.3	14.2	14.7	12.3	12.0	12.3	11.1	13.4	12.6	-2	-3	-1
Social self-identification													
The share of people who consider themselves to have average income	48.2	43.1	43.9	44.9	45.7	43.7	44.2	43.1	42.0	43.9	0	+1	-4
The share of people who consider themselves to be poor and extremely poor	42.4	44.3	46.9	46.8	45.4	46.7	46.9	49.1	48.4	47.2	0	+3	+5
Consumer Sentiment Index													
Index value, points	105.9	89.6	90.3	91.0	90.4	87.9	91.5	90.3	90.5	90.3	0	+1	-16

Trends in public opinion
Concerning Russia's policy in relation to the events in Ukraine

Public opinion concerning the performance of the RF President and other federal authorities in 2014 is inextricably linked with Russia's international policy and with the situation in Ukraine.

Most of the Vologda Oblast residents approve of the policy of Russia toward Ukraine (71%), support it (65%) and express positive attitude toward the accession of the Crimea to the Russian Federation (78%). At that, more than half of the population (56%) trust Russian media in the coverage of issues related to the Ukrainian crisis (only 22% of the population trust foreign sources).

Assessment of Russia's policy in relation to the events in Ukraine,
(as a percentage of the number of respondents)

Answer options	Oblast
How do you assess the policy of Russia with regard to Ukraine? (April 2014.)	
I fully and rather approve	71.3
I fully and rather do not approve	12.0
It is difficult to answer	16.7
March 16, 2014, at the referendum in Simferopol (the Crimea) more than 95% of its participants had voted in favor of the accession of the region to Russia. ***Do you agree or disagree with the Crimea joining our country as a subject of the Russian Federation? (April 2014)***	
Yes, I agree	78.0
No, I do not agree	10.4
It is difficult to answer	11.6
Do you support Russia's policy toward the events in Ukraine? (June 2014)	
I fully and rather support	65.0
I fully and rather do not support	10.0
It is difficult to answer	25.0

Analysis of public opinion concerning the performance of the RF President in the first half of 2014

In 2014 we observe a steady increase in the level of approval of the federal authorities' performance. According to WCIOM, the share of positive opinions on the activities of the President of the Russian Federation for the period from February to June 2014 has increased from 64 to 86%. Positive dynamics is observed in the Vologda Oblast as well: from February to June 2014 the level of approval of President's performance has increased from 56 to 67%.

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

Indicator	Feb. 2014	Apr. 2014	June 2014	Dynamics (+/-)		
				Apr.2014 to Feb.2014	June 2014 to Apr. 2014	June 2014 to Feb.2014
RF President						
I approve	56.1	62.8	66.6	+7	+4	+11
I do not approve	29.3	25.4	21.8	-4	-4	-8
RF President – WCIOM data						
I approve	64.3	82.2	85.9	+18	+4	+22
I do not approve	27.6	11.4	9.6	-16	-2	-18

The growth in the approval of the RF President's performance in February – June 2014 is observed in all socio-demographic groups of the population, especially among Vologda City residents (from 53 to 67%), and among people with higher and incomplete higher education (from 59 to 72%).

Positive trends are also observed among the socially vulnerable categories of the population: the level of approval of the President's performance increased from 46 to 55% among the 20% of the least wealthy, and from 60 to 68% among people aged over 55.

Dynamics of the RF President's activity approval by different social groups of population (as a percentage of the number of respondents)

Indicator	Feb.2014	Apr.2014	June 2014	Dynamics (+ / -)		
				Apr. 14 to Feb.14	June 14 to Apr.14	June 14 to Feb.14
Sex						
Men	55.4	58.7	65.5	+3	+7	+10
Women	56.6	66.1	67.5	+9	+1	+11
Age						
Under 30	53.0	61.1	63.4	+8	+2	+10
30–55	54.9	62.4	67.3	+8	+5	+12
Over 55	59.8	64.7	67.7	+5	+3	+8
Education						
Secondary and incomplete secondary	51.9	58.1	60.0	+6	+2	+8
Secondary vocational	58.0	62.1	68.6	+4	+6	+11
Higher and incomplete higher	58.8	69.2	72.0	+10	+3	+13
Income groups						
20% of the poorest people	46.1	48.9	54.6	+3	+6	+9
60% of the people with middle-sized income	57.9	64.4	69.4	+7	+5	+12
20% of the most prosperous people	69.4	72.6	77.7	+3	+5	+8
Territories						
Vologda	53.1	61.0	66.6	+8	+6	+14
Cherepovets	66.8	73.2	74.4	+6	+1	+8
Districts	51.8	58.1	62.3	+6	+4	+11
Oblast	56.1	62.8	66.6	+7	+4	+11

Positive changes are observed in the assessments of the President's activity on solution of key problems of the development of society. In the first half of 2014 these changes were observed most clearly in relation to the President's work for the protection of democracy and strengthening freedoms of citizens (the share of positive evaluations has increased from 32 to 40%), and also in strengthening Russia's international standing (from 46 to 54%).

At the same time, we are concerned about the fact that the support of the President's actions in the sphere of strengthening Russia's international positions and restoring order in the country approached the level of 2007 only in June 2014. In 2007 more than 50% of the Vologda Oblast population considered that the President's actions for strengthening the international positions of Russia and restoring order in the country. During the subsequent period, the share of supporters was 45–48%, and it reached 50% only in June 2014.

Also there is certain degree of concern if we consider that the assessments of V.V. Putin's performance in promoting economic recovery and growth of citizens' welfare are increasing rather slowly (from 32 to 36% in February – June 2014). The figures are still far from the level of 2007, when the actions of the President in this matter were approved by 47% of the Vologda Oblast inhabitants.

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

Indicator	Feb. 2014	Apr. 2014	June 2014	Dynamics (+/-)		
				Apr.14 to Feb.14	June 14 to Apr. 2014	June 14 to Feb.14
Strengthening Russia's international standing						
Successful	45.9	48.6	53.7	+3	+5	+8
Unsuccessful	35.7	35.5	31.7	0	-4	-4
Index of success	110.2	113.1	122.0	+3	+9	+12
Imposing order in the country						
Successful	42.7	46.7	49.5	+4	+3	+7
Unsuccessful	43.7	40.9	39.5	-3	-1	-4
Index of success	99.0	105.8	110.0	+7	+4	+11
Protecting democracy and strengthening the citizens' freedoms						
Successful	32.3	36.3	40.1	+4	+4	+8
Unsuccessful	50.1	48.7	43.9	-1	-5	-6
Index of success	82.2	87.6	96.2	+5	+9	+14
Economic recovery and increase in the citizens' welfare						
Successful	31.5	34.9	35.8	+3	+1	+4
Unsuccessful	57.1	54.3	53.5	-3	-1	-4
Index of success	74.4	80.6	82.3	+6	+2	+8

During the first half of 2014 (from February to June) there has been a growing support only of one party – United Russia (from 28 to 33%). At the same time it is alarming that there are no substantial changes in the share of those who consider that none of the present political forces reflects their interests (35–36%).

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

Party	Feb. 2014	Apr. 2014	June 2014	Dynamics (+/-)		
				Apr.14 to Feb.14	June 14 to Apr.14	June.14 to Feb.14
United Russia	28.3	29.5	32.7	+1	+3	+4
KPRF	10.9	10.7	9.8	0	-1	-1
LDPR	8.9	8.3	6.2	-1	-2	-3
Just Russia	3.5	3.3	3.3	0	0	0
Other	0.4	0.2	0.1	0	0	0
No party	35.2	34.8	36.0	0	+1	+1
It is difficult to answer	12.7	13.1	11.8	0	-1	-1

In February – June 2014 the share of the Oblast residents, who have "usual condition, good mood" has increased from 65 to 71%. The share of those who think that "everything is not so bad; it's difficult to live, but it's possible to stand it" has not changed substantially (80–81%). At the same time, the share of people who consider themselves to have average income declined slightly (from 44 to 42%).

Consistent growth in the indicators of social mood along with a slight deterioration in the financial status of the population shows that the public opinion today is influenced to a great extent by non-economic factors: the activities of the President and the development of events in the international political arena.

Estimation of social condition, as a percentage of the number of respondents

Indicator	Feb. 2014	Apr. 2014	June 2014	Dynamics (+/-)		
				Apr.14 to Feb.14	June 14 to Apr. 2014	June 14 to Feb.14
Mood						
Usual condition, good mood	65.1	69.3	71.1	+4	+2	+6
Feeling stress, anger, fear, depression	27.1	24.9	23.7	-2	-1	-3
Stock of patience						
Everything is not so bad; it's difficult to live, but it's possible to stand it	79.8	81.3	81.0	+2	0	+1
It's impossible to bear such plight	12.3	11.1	13.4	-1	+2	+1
Social self-identification						
The share of people who consider themselves to have average income	44.2	43.1	42.0	-1	-1	-2
The share of people who consider themselves to be poor and extremely poor	46.9	49.1	48.4	+2	-1	+2
Consumer Sentiment Index						
Index value, points	91.5	90.3	90.5	-1	0	-1

Conclusion

The results of the surveys conducted in 2014 show that public opinion in the Vologda Oblast is influenced mainly by the events in Ukraine, activities of the President of the Russian Federation V.V. Putin, and Russia's international policy. These non-economic factors have a decisive impact on the dynamics of social mood, which is still improving (from 64 to 71% for the period from 2007 to June 2014), despite the increase in the proportion of people who consider themselves "poor" and "extremely poor" (from 42% in 2007 to 48% in June 2014).

The Vologda Oblast residents trust the Russian media concerning the coverage of Ukraine events, and support the policy of the authorities in this issue. At the same time, one feels concerned that the activities of the President of the Russian Federation in coping with key problems of Russia's development are not supported as much as they were in 2007. The assessment of V.V. Putin' s actions aimed at economic recovery and growth of citizens' welfare arouses even greater concern: the level of approval is not only much lower than in 2007 (36 and 47% respectively), it remains practically unchanged (in August 2013 – 33%, in February 2014 – 32%, in May – 35%, in June – 36%).

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Neo-industrial development model and its system algorithm *

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§ 1. The urgency of neo-industrialization: the case of new realities

Post-reform games with the history are over: the current state of affairs proves that the turn to neo-industrialization can not be delayed any longer. Economic and geopolitical contradictions have intertwined and formed the Gordian knot of such an acute system crisis, which can be resolved only through extreme and truly alternative outcomes: either the collapse of our country, which is a historically negative result or its neo-industrial rise – a historically positive result.

The domestic economy, beginning in 2013, has experienced alternations of stagnation and autonomous recession. The raw-materials-exporting model reached the tipping point: it stopped generating even nominal monetary growth provided by the inflation of the petrodollar, and is now unable to replenish the gold and currency reserves and the budget, or to support investment demand and final demand. Earlier there was growth without development; now there is neither development nor growth.

In late 2013 drastic changes occurred in the foreign political situation, adding one more terrible and painful contradiction to the others. The rapid deterioration in the situation concerning Ukraine requires

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Russia to be the *subject* of geopolitics, while economically Russia is ready to be no more than a geopolitical *object*.

As it has already happened before, our country is facing a hardest historical challenge at precisely the moment when it is least prepared to face it. Indeed, deindustrialization has not been overcome yet. The dollarization of the national wealth and the process of its offshoring are continuing. The structural diversification of the national economy is in stagnation. The raw-materials-exporting model has not been abandoned yet, despite its obvious inefficiency. The domestic economy and the state budget still depend on external market factors: petrodollars and speculative foreign capital. The economic system, being a private capital system of the lower order, is absolutely hopeless, for it is disintegrated from top to bottom, it keeps the intermediate production in isolation from the end production, it does not allow the aggregate value added multiplier to be increased cardinally. Domestic sources of economic development are disabled and inactive. There is no catch-up in labor productivity.

The post-reform Russia has reached the stage of the lowest capitalism that is disintegrated and oligarchic. Under the influence of foreign capital, which under the guise of "free competition" made every effort to destroy its strategic competitor, the post-Soviet capitalism has quickly degenerated into a kind of unproductive, intermediary, *broker* and *comprador* capitalism. It is only capable of transferring the resources and national wealth of our country abroad, i.e. trivial selling of Homeland, which results in the strengthening of foreign multinational corporations with an infinite weakening of the domestic industrial capital, the growth of economic and monetary dependency, enrichment of oligarchic minority and impoverishment of working majority, sliding down to a society of injustice and poverty.

The post-Soviet practice has fully proved the strength and effectiveness of classical economic laws, in particular, the law of production price. The lowest capitalism, or colonial periphery of the world economy, actually drags on its existence with enslaving dependency on the highest capitalism, functioning as a controlled vassal of the latter, i.e. the imperialist center.

Although some corrections were introduced during the 2000s, they were unsystematic and they only dimmed rather than eliminated the large-scale system crisis that was transformational in its origin and socio-economic in its consequences. The disintegration of reproduction, deindustrialization, system and social backwardness, comprehensive external dependence, the work for the benefit of foreign capital instead of working for our own benefit, extreme social differentiation and polarization of the population, internal splitting of the society on national, religious, linguistic, territorial, property and other bases, bourgeois-ethnic nationalism and centrifugal tendencies are visible manifestations of the system crisis constantly eroding the foundation of the federal unity.

Russia, burdened by a bulk of system problems, weakened by long deindustrialization and multi-stage regression, nevertheless, is deprived of an opportunity to evade the geopolitical challenge launched against it. Russia's backwardness and weakness are disadvantages only for the country itself, meanwhile, it is these features that the neo-industrial powers, possessing a tremendous system advantage over the post-Soviet regime, intend to benefit from it the geopolitical respect. After the Great Recession the neo-industrial world, driven by the U.S., has become the subject of extremely aggressive geopolitics. And now it has transferred all the burden of geopolitical pressure directly to Russia that is underdeveloped and backward economically – by the stage of capitalism, the level of development of productive forces, forms of their organization and management, industrial-and-technological, scientific-and-technological and personnel potential, productivity and quality of life of the population.

There several fundamental reasons exist, due to which the American neo-imperialism has to launch a direct attack on the Eurasian space. On the one hand, it has to strengthen the imperialism of the dollar by foreign property at all costs, on the other hand – it views Russia as a country that is already weakened and undermined sufficiently from within; this fact would help to block it thoroughly around the whole perimeter of the state border, moving the imperial march of NATO further eastward, next to our south-western borders.

Undoubtedly, the bloody "chaos" unleashed in the end of 2013 by the Ukrainian clan of oligarchies and compra-dors, controlled by the overseas puppeteers with the aim of complete abolition of the non-aligned status of Ukraine, was quite predictable. The point is not the corruptibility and rottenness of post-Soviet political regime, or rather, it is only part of the point. The essence lies in constant reproduction of this corrupt and rotten regime, and also in the reasons and conditions of such reproduction, running nonstop, from some quasi-democratic elections to other. Despite the election process, the real choice is always made by the ruling comprador oligarchy that is nurtured, controlled, appointed and supported by foreign capital.

It is not only academic interest that urged us to pay close attention to a "new reform" of the U.S. Federal Reserve System, which seems like a purely technical and Keynesian one. Appearances are deceptive: it turned out that in fact the U.S. launched an unprecedented global expansion of dollar imperialism in 2008 associated with cardinal expansion of *dollarization and Americanization of property in the rest of the world*.

With the help of the Great Recession of 2008–2009, the U.S. struck the world economy with its new move aimed at global property redistribution, as always, to the benefit of the USA. Due to denationalization, the property of the former Soviet republics – Russia, Ukraine, Kazakhstan and Belarus – became the primary target of dollar imperialism. And any property redistribution, as we know from history, is associated with armed violence, the scope, intensity and number of victims of which is directly proportional to the scale and significance of captured objects and heights of the economy. This is why American imperialism wages one regional war after the other imposing a totalitarian world order – with the political enslavement of all those countries, whose property it seizes with the aim of dollarization, Americanization and offshoring, with the establishment of direct pro-American dictatorship comprador regime in these countries. This, unfortunately, is happening now in Ukraine.

The U.S. propaganda mill presents the wars over *desovereignization* of foreign property as the wars "for democracy". At that, the American propaganda uses purely abstract slogans about democracy and freedom in general, without clarifying any of its specific content. Intentional evasion of specifics is quite understandable, since the American imperialism views a democratic country as identical to a pro-American country that is totally dependent on its overlord, i.e. Washington. Using the power of dollar imperialism and military potential, the U.S. place the world not under some abstract and vague democracy, but under the concrete, *vassal democracy* the sole purpose of which is to hold "reformed" neo-colonies on a leash of the "Washington consensus" with the help of the controlled comprador regime. Accordingly, freedom in the eyes of Washington means nothing but a free hand for the USA and American capital in any country, anywhere in the world.

Therefore, the essence of the actual unipolar globalization is simple: *vassal democracy* in the rest of the world serves as a solid guarantee of *suzerain freedom* for American imperialism, including the imperialism of the dollar.

The inner imperialistic side of globalization shows itself instantly, wherever the American military, including its bases on the European continent, tramples on countries and regions. But the truth does not consist in the imperial interests of the U.S. That is why Washington's rhetoric rests on empty abstractions of freedom and democracy without specifying their actual content and genuine social subject. However, it is certainly clear that the freedom of corrupt pro-American oligarchic-comprador minority placed in charge of some neo-colony is equivalent to the slavery of the majority of its subjects.

Therefore, the Ukrainian crisis now occupies a special place in the context of American imperial globalization. It has been initiated clearly in the interests of American imperialism, which sees Ukraine as its economic neo-colony and a puppet state, stuffed with NATO bases for the sake of geopolitical blockade of Russia. Our country, already isolated after the collapse of the USSR, has nowhere to retreat. It does not have a choice: it is now compelled literally to consolidate all its efforts for protecting the vital borders of its geopolitical security. It is clear that Russia is the ultimate goal of the American imperialism, and it is getting close to Russia through Ukraine.

It stands to reason that it will not be possible for quite a while to cope with the geopolitical pressure brought to its extremes by the neo-industrial bloc headed by the American imperialism, on the basis of deindustrialization. At that, some tactical success is still feasible, but not a strategic wins.

The laws of history are inexorable: an economic pygmy will never become a geopolitical titan – this mismatch is obviously unnatural and short-lived. It suggests that there always be a return to compliance, and, therefore, it is necessary to choose one of two things: either the rapid emergence as an economic titan – neo-industrial by definition, or transient transformation into a geopolitical pygmy, divided into spheres of influence and vassalage.

So, in modern conditions Russia has no positive alternative to neo-industrialization and cannot have any. Only the negative alternative is possible: an economic and political collapse like that of the Soviet Union. Either dynamic neo-industrialization or internal disintegration by the comprador capital and after that – a collapse – this is what the current situation may have in store.

Naturally, our country needs a historically positive outcome. And from this viewpoint, the choice is unambiguous and crystal clear: *first, neo-industrialization in Russia has no alternative, second, it should be implemented urgently*.

§ 2. Fundamental question of neo-industrialization: on property

Of course, everything said above is a matter of common knowledge. Five, ten, and even twenty years ago these statements were valid, and they still are. In confirmation I offer a small digression on the history of the issue.

For the first time Russian researchers, as far as it is known, formulated and promulgated directly the urgency of *re-industrialization* in 1992, when the national economy had not been swept off by deindustrialization and there still remained production capacities suitable for high-tech modernization. The comprador devastator, breaking loose, ruined Russia's domestic production of machinery production facilities; as a result, re-industrialization in Russia lost its object completely, and substantive meaning along with that.

By that time, however, some scientific evidence had been accumulated, which was sufficient to bring up and substantiate a *neo-industrial* paradigm. Its foundations had been laid by 2000. Since then the prospects of Russia's recovery were associated exclusively with *neo-industrialization* as the technetronic phase of industrialization and the process of formation of knowledge-intensive production. In corroboration we can recall one of the conclusions of that time: "Technological backwardness is intolerable for Russia. The actual rise is possible only when moving to knowledge-intensive production and only through neo-industrialization. The strategy for its implementation should be based entirely on Russia's own economic potential".

After the default in August 1998 there may have existed an opportunity to turn to a neo-industrial economic model, but the choice, alas, was made in favor of a raw-materials-exporting model with only a partial nationalization of revenues from raw materials export. The share of monetary and rental revenue that was previously almost entirely appropriated by the oligarch-compradors, started flowing into the budget and various extra-budgetary funds.

Although this decision raised the issue of property rights, it turned out a halfway and unsystematic compromise. The private-oligarchic comprador capital still owned the main strategic resources of the economy in exchange for an amicable distribution of export and foreign currency revenues.

As a result, the economic system remained disintegrated, unable to link intermediate production to final production in order to provide the work for the machine-building complex and manufacturing industry by streamlining the creation of high-tech jobs. The government got monetary resources, and with them the ability to support aggregate demand, but it started to pay an exorbitant price in the form of aggravating deindustrialization and backwardness. The system crisis continued to smolder, while on the surface it was hidden by a fictitious *growth or growth without development* backed by inflation of petrodollars.

Now, after more than a decade was lost, the situation has been changed dramatically. First, the raw-materials-exporting model has quite obviously collapsed when inflation growth ceased; second, the geopolitical confrontation with the neo-industrial bloc moved into a critical stage and requires the utmost effort. Consequently, the present-day challenge is to launch a new industrialization as a national cause, rather than only to speculate on its urgency.

What ought to be done is clear. Discussions and debate concern the question of how it should be done: what form of ownership it should be based on, what economic system and what specific methods should be used.

The situation would be less complicated, if we had an opportunity to do without the reorganization of the diversified structure of ownership. But any illusions are futile: the path of least resistance in this case simply does not exist. Neither the private capitalist property itself, nor its oligarchic-comprador form can be the economic foundation of neo-industrialization. The same can be said about the comprador economic system that only weakens our country by strengthening our geopolitical competitors by moving profit c*enters abroad* and leaving the *centers of costs, expenses, losses and debts inside the country*.

It is known that every historical epoch recognizes only its own objective laws, patterns, and trends. And woe is the country that goes against them. The post-Soviet Russia had been playing with the history long enough so that it ended up in the present difficult situation.

To put it briefly, whether we want that or not, we cannot evade the issue of ownership. It is currently a fundamental question in the full sense, for it is only its solution that will be crucial for the existence or non-existence of a neo-industrial Russia, with all that it implies, including geopolitical consequences.

It is clear that the oligarchic-comprador clan is strictly against the property-related issue, thus openly revealing itself as a social force that is hostile to the neo-industrialization of this country. Therefore, for Russia the comprador oligarchy is a problem rather than a solution; in contrast, it is a solution rather than a problem for the imperialism of the dollar.

Such is the specific contradiction of the present situation. If this contradiction is not eliminated, the large-scale neo-industrial transformation will be impossible, since the forces aimed at its hampering and disorganization prevail in the society. In addition, the existing private capitalist property makes it impossible to eliminate the comprador economic system that also works against Russia by supporting the discriminatory exchange of commodities for non-commodities, real for virtual, providing the foreign capital with a significant share of gratuitous imports of our resources to the disadvantage of Russia's manufacturing industry.

In the conditions of the comprador system that was established in direct unconformity to the requirements of the law on vertical integration, the profitability of Russia's property offshoring, the transactions associated with export of raw-materials and exchange speculation will always be much higher than the profitability of the machine-building production. The 2013 performance results proved it. For instance, the speculative foreign capital invested in transactions with domestic property brought to its foreign owners a fabulous profit – at the level of at least 75% per annum. It is comparable to the yield of other financial intermediary and stock exchange operations. The investments required for high quality and highly automated production of machine-building industry under these system conditions turn out to be economically unprofitable.

The fact remains that the comprador system adjusted to act as an intermediary in the strategic and geopolitical interests of foreign capital makes a new, technetronic industrialization economically unprofitable. That is why this country needs an economic system that is totally different, not comprador, sovereign in nature and the interests that it implements; a system, under which neo-industrialization becomes profitable and secure.

It has been offered and even promised to improve the situation through different "tax maneuvers". But they are known to be unrealistic, diverting on the wrong path; leading to a waste of time and distracting from the core issue of the property. We should not deceive ourselves: while the inefficient macroeconomic system is not changed, it is hostile to a new industrialization. Tax-related and other methods of indirect regulation are absolutely powerless since the dominant comprador-oligarchic capital will inevitably reduce them to nothing but a cipher.

In any case, it will not be possible to avoid the issue concerning property rights. Moreover, it has become especially acute.

The experience of the last decade shows that partial nationalization of raw materials export rent conducted in the early 2000s through the mineral extraction tax lever was minor and insufficient. It is pointless to keep dividing this rent between the government and oligarchic capital, because a prerequisite for development is to re-focus the Russian economic system on the internal and entirely neo-industrial sources and chains of value-added production. And this requires transition to a fundamentally different, progressive economic basis, i.e. to the most advanced ownership forms and relations that are able to combine the intermediate and final production.

§ 3. Diversity of forms of ownership and highlighting the main link

Modern capitalism is heterogeneous as well as the structure of the forms of capitalist ownership: each of them is characteristic of the definite capitalist mode.

Unfortunately, in the Soviet period beginning from the 1930s the understanding of diversification and inconsistency of the current epoch was not given proper attention in economic thought. One of the major reasons was a widely known constitutional provision of 1936 concerning the victory of socialism "in general", and, consequently, a successful completion of the transition period.

The aforementioned provision turned out completely inconsistent with the reality, being theoretically and politically incorrect. It was given the constitutional and directive status and caused far-reaching negative consequences by substituting the correct guidelines of socio-economic development with false ones, disorienting ideology and humanitarian education, dismissing the question about the real contradictions, leaving the USSR without clear development prospects. The society of historical truth and rightness at once became a society of falsehood, and the Communist Party of the Soviet Union ended its existence ignominiously as the party of miserable lies and shameless fraud, disintegrated to the core and deprived of any social foundation.

The truth is already on the surface: actually, the Soviet society did not rise above the transition period that was incomplete in absolute and relative terms. Can this conclusion be disputed? Or is it indisputable? It is unquestionable. For, unlike a false one, it is based on the indestructible foundation of scientific classics.

Let us recall that according to the classical criterion, the complete and final victory of the new socio-economic system over the old one becomes a fact only when the unconditional victory has been achieved in the productivity of social labor. This criterion is the only one and it is indisputable. There is no other criterion with regard to this occasion and there can be none. A similar perception runs through all the classical heritage of A. Smith, D. Ricardo, K. Marx, V.I. Lenin, forming the core of scientific, dialectic-labor schools of political economics. It is enough to cite just one, but exhaustively clear, provision: "Capitalism has created labor productivity that was unprecedented in the times of serfdom. Capitalism may be finally defeated and will be finally defeated by the fact that socialism creates new, much more efficient, labor productivity".

It is labor productivity and nothing else that really influences the development in the historical aspect: the economic system is considered more advanced if it is capable of ensuring the historically higher labor productivity of its workers. All other moments, no matter how important they may seem, are secondary in comparison with this generalized and ultimate criterion.

It may be surprising, but it is a recorded fact of 1936: the groundless conclusion about the victory of socialism "in general" was justified by I. Stalin in a non-scientific manner, in the spirit of pure "leftist" notions like those advocated by N.I. Bukharin, probing incompetently too far into the future, without any mention of labor productivity, let alone the comparison with the major capitalist countries. The paramount was silently ignored, while the minor was emphasized and even played up frivolously. The USSR was declared the society of socialism, though it neither surpassed, nor even came close to the performance level of the American capitalist system.

From a scientific viewpoint it is inconceivable that one could disregard the basics of the classics and Lenin's direct testament that the main goal for the Soviet Union is to ensure higher and higher labor productivity. Yet, the inconceivable happened. There cannot be even a slightest doubt about such an outrageous neglect of the classics; the fact is documented reliably and it is indisputable.

The laws of history are harsh, but fair; and he laughs best who laughs last. Ironically, the last word remained with the very classic criterion, which was so carefully avoided and ignored in 1936. The result is known: the practice still exposed the deception and fraud. The Soviet *pseudo-socialism* lost its social support and collapsed precisely because it was unable to rise to the heights of labor productivity and workers' quality of life. The society is filled with disarming disappointment: what kind of socialism is that, which is no higher or better than the capitalism of advanced countries? The ideology of lies and deception undermined the backbone of ideological and moral and political unity of the Soviet State and led it to the bourgeois-nationalist fragmentation.

It is worth mentioning that the Soviet people did not even think about the "third world" capitalism or backward capitalism. When comparisons were made, it was industrialized powers: the U.S., Germany, France, the UK, Sweden, etc. that were the objects of such comparison. It is only later, as anti-Soviet reforms continued their triumphal advancement, the attention shifted to Portugal, Argentina, Brazil, Mexico, and now the IMF experts set before us an example of impoverished African countries that lack any industry and survive mainly by subsistence farming.

It would be easier to substitute the name "capitalism" with "socialism", using the philosophy of nominalism, as it was done in 1936. But nothing is more grave than those historical consequences resulting from the replacement of the real content by the empty and lifeless name.

The complete detsruction of ideals that was painful for the Soviet people, the collapse of the Soviet Union, Comecon and Warsaw Pact; undeserved discrediting of socialism; the period of post-Soviet oligarchic-comprador reaction, bourgeois-nationalist ethnic strife and clashes between fraternal peoples; the present-day problems of post-reform Russia– these are not all the challenges that Russia faced. In addition, this country is reaping bitter fruits of disorientation of the public conscience imprisoned by false dogmas of the past and present, the loss of social prospects, misunderstanding of where it is and what it has to do.

Political and economic damage caused by the false thesis about the victory of socialism "in general" is incalculable and largely irreversible: it is not possible to undo the harm that lies did to the previous generations. But the time has come to restore the scientific truth, to put an end to lies and distortion that are crippling the present and future generations, which, despite everything, are destined to become the generations of a new technetronic industrialization and achieve breakthrough to the most advanced stages of social progress.

We will not analyze in detail the actual socio-economic nature and a complex, zigzagging evolution of the Soviet society – it is a very important topic for a separate discussion. Let us proceed from an axiom that the USSR was a society in transition that was very far from completion, if we count on a scale of real labor productivity and the rate of free time.

The Soviet transition period was particularly diverse and had the set of its own specific contradictions. It was not something static and unchanging. In his very first days there were certain economic structures and economic contradictions, and in its end they were largely different.

List of different ways of economic life, their dialectics and arrangement at the time of the initial state in 1918–1921 were more than once highlighted by V.I. Lenin and they are well known. We are interested in the final result of Lenin's analysis, which turned out so unexpected and so amazing that sparked a long debate with the "leftist" Bukharin group, and after 1924, was hastily, within one year, consigned to oblivion dictated by the directive policy.

What is the point? Having achieved independence from foreign capital after the civil war, the young Soviet State entered a period of transition from capitalism to socialism. It would seem that once the socialist construction started, the main contradiction would exist only between socialism and capitalism.

That was how the near future was assessed by the group of N.I. Bukharin. But they were badly mistaken. Against their expectations, V.I. Lenin pointed out quite a different contradiction. Surprisingly, it did not mention socialism at all, i.e. the socialist system fell out of it. The contradictions were identified as existing inside the formation itself rather than between the formations. At that stage the clash was between the similar economic structures and forms of ownership and not between different ones. At that time such ideas were not expressed at all.

It was not socialism against capitalism, but it was capitalism against capitalism – such was a contradiction, revealed by Lenin in his analysis of contemporary realities. And it is properly specified. No play on words, no dialectic games.

Unlike dogmatists, who later presented themselves as "true Leninists" and swept scientific criteria aside, V.I. Lenin did not acknowledge the abstract capitalism, for he proceeded from the teaching about the stage-wise character and phases of capitalist evolution. Therefore, he identified two stages or two economic modes – private-capitalistic and state-capitalistic. Their detailed study showed their common and specific features. They turned out to be actually extreme stages – the lowest and highest, old and new, conventional and unconventional; and they were also relatively opposite, since state capitalism in one of the essential points acts as the first negation of capitalism as such, expanding the aim from surplus (s) to the newly created value (v + s).

The result was Lenin's innovative conclusion that in conditions of the upcoming transition period there was the fundamental contradiction between the two economic structures: private capitalist and state capitalist. And it was precisely indicated that the main enemy of the Soviet power on the economic front was the lower, older, conventional capitalism, acting under the auspices of free trade, i.e. capitalism *laissez-faire*. As for state capitalism, it, on the contrary, forms solid economic foundation for the Soviet power, creating conditions necessary and sufficient for direct socialist transition.

Lenin considered the state capitalist structure to be pro-Soviet, while the private capitalist structure – anti-Soviet, and this was right. Knowing the empirical result, we note that all subsequent history of the USSR has become one solid confirmation of the truth of this fundamental and deeply scientific, dialectically verified, status. The only thing V.I. Lenin could not assume was that the private capitalist way of life would acquire its best disguise over time in a self-supporting form.

Without state capitalism, without organization and adjustment of the work of the large state-capitalist monopolies, the immediate transition to socialism is unthinkable – that was Lenin's viewpoint. From here, by the way, proceeds the famous formula for the whole transitional period: to socialism through state capitalism. This formula, derived in 1921–1922, was completely renounced in 1925 by I. Stalin's faction that joined Bukharin's "leftist" group at that time. And a decade later, in 1936, the faction speaks, no more, no less, about a mythical victory of socialism "in general" – without a victory on the level of labor productivity, and without a victory of fundamental economic basis of the very capitalism.

Meanwhile, however, the main contradiction of the Soviet era, being unresolved, continued to do its work as if nothing had happened. The movement was still determined by the struggle between the private capitalistic and state capitalistic structures. No subjective tricks, no ideological taboos could abolish the dialectic of objective reality.

As our analysis shows, state capitalistic principles prevailed in 1933–1957. There was, however, one key feature: their prevalence was ensured not so much by organizational and economic factors as by non-economic factors, for the *planned economic system lacked an appropriate economic foundation*.

At that time the planning and centralized system of state capitalism considered the highest general economic profitability to be the most important; the profitability of an individual self-supporting enterprise was considered to be the lowest, subordinate profitability. However, unlike self-supporting decentralization of enterprises, planned centralization did not have its economic basis. The latter relied solely on nationalization, nationalization of property is a legal and political act but not an economic act. It was a prerequisite for the planned economy rather than its basis.

The Soviet planned economic system depended basically on political and legal superstructure, while the self-financing of separate enterprises had economic support in the form of division of labor, commodity turnover, balance sheet property, and reproduction of profit. As a result, the contradiction between state capitalist and private capitalist structure adjusted itself, it took a Soviet shape and became the contradiction between the plan and self-financing.

It was a very specific contradiction: the planned system had primarily political and legal levers and measures at its side; as for the separation of enterprises and self-financing, they had economic ones, including the production and appropriation of profit. The superstructure existed in irreconcilable opposition to the basis. A sharp discrepancy between the Soviet political superstructure and an essentially anti-Soviet self-supporting market economic basis was established and increasing. The compliance could be restored through economic victory of the Soviet political principles or through political victory of anti-Soviet economic principles.

The struggle was not on equal terms, since the constitutional provision on the mythical victory of socialism not only disoriented public consciousness, but eliminated the very statement of the question about the necessity of high quality, basic, organizational-economic strengthening of the planning and centralized economic system. Thus self-supporting principles received tremendous ideological and political advantage. Afterward, their subjects had only to increase it constantly. The process was going on, of course, under the growing demands of decentralization and autonomy of self-supporting enterprises, freedom of pricing, appropriation of profits and self-financing.

The first reversal act followed in 1957 together with the shift from the system of higher profitability to a system of lower self-financing. The program adopted by the CPSU in 1961 was reversal, ignorant and false in all other respects; it guaranteed the profitability to every self-supporting enterprise that was working "normally".

The reform of 1965 marked the second reversal act, securing the outcome of the first one. The self-supporting profitability of an individual company became primary and dominant, and economic profitability became secondary and subordinate. The appropriation of property by private economy became large-scale.

That reform was followed by the fading of state capitalistic principles and the growth of private capitalistic principles that had been covered by the self-financing form. The dual power was still hanging on until mid-1970s, and then the state capitalistic structure was overthrown by "self-financing of an enterprise", which predetermined the fate of the USSR in a decade later.

The third reversal act happened during perestroika in 1985–1987. The fourth and final one took place in the form of the final collapse of the USSR. The private capitalistic structure threw away self-financing and revealed its own inhuman, primitive and archaic form.

As V.I. Lenin warned in 1921–1922, the very lowest, old, outdated, pre-revolutionary capitalism became the grave-digger of the Soviet Union; it managed to employ the planned self-supporting form, then it muscled up under its protective shade, after that it restored its social base; then it undermined the ruling party and the Soviet State economically, ideologically and politically; after which it dealt the final blow.

Since the 1990s Russia has again fallen under the yoke of the lowest, most backward capitalism; the country again suffers not so much because of capitalism, but because of its underdevelopment. But, again, objective contradiction between the private capitalistic and state capitalistic stages still exists. It is only its poles that have changed places: the private capitalistic principles rose and now dominate the state capitalistic ones.

At the same time, it would be naive to think that the pre-revolutionary past repeats itself. It is impossible to step into the same river twice: the historic development of society proceeds along dialectical spiral. The Soviet transition period has already become history. As for the post-Soviet period, it is now characterized by its own diversity, or stage-wise character.

What has changed compared to the data of Lenin's analysis? Since then much water has flown under the bridge, for almost a century has passed. The capitalist evolution has not stood still. And it has added the state-corporate stage, which was previously unknown.

At present, the internal formational stages or modes of the capitalist production structure are known from the experience of the USSR and industrialized countries; these stages are as follows:

- private capitalistic;
- state monopolistic;
- state corporate;
- state capitalistic.

As we can see, both the first and last stages – private capitalistic and state capitalistic – are separated from each other by the two intermediate stages. The Soviet political economy had one of the intermediate stages – state-monopolistic, although it is absent in Lenin's list of diversified structure of the Soviet economy. As we understand, V.I. Lenin assumed that the state-monopolistic structure was homogeneous with the state capitalistic structure, because he often spoke about the state capitalistic monopoly considering it the basis of state capitalism. As for the state-corporate stage, there existed neither theoretical nor empirical data on the subject in his time.

What is the difference between intra-formational, historically identified stages of capitalism? They differ from one another on a number of fundamental criteria, among which the most significant ones are: the dominant form of ownership, the main subject of property, the main link of reproduction, its target function, the scale of reproduction planning, the phase of industrialization of productive forces.

For convenience, the generalized classification of the four main stages of capitalism, except for manufacturing, is summarized in a separate *table*.

A detailed description of the essential features of each of intra-formational stages of capitalism and their comparison requires too much space and will take us far beyond the subject of this discussion, so we shall consider only the essentials in our case.

First of all it is expedient to pay attention to the general vector of the entire capitalist evolution: from the disintegrated to the system-integrated form of ownership, from a personified capitalist – to a non-personified aggregate capitalist; from a separate private enterprise to a unified national economic complex; from private profit to total purchasing power of society; from reproduction elements and absence of plans – to general economic planning; from the age of productive forces based on steam power – to the era of fully automated ones; in general: from private capital to the social, economically socialized capital.

If we briefly summarize the above features, we can see the following: they all indicate that as capitalism rises from lower stages to higher stages, it little by little turns into its opposition, into its own negation. In other words, capitalism demonstrates the dialectic, transient nature of its historically multi-stage evolution.

We are, of course, particularly interested in that stage of capitalism, which is associated with neo-industrialization, i.e. with the science-intensive and technetronic phase of industrialization. As you can see, this is not the lowest, disintegrated and most backward stage; and not even the state monopolistic one, which corresponds only

Stages or structures of capitalism and their specifics

Stages of capitalism, from the lowest to the highest	Form of ownership	Subject of property	Main link of reproduction	Target function	Scale of planning	Phase of industrialization
Private capitalistic	Disintegrated, atomic	Personified: private capitalist	Sectoral enterprise	Profit	Local, factory	Period of steam engine (prerequisite for industrialization)
State monopolistic	Horizontally integrated	Personified: sectoral capitalist	Sectoral monopoly	Monopolistic profit	Sectoral	Electrification (primary industrialization)
State corporate	Vertically integrated	Mixed: corporate capitalist	MNC	Value added	Macroeconomic	Technetronic industrialization (secondary)
State capitalistic	System-integrated	Non-personified: aggregate capitalist	UEC (unified economic complex)	Total purchasing power	National economic	Full automation and waste-free production

to the period of primary industrialization of productive forces, or their electrification. It is only a stage that is *not below the state-corporate* stage that meets the requirements of neo-industrialization.

Thus we received a thorough answer on a question of principle, concerning the direction, in which our country should move in order to ensure successful implementation of neo-industrialization of domestic productive forces, endowing them with technetronic quality. It is crystal clear that a vertically integrated form of ownership should dominate; MNC should be the main reproduction link; value added (and not only profit) should be the target function of reproduction; the type of planning should be macroeconomic, consistent with the form of ownership.

Meanwhile, I think it is necessary to clarify the *essence of capitalism* in brief. It seems that at present there is no longer any such stage of capitalism, which would give rise to so many false doctrines, beliefs and views, as state capitalism did.

In modern Western literature and periodicals, and in liberal-comprador cohort the puppets of U.S. imperial globalization are almost crying about the establishment of "Putin's state capitalism" in Russia. A telling example can be found in an unscrupulous trick demonstrated by A. Illarionov, who is notoriously known by his mediocre attempt at econometric falsification of state influence on economic growth. In 2000, when he was Advisor to the President of the Russian Federation, he was asked a direct question by Americans, who fuelled the notions of the state capitalism in Russia; Mr. Illarionov answered reasonably that there was no need to use ideological labels. But as soon as he left the post of Presidential Advisor, and took a job as an associate at the Washington-based Cato Institute, he promptly defected to the American side and screamed about the movement of this country to state capitalism.

The country's political leadership still has to assure everyone that we are not building state capitalism. That is right – unfortunately, for it would be objectively a great good for this country if it were wrong.

Actually there is nothing farther from the truth than the assumption that the present-day situation in Russia is similar to state capitalism, which is historically the highest and final stage of capitalism. This senseless comparison stems from a completely non-scientific and purely ideological mixture of state capitalism and its classical counterpart – crony capitalism that is private-oligarchic, comprador, inferior and backward.

The theory divides state capitalism into formal and real. A basic premise of formal state capitalism is the prevalence of nationalized property. *Real* capitalism is based on the collectivized, or system-integrated, form of ownership, that is economically implemented as a nationalized one, with complete domination of the social productive capital that is able to minimize all kinds of social costs required to meet the energy, industrial, infrastructure, environmental, etc. demands of society. In short, legal nationalization, *de jure*, is connected with the formal state capitalism, and economic nationalization is connected, *de facto*, with real state capitalism.

Note that in the Soviet Union the nationalization of the most important means of production, established on a legal basis, was a flop from economic viewpoint. In fact, under the guise of "self-supporting enterprise", the nationalized property that was called "state-owned" only formally was actually used since the 1960s as the private economic and anti-governmental property. Therefore, the USSR, despite its planned economic system, could not rise above the formal, superstructural and non-economic state capitalism.

To move from the formal to the real, it was necessary implement the vertical integration of nationalized property, to make the planning and economic system in conformity with the law of vertically integrated reproduction.

In comparison with the 1920s, the present-day reality has one fundamental change: it was industrialized states that were much closer to state capitalism, since they are characterized by the vertically integrated capitalist stage with the core formed *by the economy of multinational companies*. The post-reform Russia, by contrast, is characterized by an old, outdated private capitalist economy with the domination of oligarchic-comprador, disintegrated, personified forms of capitalist property. In general, Russia still has a long way to go before it can reach the stage of state capitalism, and it is not possible to skip the state corporate stage on this way.

As for the personified form of ownership, one cannot build the foundations of neither state capitalism, nor even state monopoly on its basis. And it is time to think not so much about neo-industrialization and full automation of production, but about how to preserve at least the achievements of the Soviet electrification. By the way, a sad testimony on this subject can be found in the rates of energy consumption for the population, or energy rations, absurd for any electrified country.

In fact, advanced neo-industrial countries that have reached the state corporate stage, are very close to state capitalism, while the post-reform Russia is separated from state capitalism at least by two stages – the state monopolistic and the state corporate stage.

So, the implementation of the neo-industrialization of productive forces suggests, at the very least, the dominance of state-corporate structure, its leading position in the hierarchy of modern multi-structural economy. In turn, a key feature of the mentioned structure consists in the fact that it is subject to a *special phased law of supreme capitalism, the law of vertical integration*. This law is the law of system interrelationship between intermediate and final production, such relationship, in which the maximum speed of the total productive capital circulation is ensured due to zero profitability in intermediate links.

Accordingly, in today's world, an economic system can be competitive and effective only if it is built and operates in full compliance with the law of vertical integration, with the supremacy of the vertically integrated form of ownership. Otherwise, the economic system is not state corporate, and therefore, is inferior, backward, inefficient and uncompetitive.

If we proceed from the dialectical analysis of the evolution of capitalism and capitalist diversity of economy, it is quite clear, what form of ownership is now historically advanced and is suitable for the neo-industrialization of productive forces. It is a vertically integrated or state corporate form, the planned functioning of which is organized in accordance with the law of vertical integration, according to the principle "just in time", in order to increase the aggregate multiplier of value added.

§ 4. About the algorithm of transition from the raw-materials-exporting model to the neo-industrial model

The necessity and urgency of neo-industrial reform does not mean that we should act at breakneck speed or in a come-and-go manner. On the contrary, adventurism and voluntarism should be excluded, because they will result in the loss of precious time, which we lack already. And only the combination of precise and calculated measures implemented in the correct sequence can ensure the correct result. In general, the better the algorithm of neo-industrial transition, the higher the rates and shorter the terms, the more economical and effective the program for its practical implementation.

We do not speak about the launch of the program for neo-industrialization of our country – it is a special task, which involves the consolidation of efforts of all the scientific and economic community that realizes the importance of neo-industrial reconstruction of the national economy and adheres to the ideology of national economic interests. Our function is limited to the presentation of the main and priority points of the neo-industrial transition algorithm.

The starting point and the head principle presuppose that it is necessary to avoid all kinds of shocks and bifurcations: price, tax, budget, investment, infrastructure, currency, debt, export-import, etc. Well, falling into a systemic crisis and de-industrialization was shocking, but the withdrawal should be controlled and regulated, i.e. clearly managed and precise.

Related to the head one, the principle concerns the choice of priorities or the combination and sequence of steps.

Firstly, it is required to liquidate economy de-industrialization, uniting mining industry with processing complexes, especially machine-building. The basis for their management-economic connection is vertically integrated property, with the form being inter-sectoral production of final products with high value added multipliers.

Thus, *the first basic step* of algorithm is set: strategic nationalization of the economy commanding grounds, their sovereignty, de-dollarization and de-offshorization – formal and informal, direct and indirect, in the form of redemption and tax de-privatization.

Taking into account the proprietary forms diversification, strategic nationalization objectively cannot be total, as some critics believe primitively. It is only limited by commanding grounds of the economy.

What is more, strategic nationalization does not involve non-economic, decreed or directive expropriation. To avoid misunderstanding we should note that nationalized objects are strategically important means of production, starting from land and energy, and not personal use items of citizens.

And, nationalization is necessary not for the sake of nationalization. It is required to boost domestic production of final demand with high added value on the basis of strong and indissoluble connection between production and industrial processing of raw materials, primary resources, i.e. on the basis of vertically integrated property.

The second step after strategic nationalization of the economy commanding grounds is vertical integration of formal and informal nationalized property, particularly, development and implementation of the national economic plan to create vertically integrated, nationwide chains of value added production, which unite all phases of reproduction of competitive goods of final demand. The process is based on the principle "in time". As a result of successful implementation of the plan, Russia will get *the economy of domestic transnational corporations*, competitive to the largest foreign ones.

At the same time, it is supposed to restore a vertically integrated form of infrastructure monopolies management – electricity, railway, aviation, sea and river transport, fishing and housing.

The third step involves disengagement of domestic prices and pricing from the influence of the ruble exchange rate, speculative foreign capital, imported inflation and other external market factors.

For this purpose it is efficient to use the measure, proposed by a number of experts, to create an authorized federal agency, which would buy most important products of mineral-raw export by internal prices, export them and allocate currency earnings to the special capital fund and, thus, increase resources real savings.

It is necessary to establish a national Agency for foreign investments. Its main function is to expand the inflow of long-term, industrial-technological and infrastructural investments, not taking into account the inflow of short-term speculative, bestowing and monetary ones.

At the same time, the Central Bank ends the policy of ruble emission, proportional to currency returns, introduces regulation of money supply proportionally to the growth of domestic production of the commodity mass, vastly expands the scale of non-cash payments and payments of enterprises and the population, and creates the national payment network.

The stabilization fund is abolished. The amount of gold and foreign currency reserves is reduced to the normative value, equivalent to the semi-annual volume of goods import. The annual foreign debt payments are taken into account.

The fourth step involves the transfer of the state budget entirely to the internal sources of the revenue side and cardinal increase in its investment potential. Key measures are introduction and selective application of turnover tax, progressive income tax, tax on speculative gains and estate tax.

Turnover tax in those sectors or activities where it is effective, should not be used together, but instead of value added tax.

The more detailed and comprehensive plan of tax reorganization is also subject to justifying calculations. It is connected with the plan of systemic changes in trade, banking and industrial sectors, pricing and depreciation deductions.

Particularly, it is advisable to set up a national fund of depreciation deductions and develop mechanism to control its activity. It is long-term resources, which should be covered in the aggregate domestic savings fund and target lending of global neo-industrial projects.

Tax measures are important and suitable for increasing the investment value of profit. Tax limiters are possible.

The fifth step concerns pricing and assumes its gradual transformation into the planned management.

At the first stage the regulation is established with regard to prices and tariffs of the state-corporate sector, infrastructure monopolies and housing and utilities. The order of price formation is introduced: prices are set on the basis of cumulative costs for a 5 year period due to principles of the common market and the break-even; the profit and investment components are excluded from prices; the management mechanism and incentive system are set to reduce costs; the centralized fund of total accumulation acts as a source of planned capital investments.

The sixth step ensures the planned level of the domestic savings share, the payback of capital investment, their contribution to the increase in labor productivity and standard of living.

To do this aggregate domestic savings are centralized. They include: a specific capital fund to import machinery equipment and job; a single amortization fund; plow back profit; an investment part of the state budget; some types of bank deposits; production, machine-technical and technological foreign investment.

The aggregate savings fund allocates targeted money according to the single plan of capital investments and the principles of vertical integration and intersectoral contingency. The first five-year period is focused on the investments required for successful implementation of the national economic plan to form vertically integrated value chains or largest domestic transnational corporations, as well as for the neo-industrial plan of high-tech knowledge-intensive import substitution.

The branch principle of investment lending is excluded; the private one remains for private-capitalist way of life within the planning of credit standards and limits of the banking sector in conjunction with the unified plan of capital investments.

The payoff of the planned investment is evaluated by the size of an aggregate value added multiplier, reproductive jobs multiplier, hourly labor productivity and wages.

The seventh step concerns the management of a new model of economic planning, connected with the macroeconomic planning at the level of nationwide corporations.

The starting and transparent principle of the new model of economic forecasting and planning can be a level of productivity and wages, but not a price conjuncture of oil export.

Inter-industry balances are a tool basis, such as labor, value, product, job places, fixed assets, capital investments, export and import balances, etc.

The eighth step is development and implementation of the national plan of neo-industrial import substitution, together with the plan to form the domestic economy of transnational corporations. The import substitution plan should ensure domestic production of technologically advanced microprocessors and microprocessor devices, super computers, aviation and other engines, robotics, operating systems and software, equipment for post-oil energy, automated complexes, machines, devices and exclusive scientific and educational laboratories.

The ninth step is to restore and update the unified system of mandatory state standards of the quality of production and consumer goods; to introduce strict environmental regulations and standards, as well as planning standards of recyclable resources. It presupposes the transfer of the mentioned system into the system which promotes quality, ecological purity of industries, housing and utilities services, recycling of resources and production without waste.

The tenth step indicates de-commercialization of health care, education, physical culture and sport; restoration of special and vocational education; participation of secondary and higher educational establishments in national programs; de-Americanization of humanitarian education, particularly, economic.

The eleventh step concerns the transfer to the hourly system regulating labor productivity and wages on the basis of development of planning standards of hourly capacity of cars, jobs and workers.

The twelfth step is to develop and implement the economic model of economic costs reduction that relies on the system of incentives. Administrative staff should get increased hourly wage rates and bonus regulations.

The thirteenth step touches upon reorganization of the distribution system of agricultural and food products on the basis of direct and licensed access of producers or cooperatives to regional and national trade networks. Trading licenses can not be provided to mediators and secondhand dealers.

We have mentioned and briefly outlined the crucial points of the algorithm stipulating specific transition from a raw materials export model to a neo-industrial one. Each of these items is a summary of the more detailed program, i.e. it can be explicated into a target program within the national economy plan.

In our opinion, all items in the transition algorithm coincide with the original principle of inadmissible shock excesses in the process of transition from the old economic system to the new one, which considers tasks and requirements of knowledge-intensive industrialization of Russia.

Thus, this algorithm encourages neo-industrialization of the national economy.

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Neo-industrialization has firm theoretical grounds; it has no alternative; it is urgent and realistic; it is ideologically and politically connected with national economic, social and labor interests. The algorithm to transfer from the raw material export model to the neo-industrial is described in the most fundamental points. We know, of course, that it requires broad discussion, clarification and improvement.

However, there is a neo-industrialization platform which should be approved by the public. Society should consolidate while discussing the neo-industrial platform, which is already developed and appropriate to the personnel reconfiguration.

In the economic community that clearly understands the urgency of new high-tech and knowledge-intensive indus-trialization it is important to bring together the appro-aches and positions on topical issues of Russian neo-industrial policy, such as the pace of socio-economic development, property and vertical integration, combination of indirect and direct methods of centralized control, setting up a national coordination agency, organization of system conditions and incentives to ensure dynamic and qualitative growth of the national economy.

We think it is time to clearly define what Russia expects, what society it seeks, what place in the world it wants to have and what the value of the neo-industrial reconstruction is. Special attention should be given to specific measures and decisions to replace the raw material export model by the model of neo-industrial development of our country. Institutional, organizational and personnel provision of such a responsible system maneuver should be taken into account.

In our opinion, it would be advisable to prepare and hold subject *all-Russian economic meeting on new industrialization*. The system solutions on the issues of neo-industrial reversal of Russia are of importance. To organize it properly, state bodies, scientific and public structures, economic publications should closely interact. No doubt, the results of the work done would encourage our country's transition to the path of dynamic economic growth.

Sited works

1. See: Gubanov S. Reproduction of Jobs and the "New Standard" of the U.S. Federal Reserve System (Theoretical Aspects). *Economist*, 2013, no.2; continuation: Gubanov S. Reproduction of Jobs and the "New Standard" of the U.S. Federal Reserve System (Analytical Aspect). *Economist*, 2013, no.7.
2. See, for example: New Course for Russia. *Soviet Russia*, 1992, November 19; special edition: New Course for Russia. Ed. by. S.S. Gubanov. Moscow: Paleya, 1993. P. 11.
3. Gubanov S. Machine-Tool Industry: Conditions for Competitiveness. *Economist*, 2000, no.9, p. 3 ff.
4. Lenin V.I. *Collected Works*. Vol. 39. P. 21.
5. See: Stalin I. *About the Draft Constitution of the USSR. The Report on the Extraordinary Eighth All-Union Congress of Soviets, November 25, 1936.* Moscow: OGIZ, 1946.
6. See: Lenin V.I. *Collected Works*. Vol. 36. P. 296.; Vol. 43. P. 207.
7. See, for example: Durand C. Between Developmentalism and Instrumentalization: The Comeback of Producing State in the Russia. *Journal of Innovation Economics and Management,* 2008, no. 2, p. 171 ff.; Brancato E. *Markets Versus Hierarchies. A Political Economy of Russia From 10th Century To 2008*. Northampton, MA: Edward Elgar Press, 2009; Bremmer I. *The End of the Free Market: Who Wins the War Between States and Corporations?* New York: Portfolio, 2010; Gustafson T. *Wheel of Fortune:*

The Battle For Oil and Power In Russia. Cambridge, MA: Belknap Press of Harvard University Press, 2012. P. 231 ff.; Fjaertoft D., Blakkisrud H. Exit State Corporations? Exploring the Legacy of Putin's "State Capitalism". *Norwegian Institute of International Affairs*. 2009. WP 2009-001; Kryshtanovskaya O.V. Sovietization of Russia 2000–2008. *Eurasian Review,* 2009, Vol. 2, p. 95 ff; Belton C. Putin Stands By State Capitalism. *The Financial Times,* 2012, January 30; Aslund A. Putin's State Capitalism Means Falling Growth. *The Moscow Times*, 2013, May 22; Rogov K. Politekonomiya: Political Economics: a Model of Anti-Growth. *Vedomosti*, 2004, November 10; Vardul' N. The Global Cabal Will Help. *Novaya gazeta*, 2011, April 22.

8. See: Gubanov S. Growth Rates and the Impact of the Government on Them. *Economist*, 2003, no.6.
9. Larina E. Illarionov Goes Public, Plays It Close to Vest. *The Russia Journal,* 2000, vol. 3, no.15.
10. Holley D. Dissenter Resigns Kremlin Position. *The Los Angeles Times*, 2005, December 28; Illarionov A. The Rise of the Corporate State in Russia. *Cato Institute*. Washington, DC. Policy Forum, 2006.
11. See: Matvienko V. About a New Industrialization of Russia. *Economist*, 2013. no.7, p.4.
12. See: Daskovskii V., Kiselev V. The Foundations of a New Strategy, Models and Policy of Neo-Industrial Reconstruction. *Economist*, 2014, no.1, p. 42.

References

1. See: Gubanov S. Vosproizvodstvo rabochikh mest i "novaya norma" FRS SShA (teoreticheskie aspekty) [Reproduction of Jobs and the "New Standard" of the U.S. Federal Reserve System (Theoretical Aspects)]. *Ekonomist* [Economist], 2013, no.2; continuation: Gubanov S. Vosproizvodstvo rabochikh mest i «novaya norma» FRS SShA (analiticheskii aspekt) [Reproduction of Jobs and the "New Standard" of the U.S. Federal Reserve System (Analytical Aspect)]. *Ekonomist* [Economist], 2013, no.7.
2. See, for example: Novyi kurs Rossii [New Course for Russia]. *Sovetskaya Rossiya* [Soviet Russia], 1992, November 19; special edition: Novyi kurs Rossii [New Course for Russia]. Ed. by. S.S. Gubanov. Moscow: Paleya, 1993. P. 11.
3. Gubanov S. Stankostroenie: usloviya konkurentosposobnosti [Machine-Tool Industry: Conditions for Competitiveness]. *Ekonomist* [Economist], 2000, no.9, p. 3 ff.
4. Lenin V.I. *Poln. sobr. soch*. [Collected Works]. Vol. 39. P. 21.
5. See: Stalin I. O proekte Konstitutsii Soyuza SSR. Doklad na Chrezvychainom VIII Vsesoyuznom s"ezde Sovetov. 25 noyabrya 1936 g. [About the Draft Constitution of the USSR. The Report on the Extraordinary Eighth All-Union Congress of Soviets, November 25, 1936]. Moscow: OGIZ, 1946.
6. See: Lenin V.I. *Poln. sobr. soch*. [Collected Works]. Vol. 36. P. 296.; Vol. 43. P. 207.
7. See, for example: Durand C. Between Developmentalism and Instrumentalization: The Comeback of Producing State in the Russia. *Journal of Innovation Economics and Management,* 2008, no. 2, p. 171 ff.; Brancato E. *Markets Versus Hierarchies. A Political Economy of Russia From 10th Century To 2008*. Northampton, MA: Edward Elgar Press, 2009; Bremmer I. *The End of the Free Market: Who Wins the War Between States and Corporations?* New York: Portfolio, 2010; Gustafson T. *Wheel of Fortune: The Battle For Oil and Power In Russia*. Cambridge, MA: Belknap Press of Harvard University Press, 2012. P. 231 ff.; Fjaertoft D., Blakkisrud H. Exit State Corporations? Exploring the Legacy of Putin's "State Capitalism". *Norwegian Institute of International Affairs*. 2009. WP 2009-001; Kryshtanovskaya

O.V. Sovietization of Russia 2000–2008. *Eurasian Review,* 2009, Vol. 2, p. 95 ff; Belton C. Putin Stands By State Capitalism. *The Financial Times,* 2012, January 30; Aslund A. Putin's State Capitalism Means Falling Growth. *The Moscow Times*, 2013, May 22; Rogov K. Politekonomiya: Model' antirosta [Political Economics: a Model of Anti-Growth]. *Vedomosti*, 2004, November 10; Vardul' N. Mirovaya zakulisa nam pomozhet [The Global Cabal Will Help]. *Novaya gazeta* [New Newspaper], 2011, April 22.

8. See: Gubanov S. Tempy rosta i vozdeistvie na nikh gosudarstva [Growth Rates and the Impact of the Government on Them]. *Ekonomist* [Economist], 2003, no.6.
9. Larina E. Illarionov Goes Public, Plays It Close to Vest. *The Russia Journal,* 2000, vol. 3, no.15.
10. Holley D. Dissenter Resigns Kremlin Position. *The Los Angeles Times*, 2005, December 28; Illarionov A. The Rise of the Corporate State in Russia. *Cato Institute*. Washington, DC. Policy Forum, 2006.
11. See: Matvienko V. O novoi industrializatsii Rossii [About a New Industrialization of Russia]. *Ekonomist* [Economist], 2013. no.7, p.4.
12. See: Daskovskii V., Kiselev V. Osnovy novoi strategii, modeli i politiki neoindustrial'noi rekonstruktsii [The Foundations of a New Strategy, Models and Policy of Neo-Industrial Reconstruction]. *Ekonomist* [Economist], 2014, no.1, p. 42.

Editorial note. The following publication continues a series of articles in the Journal (starting from no.2, 2014) devoted to the all-Russian research-to-practice conference "Society and sociology in modern Russia", which will be held in Vologda in November 2014. The author, Academician M.K. Gorshkov, is a known Russian sociologist, a developer of the theory and methods of the sociological research of mass consciousness, the Russian identity structure, social types of citizens in post-Soviet Russia. Since 2005 he has been Director of the Institute of Sociology of the Russian Academy of Sciences, Chief Editor of the journals "Sociological Science and Social Practice" and "Bulletin of the Institute of Sociology of RAS". The fundamental work "The dream of the Russians: an ideal and reality" (2013), and new editions of yearbooks "Reforming Russia" have recently been published under his supervision. M.K. Gorshkov is a frequently published author in leading Russian publications. The Editorial Board expresses its sincere gratitude to Mikhail Konstantinovich for the acute article.

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On the axiomatic interpretation of the economic factors' impact on economic growth

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Abstract. The article draws attention to the role of non-economic factors in the development of new models of economic growth. It indicates key axiomatic statements defining the basis for interaction of social science with the society and state. The study considers the results of twenty year reforms in Russia and their impact on the formation of public consciousness. It analyzes the role of the government and problems of social policy at the present stage of the Russian society development.

Key words: society, socio-economic development factors, human capital, social policy.

The world experience and Russian transformations' practices indicate that the system of social relations and interactions is a set of objective and time-tested rules that do not require special verifications or checks. Such axiomatic regulations define the role and place of scientific knowledge in the system of public management and predetermine the principles and rules of interaction of social science with society and authorities.

As we speak of non-economic factors of economic growth, we consider the results of the long-term sociological monitoring and try to formulate some axioms that, according to the classical interpretation, do not need to be proved. Moreover, they are a fundamental basis for further development of new scientific regulations.

The mentioned above is directly related to such a critical problem of modern social sciences as an impact of various factors on the rate and sustainability of socio-economic development of society, its modernization and consolidation. It should be noted that scientists paid special interest to the problem in the second half of the 20th century, in the period of the global economic recovery. At the same time, they agreed that the main *determinants of economic growth* were not only *gross capital formation and technological progress, but also human capital.*

What was the basis of such understanding? It was the fact that numerous studies of key economic development sources could not confirm the thesis on the critical (and, what is more, exclusive) role of "physical capital" accumulation in this process, such as capital goods and manufactured products involved in the production of goods and services. There **Axiom 1** appears. It can be formulated in the following way:

The complication of social reproduction structure requires the development of new models of economic growth, taking into account the influence of such non-economic resources as information, physic-geographical conditions, institutional structures, mass character spiritual and psychological education, qualitative and productive work, quality of life, levels of culture, education, professional knowledge and skills, health state as components of human capital, which have proven their ability to be "motivators" of long-term and stable economic development.

The 2008–2009 global economic crisis, the consequences of which the world economy is still facing today, its manifestation at the level of national economies have brightly demonstrated *the significance of non-economic factors in the system of anti-crisis measures and the rehabilitation of economic growth*. What is more, the scientific community has become more interested in the characteristics of relationship between economic and non-economic components of the national economies growth, in the development of directions and methods to regulate and use non-economic factors.

Taking into account these considerations we can formulate **Axiom 2: the key imperative that underlies new models of economic growth *is economy humanization* that presupposes the priority of human personality in the system of factors and objectives of economic development.**

This statement is not accidental, as the essence of development is determined by the focus on an individual, human potential as the main wealth of any society; and the basic objective of the country's economic growth is an increase in the production of goods and services and provision of a higher standard of living on this basis.

The problem to find an economic growth model, adequate to national characteristics, and ways of further economic development is especially critical for Russia, which economy has been increasing mainly due to extensive factors for a long time. The crisis of recent years has clearly showed that the *Russian society is facing a new stage, in fact, a turning point in its socio-economic development*.

Having practically exhausted the possibilities of the previous economic growth model, post-reform Russia faced the necessity to use all resources and reserves of labor productivity more intensively. The causes are convincing, since the goals of the country's socio-economic development and conditions for it are different from those fifteen years ago, after the 1998 crisis. The key objective today is not to resolve the problem of transformational recession, as it was at the end of the 20th century, but to boost sustainable and balanced growth for further society modernization, transition to the innovation stage of economic development and creation of corresponding infrastructure of the post-industrial society.

That is why, the "The final report on the results of expert work on urgent problems of socio-economic strategy of Russia for the period till 2020" states that the further development of the Russian Federation should be based on two interrelated issues – *a new model of economic growth and new social policy*.

However, in the current Russian reality, there is clear inconsistency between the economic growth and qualitative characteristics of social development. At the same time, the recognition of the need to implement the humanistic approach to economic development (many politicians pay attention to it in their public speeches) is accompanied with the lack of up-to-date methods of detection and analysis.

But the estimate of economic growth in the absence of humanization indicators is meaningless for economic development, as the economy growth, which does not enhance the level and quality of life, is contrary to its key objective of ensuring welfare for all people and conditions for their self realization. Thus, we can formulate another axiomatic statement, i.e. **Axiom 3: for true comprehensive and detailed understanding of economy, its processes and determining its prospects one should apply not only economic, but also sociological, socio-philosophical, ethical and aesthetic categories**. We speak about the categories that consider economy in terms of universal, fundamental values and anti-values that form the "backbone" of human life: good and evil, justice and injustice, love and hate, truth and lie, freedom and dependence. These values and anti-values, their relations lead to progress or degradation of the society.

Thus, there appears **Axiom 4: the success of the Russian society modernization depends not only on the efforts of an economic and scientific–technological nature, but also on the improvement of social environment in general. In the social system "society" the economy, as its subsystem, is inseparable from the state government, politics, spiritual development; and the ideological and moral condition of people cannot but affect their economic behavior**.

One can continue: society's unity, people's confidence in justice and vitality of the social system, trust in state leaders are important to achieve the objectives. In other words, this means *social capital*; its accumulation, as the human capital accumulation, is increasingly recognized as a key for successful economic activity.

Undoubtedly, one of the main conditions of the post-reform economic recovery in Russia is identification of most effective models of socio-economic processes, such as those that combine strong points of market and planned economies. The choice of the model is not only of an economic, but also of political, ideological, and, therefore, strategic nature. Thus, the following statement can be regarded as axiomatic **(Axiom 5): any large-scale changes, society transformations are inextricably connected with the dominant ideology of the current time, advanced ideas, which can become a driving force not only for the modernization breakthrough, but also for socio-economic, technological and moral progress of the country**.

The Russian market and democratic reforms that had started after the USSR collapse were carried out on an ideological basis of western countries. Life has proved its inadequacy to the post-Soviet realities. This inadequacy was confirmed by the consequences of the global economic crisis, having led to rethinking of neoliberal views, in the West as well. Prominent Western economists mark that "market fundamentalism... of the last 20 years has failed the exam dramatically" [1], as a result, "the world is watching the sunrise of a new economic hybrid, which could be called "state capitalism"[2].

[1] The Global Economic Crisis: System Failures and Multilateral Remedies. UN, New York, 2009, p. III.

[2] The Economist. 2010, January 23^{rd}-29^{th}, p. 22.

Modern states (not only our state, but also Western societies relatively prosperous in the social sense) fulfill important functions to prevent and mitigate the failures of market mechanisms. Post-reform Russia can not solve a number of urgent tasks without state participation. The problems are the following: to overcome dangerous property stratification of the population, ruinous inflation, massive capital and brain outflow, economically unjustified and unfair labor payment, ensuring the prosperity of culture, science, education and healthcare. One should also fight with rampant crime and corruption, unemployment, protect interests, rights and freedoms of all citizens.

The state social functions should take an increasingly important place in the ideology justifying the policy and maintenance of civil peace. In this respect, the report of the International Monetary Fund "World Economic Outlook" is very relevant. It states that "the main lesson of the post-Communist transformation definitely lies in the fact that the state institutions are critical. Market without strong state regulation leads to the change of irresponsible state power into unregulated private enrichment, leading to economic and social decline"[3]. Thus, the acute issue is not to define how great the participation of the state should be in society in general and in economy in particular, but to ensure the *quality of state participation* in economic and social spheres.

Post-reform Russia will have to draw lessons from two-decade market transformations: politic and public consciousness should comprehend towards what society the country is moving, experiencing systemic transformations. Meanwhile, nowadays the constitutional definition of Russia as a social state remains unclear, and the science considerations on this issue are not formally approved. So, *the population does not have the most important orienting point, the understanding of what social structure the country will have in the result of the reforms.* Thus, **Axiom 6 is the following: the absence of understanding of ultimate goals of the reforms, the lack of ideas, encouraging people, in the society are, in fact, not less significant obstacles to the country modernization than research and technology backlog**.

Approval of the given axiom presupposes another axiomatic statement. It is **Axiom 7: one can expect a system breakthrough in economic development only when the practical implementation of the state course bears the population tangible fruit, strengthens people's confidence in the success of the transformation**.

Increasing acuteness of "hereditary" (the 1990s) and already acquired new problems have led to the fact that the socio-

[3] World Economic Outlook Supporting Studies IMF. 2010, p. 35.

economic results of the second decade of reforms, having radically changed the state of mass consciousness and social concerns for the better, have practically exhausted its positive socio-psychological impact on the society. The "Pendulum" of social well-being has swung in the direction of the zero mark from the mark "plus", and its further movement in an undesirable direction is now constrained only due to the level of economic and political stability, relatively acceptable for the population, the revival and strengthening of the international standing of the Russian Federation and the reunification of Russia and the Crimea. At the same time, the current situation in the society can be called "the effect of scissors": *despite people's increased satisfaction in their material security, the critical assessment of the existing situation is increasing in the society*. The point here is not in mass reactions on the opposition's actions and state policy but in decreasing positive emotional mood, most population had in the period of wide support of efficient political and economical measures. The main reason for this is that the growth of the population's well-being does not improve their life quality.

The positive socio-psychological resource is decreasing in the society, instead people feel injustice, shame for the scale of corruption and dominance of bureaucracy; they feel helpless to influence what is happening. The consequence is growing feelings of aggression among our citizens.

The adverse moral and psychological climate in the society is fostered by a significant share of those (40%) who think that they have a low level of life and can not expect social guarantees covering sickness, old age, unemployment and disability. It is not accidental that the post-Soviet reforms reduced their confidence in the future.

The Russians' generalization of their personal situation in post-reform Russia is their own assessment what they gained or lost in the reforms of the last two decades. The share of those who gained is very small, it is only 10%, and in two and a half times less than the share of those who lost (25%). Another third can be called "even hands", they neither gained nor lost.

The rapid growth of social aspirations of our citizens due to the sharp social differentiation and social inequality in spheres of life undermines the achievements of recent years, as the gap between real and desired status for most people does not only preserve, but also increases.

The Russians' assessment of their achievements in various spheres of life suggests that they stand a better chance to achieve success at the micro level: in the family, with their friends, in the sphere of entertainment. The situation at the macro-social level is much worse: not

Table 1. Type of the state in relation to the economy,
to the greatest extent meeting the interests of Russia, %

Type of the state	
State that restores the centralized regulation of economy and controls prices	28
State that minimizes its interference in economy and gives maximum freedom to private initiatives	9
State that restores the public sector of economy, while expanding private economic and political opportunities of citizens	41
Type of state is irrelevant; the country needs a leader who takes full responsibility for what has happened in Russia and conducts tough policy	22

many citizens have a prestigious job, career or their own business, although their significance in the system of values of the population is constantly growing.

The social feeling of many citizens is mostly deteriorated due to decrease in social mobility. The Russians have few possibilities to improve their social status by themselves, by changing their location. One can single out such rare exceptions as citizens, having moved to villages, and residents of big cities, having moved to towns with smaller population.

Mobility is characteristic for different generations to different extents, and, as a rule, it is people under 30 who move to another town. Although, today young people demonstrate high levels of mobility (13% of the group up to 30 years have moved to the present place of residence during the last decade), they still lag behind the group of over 40–45 in their youth. It demonstrates insufficient use of potential mobility of Russian youth and ambiguity of ideas about necessary mass import of labor force from abroad into Russia when the country has a huge domestic resource of labor force rearrangement.

The vast majority of Russian people have insisted since the first reforms that the state should dominate in both economic and social spheres. Society supports neither the liberal model of social policy, which implies minimum interference of the state in the social sphere, nor free market economy in which everything depends on private actors. The population has recently preferred the model, when the state provides everybody with a certain minimum, and then a person achieves everything himself/herself.

In the Russians' opinion, the effective economic model of the country should be based on mixed economy with a leading public sector *(tab. 1)*.

This means that all strategic economic sectors should be controlled by the state, and private management of various enterprises should be combined with state monitoring over them. If we appeal to the famous historical period, the model, the Russians crave for, is similar to Lenin's NEP, a state capitalism model.

Despite considerable government efforts to enhance the situation in the social sphere, the population gives quite a moderate estimate of authorities' actions in this field. Alongside with known flaws and failures, it is also caused by the fact that the social policy concept is still *uncertain and controversial not only for experts, but for the population as well; the limits of its capabilities and responsibility are not defined in political or public aspects. Another critical problem has not been resolved yet: the choice of targets appropriate to the state of post-reform society*.

According to the strategy of social-economic development, *global experience offers several approaches to the social policy development, including two major – American and European (Rhine) ones*. The differences between them are mediated by the impact of many factors, mostly by the levels of economic development, features of government and civil society structures, historical and cultural traditions, etc. After the collapse of the USSR in the early 1990es, in the difficult circumstances of transition from paternalism to a new paradigm, based on market distribution mechanisms, *the Yeltsin regime has adopted an American model of social development. Such a model corresponded to qualitatively new conditions of socio-economic development of post-Soviet societies and Russian mentality least of all*. The reason for it is its basic features:

• minimum interference of the state in economic life, the importance to solve social problems is reduced;

• poverty is not a key problem, it does not require state interference;

• intention of the state that is transferred into the strategy of citizens' economic behavior to "to raise money", "knock up a fortune" quickly;

• absolutization of the principle: to impose huge taxes upon the rich means to decrease investment, and to give more money to the poor means to discourage them to work.

The Russians have felt deplorable results of the American model implementation for two decades. Deep social differentiation, emergence of social inequalities in all spheres of social life, fall of civic engagement of the population, tendencies of consumption and rampant crime are just some negative social "outcomes" of the American model that have turned out to be large-scale and painful in Russia.

One can only regret that *the 1990 Russian reformers rejected a more appropriate model that takes into account our country's history and Russian mentality.It is a European model, characterized by experts as "capitalism with a human face"*. Germany, Switzerland, the Netherlands, Sweden, and partly Japan follow the mentioned model.

Unlike the American model, the European one pays much more attention to social problems. Public interests and social partnership mechanisms are in focus. The true wealth of the country is qualified employees, regarded as a driving force of production and economic modernization.

If the American model focuses on the almost complete exemption from economic and political restrictions in the market, the European model provides mechanisms to "integrate" market in the system of public administration. Great importance is paid to balancing "socially dangerous" tendencies of capitalism, which lead to monopolization and mass inequality.

The key issue of Russian social policy is not the amount of resources directed at solving urgent social problems, but the character and effectiveness of the implemented measures.

In this context there are four possible functions or "supertasks" of social policy that have a direct impact on the choice of goals, methods and priorities of its implementation:

- *ensuring social and political stability;*
- *targeted aid to the poor* (humanitarian function of social policy);
- *ensuring the country's competitiveness on the global stage*;
- *ensuring the society's integration, its internal solidarity and unity*.

When the dominant function of social policy is stability, the resources are directed primarily to those social groups that can protest or support opposition structures. In turn, the super-task of *the humanitarian mission* improves the targeting of social assistance and preferential attention to the poorest groups (that is constantly declared, but not yet implemented).

When in the modern world social policy is *a powerful tool to enhance the quality of human capital* and ensure its competitiveness

Table 2. The Russians' views on the state role in the social sphere, %

State should not interfere in the lives of citizens, everyone relies only on themselves	2
State should help the weak and the helpless	12
State should ensure certain minimum, and everyone has to gain the rest himself	45
State should provide full equality of all citizens (property, legal, political)	41

Table 3. The Russians' views on the models of social protection, %

State should provide assistance only to the unemployable (the elderly, disabled, orphans)	12
State should provide targeted assistance to some other population groups who are in a difficult position (the unemployed, poor families with children)	32
State should protect all the poor	50
Social protection should be carried out mainly at an enterprise	2
People have to solve their problems themselves and do not to rely on the state	4

internationally, investment in human capital becomes a priority. Such stumbling points as quality education and health services should be in focus in Russia.

Finally, when *social integration and nation consolidation* are in focus, the state has to comprehend what the society (or, at least, most people) considers as socially equitable and socially unjust, and then appropriately to build social policy.

Naturally, *different types of resources, their different amounts and methods of use* are required to implement different models of social policy.

The development of social policy, meeting the expectations of Russian people, is complicated by the fact that the authorities, considering the population’s views on the optimal social policy model, rather rely on myths than on data of real expectations of different population groups.

Meanwhile, the results of numerous sociological researches show that most Russians have made the state responsible for the situation in the social sphere. It is important to understand that *our people consider the state’s participation in solving social problems not as direct coercive interference, but as establishment of “rules of the game” and control over their compliance*.

The available data *(tab. 2)* suggest that most Russians’ assessments of the optimal model of management in the social sphere can be expressed in two definitions:

1. *The state should ensure certain minimum, and everyone has to gain the rest himself*. Nowadays, this view is shared by 45% of the population, representing a variety of socio-professional and demographic groups.

2. *The state should provide full (economic, legal, political) equality to all citizens*. This view is shared by 41% of our citizens, which, first of all, elderly rural residents who get government transfers, as well as non-working pensioners and low-skilled workers.

However, it is clear what models of social protection, including those with state participation, are most preferable for citizens. Thus, only a small percentage of respondents (6%) believe that social protection should be primarily implemented at an enterprise or people have to solve their problems themselves and do not rely on the state *(tab. 3)*.

The idea of justice has always been one of the key notions in the Russian socio-cultural model. Today it is very important for the population concerned about the future of the country. The slogans, indicating the Russians’ dreams about this future, have the following components: *social justice, equal rights for everybody, a strong state that cares about its citizens*. More than half of the population supports such a synthesis of the ideas, other options lag behind significantly.

At the same time, *the dream of the Russians to live in fair and reasonably organized society (it is one of three main current dreams!) is closely connected with the dream of securing human rights, democracy and freedom of expression, as well as with the idea of a strong state capable of ensuring order in the country*[4]. It demonstrates a remarkable link *"government and justice"*, existing in the minds of our fellow citizens: *those who would like to live in a fair society, consider the state as the main actor ensuring this justice*.

According to the sociological surveys data, the semantic content of such an important idea of social justice can be different. What do Russians consider as fair and unfair when assessing their current domestic situation?

The vivid negative indicator is the fact that *nowadays the overwhelming majority of the Russians mark great differences in incomes* (83%). At the same time, two-thirds of our citizens believe that the system to distribute private property, prevailing in the country, is unfair; the similar share of the population states that people do not receive worthy remuneration for their labor skills, abilities and qualifications. More than half of Russian people (54%) believe that, taking into account their qualifications and harsh labor conditions, they receive at work much less than they deserve[5].

Thus, Russian people estimate excessive differentiation of income and inequality in the distribution of private property very negatively. It is important to note that *current social inequality seems unfair to all social strata regardless of their levels of life and their well-being dynamics. As a consequence, the Russians, when evaluating the current situation as just or unjust, more often take into account the ideas about fair society than their personal interests; and this idea discloses a normative-value model that does not only prevail in the country, but also has its own, sometimes invisible influence on the population's responses to the government actions*.

The social structure of the post-reform Russian society presupposes that social expectations of most citizens are mostly connected with the state *(tab. 4)*. There are still *a number of "socially weak" groups, in fact uncompetitive in the labor market. To maintain any acceptable standard of living they rely on the state assistance*. This situation will persist for a long time.

The core of the Russian normative-value system is state social services. Hence, **Axiom 8: the government's commitment to provide citizens with social services is, in fact, a basis for the whole system of relations in Russian society, a basis for**

[4] O chem mechtayut rossiyane: ideal i real'nost' [What the Russians Dream about: Ideal and Reality]. Edited by M.K. Gorshkov, R. Krumm, N.E. Tikhonova. Moscow: Ves' Mir, 2013, pp. 311-324.

[5] Bednost' i bednye v sovremennoi Rossii [Poverty and the Poor in Modern Russia]. Edited by M.K. Gorshkov and N.E. Tikhonova. Moscow: Ves' Mir, 2014, pp. 277-295.

Table 4. Number of main social strata of the Russian society, %*

Social strata	
The distressed	7
Having low income	48
The middle class	23
The well-to-do	19
Having high income	3

* For more information, see: Tikhonova N.E. *Sotsial'naya struktura Rossii: teorii i real'nost'* [Social Structure of Russia: Theory and Reality]. Moscow: Novyi khronograf, 2014.

state legitimacy and citizens' readiness to meet the government requirements. In the framework of this model, the social function of the state always dominates over the economic one, since such symbiosis is based on the notion that the strong (the state) is responsible for the weak (a person).

On the one hand, the dominant socio-cultural model hinders the neoliberal social policy in Russia and the implementation of the state key task to ensure "targeted assistance" to the most needy. In this case the state is not responsible for other social groups. But, on the other hand, the idea is connected with the idea of the social state, proclaimed in the Constitution of the Russian Federation and widely developed in Europe.

However, many Russian people do not still understand that the implementation of the social state ideas has nothing to do with philanthropy and promotion of a welfare mentality. After all, the social welfare state considers *the economic efficiency not as an ultimate objective but as a means to meet the material and spiritual needs of the citizens*.

Therefore the main task of social policy is not to distribute benefits, but to provide people with conditions for free activity. They can create these benefits and take care of themselves and their families. The paramount directions of the state social policy are to create conditions so that everyone can have the opportunity to get education, profession, a work place, save up and acquire the property.

DEVELOPMENT STRATEGY

Editorial note. This section of the Journal contains the articles that are associated with the preparation of the all-Russian research-to-practice conference "Society and sociology in modern Russia" scheduled for November 2014. The articles cover the role of sociological knowledge and its practical application in the development of the Russian society. We are particularly pleased that V.V. Lokosov, Doctor of Sociology, Professor, has joined the discussion. V.V. Lokosov is Director of RAS Institute of Social and Economic Studies of Population, an institution that has longstanding scientific cooperation with ISEDT RAS.

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The transition from extensive to intensive demographic policy*

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Abstract. The article analyzes the "window of opportunities" to overcome the demographic crisis through the actualization of intensive approach to the implementation of demographic policy. The main areas of this approach, according to the author, include the redirection of demographic policy from the quantity to the quality of the population, the accumulation and realization of human potential; the adjustment of migration policy taking into account the strategic interests of the indigenous peoples of Russia; the provision of support to traditional values of the Russian people with regard to family life and happiness. The transition to intensive demographic policy can serve as a long-term basis for improving the demographic situation.

Key words: demographic policy, extensive and intensive approaches, quality of the population, migration, traditional values.

The current demographic situation in Russia is considered to be in a state of crisis. The reason for such grave assessments lies in depopulation, which is figuratively called the "cross that the Russians have to bear": birth rate in Russia is lower than that

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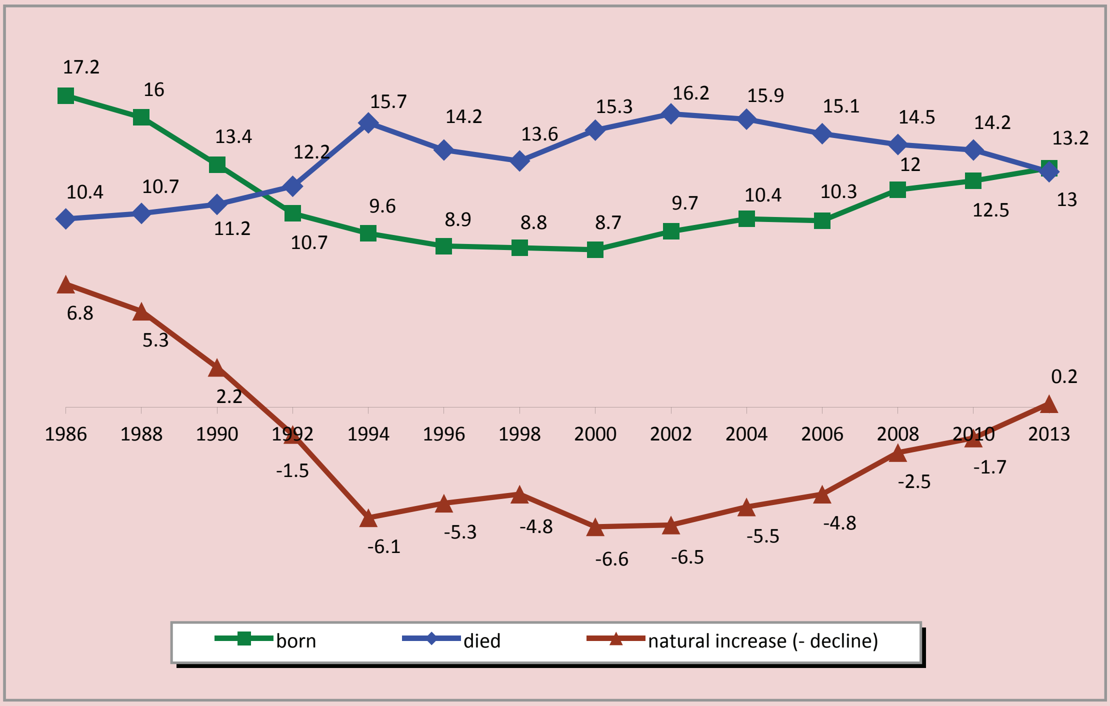
in developed countries, and mortality rate is higher than that in underdeveloped ones.

Total natural population decline in Russia over the last 20 years was 13.4 million.

The long-term negative dynamics of demographic processes has been contained currently due to implementation of the measures set out in the Concept for demographic policy of the Russian Federation for the period until 2025. The levels of Russia's demographic development for 2015 approved by the Decree of the RF President in 2007 were reached earlier. Life expectancy at birth increased from 67 to 70 years in 2007–2013 (with the remaining 11-year gap in this indicator for men and women), the total fertility rate increased from 1.3 to 1.7 children per woman. Over the last 20 years the year 2013 was the first, in which Russia's population has increased *(fig. 1)*.

Certain measures aimed at family support, adopted in 2007 and focused on providing the so-called federal and regional maternity (family) capital (MFC) turned out to be efficient. Birth rate in this period was growing rapidly, even under the crisis. The measures were effective despite the skepticism of many demographers; it was confirmed by the census data, which recorded the growth in the share of large families from 6.6 to 7% for 2002–2010. An important part of the MFC program consists in the annual increase of the capital due to its indexation. The size of MFC has grown from 250 thousand rubles in 2007 to 429 thousand rubles in 2014. The law

Figure 1. Overall rate of natural population movement
(Russian Federation, per 1000 population)



Source: Rossiya v tsifrakh: stat. sb. [Russia in Figures: Statistical Digest]. Rosstat. Moscow 2013.

establishing the procedure of adjustment for inflation has been adopted.

At the same time there has been an outspread of abuse related to MFC. For example, the survey of the focus group produced the following answers: *«Now we see that the Government is carrying out the right reforms; however, the law has been adopted, but when it comes to its practical implementation, all of these reforms are being distorted. For instance, now land plots are allotted to large families, but where? One is located closer to town, and another is 100 km far from town, and the owner just would not go there, everything is so distorted. And what about the maternity capital? There are a lot of ads everywhere like "we will help you get the maternity capital", it turns out to be a deception; but the most interesting fact is that the very officials, judges, and the Procuracy see these advertisements and no one cares. And how many families are there that have no money at all, a mother is happy to get at least 50 thousand rubles and 250 thousand are taken from her»*[1]. In February 2014 A.G. Khloponin, Presidential Plenipotentiary Envoy to the North-Caucasian District pointed out that there were 110 thousand «fictitious» children in the District, which means that the certificates exist and the children themselves do not.

Despite the costs, it is expedient to extend this generally efficient program of maternal (family) capital for 2017–2025, to widen the spheres, in which MFC can be used; to provide a wider choice of measures that could actually improve the living conditions of families with children.

The successive results achieved in the demographic situation should not be misleading, since they are in many respects temporary and unstable and, most importantly, they do not eliminate those depopulation factors, which emerged in the previous years. **Most experts have no doubt concerning the onset of the "second stage of depopulation"**. The "demographic pit" associated with the small number of young generation, born in the 1990s, brings negative changes virtually in all the spheres of economy and social life. The forthcoming change in the age structure of the population is a challenge to Russia's security.

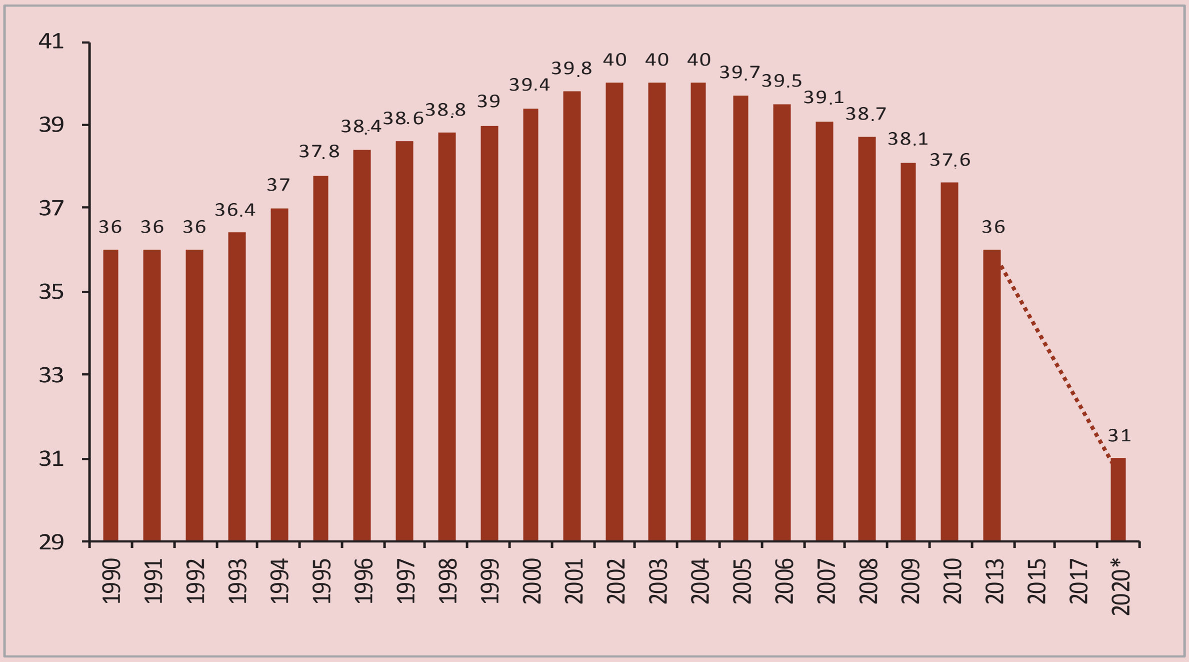
The increase in the overall fertility was caused not only by the implementation of measures aimed at stimulating the birth rate, the implementation of the priority national project "Health", but also by the increase in age-specific birth rates and favorable shifts in the sex-age structure of the population (achievement of the reproductive age by the young people, born in the 1980s).

After 2010, the number of women of childbearing age is decreasing, because small generations born in the 1990s reach active reproductive age. In 2012 the number of 10–19-year-old women was 1.7-fold less than the number of 20–29-year-olds. Forecasts show that in the next 10 years, there will be an almost twofold decline in the number of women of active reproductive age of 20–29 years, who account for more than 60% of all births *(fig. 2)*.

First of all it will affect the working age population. For 10 years it will decline by almost 7.7 million people, and the demographic burden on the able-bodied population will grow by 30%. As a result, there

[1] The surveys of the focus-groups were held in 2012 in Kirov and Tyumen under the supervision of RAS Corresponding Member V.L. Shul'ts and V.V. Lokosov.

Figure 2. Number of female population of reproductive age (Russian Federation, million people)



*Data for 2020 – forecast.

Source: Rosstat.

will be an increase of burden on health care, pension and social security.

The number of army draftees and college entrants will reduce.

It is unlikely that in the near future there will be an increase in the number of families with many children that are necessary to preserve population. Among families with children, as before, there are mostly one-child families – almost 2/3 of all households with children [3].

The improvement of standard of living and quality of life, so that people will be able to implement their reproductive intentions through the family's own resources, is a priority task for social policy. However, the minimum wage rate (MWR) does not correspond to Article 2 of the Labor Code, which stipulates that wages should provide a decent level of life for a worker and his family. According to the calculations made at the Institute of Social and Economic Studies of Population at the Russian Academy of Sciences, the increase in the level of relative poverty at the birth of the first child is 8 percentage points, at the birth of the second child – 14 percentage points, at the birth of the third child – 21 percentage points. The scale of child poverty is 10 times higher than the Western European indicators. In comparison with childless families, families with children live in cramped housing conditions in 2.5–3.7 times more often. Therefore, 96% of maternity capital goes to the purchase of housing.

"The national strategy of actions for the benefit of children for 2012–2017" approved by the Decree of the President of the Russian Federation of June 1, 2012, highlights the main issues in the sphere of childhood such as the high risk of poverty at the birth of children, especially in families with many children and in one-parent families; disparities between the Russian Federation subjects with regard to the volume and quality of available services for children and their families. The strategy envisages the development and adoption of a federal law that defines the fundamentals of state policy in the sphere of family, as well as the formation of a system for monitoring and statistic accounting to assess the effectiveness of social and family-related policy in the sphere of motherhood and childhood. The planned measures to reduce poverty among families with children include the development and adoption of minimum state guarantees in the field of income and social services defining the main indicators of the quality of life of families with children; the improvement of the system of tax deductions for families with children, and other measures [13]. Currently, according to the studies of people's reproductive plans, the main obstacles for the birth of children in Russia can be found in the financial and housing difficulties, lack of confidence in the future. These difficulties are pointed out equally by interviewed men and women [11].

Scientific community should discuss the necessity of establishing decent wages; and the development of standards for economic security of families with children is useful in practice [8]; but, taking into consideration the fact that the natural-resource model of the country's development is not efficient anymore, and that there exist certain objective difficulties in economic growth, it would be unwise to forecast the achievement of significant results in creating the social state in the near future. Rather, the process is opposite. The reduction of the government's social obligations is accompanied by the commercialization of health care and education. According to Rosstat, in 2011 15% of the Russians aged 15 and older were not able to receive medical care because they were not able to pay for it. In 2010 the share of students who study with full reimbursement of costs was 30% in the system of secondary professional education, and 63% – in higher education.

Without diminishing the importance of enhancing the standard of living and quality of life, it is difficult to reverse the demographic situation only by implementing extensive measures of demographic policy, such as financial stimulation of fertility and improvement of healthcare. The vector of effective demographic changes should be sought in the actualization of intensive demographic policy. It is possible to highlight three main interrelated directions in this policy.

The first direction. The shift of demographic policy priorities from the number of population to the quality of population, and to accumulation and realization of human potential.

The quality of the population (human potential) identified through indicators of health (understood, according to the World Health Organization (WHO), as physical, mental and social health), education and culture, is currently a major factor in economic development. In particular, the analysis of socio-economic achievements in developed countries shows that the growth of national GDP in recent decades was largely due to the improved health of population in these countries.

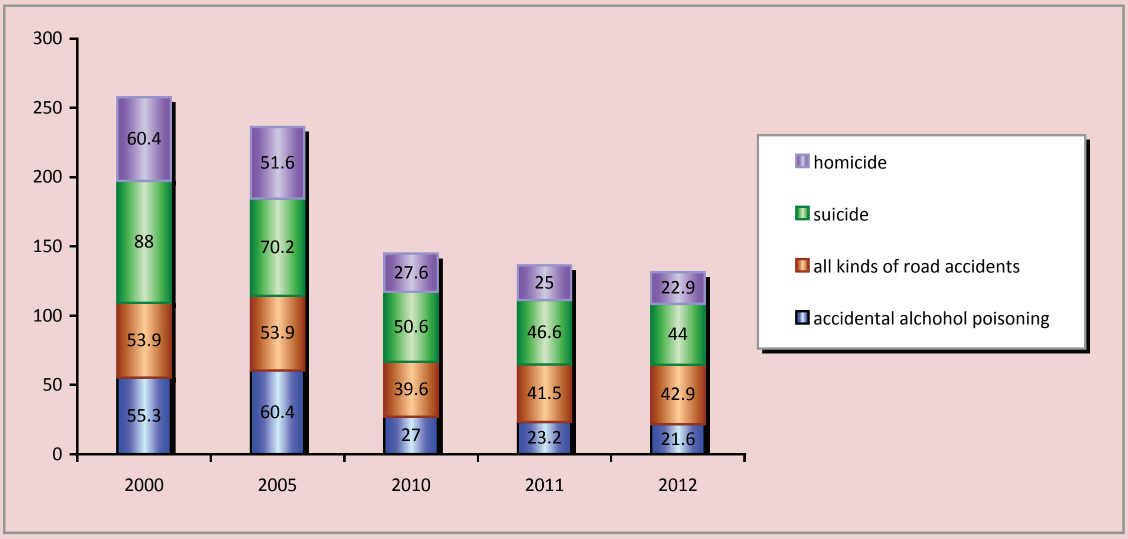
In this country the physical health of the population, on the contrary, is deteriorating. Children's health is deteriorating even faster: the health of each new generation is worse than the health of the previous generation [9, p. 74-79]. The analysis of the results of a longitudinal study (1995–2010) of children's health and development conducted by ISEDT RAS in the Vologda Oblast, leads to similar conclusions [14, p. 108].

There is a gradual increase in childhood disability: it occurs both in absolute value and in terms of the level of disability. In 2007 the level of primary disability in children at the age under 3 was several times higher (43.6 per 100 thousand children) than at the age of 15–17 (12.4). Eventually, the number of children with serious diseases increased [6]. The share of children constituting the first group of health, i.e. with no deviations for all the health evaluation criteria, has decreased from 49% to 9% for 25 years.

The incidence rate among children and adolescents, significantly affecting the implementation of reproductive function, arouses concern. According to experts, 70% of girls and 50% of young men have problems in the reproductive sphere; one in five teenagers in the future will not be able to have children.

The age of mothers, who give birth to children, is increasing steadily in Russia.

Figure 3. Mortality among working age men* due to external causes of death** (number of deaths per 100 thousand people)



* Men aged 16–59.

** Figures for 2005 and 2010 were calculated using the figures adjusted with regard to the results of All-Russia census-2010.

Source: Zdravookhranenie v Rossii. 2013: stat. sb. [Healthcare in Russia. 2013: Statistical Digest]. Rosstat. Moscow, 2013. P. 27.

The postponement of birth shows a more conscious approach to childbearing, a desire to "settle in life" first. However, this will have a negative impact on the dynamics of fertility. As a person grows older, his/her reproductive health deteriorates, i.e. delaying the birth of children can lead to deterioration in children's health, or to inability to have them.

Social health defined by the indicators of deviant behavior, often exceeds their maximum critical (threshold) values.

Deviant behavior has become a widespread phenomenon and it directly affects the increase in mortality, primarily among working age men. Russia ranks first in the world by the number of smokers – 39% of the adult population (2011). According to the Ministry of Health, about 288 thousand people die prematurely from smoking tobacco in Russia. Due to this, the country's economy loses about 1.5 trillion rubles or 3.5% of GDP every year.

Over 2 million alcoholics are registrated in dispensaries; 3.3 million Russians have mental health disorders. According to various estimates, the number of Russians, who consume narcotic and toxic substances on a regular basis, exceeds 3 million people. It is important that there is a "rejuvenation" of all forms of social diseases and 80% of Russians aged under 30 are drug addicts. According to Rosstat, about 100 thousand Russians aged 15-30 die from drug abuse every year. Because of these premature deaths the society annually loses about 300 billion rubles of investment in education and training, regardless of lost profit from the loss of workers.

Human losses from accidents, poisoning, homicide and suicide resemble military communiqu's. For example, according to the WHO, the figure of 20 suicides per 100 thousand population is considered extremely critical for social health. This threshold was exceeded in 2-4 times among working age men in Russia *(fig. 3)*.

However, the changes in many indicators of deviant behavior are positive. Healthy lifestyle is coming into fashion and is becoming part of everyday life of the Russians. The Sochi Winter Olympics, active promotion of sport and healthy lifestyle, revival of GTO (All-Russia physical culture training program) contribute to reduction in mortality from external causes and promote social health. The official figure is 40% of the population that will soon be regularly engaged in physical training and sport. Being in poor physical shape becomes "indecent". The government's paternalistic care became a thing of the past, and today the loss of health often leads to the social bottom. It is difficult to win a competitive struggle for a job if one has bad habits. A new work culture and discipline is gradually introduced.

Russia maintains its leading position by some quantitative indicators of educational and professional potential of the population. The level of secondary and higher professional education among the population aged 25–64, corresponding to the International Standard Classification (ISCED-97), is higher than that in most developed countries of the OECD – 26.9%.

In 2010 the number of students per 1000 people in Russia was 65 people, and it remained one of the highest in the world.

However, the quality of education is declining. According to the Knowledge Economy Index developed by the World Bank, Russia ranked 55th among 145 states in 2012. One of the negative indicators is the value of Education and Human Resources Index that reflects the level of education and the skills for creating, disseminating and using knowledge.

The process of accumulation of human potential is ineffective: 60% of Russians do not work by their specialty; the accumulated actual education in every one out of five employees is redundant [4]. This is due to the unsolved problems of diversification of the Russian economy, regulation of wages, financing of education and science. According to opinion polls conducted by ISEDT RAS, people in the prime of their working age (from 40 and older) begin to feel a reduction in the standard of living, although their professional experience and physical capacity should have led to the opposite trend.

The second direction. Adjustment of migration policy taking into account the strategic interests of the indigenous peoples of Russia.

The forecast return to depopulation can once again turn immigration into the main source of population increase in the country. In absolute terms, Russia ranked second after the USA by the number of immigrants; in relative indicators Russia was also on the second place in the world after Germany. Over the last two decades migration growth in Russia compensated for more than half of the natural decrease of the Russians. International migration fully compensated the loss of demographic potential in 2011–2012.

Despite the indisputable importance of immigration, the disputes between those who consider it important for the solution of demographic and economic problems, and those who see it as a threat endangering the native population, remains acute. The arguments of those, who support immigration, are simple. Russian demographer A. Vishnevskii argues: «Immigration is the only real resource that can now become a source of preservation and increment of the people» [2]. But historical experience of the last decades, the experience of Kosovo, Ukraine, the recognition of the failure of the multicultural doctrine by leading politicians from Germany, France and Britain make us treat with caution those simple benefits that immigration brings, and consider certain long-term consequences and risks it carries. The ethnic structure of society is no less important for its life than its class or age structure.

Each society has its own extremely critical (threshold) indicators showing the extent of resettlement of people of different mentalities and cultures, and in this context, immigration can become a threat to the country's socio-cultural security. National (ethnic) and migration policy are like communicating vessels. For example, it was found that in the German army the number of immigrants from the former Soviet republics should not exceed 10% of the total number of servicemen, otherwise, the risk of reduction in the fighting efficiency of the units can increase. A shy political correctness on this issue, the ban on obtaining statistical information concerning the ethnic composition of migrants and ethnic crime only imitate the preservation of a friendly status quo.

According to sociological data, Russians' public opinion on important «points of growth» in demographic policy is focused on the «increase in the birth rate of the Russia's indigenous population» – 51%; followed by «reduction of mortality» – 26%; «prevention of people's outflow abroad» – 11%. The attraction of migration resources is unpopular: it is supported by only 4% of respondents[2]. The survey, conducted by the Research Center Superjob.ru shows that almost every fifth Russian has already felt the competition with those arrived from Central Asia [11]. And the lower the income of the respondents, the more they felt this competition. A sociological survey by the Levada Center also revealed the discontent of the Russians: in 2012 70% of respondents said that the government should limit the inflow of outsiders to the country [7].

The socio-economic and socio-cultural consequences of the large-scale attraction of migrants in Russia in modern conditions are mostly negative. Moreover, according to experts, the actual influx of immigrants is a lot greater, because "the state statistics of migration in Russia has lost one of the fundamental advantages: the unity of methods for collecting primary data in the country" [10, p. 217]. According to expert estimates, there are nine illegal labor migrants per legal one in the country. The increase in the number of unskilled workers in the domestic labor market leads to a decrease in the quality of the country's labor potential. The official goal of creating and upgrading 25 million highly productive jobs is unlikely to be achieved of the government continues pursuing the current immigration policy.

The third direction. Provision of support to the traditional ethnic group of the Russian people, promotion of the value of family life and desire to have many children.

Russian society remains oriented toward traditional values, and therefore, it has the necessary demographic potential. The analysis of empirical data shows that the determination to have a certain number of children depends more on parents' wishes to have children, on subjective values rather than on the perception of quality of life that promotes or hinders these wishes [1, p. 36-41].

In a sense, Russia remains a peasant country. And it is not because a large share of the population – 25% – lives in rural areas, 40% of citizens have private subsidiary plots. A more important fact is that urbanization in the Soviet period was so rapid and peculiar, that the significant share of citizens continued to live by the rules of traditional community with its ties of relationship, neighborhood and other affections. Urbanization in Russia was accompanied not by the

[2] You can find out more about these data from the materials of the information-analytical collection "Modern social-demographic processes in public opinion" [12].

individualization of traditional society, but it rather preserved a «patriarchal character» of social practices.

There is an increase in the level of religious affiliation of the population, i.e. in the share of «believers» – people acting in compliance with the canons of one religion or another. According to ISPR (Institute of Socio-Political Research) RAS, it was 29% of the adult population in 2011. These are people, for whom the Orthodox values and lifestyle become significant; it is reflected in their attitude to the family, to the birth and rearing of children and rejection of abortion. Together with the Orthodox community the Muslim Ummah is expanding: about 16 million people in Russia belong to ethnic groups that traditionally practice Islam. Without exaggerating the significance of the religious factor, we can state that its socio-demographic role is increasing.

Birth rate is associated with a traditional pragmatic interest in having children as a future support in one's old age. As a result of reforms, Russia's older generation was largely left to its own devices; that is why the "pragmatic interest" toward the birth of children can be revived. This interest is supported by anomy in the society, when the ties of kin and "community" often become mandatory for social survival under new conditions. The role of biosocial, population function of society is increasing; it also encourages people to have children.

Despite the liberation of modern sexual relations, the absolute majority of Russian citizens and young people do not question family values and childbearing. Long-term studies of value orientations, in particular, the monitoring "Our present-day values and interests" supervised by N.I. Lapin, the monitoring by the Institute for Comparative Social Research supervised by V.G. Andreenkov showed the priority of the family as a most important value. Equal contractual participation of husband and wife in the family budget; feminist aspirations to fix in legislation the gender equality in everyday life; the legalization of homosexual marriages and many other developments relating to the second demographic transition in Europe do not have wide social support in Russia.

Of course, population growth is necessary, but one should not overly dramatize this need. The following question arises naturally: does the country need to implement the extensive and quantitative approach to handling the demographic crisis, often at the cost of health deterioration or excessive immigration? Why should we set a goal of "catching up with and overtaking" the demographically developed countries, when it is the people capable of creativity and self-organization that make their society competitive in the modern world? The Russian Empire and the RSFSR of 1930s had about 100 million people, and that was enough to preserve state sovereignty and identity.

According to various estimates, labor productivity in the Russian economy is about 30% of that in the U.S. The total level of environmental pollution per unit of output in Russia is 2.5–3 times higher than that in developed countries, total consumption of materials is higher in 1.5–2 times. These figures result from the labor of millions of people, and a highly organized society does not need such labor. There is no problem of labor shortage in Russia. It has another problem – the deficit of high-qualification jobs and the lack of a modern system of continuous training, first of all, for workers and technicians.

The reasons for depopulation in the Russian society are "unnatural" and are closely associated with the negative consequences of neo-liberal transformation of the society. The changes in mass consciousness due to the consequences of the reforms have not rooted deeply in the people's mentality. Moreover, predisposition to traditional values is strong in the Russian market conditions and under the primitivization of social relations. The transition from the extensive to intensive demographic policy can serve as a long-term basis for improving the demographic situation in modern Russia.

Sited works

1. Arkhangel'skii V.N. The Influence of the Subjective Assessment of the Level of Life on Reproductive Behavior. *Living Standard of the Population in the Regions of Russia*, 2011, no.8.
2. Vishnevskii A. The Greatness of the State "Does Not Consist in the Vastness, Fruitless without Inhabitants". *Migration 21st Century*, 2010, no.1.
3. *Information Materials about the Final Results of the 2010 All-Russia Population Census*. Available at: http://www.gks.ru/free_doc/new_site/perepis2010/perepis_itogi1612.htm.
4. Kapelyushnikov R.I., Luk'yanova A.L. *Transformation of Human Capital in the Russian Society (on the Basis of the Russian Monitoring of Economic Situation and Health of the Population")*. Moscow: Fond "Liberal'naya missiya", 2010.
5. *18% of Economically Active Russians Feel Competition with Workers from Asian Republics*. Available at: http://www.superjob.ru/community/life/67554/
6. *Main Indicators of Child Disability in the Russian Federation in 2006: Statistical Digest*. Moscow: FBMSE, 2007; *Main Indicators of Child Disability in the Russian Federation in 2007: Statistical Digest*. Moscow: FBMSE, 2008.
7. *The Inflow of Migrants Should Be Limited*. Available at: http://svpressa.ru/society/article/58250/
8. Rzhanitsyna L.S., Bessolova O.A. *The Standard of Economic Stability of Families with children in Moscow*. Moscow: OOO "Variant", 2008.
9. Rimashevskaya N.M. *People and Reforms: the Secrets of Survival*. Moscow: ISEPN RAN.
10. Rybakovskii L.L., Ryazantsev S.V. New Migration Policy of Russia. *Russia: New Goals and Priorities*. Moscow, 2006.
11. *Family and Fertility. Analytical Report on the Results of the Sample Survey of Reproductive Plans of the Population in 2012.* Rosstat.
12. *Current Socio-Demographic Processes in Public Opinion*. Rostov-on-Don: YuRIU RANKh i GS, 2014.
13. *The Decree of the President of the Russian Federation of June 1, 2012 No.761 "On the National Strategy for the Actions in the Interests of Children for 2012–2017"*. Available at: http://www.pravo.gov.ru/laws/acts/43/555449.html
14. Shabunova A.A., Morev M.V., Kondakova N.A. *Children's Health: the Results of the Fifteen-Year Monitoring*. Vologda: ISERT RAN, 2012.

References

1. Arkhangel'skii V.N. Vliyanie sub"ektivnoi otsenki urovnya zhizni na reproduktivnoe povedenie [The Influence of the Subjective Assessment of the Level of Life on Reproductive Behavior]. *Uroven' zhizni naseleniya regionov Rossii* [Living Standard of the Population in the Regions of Russia], 2011, no.8.
2. Vishnevskii A. Velichie gosudarstva – "ne v obshirnosti tshchetnoi bez obitatelei" [The Greatness of the State "Does Not Consist in the Vastness, Fruitless without Inhabitants"]. *Migratsiya 21 vek* [Migration 21st Century], 2010, no.1.
3. *Informatsionnye materialy ob okonchatel'nykh itogakh Vserossiiskoi perepisi naseleniya 2010 g.* [Information Materials about the Final Results of the 2010 All-Russia Population Census]. Available at: http://www.gks.ru/free_doc/new_site/perepis2010/perepis_itogi1612.htm.
4. Kapelyushnikov R.I., Luk'yanova A.L. *Transformatsiya chelovecheskogo kapitala v rossiiskom obshchestve (na baze "Rossiiskogo monitoringa ekonomicheskogo polozheniya i zdorov'ya naseleniya")* [Transformation of Human Capital in the Russian Society (on the Basis of the Russian Monitoring of Economic Situation and Health of the Population")]. Moscow: Fond "Liberal'naya missiya", 2010.
5. *Konkurentsiyu s rabotnikami iz aziatskikh respublik oshchushchaet 18% ekonomicheski aktivnykh rossiyan* [18% of Economically Active Russians Feel Competition with Workers from Asian Republics]. Available at: http://www.superjob.ru/community/life/67554/
6. *Osnovnye pokazateli invalidnosti detskogo naseleniya v Rossiiskoi Federatsii v 2006 godu: stat. sb.* [Main Indicators of Child Disability in the Russian Federation in 2006: Statistical Digest]. Moscow: FBMSE, 2007; *Osnovnye pokazateli invalidnosti detskogo naseleniya v Rossiiskoi Federatsii v 2007 godu: stat. sb.* [Main Indicators of Child Disability in the Russian Federation in 2007: Statistical Digest] Moscow: FBMSE, 2008.
7. *Pritok migrantov nuzhno ogranichit'* [The Inflow of Migrants Should Be Limited]. Available at: http://svpressa.ru/society/article/58250/
8. Rzhanitsyna L.S., Bessolova O.A. *Standart ekonomicheskoi ustoichivosti sem'i s det'mi v Moskve* [The Standard of Economic Stability of Families with children in Moscow]. Moscow: OOO "Variant", 2008.
9. Rimashevskaya N.M. *Chelovek i reformy: sekrety vyzhivaniya* [People and Reforms: the Secrets of Survival]. Moscow: ISEPN RAN.
10. Rybakovskii L.L., Ryazantsev S.V. Novaya migratsionnaya politika Rossii [New Migration Policy of Russia]. *Rossiya: novye tseli i prioritety* [Russia: New Goals and Priorities]. Moscow, 2006.
11. *Sem'ya i rozhdaemost'. Analiticheskii otchet po itogam vyborochnogo nablyudeniya reproduktivnykh planov naseleniya v 2012 g.* [Family and Fertility. Analytical Report on the Results of the Sample Survey of Reproductive Plans of the Population in 2012]. Rosstat.
12. *Sovremennye sotsial'no-demograficheskie protsessy v obshchestvennom mnenii* [Current Socio-Demographic Processes in Public Opinion]. Rostov-on-Don: YuRIU RANKh i GS, 2014.
13. *Ukaz Prezidenta RF ot 1 iyunya 2012 g. № 761 "O Natsional'noi strategii deistvii v interesakh detei na 2012–2017 gody"* [The Decree of the President of the Russian Federation of June 1, 2012 No.761 "On the National Strategy for the Actions in the Interests of Children for 2012–2017"]. Available at: http://www.pravo.gov.ru/laws/acts/43/555449.html
14. Shabunova A.A., Morev M.V., Kondakova N.A. *Zdorov'e detei: itogi pyatnadtsatiletnego monitoringa* [Children's Health: the Results of the Fifteen-Year Monitoring]. Vologda: ISERT RAN, 2012.

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Overcoming social inequality as an impetus to socio-cultural modernization*

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Abstract. The article shows that the main factors constraining socio-cultural modernization are social inequality and low standard of living. A swift modernization development requires the presence of a favorable environment that gives an impetus to the society for modernization, as well as certain (modern) level of innovation, technological and socio-cultural development. In addition, the advantages and problems related to the assessment of modernization in the regions of the Federal District, based on the methodology developed at China Center for Modernization Research, the Chinese Academy of Sciences. Modernization is considered as a process that leads not only to technological and innovation progress, but mainly to favorable changes in society and to the improvement of human potential with the preservation of traditions and cultural heritage. The study has found out that the hampering of modernization in the Northwestern Federal District includes two aspects: economic and cognitive. For most of the territories the main reasons hindering the processes

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of modernization are lack of resources, low share of industries with high added value, low level of development of R&D sector. We also note that one of the most acute problems lies in extremely high level of regional differences. The level of life in the regions differs in several times, which also impedes modernization in all Russia's territory. Social inequality in the society is deepening due to the fact that many social institutions that are to serve as the means of social mobility do not work. Due to the above problems, modernization requires political will and effective public administration. The main task of the government that speaks about modernization is to conduct a forward-looking policy and institutional reforms aimed equally at the development of innovations, new technological structure, and the development of civil society, cultural values and standards that allow people to realize their potential to the fullest extent.

Key words: modernization, socio-cultural dynamics, subjects of modernization, population.

The transition to innovation development, promotion of economic growth and structural changes in the economy have led to the increase in the role of human capital and socio-cultural determinants. Socio-cultural change is a complex, multifaceted process that has many different aspects, each of which can become an independent object of research into social, economic and cultural dynamics. The degree of socio-cultural development of society can be defined when considering the specifics of socio-cultural development of individuals, who live and identify themselves on a certain territory that has its own socio-cultural features. The current state of modern Russian society is characterized by several kinds of social inequality, among which the disparities in wealth are most important. These disparities are very important, but they are not so obvious and transparent, and they can be described by such indicators as the level of income, financial capital, production and non-production property, including housing and land, durable goods, luxury items, and subjective indicators.

If we look at the regions of the Northwestern Federal District (NWFD), we note that a significant gap in the income of the richest 10% and the poorest 10% (the decile ratio) is observed in the Nenets Autonomous Okrug (19.9 times, *tab. 1*) that specializes in mining and has large deposits of oil, gas and hydrocarbons, and in Saint Petersburg (19.4 times in 2012), which is quite natural for the second largest city of federal importance (the decile ratio is from 6 to 9 in developed European countries) [10]. A moderate stabilization of the decile ratio in recent years is caused by the government's measures seeking to increase expenditures on social payments, namely pensions and social benefits, which contributed to the decrease in the group of needy citizens.

The social stratification of citizens is increasing judging by the assessment of the Gini coefficient: its growth in the regions in the period between 2000 and 2012 varies from 5 to 39% *(tab. 2)*. Especially high rates of deepening income inequality were observed in the Leningrad Oblast, Saint Petersburg and the Pskov Oblast (39, 30

Table 1. Ratio of the average income of the richest 10% to the poorest 10% in the NWFD regions and the RF for 2000–2012*

Region	2000	2005	2008	2010	2012
Nenets AO	–	15.9	23.8	19.8	19.9
Saint Petersburg	9.4	17.5	18.3	19.8	19.5
Komi Republic	14.5	17.3	17.5	17.3	16.9
Russian Federation	**13.9**	**15.2**	**16.9**	**16.5**	**16.4**
Novgorod Oblast	9.8 1	10.5	13.8	14.5	15.0
Murmansk Oblast	11.6	11.6	13.6	13.7	13.8
Kaliningrad Oblast	8.1	9.1	11.7	12.1	13.4
Arkhangelsk Oblast	8.5	11.0	12.3	12.6	13.2
Leningrad Oblast	6.1	10.0	12.0	12.3	12.9
Pskov Oblast	7.5	9.6	12.0	11.9	12.2
Vologda Oblast	8.0	11.2	12.4	11.7	12.0
Republic of Karelia	7.9	9.2	10.4	10.7	11.6

* Ranked by the column “2012”.

Source: Regiony Rossii. Sotsial'no-ekonomicheskie pokazateli. 2001–2012: stat. sb. [The Regions of Russia. Socio-Economic Indicators. 2001-2012: Statistical Digest]. Rossstat. Moscow, 2001–2013.

Table 2. Dynamics of the Gini coefficient in the NWFD regions*

Region	2000	2005	2008	2010	2012	2012 to 2000, times
Nenets AO	–	0.415	0.469	0.445	0.445	–
Saint Petersburg	0.341	0.432	0.432	0.446	0.443	1.299
Komi Republic	0.402	0.429	0.431	0.423	0.423	1.052
Russian Federation	**0.395**	**0.405**	**0.423**	**0.421**	**0.420**	**1.063**
Novgorod Oblast	0.347	0.363	0.396	0.403	0.407	1.173
Murmansk Oblast	0.371	0.377	0.397	0.394	0.396	1.067
Arkhangelsk Oblast	0.326	0.369	0.383	0.384	0.389	1.193
Kaliningrad Oblast	0.319	0.343	0.375	0.379	0.391	1.226
Leningrad Oblast	0.276	0.352	0.379	0.38	0.387	1.402
Pskov Oblast	0.308	0.345	0.377	0.375	0.379	1.231
Vologda Oblast	0.318	0.364	0.382	0.373	0.376	1.182
Republic of Karelia	0.316	0.349	0.363	0.361	0.371	1.174

* Ranked by the Gini coefficient for 2012

Source: Regiony Rossii. Sotsial'no-ekonomicheskie pokazateli. 2001–2012: stat. sb. [The Regions of Russia. Socio-Economic Indicators. 2001-2012: Statistical Digest]. Rossstat. Moscow, 2001–2013.

and 22% respectively). At the same time, the Gini coefficient in Saint Petersburg and the Republic of Komi was higher than the national average.

Additional statistics on the population inequality can be found in the subjective assessments of people living in a particular region. So, the results of ISEDT RAS public opinion monitoring concerning the political and economic situation in the regions of the Northwestern Federal District for 2005–2013 make it possible to present the situation in dynamics in a given region and to carry out cross-regional comparisons. The sampling is 5000 people from ten regions of

Table 3. Distribution of answers to the question: "Which of the following assessments describes your income most accurately?"* (as a percentage of the number of respondents)

Region	I have enough money to buy most of the goods					At best, I have enough money to buy foodstuffs				
	2005	2008	2009	2010	2013	2005	2008	2009	2010	2013
Leningrad Oblast	61.6	70.1	72.0	73.5	63.8	38.3	29.9	28.0	26.4	30.9
Saint Petersburg	69.5	79.0	59.4	79.9	64.6	30.4	21.0	40.5	20.1	31.7
Arkhangelsk Oblast	58.2	66.4	71.7	63.5	61.3	41.8	33.6	28.2	18.3	35.8
Komi Republic	55.7	70.2	53.1	63.6	63.2	44.3	29.8	47.0	36.5	36.7
Republic of Karelia	64.8	73.1	64.0	71.8	60.8	35.2	26.9	36.0	28.2	38.4
Northwestern Federal District	**60.2**	**69.4**	**58.3**	**70.9**	**57.4**	**40.1**	**30.6**	**41.7**	**29.2**	**39.6**
Vologda Oblast	58.5	65.5	59.2	64.2	53.5	41.5	34.5	40.8	35.9	40.3
Murmansk Oblast	60.8	72.0	64.5	64.8	55.9	39.3	28.0	35.6	35.3	42.4
Pskov Oblast	–	64.4	48.3	69.1	47.1	–	35.6	51.6	30.9	43.1
Novgorod Oblast	–	61.0	50.7	73.S	53.6	–	39.0	49.3	26.3	46.3
Kaliningrad Oblast	50.1	72.1	40.3	66.4	49.7	50.0	27.9	59.8	33.6	50.3

* Ranked according to the data of the column: "at best, I have enough money to buy foodstuffs" for 2013.

Source: sociological survey carried out by ISEDT RAS in 2005–2013.

the Northwestern Federal District (the Arkhangelsk, Vologda, Kaliningrad, Leningrad, Murmansk, Novgorod, Pskov oblasts, the Republic of Karelia, the Komi Republic, Saint Petersburg). The sample size for each region is at least 400 respondents, sampling error does not exceed 5%. According to the research, more than half of the population of the Federal District (50–60% depending on region) "have enough money to purchase most of the goods" *(tab. 3)*, while the rest of the population "have enough money, at best, to buy food". People's incomes have been seriously affected by the financial and economic crisis, which neutralized favorable changes in the subjective self-assessment of financial situation observed before 2008. A sharp increase in the proportion of low-income population was observed in the first post-crisis (2009) year: in the Kaliningrad Oblast and Saint Petersburg – almost in 2 times, in the Komi Republic and the Pskov Oblast – in one and a half times. In 2005–2013, the share of the "wealthy" population decreased almost everywhere except for the Komi Republic and the Arkhangelsk Oblast that retain one of the highest per capita incomes in the District.

The distribution of respondents' answers by social groups shows that 51–70% consider themselves to be the middle social group *(tab. 4)*. The most representative middle group is observed in the republics of Komi and Karelia, the least representative – in the Murmansk Oblast. The proportion of respondents, who identify themselves with the top social group, is the greatest in the Leningrad Oblast; the share of those identifying themselves with the bottom group is the largest in the Pskov Oblast. The assessments given by respondents when comparing their social status and living standards in the region and the country as a whole are characterized by a decrease in the share of the upper group and an increase in the share of the bottom group.

Table 4. Distribution of answers to the question: "What social strata do you identify yourself with in your city (village)?"* (as a percentage of the number of respondents)

Region	Answer options					
	Upper group	Group above median	Median group	Group below median	Bottom group	Difficult to answer
Leningrad Oblast	6.0	15.7	55.6	14.5	3.5	4.7
Murmansk Oblast	2.5	10.8	51.2	19.6	6.1	9.8
Saint Petersburg	2.5	12.7	58.4	14.2	2.7	9.5
Pskov Oblast	2.0	11.0	54.8	16.3	9.8	6.3
Novgorod Oblast	1.0	5.8	58.5	22.0	6.0	6.8
Republic of Karelia	0.8	6.8	66.6	19.1	3.0	3.8
Arkhangelsk Oblast	0.8	9.5	60.0	13.5	3.0	13.3
Vologda Oblast	0.7	7.3	55.8	20.1	6.1	10.1
Komi Republic	0.5	5.9	70.1	16.3	3.7	3.5
Kaliningrad Oblast	0.5	8.0	57.3	23.5	6.5	4.3
NWFD (identification: city/village)	**1.5**	**9.0**	**57.9**	**18.6**	**5.3**	**7.7**
NWFD (identification: region)	**0.8**	**6.2**	**51.2**	**23.0**	**6.9**	**11.9**
NWFD (identification: country)	**0.8**	**4.5**	**41.8**	**24.9**	**13.1**	**15.0**

* Ranked according to the data of the column "Upper group".

Source: sociological survey carried out by ISEDT RAS in 2013.

For instance, only 5.3% of the population consider themselves to be the lower social class on average in the NWFD in the scale of their city (village); but if we compare this indicator with the total population of the country, this figure increases in 2.5 times up to 13.1%. This circumstance indicates the presence of socio-economic problems at the regional and municipal level (low levels of income, economic activity and investment attractiveness of the area, etc.). Thus, we can define three levels of identity. The first and the highest level includes settlement identity (intensity of identity above average). The second – regional identity (with average intensity). The third level is below average, it combines national and universal identity.

When assessing the quality of life, people often compare it with the life in the neighboring regions of the country; therefore, the issues of regional disparities and differentiation between Russian regions are reflected in the socio-economic and geographic location of their territories. So, according to subjective assessments of the respondents we can conclude that quality of life in Saint Petersburg, in the Kaliningrad and Leningrad oblasts is higher than in other regions of the Northwestern Federal District. One in three people in the Pskov Oblast and 28.3% of respondents in the Novgorod Oblast thinks that he/she lives worse than their neighbors *(tab. 5)*. On average, the share of positive and negative answers in the Federal District is balanced: as suggested by slightly less than half of the respondents (45.5%), it all depends on the example of comparison. It means, we can conclude that in general the District inhabitants are satisfied with the quality of

Table 5. Distribution of answers to the question: "In your opinion, do the residents in your region live better or worse than the residents in the nearby regions?"* (as a percentage of the number of respondents)

Region	Answer options			
	They live better	They live better compared to some people, and worse, compared to others	They live worse	Difficult to answer
Saint Petersburg	48.1	35.2	3.5	13.2
Kaliningrad Oblast	29.5	32.5	18.0	20.0
Leningrad Oblast	28.4	47.4	8.0	16.2
Komi Republic	21.0	41.2	18.0	19.8
Northwestern Federal District	**17.4**	**45.5**	**17.6**	**19.5**
Murmansk Oblast	14.0	53.4	14.2	18.4
Vologda Oblast	13.6	46.8	16.0	23.6
Novgorod Oblast	9.5	39.8	28.3	22.5
Pskov Oblast	7.0	46.3	30.3	16.5
Arkhangelsk Oblast	6.3	51.0	22.5	20.3
Republic of Karelia	4.8	59.0	21.4	14.8

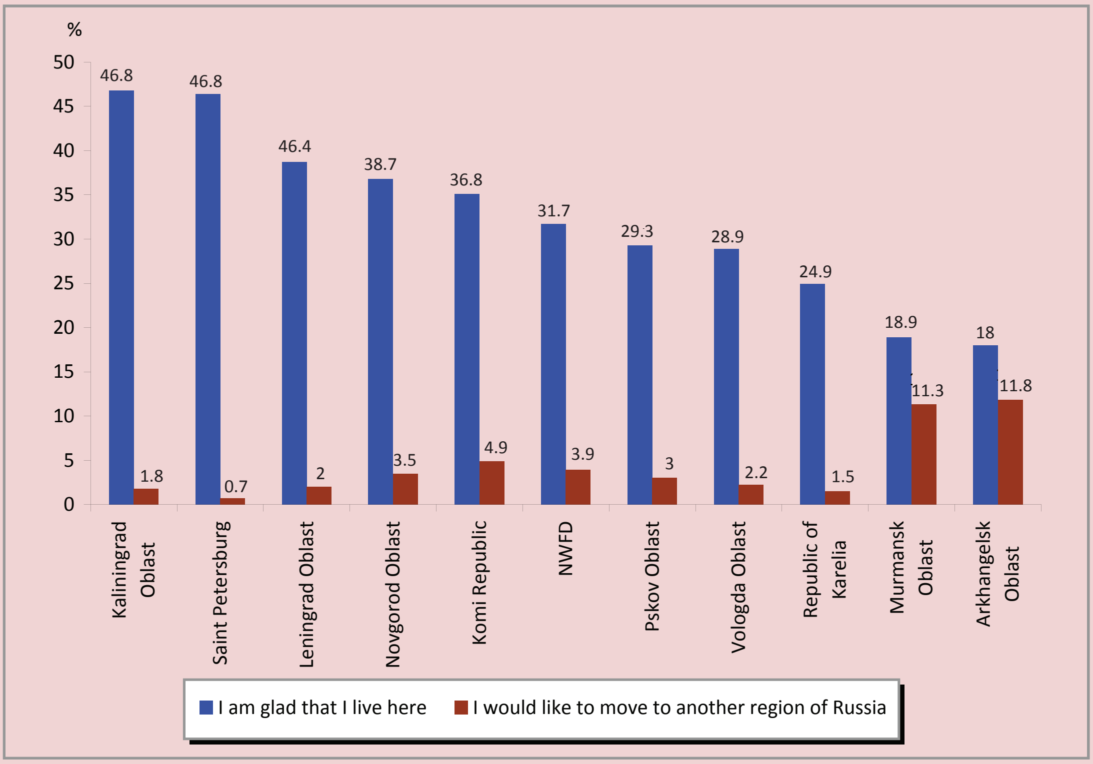
* Ranked according to the data of the column "They live better".
Source: sociological survey carried out by ISEDT RAS in 2013.

life in the place of their residence and do not express protest moods.

As follows from the survey data, most NWFD residents (53.5%) were born in their place of residence, 27% came voluntarily from a different town of the same region. 17.2% of the population came voluntarily from other regions of Russia and the CIS: the Kaliningrad Oblast turned out to be the most attractive (35%), because it is a free economic zone and it provides favorable conditions for self-employment; the least attractive areas include the Arkhangelsk Oblast and the Komi Republic (10% for each), because they are part of the Northern territories. Territorial mobility of the District inhabitants is mostly conditioned by a change in marital status – for one in four people; by a change the place of study, professional activity (work) – for one in five people. To a lesser extent people's mobility is affected by the lack of conditions for professional growth and absence of comfortable living conditions (5 and 12%, respectively) [8]. For example, people move to Saint Petersburg, the Republic of Karelia and the Vologda Oblast mostly because of education opportunities (43, 35.3 and 27.8%, respectively), their moving to the Pskov Oblast is connected with the change of marital status (33.5%), and to the Arkhangelsk Oblast – with the change of work (29%).

The distribution of answers to the question: How do you feel toward your region?" backs the conclusion about the prevalence of positive assessments of social well-being among the NWFD population. Almost one in three inhabitants of the Federal District is glad that he/she lives here *(fig. 1)*; half of the respondents are

Figure 1. Distribution of answers to the question: “What are your feelings towards the region you live in?” (as a percentage of the number of respondents)



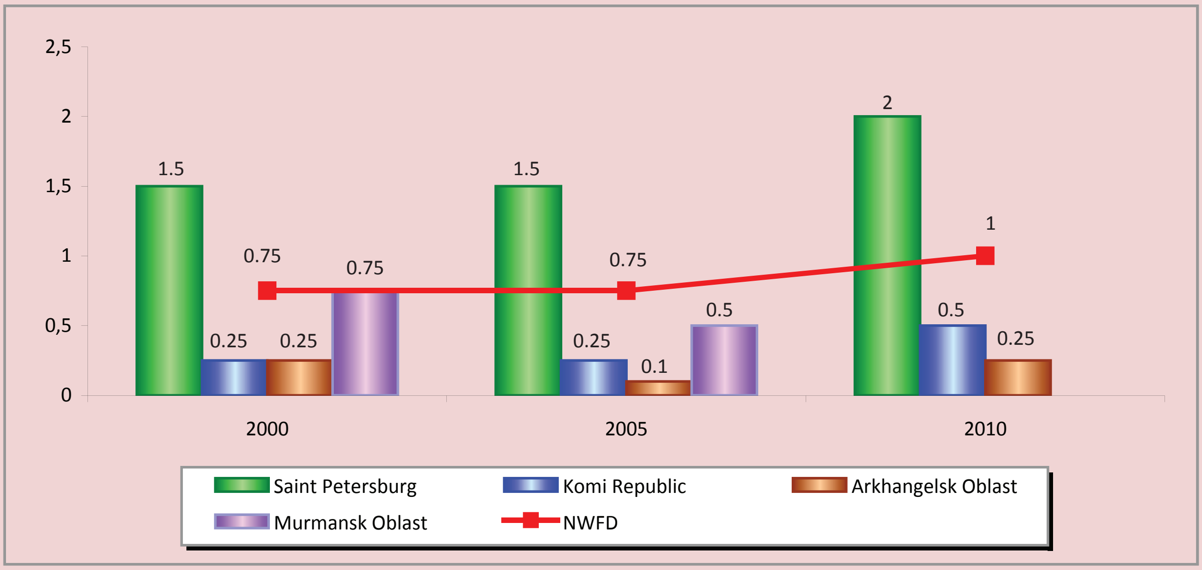
Source: sociological survey carried out by ISEDT RAS in 2013.

generally satisfied with the place of their residence, although they are aware of existing problems. However, there are certain regions in the District, where people are not so positive and experience greater dissatisfaction with the place of their residence; these are mainly Northern regions: the Murmansk and Arkhangelsk oblasts. Over 11% of respondents from these regions would like to move to another region, and the main reason for this lies in the deterioration of living standards in the recent years, and also in severe climatic conditions.

Speaking about the socio-cultural development of the Northwestern Federal District, let us refer to the study of conditions and specifics of modernization processes that were going on in the regions in 2000–2010. Secondary modernization (SM) is a process accompanying the development of industrial society, based on knowledge, informatization, greening and globalization [7]. The main priority is the improvement of life quality; and the dynamics of SM is manifested through innovation in knowledge, institutions, and human capital. The positive dynamics of this process in the regions of the NWFD can be observed in the period under consideration: the level of SM has increased in all areas. In the end, five regions (the Republic of Karelia, the Arkhangelsk, Novgorod, Vologda, Pskov oblasts) in 2005 managed to overcome the low level threshold, and rose to the level below the median; and in 2010 three of them (the Republic of Karelia, the Archangelsk and Novgorod Oblasts) reached the median level. For 10 years two regions (the Leningrad Oblast, the Komi Republic) have shifted from the "lower median" to the "median" level; and one region (the Murmansk Oblast) has reached the level "above median". Saint Petersburg stands out among all the territories: in 2010 none of the District's regions was able to reach the level that the city had in 2000. This difference is provided by a high index of knowledge innovation, which exceeds that in other territories from 3 to 12 times.

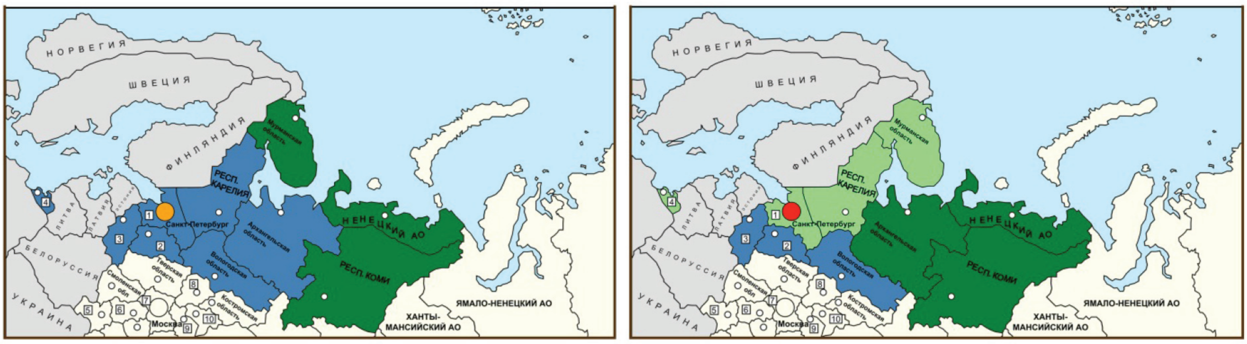
The total index of implementation of secondary modernization in the NWFD, rising from 67% in 2000 to 73% in 2005, amounted to 80% in 2010, which correlates with the level of Portugal (23rd place in the world modernization). The District takes the second place after the Central Federal District by the level of secondary modernization, and its rate is higher than national average by 5–8%. Among the four groups of parameters of SM in the District two groups have rather high indices: quality of life (102%) and knowledge transfer (93%). Here the values of three out of eight indicators exceed 100%: provision with television; number of doctors per 1000 inhabitants; proportion of students among the 18–22 year-old population. The constraining factor consists in the insufficient provision of households with personal computers (index = 65%). However, this indicator has increased in 11 times over the analyzed period; consequently, in the next 5–7 years we can expect it to increase to a 100% level. The improvement of life quality is hampered by low life expectancy (LE), which by the standards of developed countries should be not less than 80 years, and it is 68.2 years in the NWFD, and 69.8 years in Russia in 2010. The increase in LE is one of the priority tasks set out in the Decree of the President of the Russian Federation of May 7, 2012 No.606 (to increase life expectancy in the Russian Federation up to 75 years by 2018). The situation is more complicated with regard to other two SM sub-indices: in the field of knowledge innovation (76%) and economy quality (50%). The former is constrained by the low share of R&D expenditures in GRP (84%) and by a small number of people who filed patent applications (35%). After its decline in 2005, innovation component in the latest analyzed years (2008, 2009, 2010) began to rise again, though not in all the regions of the NWFD, but, first of all, in the Republic of Karelia, Nenets Autonomous Okrug, the Leningrad, Murmansk, Novgorod oblasts (the share of R&D expenditures in GRP), in Saint Petersburg and the Pskov Oblast (the number of residents who filed patent applications). The second sub-index is characterized by the stagnation of all its constituent variables – these include low GDP per capita, high share of added value in the material sphere in GRP, and the share of people employed in the real sector in total employment.

Figure 2. Phase of secondary modernization of the NWFD territories that have reached the transitional phase of primary modernization

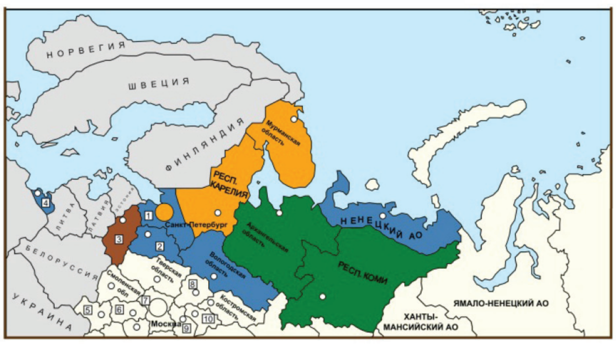


Source: IS "Modernization" http://mod.vscc.ac.ru/

Figure 3. Dynamics of the states (types) of modernization degree in the regions of the NWFD



2005 2010



2000

NORTHWESTERN FEDERAL DISTRICT: DYNAMICS OF MODERNIZATION IN THE REGIONS (2000–2010)

PM: beginning, growth, traditional; below median, preliminary	PM: maturity; below median	PM: maturity; median, above median	SM: preparation; all average	SM: beginning; high, above median, median	SM: growth; high, above median,

Legend: PM – the stage of primary modernization, SM – the stage of secondary modernization. After (:) – phases of modernization stages, after (;) – levels of SM.

Figures on the map denote the following republics, krais, oblasts: 1. Leningrad Oblast, 2. Novgorod Oblast, 3. Pskov Oblast, 4. Kaliningrad Oblast, 5. Bryansk Oblast, 6. Kaluga Oblast, 7. Moscow Oblast, 8. Yaroslavl Oblast, 9. Vladimir Oblast, 10. Ivanovo Oblast.

Source: IS "Modernization". Available at: http://mod.vscc.ac.ru/

The phase of modernization is very important for secondary modernization. In accordance with the methodology, the phase of SM is determined provided that the territory enters the transitional phase of primary modernization (PM) [4]. In 2000, the NWFD as a whole and its five regions corresponded to a phase of transition to SM, but by 2010 – there remained only three such regions *(fig. 2)*. Such trends are conditioned by the increase in the ratio of value added in agriculture to GDP, which must be less than 5%, and also by the increase in the share of employment in agriculture (less than 10%) [5]. Thus, by the end of the analyzed period, only the Republic of Komi and Arkhangelsk Oblast were in the preparatory phase of SM; Saint Petersburg corresponded to the higher stage – the phase of development.

We should point out the variable success of the District in comparison with the types of modernization degree. So, the situation that was quite favorable in 2000 in the Karelia Republic and the Murmansk Oblast, which carry on information (secondary) modernization (type 5, *fig. 3*) and are in the phase of its beginning, has deteriorated, and 10 years later they corresponded to only the 3rd type – mature industrial (primary [3]) modernization. In 2005 the Arkhangelsk Oblast went back to the second type – "the region that continues industrial modernization". Similar trends occurred due to the increase in the share of value added in agriculture. We note positive developments in modernization processes in other regions, except for the Komi Republic, which has been in a state of continuing information (secondary) modernization characterized by stagnation for 10 years already. The Republic has a very low index of knowledge innovation, constituting only 23% of the standard in developed countries.

As can be noted, the degree of modernization in the Northwestern Federal District has reached the fifth type (NWFD became the first among the eight RF federal districts), i.e. "regions, continuing information (secondary) modernization and preparing its development" in 2000 already. The vectors of increasing development should be directed toward the improvement of economic and cognitive components. The movement of NWFD regions along the modernization path was altogether consistent with regional national trends of inertia of transition in 2000–2008 from the first (1 and 2 types) to the second (3 and 4 types) stage of implementation of modernization strategy, as well as with the slowdown of this transition from 2008 under the impact of the crisis, which indicates that the integrated index of modernization is considerably lower in comparison with the international level *(tab. 6)*.

In 2000–2010 the Northwestern Federal District experienced a slight positive dynamics of the integrated index of modernization: its value increased from 59 to 71%, which correlates with the level of medium developed countries (range from 53 to 83%). Among the three groups of parameters of the integrated index the situation is less favorable in the economic sphere (the index is 56%). However, as we can see from the detailed consideration of

Table 6. Distribution of Russian regions by types of modernization degree *

Condition (type) of modernization degree	Number of the RF regions (NWFD regions)				
	2000	2005	2008	2009	2010
Type 6 – developed regions that continue to develop information (secondary) modernization	1	2	1	2(1)	3(1)
Type 5 – regions that carry on information (secondary) modernization	3(3)	3(1)	8(2)	6	4
Type 4 – regions that are launching information (secondary) modernization	9(2)	9(3)	12(3)	9(3)	11(3)
Type 3 – regions with mature industrial (primary) modernization	7	12	20 (3)	25 (4)	23 (4)
Type 2 – regions that carry on industrial (primary) modernization	45 (5)	40 (7)	29 (3)	32(3)	33 (3)
Type 1 – regions that are launching, have launched, resumed industrial (primary) modernization	18(1)	17	13	9	9

* For details on the types see: Lapin N.I. Sostoyanie i problemy sotsioekonomicheskoi i sotsiokul'turnoi modernizatsii Rossiiskoi Federatsii [State and Problems of Socio-Economic and Socio-Cultural Modernization of the Russian Federation]. Sotsis [Sociological Studies], 2014.

Source: IS “Modernization”. Available at: http://mod.vscc.ac.ru/.

regional modernization, the index of the knowledge transfer has the lowest value (41–59%) in all the territories, except for the city of Saint Petersburg (93%). Such difference proceeds from the fact that Saint Petersburg is characterized by a large share of R&D expenditures in GRP and by a significant number of people applying for patents (per 1 million people); it is in 6–13 times greater than the indicators in the neighboring subjects of the Russian Federation. It is necessary to note the similarity of the situation with integrated modernization in most regions of Russia and in the NWFD: the index of IM is very small – it is in the range from 42 to 70%. Higher levels are observed only in Moscow – 89%, Saint Petersburg – 78% and the Tomsk Oblast – 72%. The main reasons hindering the processes of modernization for most of the regions are the lack of resources, low share of industries with high added value, low level of development of R&D sector.

A slowdown of modernization processes contains two aspects: economic and cognitive. In all the regions, except for Saint Petersburg, they correspond to the low level. A high index of knowledge, characteristic of Saint Petersburg, supplies the cognitive component in the District, thereby leading to a balance. However, there is no direct “interaction” between the federal city and the Leningrad Oblast, which is still in the primary (industrial) stage of modernization. It should be noted that the lowest level of balance of the integrated index of modernization (IIM) is observed in the Vologda and Pskov oblasts.

Thus, the Northwestern Federal District has a number of advantages, which contributed to the achievement of a higher level of competitiveness, than in other territories of the Russian Federation. One of these advantages is the geographical position, namely, the neighborhood with the countries of the European Union and access to the sea trade routes. Natural resource base of the District contributes to the development of the fuel, metallurgical, chemical, forestry and fishery industries. Of great importance is the administrative center – Saint Petersburg. The indicators of the provision of the District with objects of industrial infrastructure exceed the national average level. However, the condition of infrastructure and trunk communications in many municipalities is not good. Due to the absence of necessary transport component and because of the sparse network of cities in the northern part of the NWFD there is a low cohesion, which hinders the efficient implementation of its economic potential. This is one of the main factors impeding the development of the District, so in the future it is necessary to pay increased attention to improving the quality of roads, heat supply systems and power grids. Production potential of the regions is limited by the conditions of the economy and innovation restructuring. It often happens that the volume and structure of investment proposals do not meet the degree of development of territorial infrastructure; most of the funds are worn out and obsolete. Requirements of modernization and transition to a new stage of technological mode necessitate the development and renewal of production capacities at a new scientific, technological and innovation basis.

According to the level of socio-cultural arrangement of cities and municipalities, the District is attractive to the population, including migrants. The only disadvantage is harsh climatic conditions in its northern part. The inaccessibility of social infrastructure facilities (education, healthcare) due to their concentration in larger settlements is an urgent problem for the population in peripheral areas. Practice shows that the territories with highly developed education, science, health and culture become leaders in the socio-economic development of the territory. The preservation and enhancement of this potential is a priority task for modernization policy, because without it there can be no innovation economy and rapid development. It means that speedy modernization and development require the achievement of a high quality of life. It is necessary to create favorable environment, mobilizing society for modernization, as well as certain (modern) level of innovation, technological and socio-cultural development. For instance, a well-known sociologist P. Sztompka, Professor at the Jagiellonian University, points out that "modernization is a specific way of social establishment that provides the population with wide-open access to the expanding capabilities of human potential implementation" [9]. Naturally, this requires:

- widely available education, providing the people with necessary skills to effectively use the technological, economic and cultural opportunities that modernization offers;
- access to higher forms of art and culture raising sensitivity and enriching experiences.

In recent years, the opportunities of obtaining higher education have expanded considerably, though education is not always of a decent quality, but it does not reduce its importance considerably. This resource allows the modern Russian society to move to a higher stage of development and involvement of the population in the processes of modernization. Widespread informatization and computerization of public life expands the opportunities and ways of achieving goals. At the same time, these processes have a lot of negative effects: in particular, promotion of virtual communication leads to reduction in the value of actual communication. Here the perceptual side experiences more changes (the process of perception and understanding of each other by the partners), and also there is an issue of mutual trust, decency and honesty; it can result in social isolation, social apathy, unwillingness to take collective action and, as a result, to the atomization of society.

According to opinion polls (in the framework of the program "Socio-cultural portraits of Russian regions") held in different regions of the Russian Federation, a significant part of its inhabitants (33.3%) feel affinity with the people of the settlement in which they live (the options "remote" and "alien" are chosen by 5.9% of respondents). Moreover, in the scale of "settlement – oblast – Russia" the value of this indicator reduces and the share of the population characterized by indifferent and aloof attitude to other people (36.7%) increases [13]. This may indicate the concentration of interests only on one's personal life; it is an alarming trend, since it increases disunity in society. Public opinion polls conducted by the Institute of Socio-Economic Development of Territories of the Russian Academy of Sciences in the Vologda Oblast [12] indicate the sustainable growth of indicators of social mood and stock of patience, and reduction in the level of protest potential (from 20.7 to 16.0% in 2007 and 2013, respectively). At the same time, we observe an increase in the share of people who consider that they cannot influence the state of affairs in the city (from 62.1 to 68.6% in 2011 and 2014, respectively), in the oblast (from 66.6 to 73.3%), in the country (from 67.4 to 73.5%); in addition, there still remain certain negative trends in public opinion concerning the performance of Russia's Government; there are no positive changes in the assessment of the work of the authorities; the population expects less and less from the activities of the authorities. The findings indicate the isolation of man, "retirement into oneself", and the fading of hopes to receive support from the state. We can say quite reasonably that economic and social atomism and reduction of passionarity are characteristic not only of the Vologda Oblast, but also of the Russian Federation as a whole [6]. And the resulting imbalance in the society may lead to unstable situations, increasing the risks and damages for the socio-cultural system. Therefore, it is necessary to adjust socio-economic modernization in the direction of improvement of human potential and enhancement of the socio-cultural component in the development of the society.

Another factor that hinders modernization is inefficient public administration, which is manifested primarily in the recent crisis of regional budgets [1]. From year to year there remains a negative tendency of increasing number of territories with debt burden above 70%. In 2012 there were seven such regions in Russia, in 2013 their number was 16. The list includes three regions from the Northwestern Federal District: the Vologda Oblast (public and municipal debt was 34 871 million rubles in 2013) [11], the Pskov Oblast (12 798 million rubles) and the Republic of Karelia (15 972 million rubles). It is necessary to mention the fact that the high level of debt is combined with its high growth rate (for example, the growth rate in the Pskov Oblast in 2012–2013 was 159.5%) [2].

Modernization requires political will and effective public administration. The main task of the government (in the country, region, municipality) speaking about modernization is to conduct forward-looking policy and institutional reforms aimed equally at the development of innovation, new technological structure, and the development of civil society, cultural values and norms that allow people to realize their potential to the fullest extent.

Sited works

1. Ilyin V.A. New Agenda and State Management Efficiency. *Economic and Social Changes: Facts, Trends, Forecast*, 2013, no.5(29), pp. 9-13.
2. Ilyin V.A., Povarova A.I. *Public Administration Efficiency*. Vologda: ISERT RAN, 2014. 181 p.
3. Lapin N.I. O On the Strategy of Integrated Modernization. *Economic and Social Changes: Facts, Trends, Forecast*, 2014, no.1(31), pp. 26-35.
4. Lapin N.I. About the Experience of the Stage-Wise Analysis of Modernization. *Social Sciences and Modernity*, 2012, no.2, pp. 53-65.
5. Lastochkina M.A. Territorial Specifics of Russia's Modernization. *Regional Economics and Management: Electronic Scientific Journal*, 2013, no.2(34), pp. 29-41.
6. Morev M.V., Kaminskii V.S. Issues of State-Society Relations. *Economic and Social Changes: Facts, Trends, Forecast*, 2013, no.6(30), pp. 207-224.
7. He Chuanqi. *World and China Modernization Report Outlook (2001–2010): Translated from English*. Under general editorship of N.I. Lapin; foreword by N.I. Lapin, G.A. Tosunyan. Moscow: Ves' Mir, 2011. 256 p.
8. Shabunova A.A., Solov'eva T.S. Social Stratification and Social Mobility of the Vologda Oblast Population. *Research in the Humanities*, 2013, no.11, November. Available at: http://human.snauka.ru/2013/11/5126
9. Sztompka P. Modernization as Social Becoming (Ten Theses on Modernization). *Economic and Social Changes: Facts, Trends, Forecast*, 2013, no.6(30).
10. Equity and Development. *World Development Report,* 2006, no.4. The World Bank and Oxford University Press, 2006.
11. Ilyin V.A. The Problems of Development of a Region under the Conditions of the Global Crisis (Using the Vologda Region as an Example). *Studies on Russian Economic Development*, 2010. Vol.21, no.1, pp. 56-63.

12. Lastochkina M.A. Factors of Satisfaction with Life: Assessment and Empirical Analysis. *Studies on Russian Economic Development*, 2012, Vol.23, no.5, pp. 520-526.
13. Shabunova A.A., Okulova N.A. Russians Assess Social and Cultural Regional Milieu. *Sociological Studies*, 2011, No. 6, pp. 36-43.

References

1. Ilyin V.A. Novaya povestka dnya i effektivnost' gosudarstvennogo upravleniya [New Agenda and State Management Efficiency]. *Ekonomicheskie i sotsial'nye peremeny: fakty, tendentsii, prognoz* [Economic and Social Changes: Facts, Trends, Forecast], 2013, no.5(29), pp. 9-13.
2. Ilyin V.A., Povarova A.I. *Problemy effektivnosti gosudarstvennogo upravleniya* [Public Administration Efficiency]. Vologda: ISERT RAN, 2014. 181 p.
3. Lapin N.I. O strategii integrirovannoi modernizatsii [On the Strategy of Integrated Modernization]. *Ekonomicheskie i sotsial'nye peremeny: fakty, tendentsii, prognoz* [Economic and Social Changes: Facts, Trends, Forecast], 2014, no.1(31), pp. 26-35.
4. Lapin N.I. Ob opyte stadiinogo analiza modernizatsii [About the Experience of the Stage-Wise Analysis of Modernization]. *Obshchestvennye nauki i sovremennost'* [Social Sciences and Modernity], 2012, no.2, pp. 53-65.
5. Lastochkina M.A. Territorial'nye osobennosti modernizatsii Rossii [Territorial Specifics of Russia's Modernization]. *Regional'naya ekonomika i upravlenie: elektronnyi nauchnyi zhurnal* [Regional Economics and Management: Electronic Scientific Journal], 2013, no.2(34), pp. 29-41.
6. Morev M.V., Kaminskii V.S. Problemy vzaimodeistviya gosudarstva i obshchestva [Issues of State-Society Relations]. *Ekonomicheskie i sotsial'nye peremeny: fakty, tendentsii, prognoz* [Economic and Social Changes: Facts, Trends, Forecast], 2013, no.6(30), pp. 207-224.
7. He Chuanqi. *Obzornyi doklad o modernizatsii v mire i Kitae (2001–2010): per. s angl.* [World and China Modernization Report Outlook (2001–2010): Translated from English]. Under general editorship of N.I. Lapin; foreword by N.I. Lapin, G.A. Tosunyan. Moscow: Ves' Mir, 2011. 256 p.
8. Shabunova A.A., Solov'eva T.S. Sotsial'naya stratifikatsiya i sotsial'naya mobil'nost' naseleniya Vologodskoi oblasti [Social Stratification and Social Mobility of the Vologda Oblast Population]. *Gumanitarnye nauchnye issledovaniya* [Research in the Humanities], 2013, no.11, November. Available at: http://human.snauka.ru/2013/11/5126
9. Sztompka P. Modernizatsiya kak sotsial'noe stanovlenie (10 tezisov po modernizatsii) [Modernization as Social Becoming (Ten Theses on Modernization)]. *Ekonomicheskie i sotsial'nye peremeny: fakty, tendentsii, prognoz* [Economic and Social Changes: Facts, Trends, Forecast], 2013, no.6(30).
10. Equity and Development. *World Development Report,* 2006, no.4. The World Bank and Oxford University Press, 2006.
11. Ilyin V.A. The Problems of Development of a Region under the Conditions of the Global Crisis (Using the Vologda Region as an Example). *Studies on Russian Economic Development*, 2010. Vol.21, no.1, pp. 56-63.
12. Lastochkina M.A. Factors of Satisfaction with Life: Assessment and Empirical Analysis. *Studies on Russian Economic Development*, 2012, Vol.23, no.5, pp. 520-526.
13. Shabunova A.A., Okulova N.A. Otsenka naseleniem sotsiokul''turnoi sredy regiona [Russians Assess Social and Cultural Regional Milieu]. *Sotsiologicheskie issledovaniya* [Sociological Studies], 2011, No. 6, pp. 36-43.

SOCIAL DEVELOPMENT

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Labor satisfaction as an indicator of public administration efficiency (sociological analysis)

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Abstract. Labor satisfaction is an indicator of social wellbeing of the working population. The study of subjective perceptions of labor is an important indicator of public administration efficiency.

The article contains the analysis of the population's satisfaction with labor, particularly, with one of its structural components – labor conditions. It reveals the high correlation of these indicators with the satisfaction with everyday life and labor productivity. It determines the degree of employees' satisfaction with working conditions in such areas as health and psychological atmosphere at the workplace, equipment capability and security. The study discloses employees' estimates in socio-demographic and territorial-dimensional aspects.

The research demonstrates the interrelation between satisfaction with working environment and implementation of labor potential. The analysis indicates the importance of regular sociological research into the issues of satisfaction with various aspects of labor activity.

The article indicates that for the country's development it is necessary to take into account the labor satisfaction factor (in the narrow sense – working conditions) while developing strategies and approaches for social-economic policy and defining the standards of social responsibility, primarily, of the state and employers.

Key words: labor conditions, injury, job satisfaction, labor productivity, labor potential, public administration efficiency, social policy.

Transition to a postindustrial society in Russia challenges the system of social and labor relations, particularly, employees' labor productivity. This has become one of the priorities of long-term government economic policy. It is no coincidence that the May Decrees of the RF President, signed by V.V. Putin on the day of his inauguration (2012), include the growth of productivity by one and a half times by 2018 (on the average by 5–6% per year) as concrete benchmarks of the Russian economy development.

However, already in October 2013 at the investment forum "Russia Calling!" V.V. Putin noted that the current pace of productivity growth (3% by the end of 2012; *fig. 1*) did "not only reduce the gap to the leaders in terms of efficiency, but actually meant conservation of the one-sided economic structure and its material nature" [10].

According to the Organization for Economic Cooperation and Development (OECD), labor productivity in Russia is 24 U.S. dollars per person per hour, it comprises 39% of the U.S. level (Russia ranks the last but one; Mexico – the last) [3, p. 5]. The authorities believe that "new factors of development" can help to overcome this gap. They are the following: high quality professional education, a flexible labor market, favorable investment climate and modern technology [11]. In other words, it is required to transfer from extensive to intensive reserves of this indicator growth. The search of such reserves is the purpose of this article.

Intellectual reserves for increasing labor productivity

The main intensive reserves to boost labor productivity are, on the one hand, increased productivity of job places (introduction of advanced technology,

Figure 1. Dynamics of labor productivity indices in Russia in 2003–2012 (in % to the previous year)

Source: data of the Federal State Statistics Service.

efficient manufacturing process management), on the other hand, better quality of the labor force (education and skills).

Raised productivity of job places is declared at the highest level. The May Decrees have a target: it is necessary to provide 25 million new high-performance jobs by 2018. However, it remains unclear what kind of jobs can be defined as high-performance. The OECD considers employees' "innovativeness" as an indicator, which is mainly determined by the level of wages. According to the methodological recommendations of the Federal Statistics Service State, high-performance jobs are all "jobs at the enterprise (organization) where the average monthly wage of employees (for individual entrepreneurs – average earnings) is equal to or exceeds the set value of the indicator (the threshold value)" [1]. For Russia, this indicator is clearly insufficient, as people who work not in the most high-tech industries have the highest incomes in the country. According to the experts, the recording of such job places should be carried out on the basis of their certification and assessment of their high-performance [21].

Table 1 demonstrates that the creation or modernization of high-productive job places is slow in Russia. Five federal districts have not experienced any signi-ficant changes for 5 years. Three districts (the Volga, Siberian and Ural federal districts) have a negative trend in this respect.

The study of the state of the population's labor potential[2], carried out by the Institute of Socio-Economic Development of Territories of the Russian Academy of Sciences in the Vologda Oblast since 1997, shows that according to the method of labor behavior identification[3] the share of those people who are classified as "innovators" (mostly these are people who support economy modernization), is approximately 27%. When the entire working population in Russia is taken into consideration, the share amounts to about 19.2 million. However, today the number of high-productive jobs, where the "innovator'" potential is applied, is in 5 times less, which is insufficient to realize the existing intellectual potential [9, p. 142]. That is why, it is inadequate to enhance productivity in the required pace.

The monitoring of the labor potential quality, conducted by the ISEDT RAS according to the methodology of the Institute of Social and Economic Studies of Population [13, p. 25-37], measures the following structural components: physical and mental health, cognitive

[1] Methods to calculate the indicator "The growth of high-performance jobs, in % to the previous year: the Decree of the RF Government" of 27 December, 2012 no. 2550-p (on behalf of the President of the Russian Federation of 29 September, 2013 Pr-2266).

[2] Monitoring of the quality of labor potential in the region has been conducted by ISEDT RAS since 1997. The research object is able-bodied population of the Vologda Oblast. The surveys are conducted annually in August–September in the cities of Vologda and Cherepovetz and in eight districts of the region (Babayevsky, Velikoustyugsky, Vozhegodsky, Cherepovetsky, Kirillovsky, Nikolsky, Tarnogsky and Sheksninsky districts). The survey method is the questioning of respondents at the place of their residence. The sample size is 1500 people, the sampling error does not exceed 3%. The technical processing of information is carried out by means of programs SPSS and Excel.

[3] Read more about the method: Problemy effektivnosti gosudarstvennogo upravleniya. Chelovecheskii kapital territorii: problemy formirovaniya i ispol'zovaniya [Problems of Efficiency of State Management. Human Capital of the Territory: Problems of Formation and Use]. Ed. by A.A. Shabunova. Vologda: ISERT RAN, 2013. 184 p.

Table 1. Job places (number of employees) in Russian enterprises implementing technological innovation, million places

Territory	Year					2012 to 2008, %
	2008	2009	2010	2011	2012	
Russian Federation	***3.84***	***3.50***	***3.38***	***3.75***	***3.85***	***100.2***
Far Eastern Federal District	0.09	0.13	0.13	0.14	0.16	177.7
Northwestern Federal District	0.28	0.32	0.27	0.34	0.36	128.5
Central Federal District	0.74	0.72	0.68	0.84	0.91	122.9
Southern Federal District	0.19	0.19	0.19	0.19	0.19	100.0
North Caucasian Federal District	0.04	0.04	0.04	0.03	0.04	100.0
Ural Federal District	0.63	0.57	0.57	0.61	0.61	96.8
Siberian Federal District	0.41	0.35	0.40	0.41	0.39	95.1
Volga Federal District	1.19	1.15	1.06	1.17	1.17	89.4

Source: Sait Federal'noi sluzhby gosudarstvennoi statistiki [Website of Federal State Statistics Service]. Available at: http://www.gks.ru/free_doc/new_site/business/nauka/%5Cind_2020/rab_mesta.html

Table 2. Assessment of the labor potential quality of the population in the Vologda Oblast*

Qualitative characteristics of labor potential	1997	2012	Trend line 1997–2012
Basic quality of labor potential			
1. Moral level	0.775	0.784	/ rising
2. Mental health	0.699	0.758	/ rising
3. Sociability	0.733	0.754	/ rising
4. Physical health	0.682	0.730	/ rising
5. Cultural level	0.609	0.701	/ rising
6. Need for achievement	0.612	0.654	/ rising
7. Cognitive potential	0.630	0.612	\ falling
8. Creative potential	0.593	0.559	\ falling
Integral indices of labor potential quality and requirements for job places			
Integral index of labor potential quality (social competence)	0.655	0.680	/ rising
Integral index of jobs' requirements to the quality of labor potential	0.721	0.729	/ rising

Source: Monitoring kachestva trudovogo potentsiala naseleniya Vologodskoi oblasti [Monitoring of the Labor Potential Quality in the Vologda Oblast]. ISERT RAN, 1997 – 2012.

capacity, creativity, sociability, cultural and moral level, need for achievement[4]. A Likert scale[5] is used to assess these components. The questionnaire consists of blocks of answers-statements mostly with a five-point rating scale (according to the degree of the respondent's consent with the proposed statements). Each of the qualitative characteristics has its own set of questions. As a result the labor potential components get a numeric rating in the indices from zero to one, which are calculated as the ratio of the actual number of points on a scale to the

[4] or details see: Leonidova G.V., Chekmareva E.A. Trudovoi potentsial regiona: zaklyuchitel'nyi otchet o NIR [Labor Potential of the Region: Final Research Report]. Vologda, 2009. 117 p

[5] A Likert scale is a type of questionnaires (attitudes). Named by the author, P. Likert, who offered it in 1932. The scale consist of a set of statements with a five - or seven-point rating scale, which identify the degree of the respondent's consent with this statement.

maximum possible. The assessment of the labor potential quality in 2012, compared to 1997, is presented in *table 2*.

According to the monitoring results, in 1997–2012 the general trend of reduction of dynamics of the social capacity index (the integral characteristic of the labor potential quality) was positive: it ranged from 0.655 in 1997 to 0.680 points in 2012. The indices have been growing by almost all basic qualitative characteristics of the labor force. However, the significant scientific results of the study are the following: identification of long-term negative trend of employees' intellectual development, their cognitive and creative capacities. This confirms the hypothesis that nowadays these qualities are not required in the domestic economy.

Working conditions as a basis for job satisfaction

The creation of high-productive jobs, based on the use of employees' intellectual potential, involves qualitative transformation of the labor market, and first of all, improvement of working conditions, spread of flexible forms of employment, encouragement of creative activity, etc. Ultimately, this leads to an increase in a healthy life span, growth of human capital, in general, and labor potential, in particular [2, p. 13]. It should be emphasized that the above-mentioned transformations are closely related to job satisfaction, which is another aspect of labor productivity growth.

According to scientists, "it is simply impossible to imagine innovation economy... without such a powerful factor as job satisfaction" [8, p. 74]. This indicator characterizes the state of consciousness that produces positive reaction to the process to meet working life challenges [20, p. 33]. What is more, it provides an employee's integrated assessment of work situations. Therefore, the concept "job satisfaction" [19] consists of estimates of, for example, the character and conditions of work that are valued negatively or positively by workers.

The interest in job satisfaction, particularly in such a structural component as working conditions, is not accidental. The reason for it lies in the fact that the task to preserve the health of the population is one of the most important in modern Russia. Its possible solution is to ensure workplace safety and to minimize losses from external causes (injuries, occupational diseases and so on). Studies show that labor potential cannot be realized to the full extent, if physical and sanitary conditions of production are unfavorable and people worry about their health and safety. "Economy of health... in Russia has led to huge demographic losses and waste of vital potential of the Russian society" [2, p. 158]. Adverse working conditions, industrial accidents and occupational diseases worsen the demographic situation in the country. Mortality rate among the working age population is excessively high: working-age adults constitute about 1/3 of all deaths during a year; it is, on average, three times higher than in developed countries and two times higher than in developing countries. Most reasons are external (accidents, poisoning, traumas).

The situation is significantly worse in Russia than in developed and developing countries (*tab. 3*).

The report "On the results of work of the ministry of labor and social protection of the Russian Federation in 2012 and tasks for 2013" marks that today almost one in three people works in harmful conditions. "Every year about 5.5 thousands of workers have "occupational diseases" [12].

According to the state statistics data, in 2012 the share of the employed population of the Russian Federation, working in conditions that do not meet a sanitary-hygienic standard was 27%. In the Vologda Oblast this index is more than one and

Table 3. Death rates due to external causes, per 100 thousand people

Country	Year		Relative deviation, %	How many times is mortality in Russia higher (2010)
	2000	2010		
Russia	224.0	148.2	66.2	-
South Africa	159.4	131.0*	82.2	1.1
Brazil	81.3	84.6	104.1	1.8
Republic of Korea	79.5	76.2	95.8	1.9
USA	56.1	59.8	106.6	2.5
Japan	54.8	47.6	86.9	3.1
Sweden	44.2	43.1	97.5	3.4
Germany	40.6	34.6	85.2	4.3
Israel	41.2	31.6	76.7	4.7
Spain	39.4	27.5	69.8	5.4

* Data for 2009

Source: OECD Database.

Table 4. Certain indicators that characterize working conditions in the Russian Federation

Indicator	Year					Deviation, %
	2008	2009	2010	2011	2012	
People have worked in conditions that do not meet a sanitary-hygienic standard, in % of the total number of employees in enterprises						
Russia	26.5	29.2	30.6	31.8	26.5	100.0
NWFD	29.5	30.3	31.9	32.9	34.7	117.6
Vologda Oblast	39.2	41.4	41.9	43.2	46.3	118.1
Number of people who have lost ability to wok for a day and more and number of fatal accidents per 1000 workers, people						
Russia	2.5	2.1	2.2	2.1	1.9	76.0
NWFD	3.3	2.7	2.9	2.6	2.2	66.7
Vologda Oblast	5.1	4.0	4.4	4.0	3.6	70.6
Number of fatal accidents per 1000 workers, people						
Russia	0.109	0.090	0.094	0.086	0.084	77.1
NWFD	0.103	0.074	0.080	0.081	0.069	67.0
Vologda Oblast	0.085	0.056	0.067	0.073	0.057	67.1
Number of person-days of people who have lost their ability to work and currently do not work per one disabled						
Russia	46.7	47.3	45.8	48.4	45.6	97.6
NWFD	44.2	45.6	43.8	45.0	46.2	104.5
Vologda Oblast	37.5	38.9	34.7	36.0	44.6	118.9

Source: Rosstat.

a half times higher (46%; *tab. 4*). The situation in the region is even deteriorating. The growth was 18% in 2008–2012.

Despite the gradual reduction, the number of production accidents in the Vologda Oblast remains the highest in the district and amounts to 3.6 people per 1000 employees, exceeding the average national level (1.9 people per 1000 employees) almost twice.

In the aspect of the types of economic activity, the number of injuries, got in the processing industries, agriculture and forestry, is increasing. The greatest number of injuries in 2012 occurred due to the impact of moving, flying apart objects and parts falling from the height, falling, collapse of items, materials, land, etc.

The main causes of severe consequences in the region in 2012 were:

- poor management of labor production – 32 cases;
- violation of a technological process – 16 cases;
- violation of traffic rules – 12 cases;
- unsatisfactory technical condition of buildings, structures, territories – 5 cases;
- operation of out-of-order equipment – 5 cases;
- poor content and shortcomings in the organization of working places – 5 [17, p. 56].

Loss of working hours, caused by temporary disability of people injured at work, involves significant socio-economic consequences. In 2008–2012 the average duration of disability per one injured in production in the Vologda Oblast increased by 19% (44.6 days) [17, p. 105]. The number of lost working days in the case of temporary disability per one injured in Russia increased in two times (from 28.4 days in 2008 to 48.4 days in 2012) [14].

Labor potential of the Russian society has not only qualitative, but also significant quantitative losses. The number of population of working age is declining, and according to the Rosstat forecast, it will decrease by almost 10% by 2030 (*tab. 5*).

Calculations, carried out by the Institute of Socio-Economic Development of Territories of the Russian Academy of Sciences, show that the similar tendency is observed in the Vologda Oblast: by 2020 the share of this population category will be 5 p.p. less than in 2013 (54% vs. 59%) [23, p. 152].

Job satisfaction: a sociological analysis

In the job satisfaction structure one can identify aesthetic and physical environment (level of safety, noise, pollution); cultural conditions (leisure areas, functional-domestic premises, catering facilities); mode and schedule of work; distance

Table 5. Forecast of the RF population by age groups (the average; at the beginning of the year)

Year	Younger than working-age		Of working-age		Older than working-age	
	thousand people	in % of total population	thousand people	in % of total population	thousand people	in % of total population
2013 (fact)	24110	16.8	86137	60.1	33100	23.1
2020	26214	18.2	79659	55.4	38019	26.4
2025	25888	18.1	77722	54.2	39641	27.7
2030	23871	16.8	77530	54.6	40515	28.6

Source: Rosstat.

Table 6. Dynamics of answers of European countries and Russia's respondents on the issue about job satisfaction and life (on a 11-point scale, in points)

Country	Job satisfaction		Satisfaction with life in general		GDP per hour of working time in 2012 (U.S. dollars, PPP)
	2006	2012	2006	2012	
Denmark	7.82	8.20	8.49	8.57	45.6
Norway	7.45	7.98	7.80	8.17	62.7
Switzerland	7.71	7.97	7.98	8.23	40.6
Finland	7.62	7.84	8.05	8.20	40.5
Sweden	7.40	7.80	7.93	7.97	44.3
The Netherlands	7.31	7.75	7.62	7.96	50.9
Belgium	7.50	7.65	7.53	7.56	50.8
Germany	6.90	7.45	6.85	7.53	49.2
Spain	7.20	7.43	7.62	7.15	41.2
UK	6.96	7.40	7.26	7.28	42.4
Poland	6.90	7.55	6.79	7.15	23.6
Estonia	6.92	7.16	6.47	6.36	22.3
Portugal	6.94	7.06	5.75	6.29	28.1
Russia	**6.15**	**6.67**	**5.36**	**5.89**	**15.5**

Note. Ranked by "Job satisfaction in 2012".

Sources: Data of the monitoring of purposes, attitudes, values and behavior of the population in Europe (30 countries), European Social Survey, 2006 –2012; OECD Database.

from the place of residence; primary characteristics of labor (severity, intensity, difficulty) and secondary ones (monotony, intellectual or creative intensity, risk, novelty, etc.); appropriate qualification; social climate in the team; prospects of professional growth; wages and others [1, 5].

According to the monitoring of value orientations and lifestyles of the population (the research carried out by the European Social Survey on the example of 30 European countries), the indicator of job satisfaction[6] as an integral characteristic of subjective perception of various aspects of employment and manufacturing situations is low *(tab. 6)*. In 2012 the indicator value was 6.67 points, which is by 8% more than in 2006. The top of the list is occupied by Denmark and Norway [24].

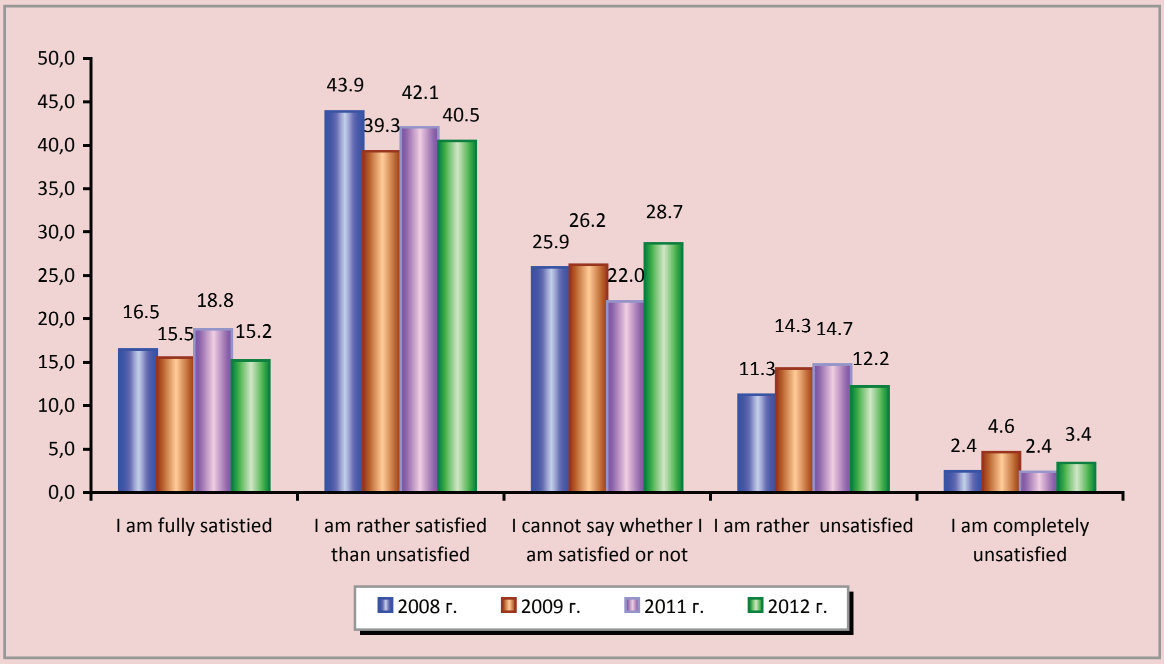
The stated above characteristics determine the level of labor management, and consequently, the level of productivity in the enterprise.

The monitoring of the labor potential quality in the Vologda Oblast indicates that in 2012 only 15% of employees were "quite satisfied" with working conditions, 40% – "rather satisfied than not", 12% – "rather satisfied", 3% – "very dissatisfied" and 40% "cannot say, whether they are satisfied or not" *(fig. 2)*.

In 2012, as in 2008, there was a significant prevalence of positive asses-sments of working conditions: 56% vs. 16% negative ones and 56% vs. 14%, respectively. So, since the crisis, satisfaction with working

[6] The research estimated "job satisfaction" on the basis of the question: "Considering all sides of your job, tell us, how satisfied you are with your current job?". The respondents' answers were recorded using an 11-point scale, with 0 being completely unsatisfied and 11 – completely satisfied.

Figure 2. Distribution of answers to the question: "Are you satisfied with your working conditions?" (in % of number of employees)



Source: hereinafter the data of the monitoring of the labor potential quality in the Vologda Oblast, ISEDT RAS, 1997–2012.

conditions has not undergone major changes: the share of positive answers has remained the same; the share of negative ones has reduced.

Residents of Cherepovets are highly satisfied with working conditions. The group of most loyal employees in the gender aspect consists of male population, in the age aspect persons under 35, in the education aspect – workers with higher and incomplete higher professional education *(tab. 7)*.

The research assesses working conditions on the basis of answers to the question "Evaluate your working conditions..." by the following directions: sanitary-hygienic and psychological atmosphere at the workplace, equipment capability, security. The answers were recorded using a 5-point scale, where 1 means that conditions are very poor and 5 – very good. During the period under analysis (2008–2011[7]), positive assessment of working conditions dominate in the responses of the working population in the Vologda Oblast, and the share of negative evaluations in different years ranges from 5% to 13% *(tab. 8)*.

The assessment dynamics shows that satisfaction with working conditions depends primarily on sanitary-hygienic conditions in the workplace. The influence of the other factors is less significant and stays approximately on the same level.

In 2011 the values decreased in practically all socio-demographic groups *(tab. 9)*. According to the estimates, the best conditions are characteristic of the Vologda

[7] This question was not asked in 2012.

Table 7. Distribution of answers to the question: “Are you satisfied with your working conditions?” in different socio-demographic groups of the population (in % of the number of workers)

Indicator	Group	Answers options					
		I am quite satisfied and rather satisfied, than not		I cannot say whether I am satisfied or not		I am rather not satisfied and very dissatisfied	
		2008	2012	2008	2012	2008	2012
Territory	Vologda	57.6	56.2	29.5	29.7	12.9	14.1
	Cherepovets	67.4	58.8	18.8	22.5	13.9	18.6
	Districts	58.5	53.8	27.5	31.3	14.0	14.9
Gender	Men	59.3	58.5	27.9	28.4	12.8	13.1
	Women	61.5	53.1	23.8	28.9	14.7	18.1
Age	Up to 35 years	56.9	56.1	28.0	26.8	15.1	17.0
	Over 35 years	63.2	55.3	24.3	30.5	12.5	14.2
Education	Pre-secondary and secondary	46.0	44.6	34.6	33.8	19.3	21.7
	Vocational secondary education	64.0	57.3	20.4	30.6	15.6	12.1
	Higher and incomplete higher	68.0	62.1	24.1	23.7	7.8	14.1

Table 8. Distribution of the working population’s estimates of their working conditions, %

Answer option	Sanitary-hygienic atmosphere			Psychological atmosphere			Equipment capability			Security		
	2008	2009	2011	2008	2009	2011	2008	2009	2011	2008	2009	2011
Good and very good	48.2	46.0	50.5	48.8	49.7	45.3	50.0	49.3	46.8	49.0	48.1	44.6
Satisfactory	42.6	43.9	39.6	46.1	42.1	45.6	41.0	41.3	43.0	42.8	41.2	42.8
Bad and very bad	9.2	10.2	9.9	5.0	8.2	9.1	9.1	9.3	10.2	8.1	10.7	12.7

Table 9. Evaluation of working conditions of different socio-demographic groups of the working population, the average (a 5-point ordinal scale)

Indicator	Group	Sanitary-hygienic atmosphere		Psychological atmosphere		Equipment capability		Security	
		2008	2011	2008	2011	2008	2011	2008	2011
Territory	Vologda	3.38	3.52	3.47	3.48	3.53	3.56	3.51	3.53
	Cherepovets	3.59	3.40	3.67	3.35	3.65	3.43	3.62	3.42
	Districts	3.47	3.61	3.46	3.42	3.35	3.40	3.41	3.28
Gender	Men	3.40	3.47	3.47	3.42	3.42	3.45	3.43	3.32
	Women	3.55	3.60	3.57	3.41	3.53	3.45	3.55	3.43
Age	Up to 35	3.48	3.56	3.50	3.42	3.50	3.49	3.49	3.36
	Over 35	3.47	3.51	3.53	3.41	3.45	3.41	3.48	3.39
Education	Pre-secondary and secondary	3.21	3.35	3.34	3.28	3.25	3.35	3.24	3.18
	Vocational secondary education	3.45	3.55	3.55	3.43	3.53	3.45	3.51	3.38
	Higher and incomplete higher	3.69	3.66	3.62	3.50	3.59	3.51	3.66	3.51

residents, women in the gender aspect, persons under 35, and university graduates in the education aspect. The average assessments in each socio-demographic group exceed the middle of the 5-point scale, indicating the dominance of positive estimates of working conditions over the negative ones in all groups.

However, inappropriate working conditions are among three most significant reasons to change a job (after low wages and personal circumstances) [9, p. 120].

The results of the monitoring of labor potential quality demonstrate that almost all qualitative characteristics of labor potential are realized most fully in the case, if employees are satisfied with working conditions *(tab. 10)*.

The only exception is physical health due to combined influence of hard work on the functional systems of a human body. Polls show that the fullest realization of person's intellectual qualities (indicators of creative and cognitive potentials) and employee's social claims is possible in favorable working environment.

Respondent mark that when they work by speciality obtained in an institution of vocational education, they are more satisfied (there are twice more people who agree with it).

Some foreign studies indicate that satisfaction (dissatisfaction) with working conditions has a significant impact on life quality of the working population, which is mainly reflected in the satisfaction of everyday life [24, 25]. The correlation analysis confirms the existence of sustainable connection between these indicators (it is known that the closer the value of the correlation coefficient to 1 is, the stronger the relationship between two random variables is). The data, presented in *table 11*, shows that people, satisfied with life in general, are more satisfied with their work. The correlation coefficient value between these indices is increasing (from 0.591 in 2008 to 0.622 points in 2011). There is a bit different relation between indicators "satisfaction with life" and "satisfaction with working conditions": the correlation coefficient value is lower than in the previous case, but the relation between these indicators is also significant.

Table 10. Realization of labor potential components in comparison with satisfaction with working conditions in 2012 (in % of the number of workers)

Qualitative characteristics of labor potential	Quite satisfied and rather satisfied, than not	Can not say whether I am satisfied or not	Rather not satisfied and very dissatisfied
Physical health	80.7	78.9	82.0
Mental health	83.0	75.9	79.8
Cognitive potential	82.4	73.6	71.9
Creative potential	73.9	65.2	61.2
Sociability	85.3	77.8	80.5
Cultural level	83.2	75.8	75.8
Moral level	82.9	75.4	77.8
Need for achievement	75.2	67.7	74.1

Table 11. Relation between satisfaction with working conditions and life in general (correlation coefficient)

Component	Satisfaction with working conditions			Satisfaction with work		
	2008 г.	2009 г.	2011 г.	2008 г.	2009 г.	2011 г.
Satisfaction with life	0,588	0,491	0,516	0,591	0,652	0,622
Source: authors' calculations.						

Therefore, employees' positive perception of working conditions and work in general involves positive changes in the assessments of their own lives.

Thus, the analysis shows the importance of working conditions in the worker's life. Obviously, skilled labor is possible only when the employee is satisfied with the surrounding environment, sanitary-hygienic and psychological environment, technical equipment and security. The research conducted by American social psychologist F. Herzberg [26] discloses that working conditions are not a motivating factor (along with wages, relationship with the staff, enterprise's policy, etc.), and serve as a means to avoid dissatisfaction (hygiene factors). Therefore, improving the quality of job places is among the priority tasks to increase workers' labor contributions.

In developed countries there is a situation when job satisfaction is one of the main motivators for efficient work ahead of career development and higher wages. The main reason for it is that in foreign labor markets there is a great number of highly skilled jobs that provide decent remuneration. Despite the state's attempts to influence the quality of job places in Russian economy labor has a routine character and low performance.

The importance of human potential increases in modern economy. Moreover, increased attention is paid to social factors of production. There is a growing understanding that man is not only an objective, but also a condition of socio-economic development. Trends of economic development, current structural changes raise the requirements to the quality of labor force and the role of employees. Their qualifications and skills should meet international standards. It results in a different approach to satisfy social needs of the working population. Health protection is in focus due to social (quality of life) and economic (performance) considerations [22].

In recent decades the concept "decent work" is accepted by economists to identify "the quality of working life" that gives a fresh look at the problem of working conditions [15; 16]. "The Concept of decent work", developed by the International Labor Organization (ILO), defines the safety of a workplace and high labor productivity as key components of social and labor sphere.

Modern realities dictate the necessity to take into account the factors promoting job satisfaction (in the narrow sense – working conditions) when developing the strategies and tactics of socio-economic policy.

Close relations between employee's health state and working conditions make the employers care about workers' health. Health care is one of the options of the state and employers' social responsibility in the context of social policy. Ensuring safe working conditions and preventing occupational injuries requires employers' unconditional performance of their obligations. They should take stringent control measures on labor protection. Employers should follow certain social standards set both at the national and international level, which, in turn, involves the development of new approaches to social policy. In our opinion, the role of international organizations and agreements, especially the ILO, is crucial, as they guarantee social and labor norms and standards at the international level within their competence and thus promote sustainable development. That is why, the measures, encouraging employers to improve working conditions, can become effective if the Federal Law "On compulsory social insurance against accidents and diseases" is optimized according to specific conditions of production [6]. The study of working population's satisfaction with work is necessary at the state level to develop the balanced policy of employment and social protection and at the level of individual enterprises to produce programs of attraction, selection, retention and motivation of employees, impact on their loyalty.

The list of critical values [4] of socio-economic development indicators has such estimative indicators as a level of satisfaction with health services or satisfaction with the level of obtained education. We consider it appropriate to extend this list by the assessments of satisfaction with working conditions, with the extremely critical value being 7–8 points (at the estimate level of developed countries). It should be a target in strategic programs for territorial development, ultimately leading to the greater efficiency of public administration.

Sited works

1. Ankudinov A.B., Belyaeva M.N., Lebedev O.V. Satisfaction with Work and its Determinants: Results of Statistical Modelling on Panel Data. *Sociological Studies*, 2013, no.11, pp. 75-83.
2. Veselkova I.N. Health and Labor Potential of the Population of Russia. *Population Policy: the Present and the Future: Fourth Valentei Readings: Collection of Reports.* Ed. by V.V. Elizarov, V.N. Arkhangel'skii. Moscow: MAKS Press, 2005. Pp. 154-159.
3. *High-Performance Workplaces in the Regions of Russia: Executive Summary.* The Chamber of Commerce and Industry of the Russian Federation, Rating Agency "Expert". Moscow: TPP-Inform, 2013. 27 p.
4. Glaz'ev S.Yu., Lokosov V.V. Assessment of the Critical Values of Indicators of the Russian Society State and their Use in the Management of Socio-Economic Development. *Herald of the Russian Academy of Sciences*, 2012, no.7, pp. 587-604.
5. Il'yasov F.N. Labor Satisfaction *(Structure Analysis, Measurement, Connection with Production Behavior)*. Ed. by V.G. Andreenkov. Ashkhabad: Ylym (Nauka), 1988. 100 p.
6. Kulikova M. A. Working Conditions and their Influence on Quality of Life. *Socio-Economic Phenomena and Processes*, 2009, no.2, pp. 75-78.
7. Leonidova G.V., Chekmareva E.A. *Labor Potential of the Region: Final Research Report*. Vologda, 2009. 117 p.
8. Monusova G.A. Labor Satisfaction: Inter-Country Comparisons. *World Economy and International Relations*, 2008, no. 12, pp. 74-83.
9. *Problems of Efficiency of State Management. Human Capital of the Territory: Problems of Formation and Use*. Ed. by A.A. Shabunova. Vologda: ISERT RAN, 2013. 184 p.

10. Putin V.V. *Speech and Answers to the Questions at the Investment Forum "Russia Is Calling": October 2, 2013*. Available at: http://pda.kremlin.ru/news/19351
11. Putin V.V. *Annual Address of the President of the Russian Federation to the Federal Assembly, December 12, 2013*. Available at: http://kremlin.ru/transcripts/17118
12. E*nlarged Meeting of Collegium of the Ministry of Labor "On the Results of Work of the Ministry of labor and Social Protection of the Russian Federation in 2012 and Tasks for 2013 of April 12, 2013*. Available at: www.rosmintrud.ru
13. Rimashevskay N.M. Ways of Increasing the Quality of Labor Potential in Modern Russia. *Population*, 2011, no.1, pp. 25-37.
14. *Labor Market, Employment and Wages*. Available at: http://www.gks.ru/wps/wcm/connect/rosstat_main/rosstat/ru/statistics/wages/
15. Sankova L.V., Pavlova E.A., Esipov A.S. Decent Labor as a New Dimension of the Quality of Working Life: Regional Aspect. *The Caspian Region: Politics, Economics, Culture*, 2012, no.1, pp. 105-110.
16. Somavia Kh. Labor as Means of Fighting Poverty. *Man and Labor*, 2003, no.7, pp. 16-17.
17. *State of Conditions and Labor Protection in the Vologda Oblast: Regional Overview*. Available at: http://www.depzan.info/Regionaln_obzor.docx
18. Tikhonova G.I., Churanova A.N., Gorchakova T.Yu. Work Accidents as a Problem of Socio-Labor Relations in Russia. Forecast Issues, 2012, no.3, pp. 103-117.
19. *Labor Satisfaction and Social Satisfaction*. Available at: http://www.center-yf.ru/data/stat/Udovletvorennost-trudom-i-socialnaya-udovletvorennost.php (23.05.2014)
20. Kharchenko K.V. Diagnostic of Labor Satisfaction while Regulating Socio-Labor Relations. *Sociological Studies*, 2009, no.7, pp. 32-38.
21. *According to the Rosstat, the Higher the Salary is, the more Innovation is*. Available at: http://rbcdaily.ru/economy/562949989588992 (26.05.2014)
22. Chubarova T.V. *Social Responsibility in the Market Economy: Employee, Business, State: Monograph*. Saint Petersburg: Nestor-Istoriya, 2011. 318 p.
23. Shabunova A.A., Kalachikova O.N., Lastochkina M.A. Demographic Evolution Trends and Prospects in Russia and the Vologda Oblast. *Economic and Social Changes: Facts, Trends, Forecast,* 2012, no.5, pp. 143-153.
24. Delhey J. *Life Satisfaction in the Enlarged Europe*. Available at: www.eurofound.europa.eu/pubdocs/2003/108/en/1/ef03108en.pdf
25. Drobnič S., Beham B., Präg P. Good Job, Good Life? Working Conditions and Quality of Life in Europe. Social Indicators Research. *An International and Interdisciplinary Journal for Quality-of-Life Measurement*, 2010, vol. 99, pp. 205-225.
26. Herzberg F. One more time: how do you motivate employees? *Harvard Business Review*, 1987, vol. 65, pp. 109-120.

References:

1. Ankudinov A.B., Belyaeva M.N., Lebedev O.V. Udovletvorennost' rabotoi i ee determinanty: rezul'taty statisticheskogo modelirovaniya na panel'nykh dannykh [Satisfaction with Work and its Determinants: Results of Statistical Modelling on Panel Data]. *Sotsiologicheskie issledovaniya* [Sociological Studies], 2013, no.11, pp. 75-83.
2. Veselkova I.N. Zdorov'e i trudovoi potentsial naseleniya Rossii [Health and Labor Potential of the Population of Russia]. *Politika narodonaseleniya: nastoyashchee i budushchee : Chetvertye Valenteevskie chteniya : sb. dokladov / pod red. V.V. Elizarova, V.N. Arkhangel'skogo* [Population Policy: the Present

and the Future: Fourth Valentei Readings: Collection of Reports]. Ed. by V.V. Elizarov, V.N. Arkhangel'skii. Moscow: MAKS Press, 2005. Pp. 154-159.

3. *Vysokoproizvoditel'nye rabochie mesta v regionakh Rossii: analiticheskaya zapiska* [High-Performance Workplaces in the Regions of Russia: Executive Summary]. Torgovo-promyshlennaya palata Rossiiskoi Federatsii; Reitingovoe agentstvo "Ekspert" [The Chamber of Commerce and Industry of the Russian Federation, Rating Agency "Expert"]. Moscow: TPP-Inform, 2013. 27 p.
4. Glaz'ev S.Yu., Lokosov V.V. Otsenka predel'no kriticheskikh znachenii pokazatelei sostoyaniya rossiiskogo obshchestva i ikh ispol'zovanie v upravlenii sotsial'no-ekonomicheskim razvitiem [Assessment of the Critical Values of Indicators of the Russian Society State and their Use in the Management of Socio-Economic Development]. *Vestnik RAN* [Herald of the Russian Academy of Sciences], 2012, no.7, pp. 587-604.
5. Il'yasov F.N. *Udovletvorennost' trudom (analiz struktury, izmerenie, svyaz' s proizvodstvennym povedeniem)* [Labor Satisfaction (Structure Analysis, Measurement, Connection with Production Behavior)]. Ed. by V.G. Andreenkov. Ashkhabad: Ylym (Nauka), 1988. 100 p.
6. Kulikova M. A. Usloviya truda i vliyanie ikh na kachestvo zhizni [Working Conditions and their Influence on Quality of Life]. *Sotsial'no-ekonomicheskie yavleniya i protsessy* [Socio-Economic Phenomena and Processes], 2009, no.2, pp. 75-78.
7. Leonidova G.V., Chekmareva E.A. *Trudovoi potentsial regiona: zaklyuchitel'nyi otchet o NIR* [Labor Potential of the Region: Final Research Report]. Vologda, 2009. 117 p.
8. Monusova G.A. Udovletvorennost' trudom: mezhstranovye sopostavleniya [Labor Satisfaction: Inter-Country Comparisons]. *Mirovaya ekonomika i mezhdunarodnye otnosheniya* [World Economy and International Relations], 2008, no. 12, pp. 74-83.
9. *Problemy effektivnosti gosudarstvennogo upravleniya. Chelovecheskii kapital territorii: problemy formirovaniya i ispol'zovaniya* [Problems of Efficiency of State Management. Human Capital of the Territory: Problems of Formation and Use]. Ed. by A.A. Shabunova. Vologda: ISERT RAN, 2013. 184 p.
10. Putin V.V. *Vystuplenie i otvety na voprosy na investitsionnom forume "Rossiya zovet": 2 oktyabrya 2013 goda* [Speech and Answers to the Questions at the Investment Forum "Russia Is Calling": October 2, 2013]. Available at: http://pda.kremlin.ru/news/19351
11. Putin V.V. *Ezhegodnoe Poslanie Prezidenta Rossiiskoi Federatsii Federal'nomu Sobraniyu 12.12.2013* [Annual Address of the President of the Russian Federation to the Federal Assembly, December 12, 2013]. Available at: http://kremlin.ru/transcripts/17118
12. *Rasshirennoe zasedanie kollegii Mintruda Rossii "Ob itogakh raboty Ministerstva truda i sotsial'noi zashchity Rossiiskoi Federatsii v 2012 godu i zadachakh na 2013 god" ot 12 aprelya 2013 g.* [Enlarged Meeting of Collegium of the Ministry of Labor "On the Results of Work of the Ministry of labor and Social Protection of the Russian Federation in 2012 and Tasks for 2013 of April 12, 2013]. Available at: www.rosmintrud.ru
13. Rimashevskay N.M. Puti povysheniya kachestva trudovogo potentsiala v sovremennoi Rossii [Ways of Increasing the Quality of Labor Potential in Modern Russia]. *Narodonaselenie* [Population], 2011, no.1, pp. 25-37.
14. *Rynok truda, zanyatost' i zarabotnaya plata* [Labour Market, Employment and Wages]. Available at: http://www.gks.ru/wps/wcm/connect/rosstat_main/rosstat/ru/statistics/wages/
15. Sankova L.V., Pavlova E.A., Esipov A.S. Dostoinyi trud kak novoe izmerenie kachestva trudovoi zhizni: regional'nyi aspekt [Decent Labor as a New Dimension of the Quality of Working Life: Regional Aspect]. *Kaspiiskii region: politika, ekonomika, kul'tura* [The Caspian Region: Politics, Economics, Culture], 2012, no.1, pp. 105-110.

16. Somavia Kh. Trud kak sredstvo bor'by s bednost'yu [Labor as Means of Fighting Poverty]. *Chelovek i trud* [Man and Labor], 2003, no.7, pp. 16-17.
17. *Sostoyanie uslovii i okhrany truda v Vologodskoi oblasti: regional'nyi obzor* [State of Conditions and Labor Protection in the Vologda Oblast: Regional Overview]. Available at: http://www.depzan.info/Regionaln_obzor.docx
18. Tikhonova G.I., Churanova A.N., Gorchakova T.Yu. Proizvodstvennyi travmatizm kak problema sotsial'no-trudovykh otnoshenii v Rossii [Work Accidents as a Problem of Socio-Labor Relations in Russia]. *Problemy prognozirovaniya* [Forecast Issues], 2012, no.3, pp. 103-117.
19. *Udovletvorennost' trudom i sotsial'naya udovletvorennost'* [Labor Satisfaction and Social Satisfaction]. Available at: http://www.center-yf.ru/data/stat/Udovletvorennost-trudom-i-socialnaya-udovletvorennost.php (23.05.2014)
20. Kharchenko K.V. Diagnostika udovletvorennosti trudom pri regulirovanii sotsial'no-trudovykh otnoshenii [Diagnostic of Labor Satisfaction while Regulating Socio-Labor Relations]. *Sotsiologicheskie issledovaniya* [Sociological Studies], 2009, no.7, pp. 32-38.
21. *Chem vyshe zarplata, tem bol'she innovatsii, schitayut v Rosstate* [According to the Rosstat, the Higher the Salary is, the more Innovation is]. Available at: http://rbcdaily.ru/economy/562949989588992 (26.05.2014)
22. Chubarova T.V. *Sotsial'naya otvetstvennost' v rynochnoi ekonomike: rabotnik, biznes, gosudarstvo: monografiya* [Social Responsibility in the Market Economy: Employee, Business, State: Monograph]. Saint Petersburg: Nestor-Istoriya, 2011. 318 p.
23. Shabunova A.A., Kalachikova O.N., Lastochkina M.A. Tendentsii i perspektivy demograficheskogo razvitiya Rossii i Vologodskoi oblasti [Demographic Evolution Trends and Prospects in Russia and the Vologda Oblast]. *Ekonomicheskie i sotsial'nye peremeny: fakty, tendentsii, prognoz* [Economic and Social Changes: Facts, Trends, Forecast], 2012, no.5, pp. 143-153.
24. Delhey J. *Life Satisfaction in the Enlarged Europe*. Available at: www.eurofound.europa.eu/pubdocs/2003/108/en/1/ef03108en.pdf
25. Drobnič S., Beham B., Präg P. Good Job, Good Life? Working Conditions and Quality of Life in Europe. Social Indicators Research. *An International and Interdisciplinary Journal for Quality-of-Life Measurement*, 2010, vol. 99, pp. 205-225.
26. Herzberg F. One more time: how do you motivate employees? *Harvard Business Review*, 1987, vol. 65, pp. 109-120.

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Specifics of external migration into the Pskov Oblast

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Abstract. Modern scientists consider migration to be a tool that makes it possible to redistribute human capital, which is currently the most important resource. At that, of special interest are the peripheral regions of the country, including those with the cross-border status, where the influence of migration processes on the structure of population is most noticeable. The Pskov Oblast is currently the leader in Russia in terms of depopulation. Natural decline in the region's population is only partially compensated by migration. In this regard, the role of migration in the solution of demographic issues of regional development is becoming more and more important. The article presents the analysis of migration processes in the Pskov Oblast in the post-Soviet period; the analysis is based on the processing of statistical data. The author attempts to explain the main trends in migration processes in the framework of the Pskov Oblast for the last 20 years. Informational base of the research is formed by the materials of Pskovstat. The research findings can be used in the drafting and adjustment of a concept for demographic development of the region.

Key words: Pskov Oblast, demographic crisis, depopulation, migration, external migration, migration balance, migration gain, CIS countries.

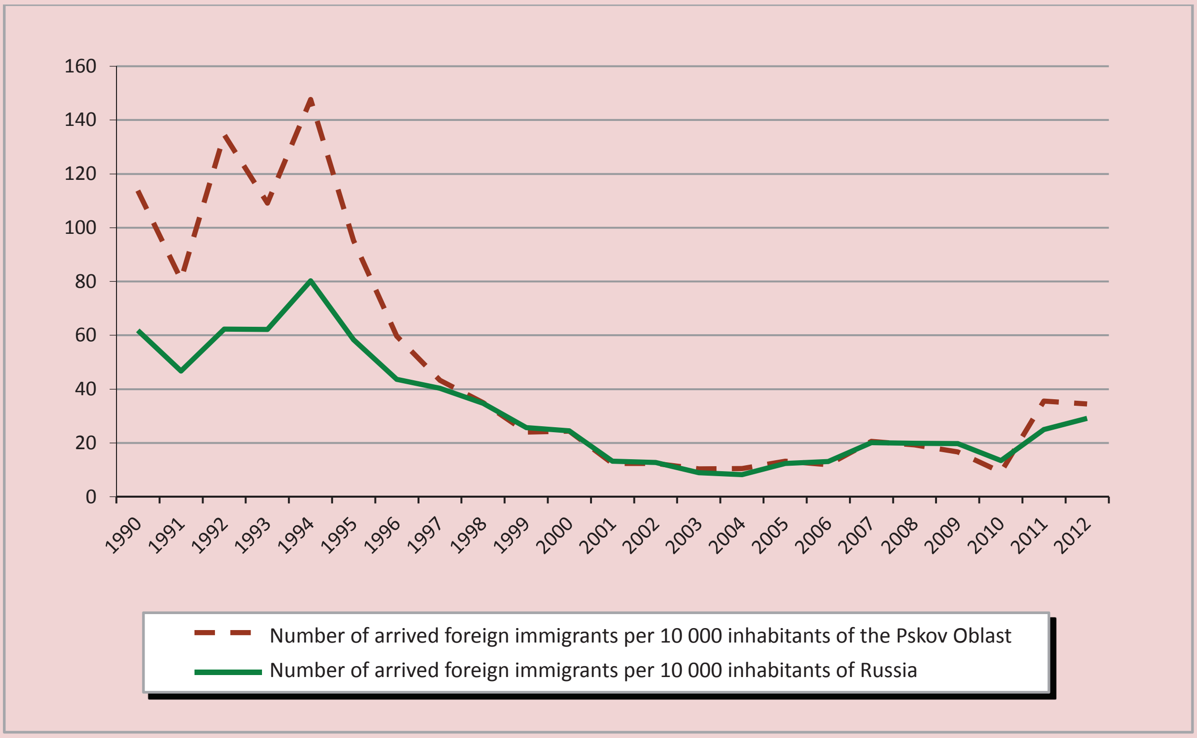
The Pskov Oblast population has been steadily declining since the oblast acquired modern borders (1957). Transcendence of death rate over birth rate was recorded in the region a quarter of a century earlier than on average in Russia [5]. During the last two decades the Pskov Oblast beyond any doubt takes up the top position according to the death rate and natural decline in population [7]. Due to the pessimistic predictive scenario, while keeping up the pace of depopulation outlined in the late 20th century – at the beginning of the 21st century, the population of the Pskov Oblast, having 661.5 thousand people in 2013 could decrease by 150 thousand people in twenty years, i.e. almost by a quarter. Population of the Pskov Oblast comprises 1/215 (0.46%) of the country's population with density index higher than national average (2012). In the regions ranking according to the value of population the Pskov Oblast lost three points during the last twenty years and took 66th position in 2012. From 1990 the share of the region in the country's population reduced from 1/175 to 1/215. Fractional data interpretation is used by the author to estimate indicators objectively and proportionally and to define sufficiency extent, in particular, external migration figures.

In the demographic structure the share of people older than working age comprises more than a quarter of the region's population (about one third in the rural area) and continues to grow, that influences the increase of death rate. Alongside with high death rate among the people of working age and low birth rate, it forms natural decline in population. The share of migration in the structure of increase (decrease) in population of the region is growing.

Nowadays migration outflow to the metropolitan areas is compensated by inflow of migrants from foreign countries, consequently the migration balance comes up to zero. Since 1990 the negative balance has been observed, which is based on the results of seven years (2001, 2005–2010), but common balance has comprised +56.9 thousand people, which nevertheless could not overlap natural decline in population. Maximum figures of arrival were observed in the periods of 1990–1996 and 2011–2012; however, maximum balance over the whole period belonged to the first interval. It is associated with forced migration of the first half of 1990s mainly from the former republics of the USSR (further from the CIS and Baltic countries). The peak year of 1994 is worth mentioning, when the common migration balance coincides in fact with the number of people migrated from the foreign countries in the current year.

Among the territorial entities of the Russian Federation the region takes 53rd place according to the total number of migrants from the foreign countries arrived during the last twenty years. In that period migrants from the CIS and Baltic countries as well as from Georgia comprised on average 95% of migration inflow to Russia. Neighboring countries with the Pskov Oblast – the Baltic states and Belarus – are able to give far less migrants than Kazakhstan and countries from Central Asia, that based the migration population increase in Povolzhye and Kazakh border zone. Moreover, for the Baltic countries, which are the EU member-states, "west drift" is essential as well as for the whole former Soviet republics, therefore the center of attraction for them is situated the other way round from Russia. If we rank regions, which are neighbored by other countries on land according to the same indicator, the Pskov Oblast will take 23rd place of 38, which is proportional to the common ranking. If we look at the region from the point of view of population size, not from the viewpoint of location, able to provide migration attraction, the region is behind 65 regions out of 83.

Figure 1. Number of foreign migrants per 10 thousand people



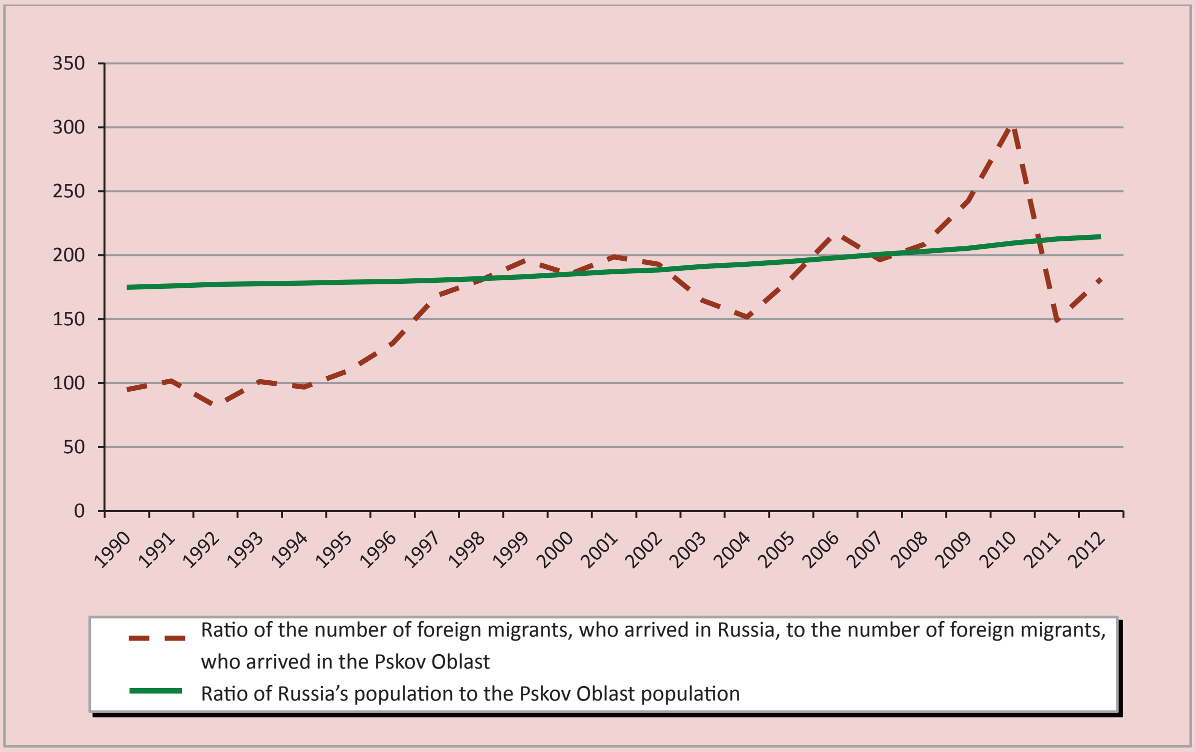
Source: Pskovstat data.

So far as population size of the Pskov Oblast in absolute terms has been rapidly decreasing during the last 50 years, it is better to use for analysis the relative indicator of the foreign migrants per 10 thousand people of the region's population in a year *(fig. 1)*.

In the peak year of 1994 according to that indicator the Pskov Oblast took the 11th place (with the indicator 148 people/10 thousand people) after the Magadan Oblast and the Smolensk Oblast, but before Povolzhye and the metropolitan areas; among the cross-border regions – the 5 place, ahead of the Kursk Oblast and the Voronezh Oblast, but conceding the Kaliningrad Oblast and the Belgorod Oblast. In 2011–2012 the region got into the third decade according to the number of foreign migrants per 10 thousand people (the 9th and 12th places among the cross-border regions, respectively), owing to insignificant increase of migrants, as well as the decrease of population. The average value of indicator from 1993 till 2012 comprises 38 people/10 thousand people in the Pskov Oblast, and it takes the 22nd place in the common ranking and the 12th place in the cross-regions ranking.

On the *figure 2* there is a graph revealing two functions: proportion of the number of foreign migrants arrived in Russia to the number of those who arrived in the Pskov Oblast; and proportion of Russia's population size to the number of inhabitants of the Pskov Oblast.

Figure 2. Proportion of the number of foreign migrants arrived in Russia to the number of those who arrived in the Pskov Oblast; and proportion of Russia's population size to the number of inhabitants of the Pskov Oblast

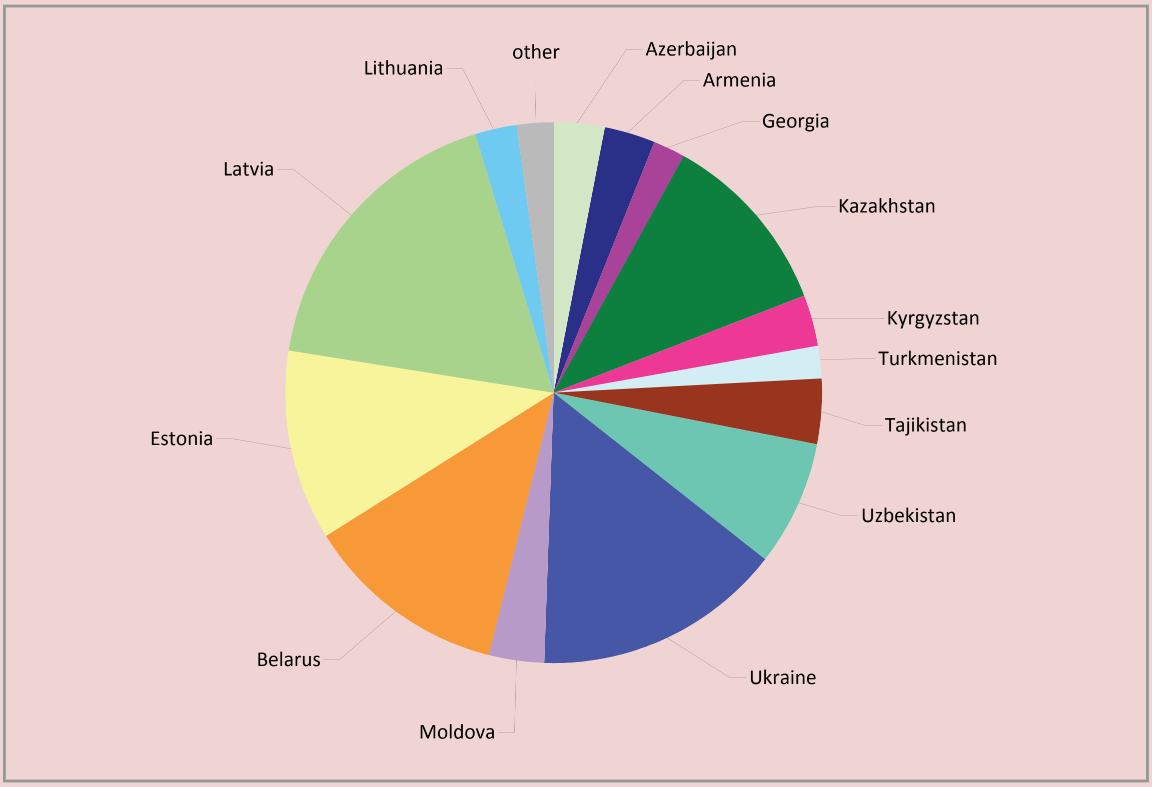


Source: Pskovstat data.

For instance, in 2000 the Pskov Oblast, population of which comprises 1/185 of Russia's population, was chosen by share of 1/185 from the total number of foreign migrants. Approximately the same values were in 1998 and 2007 – 1/182 and 1/181, 1/201 and 1/197, respectively. Maximum values of indicators correlation were observed in the period up to 1994 – the peak year for external migration to Russia. By that period the tendency regarding return of Russian-speaking population from the former Soviet republics to Russia that began long before the break-up of the USSR still remained. Absolute maximum within 23 years was evidenced in 1992 (1/83), just after the collapse of the USSR. Then the cross-border position of the Pskov Oblast had an impact on the relatively large number of migrants. Correlation of indicators had evened by 1998, when the forced migrations remarkably reduced. Further hesitation of indicator occurred in the range from 1/152 in 2004, which is higher than correlation of population of the Pskov Oblast and Russia in this year, to absolute minimum 1/304 in post-crisis year of 2010, which corresponded the minimum of people arrived in Russia, and apparently, enhancing role of economic factors.

Therefore, the share of migrants in the total number of Russia's foreign migrants, selected the Pskov Oblast, since 1990 was changing from 1/83 to 1/304, and the share of region in the population of Russia, as mentioned above, reduced from 1/175 to 1/215. Moreover, as the graph shows, trend lines of indicators are co-directional, but the graph of the share of people moved to the territory of the Pskov Oblast in the total number of those, who arrived in Russia, hovers around population function. All in all, if we take into consideration the structure of flow, then it corresponds the gravitation law of migration, according to which the intensity of migration flow is in direct proportion to disparity in the number of population of the arrival and departure points, and inversely proportional to distance between them [2]. Notwithstanding that the invention and widespread use of the gravitation law of migration refers to the middle of the 20th century, the model is used in the analysis of the modern migration processes [1, 8]. In the 1990s the Pskov Oblast, turned out to be in close proximity with contributing countries, took the highest number of migrants (small distance showed up). Then the flow from the western neighboring countries balanced with the flow from the Central Asia countries and on the share of the region fell out its own "quota", corresponding to the number of the

Figure 3. Total structure of foreign migration of the Pskov Oblast in 1990-2011 according to departure countries



Source: Pskovstat data.

region's population. During the last years, when the migrants from the Central Asia start to predominate, again the small distance showed up (significant remoteness from the departure point), as the result the region lacks migrants (although economic factors and new peculiarities of migration registration interfere, consequently the situation does not look so unambiguous).

Let us consider the structure of foreign migration of the Pskov Oblast during 1990–2011 according to departure count-ries *(fig. 3)*. In the investigation period the share of the CIS and Baltic countries, as well as Georgia in this structure comprised 97.7%. Let us divide these countries into four groups: the Baltic states (Lithuania, Latvia, Estonia), Belarus, Moldova and Ukraine, the Trans-Caucasian states (Azerbaijan, Armenia, Georgia) and the Central Asia countries (Kazakhstan, Kirghizia, Tajikistan, Turkmenistan, Uzbekistan).

Around one third of arrived migrants (32.4%) came from the Baltic states; that group took the first place among the contributing countries to the Pskov Oblast since 1990. Such indicator was determined by the high share of newcomers from Latvia (18.3%) and Estonia (11.8%), in consequence of mass migrations of the first half of the 1990s, when the arrival of the Russian-speaking population from the Baltic states started. The share of Lithuania was not significant (2.4%). The Pskov Oblast has a common border with Estonia, but historically the region is closely connected with its western neighbors not only by common border, but by population as well. The Russian-speaking population in the Baltic states remains numerous – 29.5% of Latvia's population, 25.5% of Estonia's population, and 5.8% of Lithuania's population, according to the population census of 2011.

Moreover, the Russian-speaking diaspora in Latvia is the biggest one due to the number of Russians per its one resident. Every third resident of the border areas of the Pskov Oblast has relatives across the border in Estonia and Latvia [6].

Regardless of close relationship and high potential of diaspora, mass migration from the Baltic states stopped in the second half of the 1990s. On the one hand, the common peak of migrations of the Russian-speaking population to Russia passed by that time, and that corresponded to the common tendency (everybody, who wanted to leave immediately, left). On the other hand, in the end of 1995 the Baltic states applied for accession to the European Union, and new prospects marked out for residents from Estonia, Latvia and Lithuania. Socio-economic inequality started to grow. Due to reduction of potential migrants, the migration flow ran down. For Estonia and Latvia that category included, first of all, stateless persons, the number of those significantly reduced, and many of them entered preretirement and retirement age, when the possibility of migration declined. Children, born after republics became independent, received citizenship (partly holding parents in place) and now, being the EU citizens, did not connect their future with Russia. For migrants from Latvia both to the Pskov Oblast, and to Russia at large, decrease of indicator was characteristic during 2002–2008. It was noteworthy that in Latvia in that period there was a special body – Secretariat of the Minister on special commissions on common integration affairs. It was aimed at conducting a dialogue between government and ethnic minorities of Latvia (including Russians), struggling with discrimination, solving existing problems, contributing to creation of society with single value system, etc. Activities of secretariat came under constant criticism, and in 2008 it ceased to exist. After that migration outflow from Latvia to the Pskov Oblast increased again. It was worth mentioning that the program on contributing voluntary resettlement of nationals applied to the residents from the Baltic states as well.

The share of migrants from the Baltic states arrived in the Pskov Oblast in the amount of people arrived in Russia was high – on average 1/27 for the period 1993–2011. Maximum figures were observed for Estonia till 1998 – more than 1/10 of all migrants from that country settled in the Pskov Oblast. Similar figures in that period were observed in Latvia (around 1/10). Further the insignificant hesitation of indicator for both countries was under way (up to 1/20). The share of migrants from Lithuania, selected the Pskov Oblast, was maximum in 2007 – 1/28 and minimum in 2010 – 1/217, having the average value 1/57. For the region accumulating 1/191 of all Russia's population, those indicators were high and were determined by neighborhood with those countries. Let us consider the distribution of average value concerning the number of migrants arrived from the Baltic states per 10 thousand people in the line Pskov – Moscow, with distance from the border. The highest value was observed in the Pskov Oblast – 11.6 people per 10 thousand people. The next were the Novgorod Oblast and the Smolensk Oblast – 4.6 people and 3.1 people per 10 thousand people, respectively. It was interesting that correlation of indicators of those regions was proportional to correlation of distance from Riga to Veliky Novgorod and from Riga to Smolensk. The closing regions were the Tver Oblast – 2.7 people per 10 thousand people and the Moscow Oblast along with Moscow, the low indicator of those (0.6 people per 10 thousand people) was determined not only by the remoteness, but large population size of the metropolitan area. Therefore, according to the distance of the Russian territory from the borders, the number of arrived migrants from the Baltic states per 10 thousand people is reducing, i.e. intensity of migration is in direct relationship to distance. The common share of the Baltic states in the migration structure to the Pskov Oblast reduced from 39% (1994) to 17% (2011).

The next group of countries consisting of Belarus, Ukraine and Moldova, in 1990–2011 provided 31.3% of foreign migrants of the Pskov Oblast. The share of people arrived from Ukraine during that period comprised 15.6%, Belarus – 12.3%, Moldova – 3.4%. Migration dynamics of this group differs from migration dynamics of the Baltic states. The peak year is 1990, then by 1992 the downswing was observed (it could be assumed that potential migrants ruminated to move or not). By the landmark year of 1994 there was a new growth. The common number of migrants till 1996 ceded the number of those arrived from the Baltic states, but in 1994 from the Central Asia as well. However, decrease of the common number of migrants in the second half of the 1990s did not turn out to be so rushing as for the Baltic states: since 1998 on average 450 people in one year from Belarus, Ukraine and Moldova were steadily coming to the Pskov Oblast against 180 people in one year from Estonia, Latvia and Lithuania.

In contrast to the Baltic states, Belarus, Ukraine and Moldova have more numerous Russian diasporas. The largest diaspora is situated in Ukraine (more than 8 million people, according to the population census of 2001); number of Russians in Belarus is great as well (7.9 million people according to the population census of 2009), 200 000 of Russians live in Moldova (according to the population census of 2004). Notwithstanding that number of Russian diasporas of post-Soviet Lithuania and Moldova are comparable, number of migrants from these countries comprise hundreds from Lithuania and thousands from Moldova. The share of migrants from Belarus, Ukraine and Moldova, selected the Pskov Oblast in the total number of migrants from these three countries, selected Russia during 1993–2011, is low – 1/133. However, inside this group there exist some differences: for Belarus, having the common border with the Pskov Oblast, this indicator equals 1/48. For Ukraine this indicator comprises 1/225, testifying that the Pskov Oblast all in all turned out to be less attractive than "average" region of Russia, though there are fluctuations of correlation. The share of migrants arrived in the Pskov Oblast in the total number of migrants arrived in Russia from Moldova during 1993–2011 equals 1/126 on average, moreover, indicator's periods of growing smoothly interchange periods of decline. In view of political events in Ukraine at the close of 2013 – at the beginning of 2014 and expected growth of the migration flow, the role of this country as the migration donor including the Pskov Oblast situated over the western borders, increases.

Let us consider distribution of average value of the indicator concerning the number of migrants arrived from Belarus, Ukraine and Moldova per 10 thousand people in the line Bryansk – Saint Petersburg. Here the indicator smoothly decrease from the Bryansk Oblast (17.5 people/10 thousand people), lodged between Belarus and Ukraine, through border regions – the Smolensk Oblast (9.7) and the Pskov Oblast (11.2) to relatively distant the Novgorod Oblast (9.7) and populous St. Petersburg (along with the Leningrad Oblast – 7.7 people/10 thousand people).

According to population size the third group of contributing countries for the Pskov Oblast consists of Central Asia countries. Residents of Kazakhstan, Kirghizia, Tajikistan, Turkmenistan and Uzbekistan provided 28% of foreign migration during 1990–2011. Migration dynamics to the Pskov Oblast from Central Asia countries is more stable than dynamics of two previous groups of countries – disparity between minimum and maximum of migrants during the investigation period comprises 3233 people, while for the Baltic states – 5818 people, and for Belarus, Ukraine and Moldova – 4468 people.

In 1994 traditional peak was observed, and then local maximums in the total dynamics were evidenced, when migrants came from the remote republics of the Pskov Oblast. In the common structure of contributing countries Central Asia republics were obviously prevailing in 1998, 2001, 2004, as well as starting from 2009. Among the group of Central Asia countries Kazakhstan and Uzbekistan could be marked, which were leading due to the population size in their region and providing respectively 11 and 8% of the whole foreign migration to the Pskov Oblast during 1990–2011. However, from 2006 the number of migrants from the less successful Uzbekistan started to prevail.

During 1990–2011 22 910 people came to the Pskov Oblast from Central Asia, on average 208 people in a year from each of the five republics. Russian-speaking diasporas of Central Asia are numerous, Kazakhstan with 23% of Russians (around 4 million people) and Uzbekistan (around 1 million people) stand out. Outflow of population from Central Asia republics started in 1970 along with ethnic conflicts of the 1980s–1990s and breakup of the USSR strengthened. At present localization of personnel policy, nationalization of education and emerging role of national languages make Russian-speaking population leave Central Asia. Therefore, migration potential of republics remains high. According to the forecast of M.B. Denisenko and N.V. Mkrtchan [3], in the period till 2030 half of the rest Russian-speaking population of Central Asia, i.e. around 2.5 million people (125 thousand people per year) would move to Russia.

While retaining the tendency of the last five years, it would be around 350 people in a year for the Pskov Oblast.

The share of migrants from Central Asia arrived in the Pskov Oblast in total number of Central Asia's migrants to Russia during 1993–2011 was not big – 1/264. More indifferent to the Pskov Oblast were former residents of Kazakhstan (1/378) and Uzbekistan (1/269). However, there were local maximums – in 1994 the region was chosen by 1/71 and 1/91 of all migrants of Tajikistan and Turkmenistan. After the implementation of the state programme on rendering assistance to voluntary resettlement of nationals living abroad to Russia, the number of migrants from Central Asia increased next larger than migrants from other countries. Regardless of republics' remoteness from the Pskov Oblast and existence of the Baltic Russian-speaking diasporas with high potential, in the near future it would make Central Asia countries the leaders of the contributing countries to the Pskov Oblast.

Let us consider distribution of average value of the indicator concerning the number of migrants arrived from Central Asia countries per 10 thousand people in the line Orenburg – Pskov. Here dynamics is not so unambiguous in comparison with two previous groups of countries. However, if we do not take into account Moscow and the Moscow Oblast, Mordovia and the Ryazan Oblast, we can say that the indicator decreases from Orenburg, Samara and Ulyanovsk to Tver and Pskov.

The last group of former Soviet republics, influencing the migration picture of the Pskov Oblast, consists of the republics of Transcaucasus. Their share in the total number of migrants during 1990–2011 was not big – 8.3% (6789 people). In dynamics of arrival since 1990 after maximum 1994 there was a long-term decline till growth in 2007 on the threshold of economic crisis. It was interesting that the number of migrants from other CIS countries in those years did not grow or grew slightly.

The Russian-speaking diaspora of Transcaucasus is not great, especially after mass migrations at the beginning of 1990s. Migration movement involves not only Russians, but also representatives of titular nations – according to the population census of 2010 2 million of Azerbaijanians, Armenians and Georgians live in Russia (including around 4 thousand on the territory of the Pskov Oblast), that suppose contact of mighty foreign diasporas with their native countries. However, the Pskov Oblast was not an attractive region for migrants from Transcaucasus – since 1990 it was chosen only by every four-hundredth newcomer from Azerbaijan, Armenia or Georgia.

Due to distribution of average value of the indicator concerning the number of migrants arrived from Transcaucasus countries per 10 thousand people in the line "North Ossetia – the Pskov Oblast", all the migrants settle evenly along the way and do not reach the Pskov Oblast.

As a conclusion, we can mark that the Pskov Oblast, situated near the border, is attractive in terms of migration. Common migration balance during the last 20 years was positive. Foreign migration was presented generally by people from the post-Soviet republics, besides since 1990 in absolute indicators, almost equally both from the Baltic states, Ukraine, Belarus, due to their territorial closeness, and from Central Asia and in a less degree from Transcaucasus and Moldova. According to the existing tendencies, in the structure of external migration predominance of Central Asia direction and essential decrease of the Baltic direction should be expected in the nearest future. In relation to the political events in Ukraine and the possibility of reinforcement of migration flow to Russia it is necessary to take measures on the level of local authorities for creation of some advantages to redistribute part of the flow in favor of the Pskov Oblast. In the external migration picture of the Pskov Oblast the following peculiarity can be noted: the number of foreign migrants is relatively proportional to the population size of the region and co-directionally fluctuates in time with it. Herewith, there is a link between the intensity of migration and distance, which alongside with the previous remark allow speaking about impact of gravity forces on external migration picture of the region. While making out the conception of the Pskov Oblast it is recommended to pay attention to the expected change in the structure of foreign migration in relation to demographic and political processes in the contributing countries. While solving demographic problems of the Pskov Oblast, in general, special attention should be paid to attraction and adaptation of foreign migrants.

Sited works

1. Vasilenko P.V. Application of the Gravity Model for the Analysis of Intraregional Migrations on the Example of the Novgorod and Pskov oblasts. *Pskov Journal for Regional Studies*, 2013, no.15, pp. 83-90.
2. Vlasov M.P., Shimko P.D. *Modeling of Economic Processes*. Rostov-on-Don: Feniks, 2005. 409 p.
3. Denisenko M.B., Mkrtchyan N.V. Migration Potential in Central Asia. *Strategy 2020*, 2011, July 14. Available at: strategy2020.rian.ru/load/366063112
4. Evdokimov S.I. The Forecast of the Main Demographic Indicators of the Pskov Oblast for the First Third of the 21st Century. *Pskov Journal for Regional Studies*, 2012, no.14, pp. 67-74.
5. Krivulya I.V., Manakov A.G. Depopulation in the Pskov Oblast and the Key Directions of Demographic Policy. *Pskov Journal for Regional Studies*, 2005, no.1, pp. 57-69.
6. Kuveneva T.N., Manakov A.G. Formation of Spatial Identities in the Border Region. *Sociological Studies*, 2003, no.7, pp. 77-84.
7. Manakov A.G., Evdokimov S.I. Population Dynamics, Natural and Migratory Movement of the Pskov Oblast Population (16th century – early 21st century). *Bulletin of Pskov State University. Series "Natural, Physical and Mathematical Sciences",* 2012, no.1, pp. 91-103.
8. Andrienko Yu., Guriev S. Determinants of Interregional Mobility in Russia: Evidence from Panel Data. *William Davidson Working Paper*, 2003, p. 7.

References

1. Vasilenko P.V. Primenenie gravitatsionnoi modeli dlya analiza vnutrioblastnykh migratsii na primere Novgorodskoi i Pskovskoi oblastei [Application of the Gravity Model for the Analysis of Intraregional Migrations on the Example of the Novgorod and Pskov oblasts]. *Pskovskii regionologicheskii zhurnal* [Pskov Journal for Regional Studies], 2013, no.15, pp. 83-90.
2. Vlasov M.P., Shimko P.D. *Modelirovanie ekonomicheskikh protsessov* [Modeling of Economic Processes]. Rostov-on-Don: Feniks, 2005. 409 p.
3. Denisenko M.B., Mkrtchyan N.V. Migratsionnyi potentsial Srednei Azii [Migration Potential in Central Asia]. *Strategiya 2020* [Strategy 2020], 2011, July 14. Available at: strategy2020.rian.ru/load/366063112
4. Evdokimov S.I. Prognoz osnovnykh demograficheskikh pokazatelei Pskovskoi oblasti na pervuyu tret' XXI veka [The Forecast of the Main Demographic Indicators of the Pskov Oblast for the First Third of the 21st Century]. *Pskovskii regionologicheskii zhurnal* [Pskov Journal for Regional Studies], 2012, no.14, pp. 67-74.
5. Krivulya I.V., Manakov A.G. Depopulyatsionnye protsessy v Pskovskoi oblasti i klyuchevye napravleniya demograficheskoi politiki [Depopulation in the Pskov Oblast and the Key Directions of Demographic Policy]. *Pskovskii regionologicheskii zhurnal* [Pskov Journal for Regional Studies], 2005, no.1, pp. 57-69.
6. Kuveneva T.N., Manakov A.G. Formirovanie prostranstvennykh identichnostei v porubezhnom regione [Formation of Spatial Identities in the Border Region]. *Sotsiologicheskie issledovaniya* [Sociological Studies], 2003, no.7, pp. 77-84.
7. Manakov A.G., Evdokimov S.I. Dinamika chislennosti, estestvennoe i mekhanicheskoe dvizhenie naseleniya Pskovskogo regiona (XVI – nachalo XXI v.) [Population Dynamics, Natural and Migratory Movement of the Pskov Oblast Population (16th century – early 21st century)]. Vestnik Pskovskogo gosudarstvennogo universiteta. Seriya "Estestvennye i fiziko-matematicheskie nauki" [Bulletin of Pskov State University. Series "Natural, Physical and Mathematical Sciences"], 2012, no.1, pp. 91-103.
8. Andrienko Yu., Guriev S. Determinants of Interregional Mobility in Russia: Evidence from Panel Data. *William Davidson Working Paper*, 2003, p. 7.

BRANCH-WISE ECONOMY

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Investment process financing in Russian business: assessment, trends, problems*

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Abstract. In modern conditions the provision of investment process financing is the most important task of state economic policy aimed at achieving sustainable growth and dynamic development of the Russian economy in general. This problem solution requires further theoretical consideration and development of appropriate methodological, methodical and practical recommendations. Financing of investment activity development should be based on the systemic approach, which considers this process as an element of the financial support system of the state innovation development. It is necessary to conduct research in order to expand the financial component of this support, encourage the investment process development, enhance financial relations in the sphere of forming and using the intellectual property objects and develop a complex of measures to study the innovations implementation possibilities. Although economic science pays a lot of attention to various aspects of the issue, there is currently no research work, devoted to the study of sources of the investment process financing. Development of methodical

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and practical recommendations to establish the system of its financing, taking into account modern world economic trends is required. The authors have revealed the enterprises' general economic profit while promoting sustainable economic growth by means of provision of financial resources for it. The closeness of the relationship is calculated on the basis of regression models that characterize the sectoral distribution of gross profit. The correlation-regression analysis has helped to assess the influence of the main sources of the RF fixed assets on the investment index. The economic nature of the sources determines its value and dynamics.

Key words: investment process, investment climate, business, intensification, profit, source of financing, investment costs, regression model, indices, dynamics, investment operations, investment activity, the level of taxation.

The investment climate in each country is formed due to active participation of the state. It determines domestic and foreign policies; introduces taxes; sets interest rates, varying them in accordance with the economic situation and curbing their growth by means of special economic methods; affects the level of tax collection; actively engages in the development of legislative acts, creating economic, political and legal conditions that determine the functioning of enterprises.

"The study of theoretical and methodological foundations of sustainable economic growth concludes that investment plays a key role in the solution of this problem" [1, p. 48]. Due to the so-called mechanism of reducing investment activity, functioning in the Russian economy in 1999 and 2007, the decline of social production was replaced by a more severe economic crisis in the form of recession reproduction [2, pp. 38-39]. With the reproduction decline, the input of the active part of fixed assets either lags far behind its output or does not compensate the latter. The main reason is the 48% depreciation of fixed assets [3, p. 345]. It should be taken into account that the economic development is possible only with the extended reproduction being ensured, which implies greater renewal of the main elements of productive forces and their qualitative improvement.

Since 2000 the national economy has managed to overcome such a negative trend when the output of the fixed assets in use advances over their input. However, if we take into account economic security and national economic tasks to modernize production capacities and job places, we can say that the volume of the input equipment remains inadequate. For comparison, in 1970, in the so-called "period of stagnation", the coefficient of renewal was 10.2% and the coefficient of output – 1.7%, i.e. the fixed assets renewal was several times faster than in 2011, when the coefficients of their renewal and output amounted to 4.6 and 0.8%, respectively [3, p. 345]. So, the trend of their wear and tear remained the same due to such dynamics of fixed assets renewal.

"Russian fiscal policy does not lead to the solution of the problem to invest in the economy modernization. The system of state regulation in this sphere requires significant upgrade. According to the ISEDT RAS research, the increase in tax collection and a number of unpopular measures, especially in big business, would attract 8–13 trillion rubles per year to the budget system of the country. However, no practical steps have been made in this direction yet. What is more, nowadays the potent financial assets such as funding of the Reserve Fund and the National Wealth Fund do not participate in the solution of priority tasks of socio-economic development" [1, p. 56].

This situation is hazardous for the national economy, since the ability to innovation development is reducing significantly. The mechanism to decrease investment activity in the production and to encourage economic growth in the Russian modern economy predetermines that the national economy is unable to overcome the current situation and to ensure sustainable economic development. This requires a complex of state regulation measures and huge costs in order to intensify investment activities. Another option is to attract foreign capital, which ultimately leads to the threat to the country's economic security.

As a result, the modern Russian economy is still characterized by the multilateral (total) financial crisis. Its basic forms are unprofitability, decrease in fixed capital, insolvency, criminalization of financial management, conscious concealment of financial flows from accounting, taxation, theft of financial and other resources. It must be emphasized that the tax base formation and the enterprises' ability to pay taxes are inseparably connected with the financial situation of the latter.

Undoubtedly, the researchers' conclusion that the high level of taxation in Russia jeopardizes its investment activity makes sense.

In conditions of modern market economy, boosting enterprises' investment activity is connected first of all with the search of sources and types of financial resources, which should ensure the balance between investment costs and financial capabilities.

As the result of privatization, the enterprises' own funds are known to have been the key source of investment activity financing. Their share in Russia in 2011 accounted to almost 70% of the total investment. These funds are formed mainly at the expense of the enterprise's profit and depreciation (*tab. 1*).

Profit is the main internal source of the enterprise's financial resources, ensuring its development. The higher the level of profit generation in the process of economic activity is, the less the need to attract funds from external sources is and, ceteris paribus, the higher the self-financing level and the competitive position in the market are. However, unlike some other internal sources, profit is a reproducible source and its reproduction is carried out in conditions of successful management on the extended basis. *Table 1* indicates that the enterprises' own funds in fixed capital investment have a substantial share (42.7%), the enterprises'

Table 1. Sources of the fixed capital funding in the Russian economy, % to the total

Indicator	Year											
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Investment in fixed capital	100	100	100	100	100	100	100	100	100	100	100	100
Including the financing sources: own funds	47.5	49.4	45.0	45.2	45.4	44.5	42.1	40.4	39.5	37.1	41.0	42.7
Of them: - profit remaining at the disposal of the enterprise (the Fund)	23.4	24.0	19.1	17.8	19.2	20.3	19.9	19.4	18.4	16.0	17.1	17.2
- depreciation	18.1	18.5	21.9	24.2	22.8	20.9	19.2	17.6	17.3	18.2	20.5	21.6
- attracted funds	52.5	50.6	55.0	54.8	54.6	55.5	57.9	59.6	60.5	62.9	59.0	57.3
Of them: - banks	2.9	4.4	5.9	6.4	7.9	8.1	9.5	10.4	11.8	10.3	9.0	7.7
- budget funds	22.0	20.4	19.9	19.6	17.8	20.4	20.2	21.5	20.9	21.9	19.5	18.8

Compiled by: *Promyshlennost' Rossii 2012: stat. sb.* [The 2012 Russian Industry: Statistics Digest]. Rosstat, Moscow, 2012. 445 p.

profit amounts to 17.2 % approximately. This is almost the depreciation amount, intended for reproduction of fixed capital.

Profit is not a guaranteed income of the entrepreneur, who has invested his/her capital in business; it is a result of skillful and successful business management. However, the entrepreneur can not only lose the expected profit, but also lose the invested capital fully or partially due to some failures or objective external reasons. Therefore, profit is a kind of payment for the risk of doing business.

At the same time it is necessary to consider the overall economic value of enterprises' profit in the provision of financial resources for sustainable economic growth.

The correlation-regression analysis in this study helps to evaluate the impact of the main fixed capital sources on the investment index in the Russian Federation, which determines its value and dynamics due to their economic nature.

The index of investment in fixed capital in the Russian Federation is selected as a resultant variable (Y) and is laid in the basis of research as the most informative and most fully reflecting the investment development in the country. Factor variables (X), influencing the dynamics of the studied indicator, are the following:

X_1 – an index of accumulation funds in the Russian Federation, % to the previous year;

X_2 – an index of depreciation in the Russian Federation, % to the previous year;

X_3 – an index of funds raised by banks, % to the previous year.

The initial data for the correlation-regression analysis is presented in *table 2.*

Table 2. Initial data for the regression analysis of the degree of the formation sources influence on the index of investment in fixed capital in the Russian Federation, % to the previous year

Year	Index of investment in fixed capital in the Russian Federation	Index of accumulation funds in the Russian Federation (X_1)	Index of depreciation in the Russian Federation (X_2)	Index of funds raised by banks (X_3)
2001	126.8	129.8	129.8	191.3
2002	109.0	86.7	128.9	145.4
2003	125.4	117.0	138.2	136.5
2004	123.1	133.2	116.1	151.8
2005	128.8	135.9	118.3	133.5
2006	131.7	129.3	120.5	154.5
2007	137.0	133.0	126.1	149.4
2008	128.5	122.3	126.2	145.6
2009	90.1	78.0	94.8	78.5
2010	109.7	117.3	123.4	95.9
2011	116.2	117.5	122.4	99.7

Compiled by: Rosstat data. Available at: http://www.gks.ru.

The study of the correlation between the phenomena begins with indicating its closeness by means of the correlation analysis. The basis for the correlation measurement is a matrix of pair correlation coefficients. This matrix reveals the closeness of factors with the resultant variable and between themselves. The pair correlation coefficients are calculated as follows:

$$r = \frac{\sum(x-\bar{x})(y-\bar{y})}{\sum(x-\bar{x})^2(y-\bar{y})^2}, \quad (1)$$

where $\bar{x}$ è $\bar{y}$ are average values of the resultant variable and the corresponding factor.

By means of AP "Statistica" we have calculated the matrix of pair correlation coefficients, used for the analysis of the impact of the main fixed capital sources on the investment index in the Russian Federation *(tab. 3)*. In addition to the obtained correlation coefficients the matrix also indicates the probability of the hypothesis of their insignificance (*p*), established within 0.1 (or 10%) in the framework of this research.

The value of the calculated correlation coefficients gives us an opportunity to estimate the degree of the factor variables impact on the resultant variable; the polarity ("+" or "–") of the correlation coefficients indicates a direct or reverse impact type. All the calculated correlation coefficients have positive values, thus the indices of accumulation funds (X_1) and indices of funds raised by banks (X_3) have the greatest impact on the index of investment in fixed capital (Y), i.e. the increase in the values of these indices results in the growth of the index of investment in

Table 3. Matrix of pair correlation coefficients

	Y	X_1	X_2	X_3
Y	1 -	0.8812 p = 0.000	0.6117 p = 0.045	0.7252 p = 0.012
X_1	0.8812 p = 0.000	1 –	0.4076 p = 0.213	0.5496 p = 0.080
X_2	0.6117 p = 0.045	0.4076 p = 0.213	1 –	0.5677 p = 0.069
X_3	0.7252 p = 0.012	0.5496 p = 0.080	0.5677 p = 0.069	1 –

fixed capital. The depreciation index (X_2) has a noticeable, but still less impact on the resultant variable. The coefficient of its correlation with the resultant variable has the lowest value (r_{YX2}=0.6117), its rise also promotes the growth of the index of investment in fixed capital.

The important stage of the regression analysis is the selection of factor variables for further inclusion in the multiple regression equation. The complexity of its model construction is that factor variables often depend on each other, i.e. they are multicollinear. In practice, the identification of multicollinearity cases is based on the matrix of pair correlation coefficients. The indicator is a correlation coefficient value that is r > 0.8.

The analysis of the matrix of pair correlation coefficients (see *tab. 3*) indicates the absence of multicollinearity between factor variables X_1, X_2 and X_3, and therefore there is no need to exclude or replace any of them. Therefore, all three selected factor variables should be included in the further process of the regression analysis. What is more, they have a significant direct impact on the resultant variable value: in our opinion, the probability of including all of them in the regression model is quite high.

Let us calculate the regression model. This mathematical task is formulated as follows: it is required to find an analytical expression of the dependence of the economic phenomena on its defining factors, that is why it is necessary to calculate the function

$$Y = f(X_1, X_2, \dots, X_k). \tag{2}$$

The aim is to reveal the character and degree of impact of the arguments on the function. The regression analysis indicates how the dependent value changes in average when one or more independent variables change and the unrecorded factors have the fixed value. What is more, the study of pair correlation between the function and one of the arguments is usually ineffective, as economic phenomena are, as a rule, multifactorial, and there are also complex correlations between the factors.

The regression analysis process consists of a sequence of stages:

– construction of the regression equation;

– check of significance of the regression equation coefficients;

– check of significance of the regression equation;

– calculation of the regression characteristics.

The regression analysis result is the regression equation:

$$Y = 21.496 + 0.466\,X_1 + 0.247\,X_2 + + 0.103\,X_3, \quad (3)$$

where Y is an estimated value of the resultant variable.

The significance of the regression equation is checked by the F-test, the estimated value is calculated by the following formula:

$$F_{расч.} = \frac{D^2_{общ.}}{D^2_{ост.}}, \quad (4)$$

The total variance $D^2_{общ.}$ is calculated by the following formula:

$$D^2_{общ.} = \frac{\Sigma(\bar{y} - y)^2}{k+1}, \quad (5)$$

where k is a number of factors;

$(k+1)$ is a number of studied factors plus a free term in the regression equation a_0;

$\bar{y}$ is an average of resultant variable levels.

Residual variance D is calculated by the function:

$$D^2_{ост.} = \frac{\Sigma(\tilde{y} - y)^2}{n-k-1}. \quad (6)$$

The calculated value of the F-indicator is compared to the table one, got at a given significance level p and degrees of freedom $(k + 1)$ and $(n - k - 1)$. If the estimated value is more than the table value, then the hypothesis of the regression equation insignificance is rejected. Hence, it can be interesting to calculate the significance of individual regression coefficients by means of the Student's t-test:

$$t_{a_j} = \frac{a_j}{S_{a_j}}, \quad (7)$$

Where S_{a_j} is a standard deviation of the equation coefficients aj.

$$S_{a_j} = S_e\sqrt{b_{ij}}, \quad (8)$$

where $S_{\hat{a}} = \sqrt{\frac{\Sigma(y - \tilde{y})^2}{n-k-1}}$ is a standard deviation of random errors;

b_{ij} is diagonal elements of the matrix $(X^TX)^{-1}$.

The regression coefficient is recognized as significant, if the calculated value of the

Table 4. Results of the regression analysis on the basis of three factor variables

Correlation coefficient R = 0.9416. Determination coefficient Rl = 0.8867				
Value F (3.7) = 18.259, p < 0.00109				
	ß-coefficient	Equation parameters	Value of the Student's t-test (l)	Significance level p
Invariable		21.496	1.056	0.326
X_1	0.664	0.466	4.317	0.003
X_2	0.202	0.247	1.292	0.238
X_3	0.246	0.103	1.441	0.093

Student's t-test is greater than the table value. All factor variables, which regression coefficients have proved to be insignificant, are eliminated from the regression equation; the model-construction process is repeated. The regression analysis equation is set up only on the basic of independent variables, with their coefficients being significant. Then the significance of the regression equation and its coefficients is checked again. The process is repeated until there are significant coefficients in the equation.

With the probability being 0.90, the significant regression coefficients of the multifactorial model are only factor variables X_1 and X_3, as the probability of accepting the reverse hypothesis does not exceed 0.1. The probability of accepting the reverse hypothesis for factor variable X_2 (the depreciation growth index) was more than 0.238 (*tab. 4*).

Let us eliminate the factor variable X_2 from the analysis and repeat the process again, i.e. set up the regression equation only on the basis of independent variables, with their coefficients being considered as significant (X_1 and X_3) *(tab. 5)*.

As a result we get the regression equation with two significant factors:

$$Y = 43.785 + 0.485X_1 + 0.144X_3. \quad (9)$$

The F-test and Student's t-test indicate statistical significance of the equation and its factor variables at the significance level of 90%.

The determination coefficient, revealing what part of the total variation of the dependent variable is determined by the factors included in the statistical model, is calculated by the following formula:

$$R^2 = \frac{\Sigma(\bar{y}-\tilde{y})^2}{\Sigma(y-\tilde{y})^2} \times 100\%. \quad (10)$$

The determination coefficient equal to 0.8597 indicates that the dynamics of the index of investment in fixed capital are due to the included indices X_1 and X_3 by 85.97%, and the level of residual variation is 14.03%. Consequently, the rate of investment in fixed capital in the Russian Federation is influenced by two investment formation sources, such as accumulation funds and the amount of raised funds.

Table 5. Results of the regression analysis on the basis of two factor variables

Correlation coefficient R = 0.9272. Determination coefficient *RI = 0.8597*				
Value *F* (2.8) = 24.507, *p* < 0.00039				
	ß-coefficient	Equation parameters	Value of the student's t-test (l)	Significance level *p*
Invariable		43.785	3.896	0.005
X_1	0.692	0.485	4.363	0.002
X_2	0.345	0.144	2.177	0.061

This conclusion confirms the value of the multiple correlation coefficient equal to 0.9271, indicating high correlation between the indicator and the factors included in the regression model.

The equation coefficients demonstrate the factors' impact on the resultant variable level and characterize the degree and type of each factor's impact on the analyzed parameters. Their interpretation results in a conclusion that the index of investment in fixed capital (Y) rise when the indices of accumulation funds (X_1) and funds raised by banks (X_3) increase. According to the obtained data, the growth in the funds accumulation index by 1% leads to the increase in the index of investment in fixed capital by 0.485%, while the growth in the index of raised funds by 1% – to the increase by 0.144%.

The model quality is characterized by a relative approximation error $|\bar{\varepsilon}|$, calculated on the basis of the difference between actual levels of the resultant variable y and its calculated levels S, i.e. levels, calculated by the regression dependency

$$|\bar{\varepsilon}| = \frac{1}{n}\sum\frac{|y_t - \tilde{y}_t|}{y_t} \times 100\ \%. \quad (11)$$

In our case, the relative approximation error is about 3.64% at the rate of 10–12%.

Hence, profit is the most important financial resource of investment activity of a modern enterprise. In relation to gross domestic product, total (gross) profit of enterprises amounts to 12–15% and to almost 20% in most favorable years. Unprofitable enterprises can not only reduce the economic and financial potential of the country, but, in fact, can not pursue any policy in the field of economic development, investment and innovation. The share of unprofitable organizations in the Russian Federation (in % of their total number) in 2011 was 30.0 % in the economy as a whole. It should be noted that such a high level remains the same throughout the period of the national economy modernization, although the 15–16% level was considered invalid. Only the radical solution of this problem can boost enterprises' competitiveness and create favorable conditions for investment and innovation development of the economy. The loss ratio does not only violate the reproductive process of an enterprise, but also jeopardizes the reproduction of the entire national economy and payment relations, thus resulting in the chain of anomalies in the current economic system.

At the same time, according to statistics agencies, the share of profitable enterprises is very low.

In 2000–2011 net and gross profits were very unstable in the Russian economy. The annual rate ranged from the 30.9% decline to the 75.7% increase in net profit within the period. What is more, even profitable enterprises had a very unstable financial situation. Gross profit decreased in some years (in 2001 – by 15.6%, in 2008 – by 16.5%), and in 2010–2011, in the economic recovery period, increased by 26% and 20%, respectively. So, the innovation and investment policy of most Russian enterprises did not have a sustainable resource base.

Taking into account the important role of profit in the corporate sector's assets, it is necessary to note the recent significant decrease in its share in the total amount of financial resources. On the one hand, the number of unprofitable enterprises is decreasing (if in 2003 there were 54839 of them, in 2011 – 22837), and on the other hand, the enterprises' loan debt totaled 1654030 million rubles in 2011.

Despite the trend of reducing the number of unprofitable enterprises in the Russian economy, the maintenance of the low level of profitability means the absence of a tax base for a number of taxes, especially for income tax. "Rationally developed profit tax is a tax on return from capital invested in the corporate sector and, what is more, a tax on additional risk-adjusted return from investment, i.e., profit tax is in fact a preliminary part of tax on comprehensive (gross) income of the individual" [4, p. 122].

Investments, especially in the innovation activity, are becoming more compliant to after-tax profit when the economy is growing. It becomes impossible for the government to exploit fix investments of previous periods further in order to gain profit in the long term. For the same reason nowadays developed economies tend to reduce the effective rate of profit tax and optimize taxation.

The above correlation-regression analysis, indicating the impact of gross profit on enterprises' investment activity, confirms that profit tax can cause undesirable distortions in the use of production factors (labor and capital), leading to an inefficient combination of these factors, thereby discouraging innovation and investment activity.

In this situation the specific task of effective tax policy is to develop profit tax rate in the most stimulating form, taking into account the Laffer effect. Moreover, it is necessary to ensure the correspondence of the levels of nominal and real tax burden of enterprises. It is not clear at what level of GDP or added value such compliance can be achieved. However, there is a range of possible values of the nominal tax burden (for current taxes), which varies in the range of 30–40% of GDP, according to the experience of foreign countries. Moreover, if the level of taxation is 30 % of GDP (according to the U.S. experience), it provides faster economic development and tax revenues growth in the future; the 40 % level involves heavy budget receipts at a lower pace of economic development.

The tax mechanism, ensuring a favorable economic climate for the investment activity development, should be in compliance with credit and banking policy, interest rates. It should provide certain benefits to enterprises that use long-term loans for investment purposes.

The logic of economic development is that interest rates should be below the average profit level. Only under these conditions entrepreneurs can use borrowed funds. In turn, the interest rates of commercial banks should be higher than the refinancing rate and deposit interest rates, otherwise banks can not operate effectively. Finally, all participants in the credit market should have real interest yield, i.e. the level of nominal interest rates should be higher inflation.

Nowadays the Russian economy is in quite an unfavorable state: the average profitability level is relatively lower that the level of average weighted interest rates. This correlation between the profitability of the Russian economy's real sector and interest rates discloses many problems of the national economy, connected with the lack of investment and capital outflow in the speculative operations and its outflow abroad. So, when the efficiency of investment projects is higher and the interest rate is lower, the investment and entrepreneurial activity are more intensive. When credit resources are more expensive, there are less efficient business projects and less investors' demand.

High interest rates on advances hinder the movement of credit resources to the real sector and determine its technological degradation, thus making the Russian market unattractive for investors. Russian entrepreneurs get more profit, investing abroad, where the real sector provides an opportunity to gain it by means of credit resources, allocated at reasonable rates.

Recently the world practice has been applying a number of specific financial tools, aimed at the state's participation in the division of credit and investment risks when investment projects are being implemented. It has also been using mechanisms, such as the provision of enterprises with state guarantees for long-term loans from private lending institutions, the state's equity joint participation in the formation of venture capital funds and investment business, protection of domestic producers from foreign competitors and others.

Guaranteed loans provide an opportunity to support high-tech projects, related to credit risks that are high or difficult to assess. The current practice presupposes that the third party (guarantor) participates in the investment process; it assumes full responsibility for fulfilling the borrower's obligations to the lender. Thus, borrowers can borrow money that they can not get in other conditions.

Another common form to reduce investment risks is the state's equity shareholding in projects as a partner with limited liability.

The mechanisms of state guarantees promote public-private partnership by means of sharing risks between private investors and state organizations that provide such guarantees. The result is not only an increase in the private capital inflow, but also a more efficient use of limited budgetary resources.

Equity financing stimulates accumulation of large financial resources for perspective innovation projects implementation by means of sharing stocks among unlimited number of investors (borrowing money from the shares buyers for an indefinite period). The securities issue can help to move from investment credit to market debt obligations, thus optimizing the structure of financial resources invested in the innovation project.

Evidently no investor wants to risk alone, he/she feels more confident if supported by a public authority.

In our opinion, good risk insurance is joint participation of public and private capital that are equally interested in not only recovering money, but also in gaining profit.

The efforts to stimulate investment activity should focus on the underlying causes of the business' lack of interest in long-term projects. The most important issues that require priority development of state regulation of investment processes are the following:

- support and development of new forms of investment projects crediting in the Russian Federation;
- proposals on conditions of state guarantees provision with regard to loans attracted into the investment sphere;
- development of the mechanisms to consolidate financial resources of public-private sectors in order to implement priority research and technology tasks, contributing to the creation and management of the public-private sectors' activities;
- development of mechanisms to estimate public investment programs and share the results of this estimation with business and expert communities;
- promotion of international and regional technological strategic alliances.

It becomes more evident that ensuring high and sustainable development rates in Russia is impossible without a mutually beneficial partnership of the state and municipal authorities, commercial banks and business representatives. The economic strategies and programs, focused only on the use of budgetary funds and based on the orthodox neoclassical doctrine, are insufficient for "the development of innovation economy that lays the basis for the country's high competitiveness. State-business interaction in the investment process financing should be based on the development of a parity-partner relations that involve mutually beneficial cooperation and provide necessary conditions for the formation of a qualitatively new state, capable of implementing the national development plan and meeting many complicated geopolitical challenges" [5, p. 6]. To sum it up, we should note that only the implementation of the proposed measures will boost the investment process in the Russian Federation.

Sited works

1. Ilyin V.A., Povarova A.I. *Public Administration Efficiency. The Fiscal Crisis of the Regions*. Vologda: ISERT RAN, 2013. 128 p.
2. Kormishkina L.A., Koloskov D.A. *Deformation of Social Reproduction: Causes, Analysis, Counteraction. Saransk*, 2011. 144 p.
3. *Russian Statistical Yearbook*. Rosstat, Moscow, 2012. 786 p.
4. *Problems of the Russian Tax System: Theory, Experience, Reform*. Ed. by M. Alekseev, S. Sinel'nikova: in 2 volumes. Moscow: In-t ekonomiki perekhod. perioda, 2000. Vol. 1. 606 p.
5. Fedorov E.A. Private Business is a Priority of State Partnership. *Public-Private Partnership. Ways of Legislative Base Betterment*. Under general editorship of A.A. Zverev. Moscow, 2009. 238 p.

References

1. Ilyin V.A., Povarova A.I. *Problemy effektivnosti gosudarstvennogo upravleniya. Byudzhetnyi krizis regionov* [Public Administration Efficiency. The Fiscal Crisis of the Regions]. Vologda: ISERT RAN, 2013. 128 p.
2. Kormishkina L.A., Koloskov D.A. *Deformatsii obshchestvennogo vosproizvodstva: prichiny, analiz, protivodeistvie* [Deformation of Social Reproduction: Causes, Analysis, Counteraction]. Saransk, 2011. 144 p.
3. *Rossiiskii statisticheskii ezhegodnik* [Russian Statistical Yearbook]. Rosstat, Moscow, 2012. 786 p.
4. *Problemy nalogovoi sistemy Rossii: teoriya, opyt, reforma* [Problems of the Russian Tax System: Theory, Experience, Reform]. Ed. by M. Alekseev, S. Sinel'nikova: in 2 volumes. Moscow: In-t ekonomiki perekhod. perioda, 2000. Vol. 1. 606 p.
5. Fedorov E.A. Za chastnym biznesom – prioritet v gosudarstvennom partnerstve [Private Business is a Priority of State Partnership]. *Gosudarstvenno-chastnoe partnerstvo. Puti sovershenstvovaniya zakonodatel'noi bazy* [Public-Private Partnership. Ways of Legislative Base Betterment]. Under general editorship of A.A. Zverev. Moscow, 2009. 238 p.

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The issues of asymmetry of corporate and public interests in the food market

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Abstract. The article analyzes the present-day condition of Russia's food market from the viewpoint of coordination of interests of population and corporate interests of producers. The author points out that the provisions of the existing legal documents regulating the quality and safety of foodstuffs facilitate the growth of asymmetry in these interests. The article considers the manifestation of imbalance and the consequences of consumption of foodstuffs, produced with the use of new technology and receipts. It proposes the ways to smooth the asymmetry of interests by enhancing the role of experts in drafting the state decisions on the development the national food market from the standpoint of complying with the principles of food products safety.

Key words: food market, quality, corporate interests, multinational companies, food security, expert community.

Production and distribution of food products are closely connected with such indicators as quality and food safety, physical and economic access. The tasks of expanding the range of products, creating new high-tech food products satisfying various consumer preferences are relevant for the food industry and food retailers.

However, the tasks to enlarge the food range, to creation new formulas of food products answer not only the needs of the population, but the corporate requirements of the operators of food market in the field of competitiveness of enterprises and improvement of production efficiency. The main point of corporate priorities is, first of all, to maximize the expected revenue by increasing market share, reducing costs, etc. The following questions are in focus: In what way does the realization of these corporate priorities reconcile with consumers interests? Is the balance achieved or is there asymmetry of interests? In this article the authors have attempted to answer these questions.

The main corporate segments of the Russian food market

Nowadays the Russian food market takes an important place in the economy of Russia. In the structure of retail trade turnover in 2012 the share of food products was 46.5%, or 9.9 trillion rubles.

According to the data of the Federal State Statistics Service (Rosstat), the share of food products production, including beverages and tobacco in the overall volume of manufacturing production in 2012 was 15.9%, and the dynamics of the indices of food production (*Table 1*) during the 2005–2012 period is characterized by stable positive values. However, we observe the decline of indices points at the end of the analyzed period.

Most of the food industry sectors are characterized by a short production cycle, fast return of investment. Due to these characteristics, the food industry represented (and represents) one of the most attractive areas of application of the world capital. As an analytical evaluation of investment attractiveness of the food sector of industry international stock indices are used, which allow to evaluate the overall change of the direction and the current state of the market, such as the Dow Jones Industrial Average (DJIA).

In the global list of companies covered by DJIA there are three top food and beverage manufacturing companies: soft drinks – Coca-Cola Co., food products – Kraft Foods Inc., food service sector – McDonald's Corp.

The S&P 500 (Standart&Poor's 500) competes with the Dow Jones Industrial Average by popularity and represents a weighted average price value of shares of 500 large companies from various sectors of the U.S. economy. This index consists of 27 (!) companies from the sector of foods and beverages (excluding

Table 1. Indices of food production during the period 2000–2013

	2000	2005	2010	2011	2012	2013
Indices of food production	105.3	106.6	105.4	101.0	104.1	100.6

retailers). According to the data available at Foodinnovation.ru [1], the food sector companies have showed 20% growth for five years since the crisis. Such growth is only comparable with the growth of high-tech companies index NASDAQ, but with a high level of stability during the recession, related to the presence of stable cash flow caused by weak variability of consumer demand.

Nowadays the main trends of the Russian food market are the continued concentration of property, the reduction of the small and medium-sized enterprises share, the strengthening of the position of major consolidated companies. During the period of transition to the market economy model a large number of developing companies, successfully competing in the domestic food market and in the markets of the CIS (the Commonwealth of Independent States) countries, actively attracting capital for their development, have been formed in the country [2].

Food processing industry remains attractive to the Russian and foreign investors that is demonstrated by the amount of investments (*fig. 1*), according to Rosstat, and the significant percentage in total investment (*tab. 2*).

In general, during the 2010–2012 period the total amount of investment in the food industry of Russia was US $ 8796 million.

Today almost all the world's largest food, beverage and tobacco companies have their subsidiaries in Russia. The considerable part of the modern food industry in Russia is centralized in the large multinational companies (MNCs), most of which are multifunctional corporations.

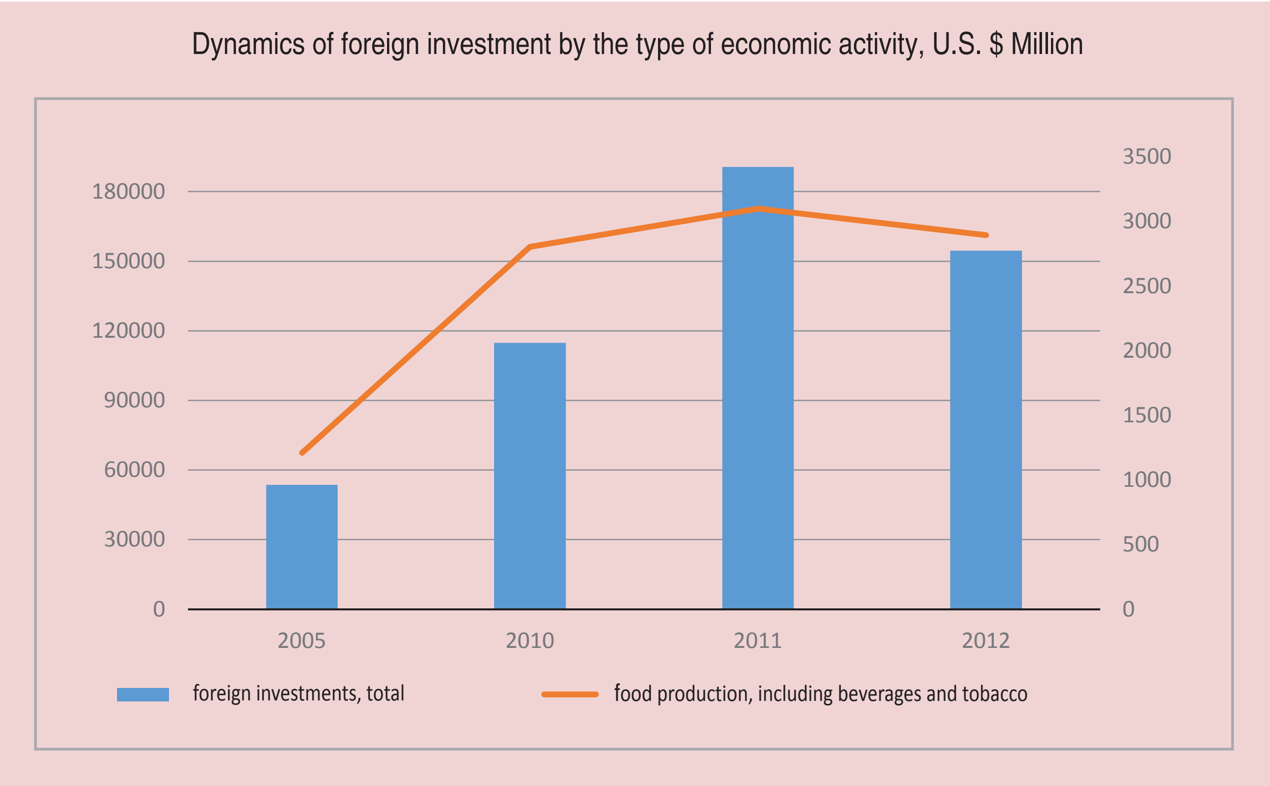

Table 2. Foreign investment, U.S. $ Million

Indicator	2005	2010	2011	2012
Foreign investment, Total	53651	114746	190643	154570
Including the type of activity: production of food, beverages and tobacco	1210	2803	3099	2894
Percentage of foreign investments by the type of activity: production of food, beverages and tobacco in total investment,%	2.2	2.4	1.6	1.9

The foreign companies having their Russian subsidiaries are: “Unilever”, “Nestle”, “Unimilk-Dannon”, “Coca-Cola Company”, “PepsiCo”, “Bonduelle Group”, “Khorteks”, “Group Secab”, “Orkla Brands Russia”, “Mars”, “Kraft Foods”, “Ahmad Tea”, “SUN InBev”, “Carlsberg”, “SAB Miller RUS”, etc.

It is significant that, according to the annual ranking [3] of big companies, estimated by the journal “Expert”[1], in 2013 the Russian subsidiary “PepsiCo” (PepsiCo Holdings) – the largest producer of food and beverages was ranked first among the food industry enterprises and 50 among the companies in all spheres of activity by sales revenue.

According to the official website of the multinational company PepsiCo [4] in Russia, the company has more than 40 companies and about 25,000 employees. “PepsiCo” is actively investing in their business in Russia. In 2011 the company “PepsiCo” expanded its main assortment (including carbonated and non-carbonated drinks, chips) by the acquisition of the company “Wimm-Bill-Dann” – Russia’s largest producer of dairy products, baby food and juices.

As a result, the Russian subsidiary “PepsiCo” has received the status of the leading processor of milk in Russia. This was an extraordinary deal in terms of the amount of foreign investment (5.4 billion U.S. dollars) in the non-raw-material sector of Russia.

“Baltika”, the largest beer producer in Russia, is also among the leaders of the rating “Expert-400” in 2013 and occupies the 88th position in the list and the second one among the food industry companies. In November 2012 the forced reacquisition of shares of the joint stock company “Baltika” was completed, whereby Carlsberg Group (a Danish brewing company) has owned 100% of the Company’s capital. The total staff of food company “Carlsberg” – 38.6 thousand people (2012).

It is estimated that the share of foreign capital in the food industry according to the Ministry of Agriculture of Russia is 60% [5] and has a tendency of further growth due to mergers and acquisitions in the food market. Foreign investments have provided the necessary financial leverage for the development of the food industry, and the process of mergers and acquisitions in the food industry has led

[1] The rating “Expert- 400” is the most representative list of top Russian companies which are generally recognized in Russia and worldwide.

to the smooth transition to an oligopoly, that is the reduction of the number of small producers in the market.

The sphere of interests of foreign investors – the segment FMCG (fast moving consumer goods) – contains consumer goods with fast turnover, its considerable part is minimally connected with the local resource base. The target at the top-income segment of the food products with a low proportion of natural raw materials gives manufacturers the possibility not to depend on the instability of properties and prices.

The relevant inflow of foreign capital has been the main factor of high growth rates in the food industry in Russia during the last 10–15 years. In addition, the successful application of system of international manufacturing control and quality assurance system, the latest equipment, logistics and advanced sales systems in the Russian subsidiaries of foreign companies has contributed to the situation when the formation of the Russian food market has largely been dependent on the strategic priorities in the development of transnational production companies or their subsidiaries.

Enterprising and energetic efforts to uphold the interests of multinational companies in order to maximize the reflection of their business interests largely determine the vector direction of the Russian food policy, especially in the industrial production of food. Lobbying is carried out both in direct and indirect forms (the support of scientific conferences and exhibitions, forums and congresses), and is implemented through the various members of collegiate advisory bodies at regional and municipal authorities and public organizations.

In the regions local authorities, the degree of their influence on the tax benefits value can be rather substantial, often make decisions in favor of "understandable" business of a transnational company – a major investor and taxpayer in the region. This form of support is rarely given to "their local companies", which are not so efficient in the competition with the titans of the food market, and that leads to a further weakening of the small and medium business.

Thus, the current structure of the Russian food industry is clearly segmented into two sectors: the domestic sector – small and medium enterprises owned by Russian citizens and the Russian sector of the subsidiaries of foreign corporations, which is the most developed part of the corporate business.

The problem of asymmetry of interests of consumers and producers of the food market under the conditions of laws and technical regulations of food quality and safety

The problem of asymmetry from the authors' point of view is that the majority of food producers focus on a highly profitable segment of the food market with a low proportion of natural raw materials to the prejudice of the quality and nutritional value of food industrial production. In this regard, it is important to investigate whether laws and technical regulations have a moderating effect on the processes of manufacture of products with a low nutritional value.

Today Russia has the Federal Law "On the food quality and safety" [6], according to that, the quality is defined as a complex of characteristics of food products, capable of satisfying human needs for food under normal conditions of their using. In this case, there is the interpretation of the category of "quality" without taking into account the requirements of the utility consumer properties of the product.

It should be noted that technical regulations, which replaced the National State Standards, establish the minimum requirements, which provide biological, chemical and radiation food safety.

The set of international quality standards of ISO (International Organization for Standardization), applied in the creation and improvement of quality management systems of organizations, is not the standard of quality of the product itself, but, first of all, is a model or a diagram of the organization of processes for providing the highest quality of management of the organization. At the same time, when most of the largest enterprises in the food market indicate on their websites and in their brochures mention in a product label that their product quality is provided by international systems of certification, then the concept "quality of the organization" is substituted for the concept "quality of the product" in the consumer's mind.

Thus, in reality there is a terminological "trap". In accordance with the settings of quality control systems the quality product means standardized finished products, which meet the requirements of safety, produced under appropriate conditions and pass the necessary control procedures. This interpretation is in conflict with the associative representation of most consumers about product quality.

It should be noted that the ambiguity of interpretations of the concept of quality and efficiency in many ways has led to the illusion of perception of the activity of highly effective companies in the food market as the companies, interested in the production of qualified products which meet the interests of consumers to the fullest extent. In this regard the organization of manufacturing of certain products is only aimed at the production of standardized food products, that is, asymmetry of interests of consumers and producers of food products occurs, causing serious imbalances in the development of the food market.

"Efficiency" in the Western understanding is not not useful, that is, nobody requires that firms compete in the usefulness of their products, in the degree of satisfaction of the needs of the population" [7, p. 13].

In modern conditions the competitiveness of food products is determined to a large extent by the trade, the presence of products in retail chains makes wide publicity for them and provides recognition. However, large retail chains act as a catalyst for the formation of the deformed structure of product supply, focusing on the sale of attractive products, regardless of its nutritional value. The retailers' task is to increase the number of customers and the average amount of the check, and in fact the product is not sold as itself, but "shelf space".

Large retail prefers to work with large food companies, and the product policy in the major trading companies is built on the same principles as in the transnational food companies.

To establish the single economic space the Customs Union has made some serious steps to regulate the food market at the supranational level, to ensure the coherent policy regarding standards, technical regulations, food quality and safety.

Seven technical regulations in the food industry came into effect July 1, 2013. The are the following: "On Food safety", "Food products in terms of their labelling", "Technical regulations on juice products from fruit and vegetables", "Technical regulations on fat-and-oil products", "On safety of certain types of specialized food products, including dietary medical and dietary preventive nutrition", "On security of grain", "Safety of food additives, flavourings and processing aids".

The last above-mentioned technical regulation is of importance, because artificial dyes, food flavourings and conservants have become an indispensable feature of modern food. As it is known, the use of dietary additives is harmful for a human body. The human nutrition can be not only the source of important food and biologically active substances for the human body, but also the source of the accumulation of various metabolites of food additives, that is extremely undesirable, and in some cases it is a direct threat to human health due to cellular metabolism disorders.

In our opinion, the lists of permitted additives under conditions of growing knowledge about them and in light of the latest scientific research, should be continuously updated for the subject of their using. Of course, this is a complex process, involving a significant amount of commercial interests, but the problems of their confrontation are not always solved in favor of consumers.

There is a well-known example, when the group of experts from the University of Southampton investigated the most popular dietary additives and presented the results of the experiment at the disposal of the Food Standards Agency UK (FSA). According to these data, a number of food colourings – E102, E104, E110, E122, E129 – can cause hypersensitivity of the human body and, as a consequence, "hyperactivity" in children's behavior. Despite the presented proofs, the "scandalous" food colourings have not been prohibited in many EU countries, and there have been only the recommendations for producers on the necessity to abandon to use these food additives.

The above-mentioned problems have been incorporated in the new technical regulations (on the nutrition labelling) of the Customs Union, but their decision is piecemeal. Thus, the Regulations states: "For food products containing food colourings (E122, E104, FCF, E110, charming AC, E129, Ponceau 4R E124 and E102) there should be a warning label: "It contains a coloring agent(s) that can have a negative effect on children's activity and attention". In this case, it should be noted, a lot of colorful and attractive food products (confectionery, soft drinks, ice cream), using food colourings, are directed to children.

In this connection there are very interesting conclusions, made by I.A. Martynuk [8] in his thesis research, about the evaluation of the toxicity of the above-mentioned food additives. The food colourings E102, E122, E142, E110 became the subject of this thesis research, the author developed the rapid test method of determining their integrated toxicity by using bioassays. In a short time the experiment studied the impact of substances on several generations of animal bioassays.

According to the results of experiments the following results have been obtained: the food colourings have not acute and chronic toxic effects on the aquatic organisms (Daphnia laboratory), this indicator has proved that the investigated substances can be considered environmentally safe. However, in terms of the impact on reproduction and development of the offspring they have a significant influence on the fertility of the studied species, that is pronounced in subsequent generations.

Thus, the examined food colourings can be hazardous to health: they affect the activity of children and can cause adverse effects on the reproductive function of human beings, as they cause gonadotrophic[2] effect.

Such serious data of this study, disclosing long-term consequences of the negative impact of chemical elements, should not only be considered as a part of scientific results, but also used in applied applications as an evidentiary foundation for legislative guidelines, regulations and requirements in the field of the using of food additives.

Consequences of the changes in the structure of product supply in the food market

Under market conditions, product formula is a trade secret that creates information asymmetry in the food market and real opportunities for abuses by food producers by creating a variety of recipes using natural raw material replacement. In this case similar flavor characteristics (or better) of the finished product are provided through the introduction of chemical additives and ingredients, which are identical to natural. The innovative development is carried out in the form of product formulas that achieve maximum functionality, in particular the company's profits.

[2] Gonadotrophic action – an ability of chemical substances to cause harmful effect on the reproductive function of human beings, animals and plants.

Western companies have accumulated a great experience in the development of high-tech food products. As a result, the structure of the Russian food market has implanted a serious segment of the food products, which can be characterized as artificial, synthetic to a great extent. The concept "artificial food"[3] has appeared.

Today, synthetic food produced by food giants, appears under the guise of genuine, and a number of chemical ingredients used in the food industry are turned it into chemical industry. The authors wrote about the peculiarities of this metamorphosis in their previously published articles [9].

The appearance of "new products" has provided a variety of product offering in the food market, that led to information asymmetry under the conditions of high-level monopolization, when the opportunity to manipulate consumer behavior in the field of nutrition has appeared in the direction of increasing purchases of new products, cost-effective for enterprise-producers, but useless and even harmful to consumers' health.

Z. Biktimirova noted in her article, published in 2004, that among the risks of globalization, there was a growing threat of manipulation of public consciousness. And the negative effect of this manipulation on food security can be the creation of behaviors and values that correspond to the interests of those who control the money, but are hazardous to human health and long-term prospects for the development of society [10, p. 82]. Time confirms the validity of this statement. In the context of the lack of education of the population in the sphere of food consumption, moral and psychological impact of aggressive advertising of food manufacturers which use human weakness before temptations of food market, there is a situation when consumers choose products which are harmful to their health.

In May 2013 the British consulting company "Maplecroft" published a new index – Obesity Risk Index (ORI), designed to evaluate the risk of obesity and overweight for 188 countries. The ranking results show the indices of 10 countries at risk. Russia is in the third place in the world among the countries where obesity is bad for the economy, the second one only to Mexico and the United States. Economic consequences include the direct expenses of health care and indirect expenses associated with the loss of economic productivity, as well as individual citizens' expenses on drugs [11].

According to the report of the Food and Agriculture Organization (FAO), in July 2013 Mexico occupied the first place in the ranking of the "thick" countries, the United States pushed to the second place of ranking. In 1989, by the moment when the system of fast food had been widespread, only 10% of adult Mexicans had some problems with being overweight, and in 2013, according to the ranking, 32.8% of the inhabitants of Mexico were

[3] Artificial food – food product obtained from different food agents (proteins, amino acids, lipids, carbohydrates), previously isolated from natural raw materials or obtained by directed synthesis from mineral raw materials with the addition of *food* additives, as well as vitamins, mineral acids, trace elements, etc.

obese, most of them were young people from the poor. The United States gave way to Mexico 31.8% of the Americans had obesity diagnosis [12]. Russia occupied 19th place in the above-mentioned ranking among the 20 most "thick" countries. Almost a quarter of respondents (24.9%) were obese.

The specialists from "National Center "Healthy Eating" has carried out the investigations, the results of which show that the problem of excess weight is typical for the residents of the Siberian Federal District. The morbidity rate of obese among adult population (18 years and older) in Omsk, Novosibirsk, Kemerovo, Irkutsk oblasts, the Altai Republic and Zabaykalsky Krai, Khakassia, Altai and Buryatia is almost 1.5 times higher than the average for the country [13]. According to Novoselov's opinion, the director of the non-governmental organization "Siberian Federal Center of health food", given in the journal "Expert", at least 45% noncontagious diseases are associated with Siberians malnutrition. "Every day our body faces with a huge amount of unusual elements – chemical additives, conservants, substitutes. And how they will affect us and our children, no one can say" [14].

Examples of reconciling the interests of consumers and producers of food products

Is it possible in today's realities that food matrices are formed by manufacturing enterprises and distribution networks in accordance with the principles of healthy nutrition?

In recent years, "new shoots" are viewed in the Russian food market, there are the examples of separate companies which are ready not only to produce natural and healthy products, but also to invest efforts in creating a new market segment of "good" foods. These companies include Tomsk trading company "Lama", which two years ago, at the initiative of the president of the company, kept a healthy lifestyle, revised its mission, designating it as follows: "We provide food security of Russia". One of the ways to achieve this mission was to collect signatures against GMOs, including electronic voting on the official website of the company. Thus the company "Lama" is engaged in retail trading and various products manufacturing, it began to enforce an active policy to protect its own business and production against GMO products.

But in what way have the formulations change and elimination of all chemical additives from products reflected in the cost of the enterprise? In the course of this article the authors held the interview with the Deputy Director for Economics LLC "Terminal Group", included in the group of companies "Lama", M. Ryabykin who answered some questions. Thus, to implement the requirements in the field of quality control the company had to create its laboratory, to attract a large staff of professionals, to build business processes for receiving and checking the quality of raw materials and products, as well as to review the contracts related to the supply of defective products. As a result the increased costs of production and sales of the useful products, according to M. Ryabykin, led to the loss of a certain percentage of profits as the product price could not be increased to the level at which it was increased its cost.

In our opinion, the state support of efforts of such manufacturers to create a new market segment is necessary that in the foreseeable future they could reach the average level of profit and gain consumers' support as a buyer is gradually reorienting to purchase more healthful products.

The role of the level of expertise in problems of equalization of asymmetry in supporting food quality

The transnational nature of the food industry has substantially changed the technology of food production. It is necessary to comprehend who wins and who loses because of ongoing transformations. It is important to understand what causes these changes and whether they are necessary.

The authors have already expressed their opinion in the press [15] on the necessity to increase the importance of the role of expert support in the development and review of regulatory documents and draft of state decisions on the development of the national food market, especially in terms of compliance with the principles of food safety.

Examination is a special type of applied research, involving a critical examination of documents (decisions and draft decisions) in order to minimize the probability of erroneous decisions.

Nowadays in Russia, in most cases the procedures of experts identification, time frames for examination, the content and quality of expert opinion, the necessity of its publication and other are not well regulated.

Among the negative aspects of the organization and conduct of the examination of legal and regulatory documents at the federal level, regulating industrial activity in the food market, the following can be identified:

1. During the preparation of the decisions the presence of expert opinions from business and from science is obligatory. For example, the State Duma has legal and linguistic expertise of laws, but not scientific. The expert may be offered by a related party that allows to establish and to maintain lobbying channels [16].

2. In the expertise of legal acts of federal executive authorities, held by The Depart-ment of Regulatory Impact Assessment of Ministry Economic Development of the Russian Federation, the members of the non-profit partnership "the Union of Consumer Market" are actively involved in order to identify their offers, making it unfoundedly difficult to do business and investment. The position of this non-profit partnership reflects, first of all, the consolidated policy of lobbying corporate interests of its members.

The list of the participants of this non-profit partnership includes a large number of manufacturers of food, including food giants such as "Mars", "Nestle", "Coca-Cola", "Ferrero", "Nutricia", "Danon", "Uniliver", "Kraft foods", etc. The main objective of the partnership is to provide the most complete account position of the partnership when developing and implementing the requirements of the Russian legislation and the Customs Union in the production and circulation of food products and other issues of the regulation in the food industry.

According to the statement of “the Union of Consumer Market” [17], it represents the interests of honest entrepreneurs in the interests of consumers. However, the list of participants of the Union and the stated objectives of the nonprofit partnership functioning give reason to doubt their interest in protecting the interests of consumers.

3. Lobbying of enterprises interests becomes politics of such public authority as the Rosstandart – Federal Agency for Technical Regulation and Metrology, which is administered by the Ministry of Industry and Trade of the Russian Federation.

According to the paragraph 5.3.2 of the Provision of this department, expert examination of draft national standards is the function and the power of the Rosstandart. The Head of this department Grigory Elkin, in his speech in April 2013 at the meeting of the Federal inter-agency board “Business Russia” expressed his position on the target plants in the examination standards: “Our goal is lobbying our businesses, our industry, our achievements. As international standardization, as well as standardization in general is one way of lobbying” [18].

The question is: how then will the ideas presented in the Concept of national standardization system be implemented, according to which in the context of globalization the system should balance the interests of the state, business entities, public organizations and consumers? Although it is worth to mention that it is the national standards government body, in accordance with its above-mentioned concept, that fulfills the task of the development of the list of obligations mechanisms of stakeholder participation in the formation of a common policy in the field of standardization.

In this situation, the preparation at the legislative level of quality standards in relation to food products without the proper level of scientific and public examination of the impact on man’s biosafety is a dangerous policy that allows companies to realize their commercial interests to the detriment of consumers.

We propose a number of ways to improve the significance of the level of expertise in the evaluation process of unexplored consequences of using new technologies and raw ingredients in the food industry.

1. Under the conditions when the main motivating force of food producers and trade is profit, the modern system of normative and legislative acts in the field of regulation of the food market should be a rational system of “checks and balances” so that upcoming “bioeconomy” does not damage human nature. The formation and creation of such a regulatory system should belong to science. We consider it necessary to extend the list of priority research themes of the Russian Federation relating to proposals to develop predictive

scenarios of the Russian food market taking into account the challenges and threats determined by new technologies in the process of food production, bio- and nanotechnology, approaches to the management the costs of holdings-food conglomerates in the food market. The results of researches should be the basis for formation of databases in the regulation of food production at the national level, which can and should be used to develop draft technical regulations as the evidence base for the principles, regulations and requirements.

2. To set the vector for the further development of scientific researches in the field of the food industry it is necessary to enlarge the list of critical technologies at the federal level which are related to biosafety man. The development of this branch of knowledge will facilitate proper prioritization in order to take appropriate measures in the future intervention in the formation and development of the national food market.

3. Interdisciplinary nature of the research problems of the modern food industry causes the necessity of coordination of expert advice while the preparation of documents to regulate the food market ensuring the harmonization of corporate and public interests.

It is necessary to expand the tool palette in the expert community partnership through the creation of associations of analysts and experts who could unite the various categories of specialists.

4. The need for transparency in the preparation of solutions. The public lighting will allow the population to evaluate critically the product offering in the food market and choose foods corresponded to the principles of healthy eating.

The population as a main consumer of food products could actually participate in the process of formation of the system of regulation of commodity supply "voting by ruble". It is believed that the population is responsible for the selection of useful and quality products for their own consumption.

However, it is difficult for the average buyer to understand the diversity of the proposed portfolio under the conditions of the aggressive marketing of manufacturers, which is aimed at maintaining the policy of consumerism (excessive consumption of goods and services), and provides any innovation as an innovation in its content and in the packaging. While a mass consumer begins to understand the products, to distinguish "useful and natural" from merely "beautiful and delicious", retail chains will opt for the latter.

It should be recognized that the majority of the population have not been ready for the perception of a healthy diet, and manufacturers took advantage of this when responsibility for product quality is placed not on the regulators but on the enterprises themselves. The population has a former way of thinking and believes that "all food products on the counter are checked, tolerated, allowed and benefit". Thus, the population commitment to conservative model of consumption patterns in the food markets is confirmed by an ambitious research held by the marketing company "Start marketing" [19].

In order to help the population to make a conscious step in the fight for their interests, we consider it necessary to extend the functions of the expert community in the public awareness campaign to form the rational eating behavior among the population and to inform customers about the features of modern industrial production of raw materials and finished food products.

Conclusion

At the present stage of development of the food market increasing asymmetry of interests of consumers and producers of food products in terms of quality and nutritional value takes place. The analysis showed that the Federal Law "On the quality and food safety" and technical regulations do not provide the coordination of these interests and require further improvements in the public interest.

The characteristic features of modern industrial food production should include an increase in output, containing a large number of chemical ingredients that allow to reduce the costs of enterprises, to increase the terms of sales and storage products. Strategies of efficiency of production and trade, promoting food products to consumers without the regard to the requirements of utility foods are the main drivers of the innovation process in the food industry.

In these circumstances, it is necessary to strengthen the role of expertise and its public lighting in the development of new products and new food technology, regulatory and regulations to prevent the transformation of the food market in the global sphere of practical experiments. In our opinion, the presence of a competent examination will allow to develop adequate mechanisms governing the food production.

Sited works

1. Available at: http://foodinnovation.ru/articles/5190.html (access date: November 07, 2013).
2. *RF Government Resolution "On Approval of the Strategy for the Development of Food and Processing Industry in the Russian Federation for the Period till 2020" of April 17, 2012 No.559-r*. available at: http://base.consultant.ru/cons/cgi/online.cgi?req=doc;base=LAW;n=128940 (access date: November 07, 2013).
3. Available at: http://www.raexpert.ru/ratings/expert400/ (access date: November 07, 2013).
4. *Official Website of PepsiCo*. Available at: http://www.pepsico.ru/company/pepsico_in_russia/ (access date: November 07, 2013).
5. *The Participation of Foreign Capital in the Food Industry*. Available at: http://www.mcx-consult.ru (access date: November 12, 2013).
6. *About the Quality and Safety of Food Products: the Federal Law of January 02, 2000 No.29*. Available at: http://www.flexa.ru/law/zak/zak057-3.shtml (access date: November 07, 2013).
7. Parshev A. *Why Russia Is Not America. The Book for Those Who Remain Here*. Moscow: AST: Astrel', 2009. 350 p.

8. Martynyuk I.A. *The Issues of Ecological Safety of Food Additives and Determining Their Toxicity by the Method of Biotesting. Ph.D. in Biology Thesis Abstract*. Moscow: Moskovskaya sel'skokhozyaistvennaya akademiya imeni K.A. Timiryazeva, 2002.

9. Usenko N.I., Poznyakovskii V.M. *Against "Junk" Food: the Transformations of the Food Industry and Food Security*. *EKO*, 2012, no.8, pp. 175-189.

10. Biktimirova Z. Quality of Life: Food Security. *Economist,* 2004, no.2, pp. 78-84.

11 Available at: http://maplecroft.com/portfolio/new-analysis/2013/05/13/maplecrofts-new-obesity-risk-index-highlights-global-nature-obesity-epidemic/ (access date: November 10, 2013).

12. Available at: http://www.dailymail.co.uk/news/article-2358439/Mexico-takes-America-fattest-nation-earth.html (access date: November 10, 2013).

13. Available at: http://www.medlinks.ru/article.php?sid=55123 (access date: November 10, 2013).

14. Available at: http://expert.ru/siberia/2013/44/ochen-vrednyij-perekus/ (access date: November 08, 2013).

15. Usenko N.I., Poznyakovskii V.M., Olovyanishnikov A.G. Myths about the Quality (Specifics of Modern Industrial Production of Foodstuffs). *EKO*, 2013, no.6(9468), pp. 133-148.

16. Barsukova S.Yu. Juice Market in Russia: Past, Present and Future. *EKO,* 2009, no.12, pp. 111-121.

17. *Official Website of the Union of Consumer Market Participants*. Available at: http://www.np-supr.ru/ (access date: November 12, 2013).

18. Available at: http://rostandart.ru/news/standartizaciya_odin_iz_sposobov_lobbirovaniya_interesov_rossijskih_predpriyatij (access date: November 07, 2013).

19. Available at: http://www.startmarketing.ru/news/121 (access date: November 12, 2013).

References

1. Available at: http://foodinnovation.ru/articles/5190.html (access date: November 07, 2013).

2. *Rasporyazhenie Pravitel'stva RF "Ob utverzhdenii Strategii razvitiya pishchevoi i pererabatyvayushchei promyshlennosti Rossiiskoi Federatsii na period do 2020 goda" ot 17.04.2012 g. №559-r* [RF Government Resolution "On Approval of the Strategy for the Development of Food and Processing Industry in the Russian Federation for the Period till 2020" of April 17, 2012 No.559-r]. available at: http://base.consultant.ru/cons/cgi/online.cgi?req=doc;base=LAW; n=128940 (access date: November 07, 2013).

3. Available at: http://www.raexpert.ru/ratings/expert400/ (access date: November 07, 2013).

4. *Ofitsial'nyi sait kompanii PepsiCo* [Official Website of PepsiCo]. Available at: http://www.pepsico.ru/company/pepsico_in_russia/ (access date: November 07, 2013).

5. *Uchastie inostrannogo kapitala v pishchevoi promyshlennosti* [The Participation of Foreign Capital in the Food Industry]. Available at: http://www.mcx-consult.ru (access date: November 12, 2013).

6. *O kachestve i bezopasnosti pishchevykh produktov: federal'nyi zakon ot 02.01. 2000 g. № 29* [About the Quality and Safety of Food Products: the Federal Law of January 02, 2000 No.29]. Available at: http://www.flexa.ru/law/zak/zak057-3.shtml (access date: November 07, 2013).

7. Parshev A. *Pochemu Rossiya ne Amerika. Kniga dlya tekh, kto ostaetsya zdes'* [Why Russia Is Not America. The Book for Those Who Remain Here]. Moscow: AST: Astrel', 2009. 350 p.
8. Martynyuk I.A. *Problemy ekologicheskoi bezopasnosti pishchevykh dobavok i opredeleniya ikh toksichnosti metodom biotestirovaniya: avtoreferat dis. na soiskanie uchenoi stepeni kand. biolog. nauk* [The Issues of Ecological Safety of Food Additives and Determining Their Toxicity by the Method of Biotesting. Ph.D. in Biology Thesis Abstract]. Moscow: Moskovskaya sel'skokhozyaistvennaya akademiya imeni K.A. Timiryazeva, 2002.
9. Usenko N.I., Poznyakovskii V.M. Protiv "musornoi" edy: metamorfozy pishchevoi industrii i prodovol'stvennaya bezopasnost' [Against "Junk" Food: the Transformations of the Food Industry and Food Security]. *EKO*, 2012, no.8, pp. 175-189.
10. Biktimirova Z. Kachestvo zhizni: prodovol'stvennaya bezopasnost' [Quality of Life: Food Security]. *Ekonomist* [Economist], 2004, no.2, pp. 78-84.
11. Available at: http://maplecroft.com/portfolio/new-analysis/2013/05/13/maplecrofts-new-obesity-risk-index-highlights-global-nature-obesity-epidemic/ (access date: November 10, 2013).
12. Available at: http://www.dailymail.co.uk/news/article-2358439/Mexico-takes-America-fattest-nation-earth.html (access date: November 10, 2013).
13. Available at: http://www.medlinks.ru/article.php?sid=55123 (access date: November 10, 2013).
14. Available at: http://expert.ru/siberia/2013/44/ochen-vrednyij-perekus/ (access date: November 08, 2013).
15. Usenko N.I., Poznyakovskii V.M., Olovyanishnikov A.G. Mify o kachestve (osobennosti sovremennogo promyshlennogo proizvodstva pishchevoi produktsii) [Myths about the Quality (Specifics of Modern Industrial Production of Foodstuffs)]. *EKO*, 2013, no.6(9468), pp. 133-148.
16. Barsukova S.Yu. Rynok sokov v Rossii: proshloe, nastoyashchee i budushchee [Juice Market in Russia: Past, Present and Future]. *EKO,* 2009, no.12, pp. 111-121.
17. Ofitsial'nyi sait NP "Soyuz potrebitel'skogo rynka" [Official Website of the Union of Consumer Market Participants]. Available at: http://www.np-supr.ru/ (access date: November 12, 2013).
18. Available at: http://rostandart.ru/news/standartizaciya_odin_iz_sposobov_lobbirovaniya_interesov_rossijskih_predpriyatij (access date: November 07, 2013).
19. Available at: http://www.startmarketing.ru/news/121 (access date: November 12, 2013).

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What hinders the development of small businesses: the view of the Murmansk Oblast entrepreneurs

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Abstract. In recent years there has been a slowdown in the growth rate of Russia's sector of small and medium entrepreneurship; this issue once again brings to the fore the search for new ways and mechanisms in the management of its subjects. A necessary condition for such a search consists in focusing on the problems that hinder the development of this sector and that can be revealed exclusively in the formation of valuable and accurate information – the collective views of its representatives.

In this regard, the information base for the analysis was found in the results of several studies initiated by the all-Russian public organization "OPORA Rossii" (Moscow), its regional branch in Murmansk and the Northern Chamber of Commerce and Industry; the results were obtained in the course of the questionnaire survey, which was conducted among entrepreneurs with the purpose of revealing their assessment of the terms of doing business.

The generalization of the research results and information obtained by the author in cooperation with representatives of small business and workers of the Prosecutor's Office has identified the main problems, their causes and consequences of their impact on the activity of the Murmansk Oblast business sector.

In the opinion of a significant part of businessmen, such factor as business climate plays a decisive role in the creation and development of the sector in the region.

Despite the complexity of the situation, entrepreneurs do not lose hope of solving their problems and see the solution to the problem in efficient work of the regional and municipal authorities.

The author's conclusions may become a reference point for further reforms in the sphere of management of small enterprises in the Murmansk Oblast.

Key words: small and medium enterprises; business climate; factors impeding the development of small and medium business.

Nowadays Russian regions and municipalities face the most pressing challenges to develop small and medium business that can ensure positive socio-economic effects. To solve this task, it is necessary to create favorable conditions for small and medium entrepreneurship and effective mechanisms for their management and support. It is facilitated by Russian and foreign experts' wide experience to conduct scientific researches and expert assessments. The issues to develop this economical sector are studied thoroughly and comprehensively.

Thus, the research, carried out by KPMG[1] in more than 110 cities in 14 countries and covering such sectors as industry, digital technology, R&D, etc., analyzes opportunities for doing business. It is based on estimates of labor cost, insurance, communication, transport costs, taxation and financing. The study has revealed that the United Kingdom offers the most attractive conditions for doing business among developed countries, China – among emerging markets. Russia ranks 4th out of nineteen cheapest countries for doing business, ahead of the USA and a number of developed countries, but behind India, China and Mexico [6].

Despite optimistic results of the above survey indicating that in Russia doing business requires low costs and, thus, presupposing the development of small and medium enterprises, the practice shows the opposite: the scale of development of small and medium business in Russia lags behind the majority of foreign countries.

This situation is revealed in the research initiated by the all-Russian public organization "Support of Russia" (OPORA Rossii). It is aimed to identify the quality of business climate in Russian regions [7]. The participants of the research are 6000 Russian owners and managers of small and medium business in 40 Russian regions. The result is the following: the determining factor for starting business is not its low cost.

The representatives of Russian small business, survey respondents, consider such significant obstacles to set up and further develop new small and medium enterprises as a small number of qualified staff, decline of demand, low availability of financial resources, corruption, etc. *(tab. 1)*. And if the acuteness of the problems, associated with slump in demand and low availability of financial resources, has decreased slightly in Russia by 2012, the selection of personnel with the required qualifications is of most concern among entrepreneurs. This situation is typical for most RF subjects, including the Murmansk Oblast.

According to this survey, 37% of the representatives of small and medium enterprises in the Murmansk Oblast have mentioned the low availability of the staff, 62% of them have had problems in hiring qualified employees, 20% of them claim that it that is almost impossible to employ workers with required skills. At the same time, 56% of the respondents lack engineers and technical specialists, 18% do not try to look for them.

[1] KPMG is a global network of enterprises providing audit, tax and advisory services [6].

Table 1. Obstacles to the development of small and medium entrepreneurship in the Russian Federation (as a percentage of number of respondents)

Obstacle	2011	2012
Shortages in “the personnel of the required qualification” in the labor market	43	47
Slump in demand	33	18
Low availability of financial resources	30	22
Corruption deters development of small enterprises	13	8
High level of social payments	0	36

Compiled by the author on the basis of: Chto meshaet predprinimatelyam v Rossii [What Interferes with Entrepreneurs in Russia]. Available at: http://dasreda.ru/club/power/2546/

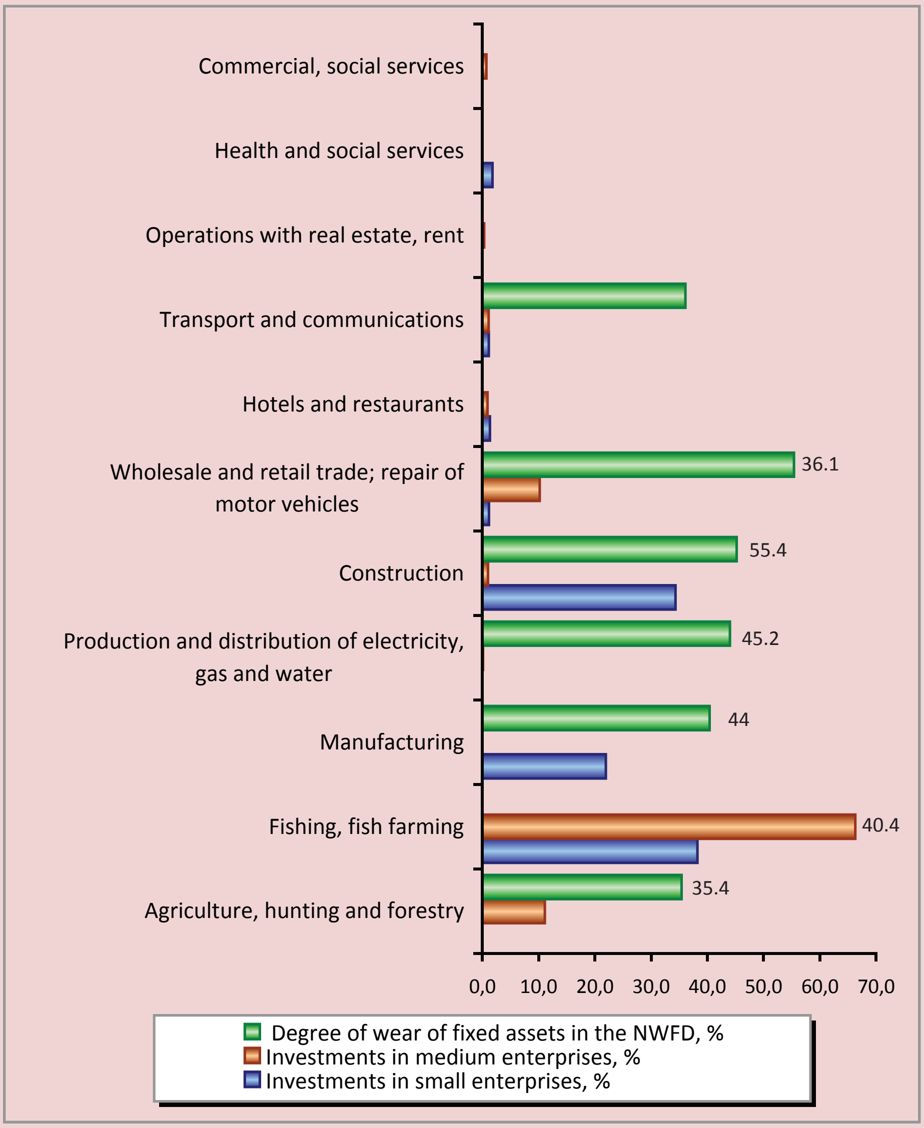
Qualification mismatch between demand and supply of labor force in the regional labor market is longtime and acute [2, p. 76]. One of the reasons is that the vacancies structure, submitted to the employment center by employers, is not stable. So, once the greatest number of workers was required at the enterprises dealing with real estate transactions. Nowadays, the largest number of workers is required in trade and mineral resources production, a bit lesser number of employees – in enterprises dealing with property operations, institutions of the health care sector and manufacturing industries.

What is more, disparities in distribution of productive forces and specificity of economic entities’ activity can also increase the enterprises’ demand for qualified personnel with the overall labor surplus in the labor market of municipalities. For instance, in the city of Murmansk the employer announced 343 vacancies of fish processing workers, 104 people applied for it, only 39 people were hired as the rest did not have the necessary qualification [10].

The severity of this problem has not been reduced even due to establishment of higher and secondary educational institutions in urban areas during the period of market transformations. Thus, the share of graduates from institutions of higher education and secondary professional education in the Murmansk Oblast exceeds 70%, primary vocational education – 30%. Eighty percent of the vacancies announced at the employment service are blue-collar occupations, 20% – white-collar. These data suggest that the system of professional education continues to increase training in unclaimed specialties [5]. The lack of efficient state policy at the stage of young personnel training leads to discrepancy between the qualification structure of graduates and the requirements of the economy and the composition of existing vacancies.

Another obstacle for the Murmansk Oblast entrepreneurs to do business is low availability of financial resources (for 34% of respondents), especially concerning “long money”. More than half of the respondents argue that long-term loans

Figure 1. Investment structure and the degree of depreciation of fixed assets of small and medium enterprises of the Murmansk Oblast by types of economic activity, %



Sources: Regiony Rossii. Sotsial'no-ekonomicheskie pokazateli. 2011: stat. sb. [The Regions of Russia. Socio-Economic Indicators. 2011: Statistical Digest]. Rosstat. Moscow, 2011. 990 p.

are difficult to obtain, and 23% consider it almost impossible, though small business requires them. On the background of high depreciation of the active part of fixed assets of small and medium enterprises *(fig. 1)* (its level is critical for certain types of economic activity) [4, p. 58], the investment amount in small and medium businesses remains low. The Murmansk Oblast ranks 69th among the RF regions in terms of amount of investments in fixed capital of small enterprises, calculated per capita [8].

Due to the fact that a larger number of regional entrepreneurs are involved in the wholesale and retail trade, over 60% of the respondents mention the constant need for working capital, considering bank loans a possible source of its replenishment. However, despite the fact that a bank loan is a convenient tool to increase working capital, its high cost and limited term of use make this type of funding inaccessible for business. And the banks themselves are not actively involved in this process due to non-transparency of small business and the lack of bid security. The first statement does not give a bank an objective assessment of a potential borrower from the point of view of viability and profitability of its business, the second one raises credit risks. That is why, credit institutions prefer lending to individuals, rather than to small and medium enterprises [11].

To encourage financial institutions to extend credit to small business the authorities use various mechanisms of state regulation, such as funds of small business support, target programs developed at the regional level [1, p. 80] and other mecha-nisms, ensuring subsidizing of expenses and provision of state guarantees. State guarantees reduce banking risks and the system of subsidizing of interest rates facilitates the access of small businesses to credit resources [3].

Thus, the data of the Ministry of Economic Development of the Murmansk Oblast give an opportunity to assess the extent of implementation of the subsidy system in the region. In 2010 the largest share (82.8%) in the structure of subsidized contracts accounted for subsidizing of lending expenses (loans, credit lines). The interest rates of loans taken out to implement investment projects are refunded. However, in 2011 the share of contracts to repay loans decreased by 30%. In 2012, agreements for subsidizing of financial rent (leasing) started to prevail in terms of leasing percent payment and downpayment (advance payment) when equipment is provided under leasing agreements; the share of these contracts reached 80.5% of the total amount of concluded contracts.

The attention should be paid to the fact that there are 6934 micro-, small and medium enterprises, more than 17 thousand individual entrepreneurs, but a small number of entrepreneurs get subsidies becomes. In 2010 one hundred and three applications were processed and ninety-six of them were approved, in 2011 there were one hundred and forty applications and all of them were satisfied. Taking into account the stated above, we can conclude that the subsidy system, implemented in the region, has not become very popular among small businesses, and its limited scope is unable to change the situation with the current deficit of investment resources and significant depreciation of capital assets.

The businessmen of the region also mention such problems as: low availability of land plots, industrial and warehouse premises (according to 15% of the respo-ndents); low availability of new energy capacities and high electricity rates (13%).

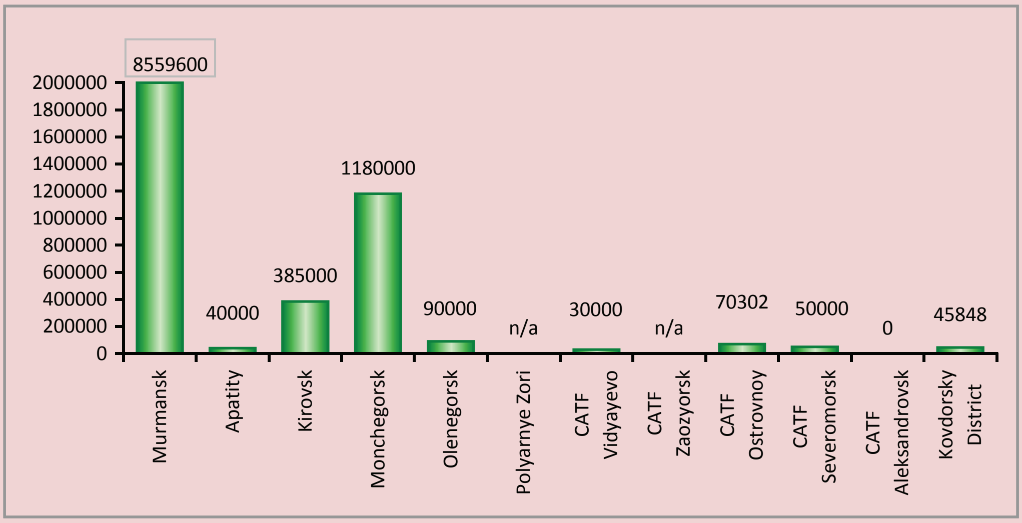
According to 39% of the respondents, it is difficult to select land plots and real estate, while 15% consider it extremely complicated or impossible due to the high cost of land, high rentals and corruption in the allocation of land plots. Seventy-five percent of enterprises find it troublesome to get connection to energy capacities; 45% state that it is practically impossible due to the high cost of operations, technological challenges, as well as the spread of corruption in this sphere.

Thus, although the region has developed and adopted the programs to support entrepreneurship and small business is aware of their implementation (according to 71% of the respondents), only 3% of the entrepreneurs have participated in state programs and 1% – in municipal programs.

The author's personal contacts with the representatives of small and medium business have helped to indicate the reasons for entrepreneurs' low involvement in state support programs. They are the following: uncertainty in achieving the result; a great number of documents required for participation and long duration of the process; low awareness of the infrastructure development programs; limited funds for the implementation of programs, especially municipal ones.

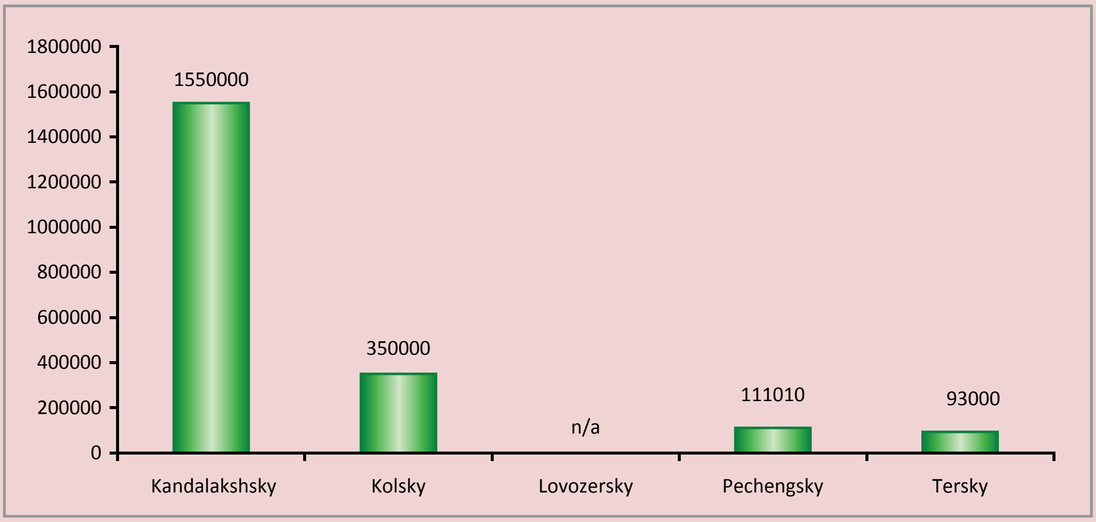
Figures 2 and 3 reveal a low level of municipal programs financing, it usually amounts to 600 thousand rubles. The amount of financing has exceeded the average only in two municipalities. At the same time in the city of Apatity that ranks second in the region by population and the scale of small business development, the level of funding is one of the lowest. What is more, funds intended for the development of small and medium businesses and included in the budgets of cities and districts of the region, can be called contingent, as their size ranges from 0 to 32 thousand rubles per 1000 people.

Figure 2. Amount of financing for programs in urban districts of the Murmansk Oblast in 2012, rubles



Source: Rezul'taty sravnitel'nogo analiza predprinimatel'skogo klimata v munitsipal'nykh obrazovaniyakh Murmanskoi oblasti [The Results of Comparative Analysis of Business Environment in the Murmansk Oblast Municipalities]. Available at: http://opora51.ru/klimatt.html

Figure 3. Amount of financing for programs in municipalities in 2012, rubles



Source: Rezul'taty sravnitel'nogo analiza predprinimatel'skogo klimata v munitsipal'nykh obrazovaniyakh Murmanskoi oblasti [The Results of Comparative Analysis of Business Environment in the Murmansk Oblast Municipalities]. Available at: http://opora51.ru/klimatt.html

The respondents also express criticism at the low level of regional administrations' activity and, consequently, given reserved estimates of it (about 80% of the respondents lack authorities' attention to small business). And only 5% of small entrepreneurs believe that this sector is a priority for the regional administration.

Eight percent of the survey respondents indicate a high level of corruption as another obstacle for business development. More than 53% of the respondents face corruption when they try to get state support (subsidies, provision of premises, etc.), 53% – in case of allocation of land, 44% – in access to state and municipal orders.

To confirm the stated above, let us refer to the cases of violations in the sphere of state support which were identified during the inspection and presented by the prosecutors of the Murmansk Oblast at the "round table", held at commercial and industrial exhibition "Imandra-2013" in the framework of the days of entrepreneurship. The violations were the following: representatives of the business incubator had imposed paid services (fee-paying documents, certificates); the surrender of premises had been carried without an auction; a public officer had prevented rent payments, which later became the reason to charge a penalty. The inspections, initiated by entrepreneurs, disclosed state bodies' law violations, with their number having been increased more than twice in comparison with the 2011 level.

However, prosecutors noted that a less number of small and medium enterprises go to the law because of officials' corruption. So, 49 small entrepreneurs took legal recourses in 2012, while the number of judicial recourses from citizens exceeded 8000. It can indicate that entrepreneurs put up with corruption: they believe that it occurs everyday and everywhere. Out of forty-two percent of the respondents, engaged in the discussion of the corruption issue, sixteen percent solve such problems independently, practicing informal payments to officials in the form of bribes and different kinds of "extortions".

Although the business sector in the Murmansk Oblast does not regard corruption as one of the key obstacles to enterprises' development, corruption in the region, especially in the sphere of state support, is more extensive than in forty regions of the Russian Federation, participants of the survey *(tab. 2)*.

Seventy-five percent of the respondents mention administrative barriers. For almost 30% of them the level of their incidence is high and extremely high due to under-developed legislation and inefficient public services. Only 25% of the respondents are concerned about the growing number of unscheduled inspections (according to the Prosecutor of the Murmansk Oblast, violations were revealed in the activities of the fire inspection and the Sanitary and Epidemiological Inspectorate), however, most respondents, who undergone these inspections, argue that the inspection authorities were interested not in quantity but in quality and were too zealous.

According to the survey, entrepreneurs do not face the pressure of criminal structures any longer; they are concerned about the process of interaction with law enforcement bodies.

Businessmen believe that the federal legislative initiatives play a significant role at the stage of business development. The following measures are considered efficient: introduction of the patent system of taxation; voluntary decision to transfer to unified tax on imputed income; an increase to the 60 million of the level (revenues

Table 2. Estimate prevalence of corruption and its impact on small and medium business of the Murmansk Oblast

Corruption sphere	The average	
	by 40 regions	by the Murmansk Oblast
Connection to the infrastructure (energy, heat, gas, etc.)	29	68
Land allocation	31	53
Obtaining state support (subsidies, premises on preferential terms, etc.)	30	53
Inspections (sanitary, fire, etc.)	32	53
Access to government orders and municipal orders	32	44
Certificates and licenses (technical regulation)	27	41
Customs procedures	17	14
Calculation and payment of taxes	17	14
Litigation	15	13
Employment of foreign labor force	9	4

Compiled by the author on the basis of: Predprinimatel'skii klimat v Rossii: indeks OPORY 2010–2011 [Business Climate in Russia: Index of OPORA 2010–2011]. Available at: http://www.nisse.ru/business/article/article_1756.html?effort=

from sales of products / works, services) that simplifies a taxation system; reforming property tax.

The law, tightening the conditions of alcoholic products sale, led to the closure of 38% of the stalls and reorientation of 20% of the stalls to the sale of non-food products. In 2011 small and medium enterprises experienced more serious innovation, doubling of the obligatory Pension Fund contributions, in 2013 individual entrepreneurs experienced the same. This innovation was perceived negatively by small and medium business, which resulted in the negative dynamics of their development indicators. According to the Federal Tax Service of Russia, in 2010 business was wound up by 2.4 million individual entrepreneurs, in 2011 – by 3 million, in 2012 – by 3.7 million and for the three months of 2013 – by 300 thousand.

In the Murmansk Oblast innovations ignored the results of the work of government bodies and public organizations to support small and medium enterprises, including the creation of 400 individual entrepreneurs due to the program "Step by Step", and setting up of more than 700 individual entrepreneurs for only a month and a half in 2013 due to the development and adoption of the updated patent system in the region. During the first two months of 2013 after the introduction of higher rate of insurance to state non-budgetary funds, more than 1200 people wound up their business.

According to the survey respondents, business climate impact on the business sector development is estimated as follows: in the post-crisis period the situation has deteriorated. It is stated by 60% of the respondents, including 35% of them claiming that it has worsened significantly. More than 60% note that it is very difficult or almost impossible to set up new business.

Finally, despite all the drawbacks, identified in the work of regional government to develop business, small and medium enterprises do not lose hope that it is the authorities that can boost business activity and create favorable competitive environment. So, according to the Northern Chamber of Commerce and Industry, referring to the results of the survey of the Murmansk Oblast entrepreneurs, the government should focus on reducing corruption (45% of the respondents), regulation of prices and rated for energy resources (40%), decrease in tax burden (35%) and administrative barriers (30%), increasing the availability of premises (25%) and creation of transparent legislation (20%).

Thus, the conclusions, identified in the survey conducted by "Support of Russia" are identical to the results of the study carried out by the Northern Chamber of Commerce and Industry. They reveal that business climate, not the cost of doing business plays a crucial role in the creation and development of the business sector in the Murmansk Oblast.

Sited works

1. Barasheva T.I. Small Entrepreneurship Development Prospect in the Murmansk Region under State Regulation Measures Activization Circumstances. *Economic and Social Changes: Facts, Trends, Forecast*, 2009, no.6, pp. 78-84.
2. Barasheva T.I. Reduction of Tension in the Murmansk Oblast Labor Market. *The North and the Market: Formation of Economic Order*, 2011, vol. 2, no.28, pp. 76-78.
3. Efimova Yu.V. How do Customers Evaluate Loan Products for Small and Medium Business? *Konsul'tantPlyus*.
4. Kobylinskaya G.V. Structural Specifics of Investment Processes in the Regions of the European North. *The North and the Market: Formation of Economic Order*, 2013, vol. 1, no.32, pp. 57a-62.
5. Kostyukevich V.F. *On the Forecast of Personnel Requirements of the Economy and Social Sphere in the Murmansk Oblast and Approaches to the Formation of the Target Figures of Enrolment in Institutions of Professional Education*. Available at: http://www.mstu.edu.ru/news/files/doklad.pdf.
6. *KPMG has Published the Results of Research into Developed and High Developing Countries from the Viewpoint of the Cost of Doing Business for 2012.* Available at: http://www.kpmg.com/RU/ru/IssuesAndInsights/ArticlesPublications/press-releases/Pages/KPMG-has-published-the-results-of-the-survey-Competitive-Alternatives-2012.aspx
7. *Business Climate in Russia: Index of OPORA 2010–2011.* Available at: http://www.nisse.ru/business/article/article_1756.html?effort=
8. *The Regions of Russia. Socio-Economic Indicators. 2011: Statistical Digest*. Rosstat. Moscow, 2011. 990 p.
9. *The Results of Comparative Analysis of Business Environment in the Murmansk Oblast Municipalities*. Available at: http://opora51.ru/klimatt.html
10. *Social Atlas of Russian Regions*. Available at: http://www.socpol.ru/atlas/portraits/Murm.shtml http:///
11. Chertoprud S. A Suitcase without a Handle. *ConsultantPlus.*
12. *What Interferes with Entrepreneurs in Russia*. Available at: http://dasreda.ru/club/power/2546/

References

1. Barasheva T.I. Perspektivy razvitiya malogo predprinimatel'stva Murmanskoi oblasti v usloviyakh aktivizatsii mer gosudarstvennogo regulirovaniya [Small Entrepreneurship Development Prospect in the Murmansk Region under State Regulation Measures Activization Circumstances]. *Ekonomicheskie i sotsial'nye peremeny: fakty, tendentsii, prognoz* [Economic and Social Changes: Facts, Trends, Forecast], 2009, no.6, pp. 78-84.
2. Barasheva T.I. Snizhenie napryazhennosti na rynke truda Murmanskoi oblasti [Reduction of Tension in the Murmansk Oblast Labor Market]. *Sever i rynok: formirovanie ekonomicheskogo poryadka* [The North and the Market: Formation of Economic Order], 2011, vol. 2, no.28, pp. 76-78.
3. Efimova Yu.V. Kak klienty otsenivayut kreditnye produkty dlya malogo i srednego biznesa? [How do Customers Evaluate Loan Products for Small and Medium Business?]. *Konsul'tantPlyus* [ConsultantPlus].

4. Kobylinskaya G.V. Strukturnye osobennosti investitsionnykh protsessov v regionakh Evropeiskogo Severa [Structural Specifics of Investment Processes in the Regions of the European North]. *Sever i rynok: formirovanie ekonomicheskogo poryadka* [The North and the Market: Formation of Economic Order], 2013, vol. 1, no.32, pp. 57a-62.
5. Kostyukevich V.F. *O prognoze kadrovykh potrebnostei ekonomiki i sotsial'noi sfery Murmanskoi oblasti i podkhodakh k formirovaniyu kontrol'nykh tsifr priema v uchrezhdeniya professional'nogo obrazovaniya* [On the Forecast of Personnel Requirements of the Economy and Social Sphere in the Murmansk Oblast and Approaches to the Formation of the Target Figures of Enrolment in Institutions of Professional Education]. Available at: http://www.mstu.edu.ru/news/files/doklad.pdf.
6. *KPMG opublikovala rezul'taty issledovaniya razvitykh i bystrorazvivayushchikhsya stran s tochki zreniya zatrat na vedenie biznesa za 2012 god* [KPMG has Published the Results of Research into Developed and High Developing Countries from the Viewpoint of the Cost of Doing Business for 2012]. Available at: http://www.kpmg.com/RU/ru/IssuesAndInsights/ArticlesPublications/press-releases/Pages/KPMG-has-published-the-results-of-the-survey-Competitive-Alternatives-2012.aspx
7. *Predprinimatel'skii klimat v Rossii: indeks OPORY 2010–2011* [Business Climate in Russia: 2010–2011 Index of OPORA]. Available at: http://www.nisse.ru/business/article/article_1756.html?effort=
8. *Regiony Rossii. Sotsial'no-ekonomicheskie pokazateli. 2011: stat. sb.* [The Regions of Russia. Socio-Economic Indicators. 2011: Statistical Digest]. Rosstat. Moscow, 2011. 990 p.
9. *Rezul'taty sravnitel'nogo analiza predprinimatel'skogo klimata v munitsipal'nykh obrazovaniyakh Murmanskoi oblasti* [The Results of Comparative Analysis of Business Environment in the Murmansk Oblast Municipalities]. Available at: http://opora51.ru/klimatt.html
10. Sotsial'nyi atlas rossiiskikh regionov [Social Atlas of Russian Regions]. Available at: http://www.socpol.ru/atlas/portraits/Murm.shtml http:///
11. Chertoprud S. Chemodan bez ruchki [a Suitcase without a Handle] *Konsul'tantPlyus* [ConsultantPlus].
12. *Chto meshaet predprinimatelyam v Rossii* [What Interferes with Entrepreneurs in Russia]. Available at: http://dasreda.ru/club/power/2546/

INNOVATION DEVELOPMENT

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Identification of directions and ways to transform the scientific and innovation space in different regions

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Abstract. The article proposes an approach to the definition of the directions of transformation of scientific and innovation space, and ways of its development from the viewpoint of improving the interaction between different regions, expansion of the involvement of regions in the research and innovation process for ensuring greater dissemination of research findings and innovation. The research is conducted in the context of the necessity to expand the role of science in the post-industrial era. This approach is based on the author's methodology of selecting different regions by assessing their innovation development. The methodology consists in making the statistical distribution of Russian regions by selected indicators, identifying groups of regions that are close to each other by the degree of innovation development, on the basis of the standard deviation, and establishing the link between the identified groups of regions that reflects the possibility of interaction between the groups of regions on creating scientific results and their promotion in the spatial dimension. The author analyzes directions and ways of implementation of polarization of scientific and innovation space, development of scientific-innovation activity in the regions, also in the regions with similar competitive advantages, ways of participation of a larger number of medium-sized and small towns in the scientific and innovation activities, integration of the regions' activities seeking to increase the degree of innovation development and so on. The author identified a number of opportunities for the improvement of organization of scientific and innovation space by specifying the possible links of the groups of regions between the stages of the research and innovation process, comparison of the regions, included into one group, which gives a real opportunity to shape the innovation strategy in the regions.

Key words: transformation, research and innovation space, extent and ways of innovation development, regions.

The problem to boost innovation development of the country and its regions is aggravating due to the increased role of science in the post-industrial era. The economy has begun to transfer to a new type of economic growth – an innovation type of development.

However, in this country in the last 10 years the inertial scenario to develop science and technology was implemented but has not brought any fundamental changes in the dynamics of technological and innovation development [13, p. 110, 150-151; 18, pp. 38-39, 76-77].

In our opinion, implementation of all types of innovation strategies (a breakthrough by a number of principally new technology, technological borrowing (a catch-up), re-industrialization) is hindered by weak – not wide and slow – spread of research results and innovations. Moreover, the role of regions with small innovative entrepreneurship can become significant, as one of their key tasks is the adaptation of innovation to a wide range of consumers and local markets. The results are distributed vertically – from academic to small innovative organizations and corporate science, as well as horizontally – in the spatial dimension.

Thus, one of the main possibilities to increase regional innovation development in the post-industrial era is spread of research results, their transfer, adaptation to them, thus, *involvement of the maximum number of regions in innovation, expanding the space of innovation development as a form of its transformation, research and innovation space (RIS).*

Research and innovation space is a territory perceived as an arena of actions, where entities of the scientific-innovation sphere are distributed, they interact within the existing ties in conditions of world economy globalization, organizational and institutional environment to conduct the research and innovation process. The space extension becomes more effective when the regions are encouraged to implement innovations, the institutional environment is changed more intensively, socio-economic development is changed positively (economic diversification, clustering, entrepreneurship growth), inequalities in the development of regions are addressed and the scale of the country's economy is extended.

Thus, the development of scientific research potential and promotion of its results can be influenced by a spatial factor, a factor forming research and innovation space that differs a lot in the regions. There are such basic trends in RIS development as significant inequality in spatial distribution of innovation potential [20, p. 82-85, 106-111, 174-175], a low degree of connection of research and innovation space of the country and its regions [3], formation of the territories of innovation development [9]. Besides, many regions do not implement innovation.

This curvature of research and innovation space, a heterogeneous structure, disparity in the elements of regional innovation systems lead to the weakening of interaction between regions while generating and developing new technology and adapting innovation create serious obstacles for the spread of results of science and innovation, i.e. prevent an increase in the degree of innovation development, especially in non-innovation regions.

Transformation of RIS includes both intensive and extensive changes, i.e. both bettering the research-innovation process (research-innovation activities) and increasing the scale of this process (amount of research-innovation activity). So, one can speak about development or expansion of research and innovation space, respectively. As there is no development or expansion in pure form that is why these terms can be accepted as synonyms.

One of the major problems of RIS transformation is to establish cooperation between regions different in the degree of innovation development. This statement corresponds with theoretical foundations of Academician P.A. Minakir claiming "...that the national economic space is fundamentally heterogeneous, but consists of a set of economic agents, homogeneous in institutional and economic aspects" [12]. Academician A.I. Tatarkin draws attention to the possibility of innovation development not only of large cities, but also of agglomerations – outskirts of border areas, deep-laid areas and small towns as participants of cluster projects, rural areas on the basis of the economy diversification [21].

The significant regional diversity sets a task to develop a methodological tool that identifies the space for innovation development of regions of different types and the approach to determine the ways of implementing the directions of RIS transformation.

The proposed approach to assess the capabilities of territorial development of the potential of science and innovation presupposes identification of the thresholds that reflect the current degree of the regional innovation development. Besides, it establishes interaction between the relevant groups of regions, reflecting the possibility of their cooperation in science and innovation. A set of thresholds characterizes a consistently different, increasing degree of innovation development [6] *(fig. 1)*.

Groups of regions differ according to the degree of innovation development. At the same time, the author applies a diverse approach to the selection of groups of regions with significantly different competitive advantages to produce new products. They can create, transfer, adapt, distribute and use them.

This method to select regions on the basis of regional competitive advantages is crucial in determining the extent of innovation development. In our opinion, in a broader sense there is no competition between regions with different competitive advantages; the regions compete in the framework of a certain type regions. It is incorrect to apply the same criteria to all groups of regions.

Identification of directions and ways of RIS transformation is based on the author's significantly improved methods to assess innovation development of the regions[1,2].

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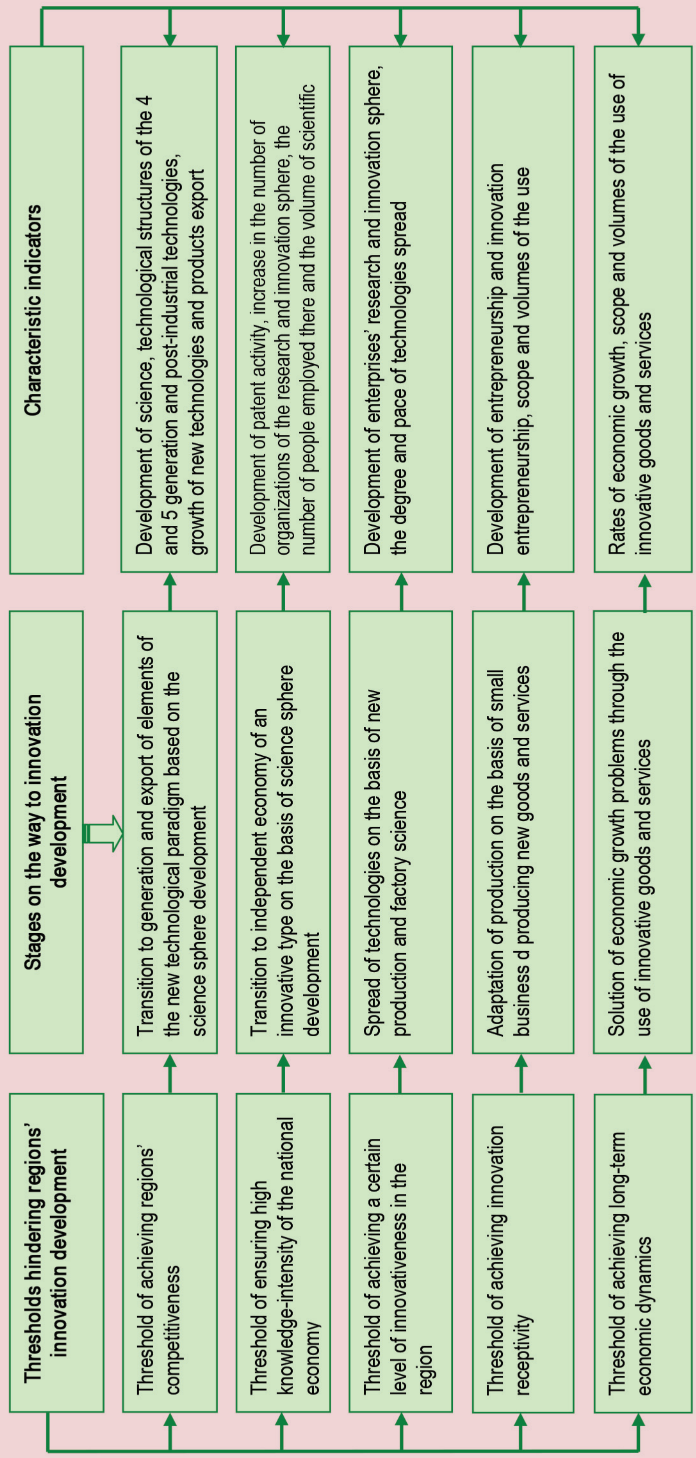
1 Approbation of methodological approaches by a different algorithm and other indicators are given in [8].

2 The research –method development, indicators justification, calculations, results interpretation, was carried out with the help of postgraduate of IPRE RAS O.A. Burkatskaya.

Figure 1. Thresholds hindering regions' innovation development, stages and characteristic indicators



The method is to reveal the statistical distribution of Russian regions (83 regions) by selected indicators (the fragment of initial data is provided in *table*), to single out the group of regions, similar in the degree of innovation development, on the basis of the standard deviation indicator and the link between identified groups of regions, reflecting their interaction in the scientific sphere.

Taking into account the diverse approach, the calculation is carried out on the basis of indicators, different for each threshold. We also apply the indicator characterizing the most innovatively developed regions, and distinguish regions by the maximum value that exceeds the standard deviation ("sigma" σ). Then we use the indicator disclosing the next threshold of innovation development, etc.

The "soft" variant of the algorithm is applied. It proposes to exclude the regions of a higher degree of innovation development from each subsequent group of regions, belonging to different thresholds of innovation development, only after calculations when the groups of regions are being selected. Calculations on the basis of a more "hard" algorithm (with the exclusion of groups of regions in the first stage, conducting further calculation without this group of regions) do not take into account the presence of the aggregate functions sequence (stages), characteristic of regions with a higher degree of innovation development.

The calculated statistical distribution is presented in *figure 2* (selected by one indicator from each of the threshold).

Distribution confirms the probabilistic nature of the indicators values by regions of the Russian Federation.

The proposed approach requires further study of algorithms to single out groups of regions and to select indicators because different statistical indicators often take into account different groups of regional industries (manufacturing, mining, high-tech), not comparable by the type of innovation activity and innovation products that significantly affects the extent of their innovation development within the same group of regions. For example, the coefficient of production renewal in the extractive industries due to change in equipment reflects the stage of renovation and technological expansion and is less than in machine-building branches, and hence in the respective regions.

Then we identify the link between the selected groups of regions, reflecting the possibility of their interaction in the scientific sphere *(fig. 3)*. It should be noted that the identified groups of regions do not differ significantly from the typology, justified by other methodological approaches.

The study of RIS management issues, domestic and foreign experience of regional innovation development, spread of fundamental science (both by the stages of the research and innovation process and from the Federal to regional level) gives an opportunity to single out summarized directions of RIS transformation.

Taking into account the analysis of the extent and potential of regional innovative development, we define the directions

Table 1. Statistics data on the thresholds hindering innovative development of Russian regions (fragment)

Federal district, region	Indicators									
	Threshold of achieving long-term economic dynamics		Threshold of achieving innovation receptivity		Threshold of achieving a certain level of innovativeness in the region		Threshold of ensuring high knowledge-intensity of the national economy		Threshold of achieving regions' competitiveness in the context of globalization	
	2010		2011		2010		2010		2010	
	GRP per one employed in the regional economy, thousand rubles per person	Ratio of GRP to the cost of fixed assets, %	Share of small enterprises, implementing technological innovations, %*	Share of innovative products, works, services in the total volume of shipped goods, performed works and services of small enterprises, %*	Efficiency of R&D results commer-cialization, %	Average specific output of innovative enterprises,%	Number of enterprises carrying out scientific researches, units*	Number of patents issued by Rospatent per 1 million people, units***	Export of technologies and services of a technological nature, number of agreements, units**	Export of innovative products, works, services, %****
Central	722.07	0.44	5.00	1.46	1.01	0.50	1358	285.7	659	3.9
Belgorod Oblast	574.42	0.59	5.36	0.98	10.53	0.24	16	60.7	-	0.7
….	….	….	….	….	….	….	….	….	….	….
Northwestern	582.90	0.43	5.93	0.88	1.70	0.44	502	121.5	489	2.4
Republic of Karelia	357.92	0.31	5.50	0.48	1.86	0.19	16	23.3	1	2.4
….	….	….	….	….	….	….	….	….	….	….
Southern	382.42	0.41	4.04	0.96	6.64	0.87	231	97.6	78	1.8
Republic of Adygea….	309.68	0.43	8.59	0.09	17.81	0.90	6	15.9	-	15.3
	….	….	….	….	….	….	….	….	….	….
North Caucasian	269.06	0.38	3.45	0.74	10.49	1.38	92	63.6	3	35.4
Republic of Dagestan	289.10	0.39	-	-	2.29	0.88	29	81.3	-	0.3

Sources: *Ofitsial'naya statistika: Natsional'nye scheta. Nauka, innovatsii i informatsionnoe obshchestvo. Nauka i innovatsii [Official Statistics: National Accounts. Science, Innovation and Information Society. Science and Innovations]. Rosstat. Available at: http://www.gks.ru/wps/wcm/connect/rosstat_main/rosstat/ru/statistics/science_and_innovations/science/#

** Regiony Rossii. Sotsial'no-ekonomicheskie pokazateli 2011: stat. sb. [Russian Regions. The 2011 Socio-Economic Indicators: Statistics Digest]. Rosstat, Moscow, 2011, pp.220-222.

*** Monitoring razvitiya informatsionnogo obshchestva v Rossiiskoi Federatsii. Tabl. 1.2.20. Chislo patentov na izobreteniya, vydannykh Rospatentom rossiiskim zayavitelyam, v raschete na 1 mln. chelovek naseleniya [Monitoring of Information Society Development in the Russian Federation. Table 1.2.20. Number of Patents Issued by the Rospatent to the Russian Applicants per 1 Million People]. Rosstat. Available at: http://www.gks.ru/free_doc/new_site/business/it/monitor_rf.xls

**** Indikatory innovatsionnoi deyatel'nosti: 2012: stat. sb. Tabl. 6.4. Eksport tovarov, rabot, uslug [Indicators of Innovation Activity: 2012: Statistics Digest. Table. 6.4. Export of Goods, Works, Services]. Pp. 353-360. Available at: http://www.hse.ru/primarydata/ii2012

Figure 2. Statistical distribution of regions by the thresholds hindering innovation development

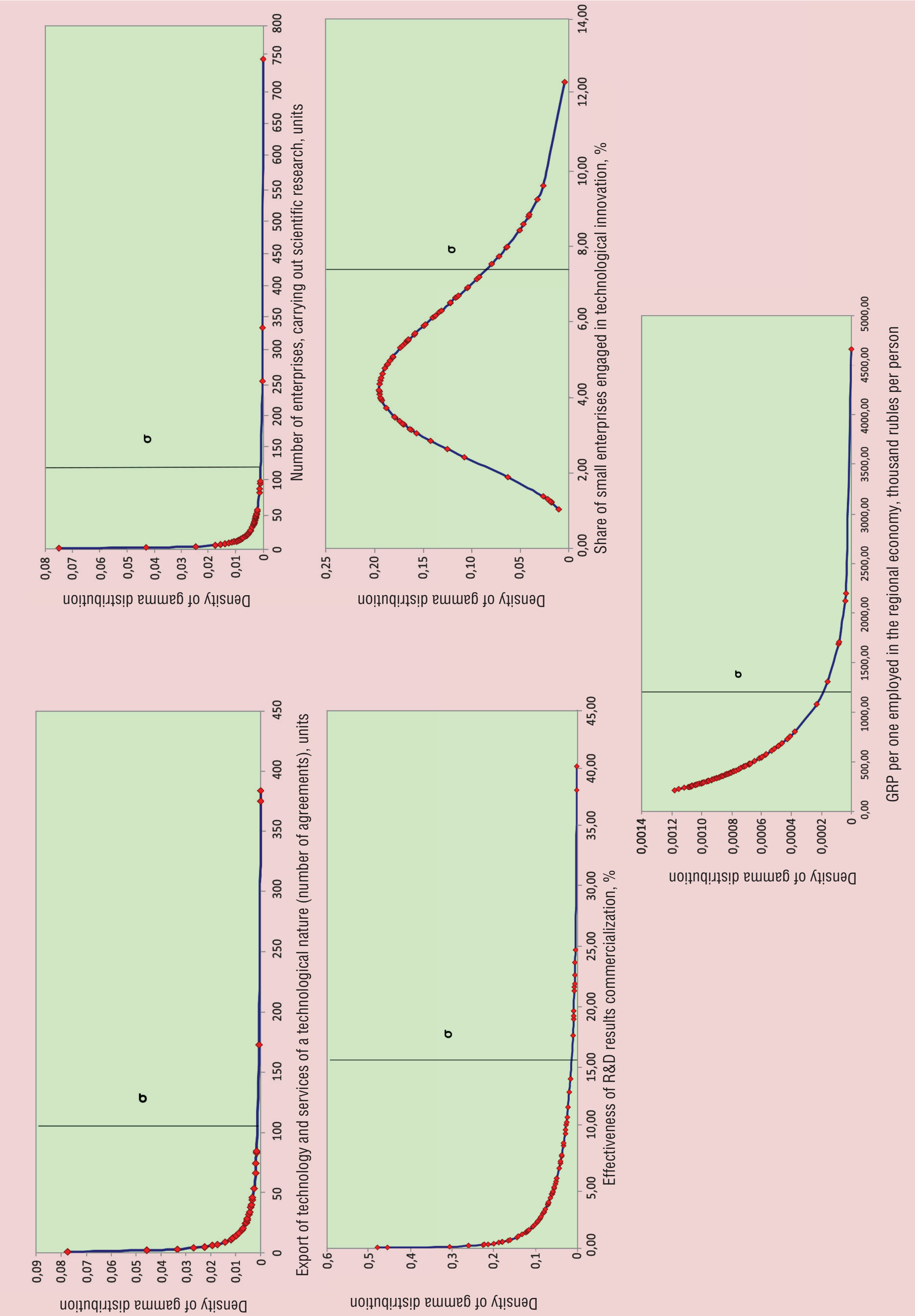
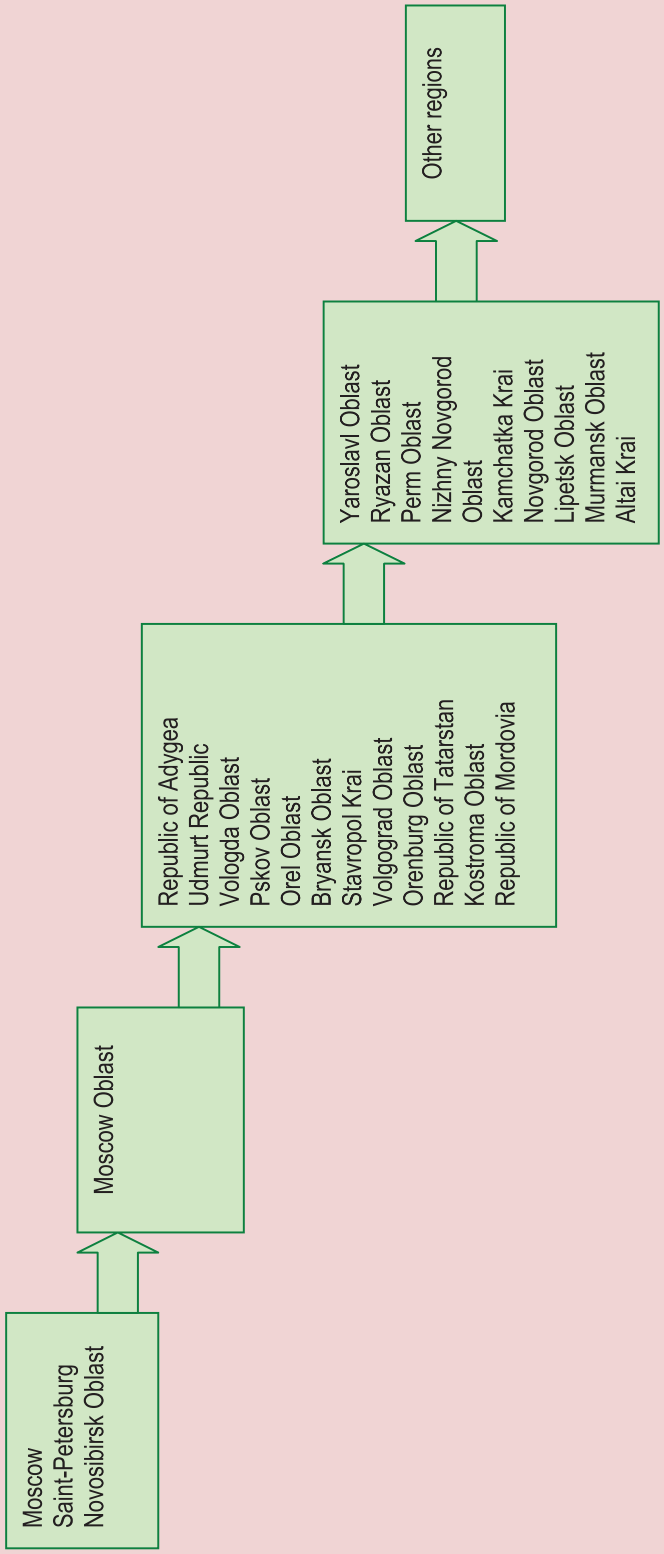


Figure 3. Interaction of groups of regions to create potential of scientific results and promote them in the spatial dimension



(forms, methods, tools) to implement RIS transformation within the identified areas.

While calculating we use a number of indicators. As a result we choose a five of indicators out of the three fives for five thresholds. The selection of indicators is carried out on the basis of a more objective threshold and a stage of the research and innovation process: fundamental research – applied research work – development of new production – innovation and spread of technology – application of innovation. The calculations reveal that the number of statistical indicators does not meet their direct and unambiguous purpose. For example, the indicator "innovation activity of enterprises" (the share of enterprises implementing technological, management and marketing innovation)" is, in fact, eclectic, reflecting, on the one hand, innovations and their spread, and on the other, application and spread of new products (marketing). The latter prevails in reporting, thus greatly distorting the essence and uniqueness of innovation activity and does not reflect a real state of innovation activity of the region.

What is more, the use of indicators of the enterprises' innovation level distort the assessment of the degree of regional innovation development, as the calculations depend on the number of enterprises in the region (a small number of enterprises presupposes a higher threshold) and the size (a great number, a small size and substantial research intensity also presuppose a higher threshold). At the same time, in some regions there is no correspondence between the share of innovation-active enterprises and the share of innovation products due to different innovation output. For example, you can mark a reduced return in regions of the Northwestern Federal District such as the Arkhangelsk, Leningrad, Murmansk and Pskov oblasts and the Republic of Karelia. There are other distortions. For instance, the indicator "effectiveness of R&D results commercialization" in the Lipetsk Oblast amounts to 473%, in Yamalo-Nenets Autonomous Okrug – 1201%. This indicator is calculated as the ratio of "the amount of shipped innovation products, works, services" to "internal costs of research and development". The "incorrect" indicator value is caused due to a small size of domestic expenditure on R&D compared to the relatively high value of the numerator of the given ratio.

Therefore, such regions were separated from the group.

The groups of regions, identified by the degree of innovation development, confirm the above mentioned trends of the research and innovation space configuration, primarily, of its polarization.

The directions and ways to realize the polarization are quite obvious and marked in literature:

– **increased knowledge-intensity of the territories** and the share of high-tech innovation of post-industrial economy in the regions on the basis of development and creation of new centers of innovation economy, including those on the basis of large federal research centers and research universities, science cities, research centers corporations, construction of major city objects on the basis of mega-projects;

– **formation of the "poles" of research and innovation potential in the country**, growth of the territories' more close location to the centers of science and technology and activation of the RIS "curvature", including on the basis of development of agglomerations and large cities and the synergy process.

The comparison of the regions belonging to the same group of the highest degree of innovation development shows that some regions are observed in other groups as they solve tasks of other stages on the way to innovation type of development. Thus, the cities of Moscow and Saint Petersburg are still in the group with the high level of indicator "a number of enterprises carrying out scientific research". It is a threshold ensuring high research intensity of the national economy. Moreover, Moscow has a high rate of the indicator "GRP per one employed in the economy of the region", related to the characteristics of the threshold to achieve long-term economic dynamics, while Saint Petersburg has a "high share of small enterprises engaged in technological innovation", an indicator relevant to the characteristics of the threshold of achieving innovativeness. As practice shows [16], for such regions it can be considered as perceived reserves, which can be implemented to expand interregional cooperation between traditional research centers and regions-R&D consumers, to create programs to support small and medium business, to organize educational programs and to back small enterprises affiliated with universities and enterprises affiliated with business incubators.

The analysis shows that such reserves are characteristic of a number of regions.

Another direction of transformation can be **development of research and innovation activity in the regions through involvement of a greater number of regions** in it that are not so actively promoted and developed. Meanwhile, the RIS potential expansion is significant, as there are several such regions.

Firstly, a greater number of regions can be involved in research and innovation activity on the basis of their innovation modernization, including on the basis of new regions [15, p. 17-24], by means of updating industry of regions and cities that have raw-material orientation.

The study also reveals similar reserves, taking into account regions of new development that are differentiated in several groups (till their exclusion): the Vologda and Kostroma oblasts belong to a group of regions characterized by the indicator "efficiency of commercialization of R&D results"; Kamchatka Krai and the Murmansk Oblast are in a group of regions characterized by the indicator "a share of small enterprises engaged in technological innovation"; the Sakhalin Oblast and Yamalo-Nenets Autonomous Okrug – by the indicator " GRP per one employed in the economy of the region".

The graphs of calculation of the degree of regional innovation development show that the RIS expansion in this direction can be based on the regions with prevalence of engineering industries (e.g., the Novosibirsk Oblast), chemical-technological industries (the Perm Oblast), agricultural regions with dense rural population (the Volga Oblast), single-industry and old-industry regions, because, apparently, the transformation processes are more actively manifested in commodity regions where corporations' innovation potential is growing intensively [4, p. 19-21].

There are two ways to encourage research and innovation activity. One way is based on the region's systemic action to implement the innovation development strategy and involve key players in the innovation development of the territory. Krasnoyarsk Krai, Kaluga and Chelyabinsk oblasts, making comprehensive efforts, are included in the innovation top ten in the ranking [16, 17].

Another way is to form the poles of innovation development in a city and region – clusters, universities and research and education centers, and to manage and promote innovation activity – to develop maps of distribution of creative human capital, to project an intelligent city on the basis of wide use of breakthrough information technology in the sphere of services and management [22].

Brighter possibilities are revealed when the regions are singled out by the multi-structural indicator.

Therefore, to achieve more comprehensive results it is necessary to unite the regions in groups by more or less similar competitive advantages, expanding the economic profile and range of production specialization in the group of regions: science-intensive (old and new research, educational and innovation centers); old- industry (centers of mechanical engineering, chemical industries, etc., agricultural); regions of new development (raw materials, a fuel and energy complex); border (including Northern, port).

This analysis takes into account sectoral differences of groups of regions, differences in the nature of scientific research (fundamental or applied, having different return) and therefore differentiates groups of regions by the innovation development type more objectively.

The border regions that differ significantly are analyzed in the article. The Novosibirsk Oblast has the highest value of the indicator "export of technology and services of a technological nature" and, accordingly, is referred to the group of regions with the highest level of innovation development. Having approximately equal scientific potential, the Pskov, Bryansk, Volgograd and Orenburg oblasts belong to the group with a high value of the indicator "efficiency of commercialization of R&D results"; the Murmansk Oblast and Altai Krai refer to the group "a share of small enterprises engaged in technological innovation". Such variations are due to dominating indicators that refer regions to one or another level by the degree of their innovation development. Besides, as practice shows [16, 17], certain regions do not have other components of potential, affecting the degree of innovation development, such as education, management, spatial development (in the sense of a lack of integration with other regions). This gives some reserves for innovation development and ways for its realization.

Secondly, more regions can be involved in research and innovation activity on the basis of territorial development of medium and small towns that have certain abilities for innovation development or potential for their formation, such as national scientific and cultural phenomena, in particular, phenomena of innovation development, including those in the field of social sciences. In this case the potential of regional development can be based primarily on self-management and entrepreneurship. What is more, research and innovation space in the aspect of post-industrial production can have a new vector in the development of intellectual services based on cognitive technologies. The creative process is important as it is a factor of potential development to create a regional innovation system in the regions where "...there is no innovation activity yet" [19, p. 56].

Middle and small cities, located primarily around agglomerations, can support innovation development of high levels. We consider transformation of provincial "megapolises" from "centers of industry" into "centers of trade and services" (the feature of innovation development is the foundation of 50 new cities and towns) [2]. Besides, the potential of innovation entrepreneurship can be used to produce various kinds of services – from science-based resource service and scientific entrepreneurship at universities and science cities to agro-industrial and single-industry provincial regions [19, p. 56-59].

The development of specific museums, traditional interesting crafts, and intellectual services for different social strata segments of the population leads to different management of urban space [5]. The examples are the following: Kasli in the Chelyabinsk Oblast, Myshkin in the Yaroslavl Oblast, Plyos in the Ivanovo Oblast, Kolomna in the Moscow Oblast, etc. For instance, Kolomna had become economically insufficient, but entrepreneurs organized a museum factory "Kolomna Pastila Museum" and then opened a travel agency, hotels, which created work places for the population [14].

One of the directions of research and innovation policy to involve small and medium cities in the innovation activity could be the inclusion of less innovative regions in the activity of more innovative ones on the basis of economy clustering [21, p. 102-107]. More innovative region "absorbs" non-innovative or less innovative, one thus encouraging entrepre-neurship.

The RIS curvature also stems from distortion of its structure – incompleteness of regional innovation systems and a lack of connection between them. Hence, it is necessary to develop a direction of transformation, such as the **interconnection of regions' activity in order to increase the degree of innovation development** due to integration of research and innovation activity of regions and construction of the national innovation system structure in the country and its regions in all phases of the research and innovation process.

Practice shows that the regions' greater interaction in the research and innovation sphere is based on the development of horizontal, radial and vertical relations of its subjects in different regions, establishment of different forms of cooperation, combining elements of scientific-innovative potential and components of regional innovation systems, concentration of research and innovation resources, creating common structures and industries, especially in the sphere of high technology, organization of innovation development poles in the region and the city and activation of key subjects of innovative development.

The interregional project "Caucasian Silicon Valley" is a positive vivid example of interconnecting. It is aimed to create a series of industries associated with alternative energy (it is planned to spend more than 32 billion rubles) [16], such as production of polycrystalline silicon (Stavropol Krai), monocrystalline silicon (the Kabardino-Balkar Republic), multicrystalline silicon (the Karachay–Cherkess Republic), photoelectric converter (the Republic of North Ossetia), solar modules (Dagestan).

The forms of interactions that are actively used are the following: research and innovation clusters, technology platforms, federal and regional scientific and technological programs. However, for example, regions and cities that have enterprises, forming the core of the network structures of the development of critical technologies "Biomedicine" (one of the consortiums of scientific-technological platform "Living systems"), mainly belong to the high-tech group of regions, and only 10% of enterprises operate in the regions of the moderate degree of innovation development [10, p. 58-61].

Opportunities to consolidate the regions' efforts under the programs are also limited, because the profile of regional industry differs essentially, so they participate in various programs.

Apparently, technology platforms and scientific-innovative programs have not become an active factor to form research and innovation space of the regions yet; the spatial factor is based on the existing structure, does it not transform it and not realize the network principle to manage the research and innovation process.

Along with comprehensive directions of RIS transformation we can formulate the following directions, characterizing the separate sides of the development of research and innovation space, separate components and structures of the scientific and technical potential, stages of the research and innovation process.

1. Purposeful and active use of competitive advantages of the region – a developed base of energy; highly qualified personnel – scientists, designers, planners, engineers, workers; high investment potential; a powerful and comprehensive infrastructure in the industrial production (energy, transport, information, financial infrastructure); a high level of concentration of scientific and technological potential (academic, industry, university, factory sciences); the presence of a significant number of high-tech industries.

For example, the Chechen Republic is a region with the excess working population; its territory can be used for various types of business. Tourism can become a competitive advantage of the republic. By the way, the term “excess working” population seems to be wrong in principle. They are people who are temporarily unemployed. Another example is the availability of local natural competitive advantages of raw export-oriented regions (the Tyumen and Kemerovo oblasts).

2. Improving the quality of human potential as the main factor promoting innovation development in the regions with low scientific and technological potential, primarily due to the improvement of the education system [1].

3. Integration of scientific and educational organizations in the country in order to form the system of their competitive cooperation – universities and institutes of higher education affiliated with science cities and academic institutes affiliated with universities [7].

A number of science cities have educational institutions, for example, Dubna in the Moscow Oblast, Michurinsk in the Tambov Oblast, Obninsk in the Kaluga Oblast, Peterhof in Saint-Petersburg, and many cities preparing highly-qualified personnel in close contact with the leading universities of the Russian Federation [11, p. 22, 33, 35, 38].

Thus, directions and ways of transformation of research and innovation space in relation to different regions are identified on the basis of selection of thresholds of the territorial development of potential of science and innovation and a new justified methodological approach and methodological tools to analyze and measure the degree of regional innovation development.

Among the proposed directions of transformation we have analyzed those that are not actively being developed and promoted. These include:

- involving a larger number of regions in scientific-innovation activity; it is shown that the potential expansion of research and innovation space is significant, as a significant number of such regions have carried out innovative modernization; including those that have upgraded industry;

- development of the territories of medium and small towns that have certain abilities of innovation development or potential for their formation, such as national scientific and cultural phenomena, in particular phenomena of innovation development, including those in the field of social sciences, based on self-management and entrepreneurship;

– more innovative region’s “absorption” of non-innovative or less innovative ones on the basis of economy clustering;

– purposeful and active use of competitive advantages of the region;

– integration of scientific and educational organizations in order to form the system of their competitive cooperation.

The developed methodological tool to analyze the degree of innovation development of different regions has revealed a number of new reserves for transformation of research and innovation space, such as:

• specification of possible links of groups of regions between stages of the research and innovation process, comparison of the regions included in one group, but with different potentials for innovative development by any characteristic – generation of innovations, technologies transfer, etc.;

• some regions of a higher degree of innovation development have high rates related to the subsequent thresholds;

• some regions that have similar competitive advantages have different potentials – generation of innovations, transformation, adaptation, etc., thus belonging to different groups of regions by the level of innovation development;

• some regions that have similar competitive advantages and the same scientific potential belong to different groups of regions by the level of innovation development.

Identification of the reserves of transformation of research and innovation space helps find concrete ways to implement the directions of transformation in relation to different regions, to develop strategies and scientific-innovative policy of the regions, taking into account regions with different competitive advantages.

Sited works

1. Anosova L.A. General Meeting of the Department of Social Sciences of RAS on the Subject "Scientific and Technological Forecast – the Most Important Element in the trategy of Development of Russia". *Economics and Management*, 2009, no.1, p. 132.

2. Biryukov S. The Project "20 Agglomerations: a Chance for Provincial Russia? *Political News Agency,* 2010, December 30. Available at: http://www.apn.ru/publications/article23519.htm

3. Vasin V.A., Mindeli L.E. Spatial Aspects of Formation and Development of the National Innovative System. *Innovation*, 2011, no.11, p. 25.

4. Gerasimov A.V. *Development of Innovation Potential of the Economy in the Regions of the Russian Federation (Methodology, Mechanisms and Tools): Doctor of Economics Dissertation Abstract, Specialty 08.00.05 – Economics and Management of National Economy*. Saint Peterburg, 2012. 45 p.

5. Glazychev V.L. An Interview to Novaya Gazeta, Ekaterina Zhiritskaya. *Novaya gazeta*, 2012, April 28, no.31, p. 16.

6. Gusakov M.A. Principles and Approaches to the Management of Innovation Economy in Different Regions. *Innovation*, 2004, no.10, pp. 3-5.

7. Gusakov M.A. Innovation Environment for the Creation of Breakthrough Technology. *Innovation*, 2012, no.6(164), pp. 26-27.

8. Gusakov M.A., Burkatskaya O.A. Territorial Development of the Potential of Innovation Development. *Economics and Management. Russian Scientific Journal*, 2013, no.10, pp. 39-41.

9. Ivanov V.V. Spatial Development of the National Innovation System. *Innovation*, 2011, no.2, p. 40.

10. *Information and Analytical Bulletin. Series "Economics and Management in Science and Innovation".* Moscow: TsISN, 2011. No.1. 62 p.

11. *Information and Analytical Bulletin. Series "Economics and Management in Science and Innovation".* Moscow: TsISN, 2011. No.2. 65 p.

12. Minakir P.A. Evolution of Spatial Economic Theories. *Transformation of the Socio-Economic Space of the Russian Regions: Issues of Theory and Practice. Plenary Reports of the All-Russian Research-to-Practice Conference, December 20–21, 2012.* IPRE RAN. Saint Petersburg: GUAP, 2013. P. 70.
13. *Russian Science in Figures: 2012. Statistical Digest*. Moscow: TsISN, 2012. 226 p.
14. *NGOs: the Laws of Development. Organization of the Mill-Museum "Pastila factory in Kolomna"*, 2011, September 30. Available at: http://nkozakon.ru/best-practices/organizatsiya-fabriki-muzeya-pastil-naya-fabrika-v-kolomne/.
15. Polyakova A.G. *Modernization of Economy in the Newly Developed Regions: Doctor of Economics Dissertation Abstract, Specialty 08.00.05 – Economics and Management of National Economy*. Saint Peterburg, 2011. 40 p.
16. *The Rating of Innovation Activity in Russia in 2011.* 2.3. Innovaiton Activity in the Regions. P.18. "Saint Petersburg Policy" Fund; The Russian Presidential Academy of National Economy and Public Administration, RBC-Daily Newspaper, 2012, January 12. Available at: http://old.fpp.spb.ru/news.php?id=60
17. *The Rating of Innovation Activity in Russia (Spring 2012)*. Innovatsionnaya desyatka rossiiskikh regionov. P.1.1.,1.5. The First Ten Innovation Reigons of Russia. P. 1.1.,1.5; "Saint Petersburg Policy" Fund, The Russian Presidential Academy of National Economy and Public Administration, RBC-Daily Newspaper, 2012, June 08. Available at: http://old.fpp.spb.ru/iRating_2012-03_05.php.
18. *Russian Innovation Index*. Ed. by L.M. Gokhberg. Moscow: Natsional'nyi issledovatel'skii universitet "Vysshaya shkola ekonomiki", 2011. 84 p.
19. *Synergy of the Space: Regional Innovation Systems, Clusters and Cross-Flows*. Executive editor A.N. Pilyasov. Smolensk: Oikumena, 2012. 760 p.
20. Sukhovei A.F., Golova I.N. *Innovation Opportunities for Self-Development of the Region*. Yekaterinburg: Institut ekonomiki URO RAN, 2010. 200 p.
21. Tatarkin A.I. Formation of the Regional Institutions of Spatial Development in the Russian Federation. *Transformation of the Socio-Economic Space of the Russian Regions: Issues of Theory and Practice. Plenary Reports of the All-Russian Research-to-Practice Conference, December 20–21, 2012.* IPRE RAN. Saint Petersburg: GUAP, 2013. P. 100.
22. *Intelligent Enterprise Express*. Issues: 4.04.2012, 13.04.21012, 20.04.2012, 17.05.2012, 3.07.2012, 9.07.2012, 9.082012, 20.09.2012, 13.10.2012. Available at: www.iemag.ru.

References

1. Anosova L.A. Obshchee sobranie Otdeleniya obshchestvennykh nauk RAN na temu "Nauchno-tekhnologicheskii prognoz – vazhneishii element strategii razvitiya Rossii" [General Meeting of the Department of Social Sciences of RAS on the Subject "Scientific and Technological Forecast – the Most Important Element in the trategy of Development of Russia"]. *Ekonomika i upravlenie* [Economics and Management], 2009, no.1, p. 132.
2. Biryukov S. Proekt "20 aglomeratsii": shans dlya provintsial'noi Rossii? [The Project "20 Agglomerations: a Chance for Provincial Russia?]. *APN* [Political News Agency], 2010, December 30. Available at: http://www.apn.ru/publications/article23519.htm

3. Vasin V.A., Mindeli L.E. Prostranstvennye aspekty formirovaniya i razvitiya natsional'noi innovatsionnoi sistemy [Spatial Aspects of Formation and Development of the National Innovative System]. *Innovatsii* [Innovation], 2011, no.11, p. 25.
4. Gerasimov A.V. *Razvitie innovatsionnogo potentsiala ekonomiki regionov Rossiiskoi Federatsii (metodologiya, mekhanizmy i instrumenty): avtoreferat dissertatsii na soiskanie uchenoi stepeni doktora ekonomicheskikh nauk po spetsial'nosti 08.00.05 – Ekonomika i upravlenie narodnym khozyaistvom* [Development of Innovation Potential of the Economy in the Regions of the Russian Federation (Methodology, Mechanisms and Tools): Doctor of Economics Dissertation Abstract, Specialty 08.00.05 – Economics and Management of National Economy]. Saint Peterburg, 2012. 45 p.
5. Glazychev V.L. Interv'yu v Novoi gazete, Ekaterina Zhiritskaya [An Interview to Novaya Gazeta, Ekaterina Zhiritskaya]. *Novaya gazeta* [New Newspaper], 2012, April 28, no.31, p. 16.
6. Gusakov M.A. Printsipy i podkhody k upravleniyu innovatsionnoi ekonomikoi v regionakh raznogo tipa [Principles and Approaches to the Management of Innovation Economy in Different Regions]. *Innovatsii* [Innovation], 2004, no.10, pp. 3-5.
7. Gusakov M.A. Innovatsionnaya sreda sozdaniya proryvnykh tekhnologii [Innovation Environment for the Creation of Breakthrough Technology]. *Innovatsii* [Innovation], 2012, no.6(164), pp. 26-27.
8. Gusakov M.A., Burkatskaya O.A. Territorial'noe osvoenie potentsiala innovatsionnogo razvitiya [Territorial Development of the Potential of Innovation Development]. *Ekonomika i upravlenie. Rossiiskii nauchnyi zhurnal* [Economics and Management. Russian Scientific Journal], 2013, no.10, pp. 39-41.
9. Ivanov V.V. Prostranstvennoe razvitie natsional'noi innovatsionnoi sistemy [Spatial Development of the National Innovation System]. *Innovatsii* [Innovation], 2011, no.2, p. 40.
10. *Informatsionno-analiticheskii byulleten'. Seriya "Ekonomika i menedzhment v sfere nauki i innovatsii"* [Information and Analytical Bulletin. Series "Economics and Management in Science and Innovation"]. Moscow: TsISN, 2011. No.1. 62 p.
11. *Informatsionno-analiticheskii byulleten'. Seriya "Ekonomika i menedzhment v sfere nauki i innovatsii"* [Information and Analytical Bulletin. Series "Economics and Management in Science and Innovation"]. Moscow: TsISN, 2011. No.2. 65 p.
12. Minakir P.A. Evolyutsiya prostranstvennykh ekonomicheskikh teorii [Evolution of Spatial Economic Theories]. *Transformatsiya sotsial'no-ekonomicheskogo prostranstva regionov Rossii: voprosy teorii i praktiki. Plenarnye doklady Vserossiiskoi nauchno-prakticheskoi konferentsii 20–21 dekabrya 2012 g.* [Transformation of the Socio-Economic Space of the Russian Regions: Issues of Theory and Practice. Plenary Reports of the All-Russian Research-to-Practice Conference, December 20–21, 2012]. IPRE RAN. Saint Petersburg: GUAP, 2013. P. 70.
13. *Nauka Rossii v tsifrakh: 2012. stat. sb* [Russian Science in Figures: 2012. Statistical Digest]. Moscow: TsISN, 2012. 226 p.
14. *NKO: zakony razvitiya. Organizatsiya fabriki-muzeya "Pastil'naya fabrika v Kolomne"* [NGOs: the Laws of Development. Organization of the Mill-Museum "Pastila factory in Kolomna"], 2011, September 30. Available at: http://nkozakon.ru/best-practices/organizatsiya-fabriki-muzeya-pastil-naya-fabrika-v-kolomne/.

15. Polyakova A.G. *Modernizatsiya ekonomiki regionov novogo osvoeniya: avtoreferat dissertatsii na soiskanie uchenoi stepeni doktora ekonomicheskikh nauk po spetsial'nosti 08.00.05 – ekonomika i upravlenie narodnym khozyaistvom* [Modernization of Economy in the Newly Developed Regions: Doctor of Economics Dissertation Abstract, Specialty 08.00.05 – Economics and Management of National Economy]. Saint Peterburg, 2011. 40 p.
16. *Reiting innovatsionnoi aktivnosti v Rossii v 2011 godu* [The Rating of Innovation Activity in Russia in 2011]. 2.3. Innovatsionnaya aktivnost' regionov. P.18 [Innovaiton Activity in the Regions. P.18]. Fond "Peterburgskaya politika" ["Saint Petersburg Policy" Fund]; Rossiiskaya akademiya narodnogo khozyaistva i gosudarstvennoi sluzhby pri Prezidente RF [The Russian Presidential Academy of National Economy and Public Administration], gazeta "RBK-Daily" [RBC-Daily Newspaper], 2012 January 12. Available at: http://old.fpp.spb.ru/news.php?id=60
17. *Reiting innovatsionnoi aktivnosti v Rossii (vesna 2012 goda)* [The Rating of Innovation Activity in Russia (Spring 2012)]. Innovatsionnaya desyatka rossiiskikh regionov. P.1.1.,1.5 [The First Ten Innovation Reigons of Russia. P. 1.1.,1.5]; Fond "Peterburgskaya politika" ["Saint Petersburg Policy" Fund], Rossiiskaya akademiya narodnogo khozyaistva i gosudarstvennoi sluzhby pri Prezidente RF [The Russian Presidential Academy of National Economy and Public Administration], gazeta "RBK-Daily" [RBC-Daily Newspaper], 2012, June 08. Available at: http://old.fpp.spb.ru/iRating_2012-03_05.php.
18. *Rossiiskii innovatsionnyi indeks* [Russian Innovation Index]. Ed. by L.M. Gokhberg. Moscow: Natsional'nyi issledovatel'skii universitet "Vysshaya shkola ekonomiki", 2011. 84 p.
19. Sinergiya prostranstva: regional'nye innovatsionnye sistemy, klastery i peretoki [Synergy of the Space: Regional Innovation Systems, Clusters and Cross-Flows]. Executive editor A.N. Pilyasov. Smolensk: Oikumena, 2012. 760 p.
20. Sukhovei A.F., Golova I.N. *Innovatsionnye vozmozhnosti samorazvitiya regiona* [Innovation Opportunities for Self-Development of the Region]. Yekaterinburg: Institut ekonomiki URO RAN, 2010. 200 p.
21. Tatarkin A.I. Formirovanie regional'nykh institutov prostranstvennogo razvitiya Rossiiskoi Federatsii [Formation of the Regional Institutions of Spatial Development in the Russian Federation]. *Transformatsiya sotsial'no-ekonomicheskogo prostranstva regionov Rossii: voprosy teorii i praktiki. Plenarnye doklady Vserossiiskoi nauchno-prakticheskoi konferentsii, 20–21 dekabrya 2012 g.* [Transformation of the Socio-Economic Space of the Russian Regions: Issues of Theory and Practice. Plenary Reports of the All-Russian Research-to-Practice Conference, December 20–21, 2012]. IPRE RAN. Saint Petersburg: GUAP, 2013. P. 100.
22. *Intelligent Enterprise Express*. Issues: 4.04.2012, 13.04.21012, 20.04.2012, 17.05.2012, 3.07.2012, 9.07.2012, 9.082012, 20.09.2012, 13.10.2012. Available at: www.iemag.ru.

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Innovation development of the construction complex in the region on the basis of cluster approach

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Abstract. The article substantiates the necessity of using cluster approach in the development of the region's construction complex for increasing its innovation activity. The formation and development of the regional construction clusters can facilitate the formation of innovation system in the construction complex and integration of different types of innovation. Clusters are also an effective mechanism under the conditions of the market economy; they can unite independent organizations for achieving common strategic goals. Taking the construction cluster of the Ural as an example, the authors discuss the opportunities of using its potential for different purposes, including for the investment development of the Arctic territories. The article shows that cluster can provide innovation-inactive Northern territories with complex innovation construction solutions.

Key words: cluster, investment, construction complex, Ural construction cluster, innovation development.

Innovation development and the leadership of innovation in the economy are a worldwide development trend of the policy in the science and technology sphere. However, the use of innovation in individual countries, regions and sectors is uneven. Usually it depends on the readiness of the state and region to organize innovation process, to manage it and regulate the relations arising in the sphere of innovation.

Innovation in construction plays a significant role in the country's economic development, because the introduction of new technology for production of new materials and new products in different industries is connected with construction. Introduction of innovation in housing construction leads to the improvement of living conditions and increases people's comfort. The construction of innovation buildings and structures influences the improvement of the social climate of social orientation (hospitals, schools, health centers, stadiums, etc.). The newly erected buildings, equipped with new facilities in some sectors, can be also considered as innovation.

From the viewpoint of technology, construction industry is the most conservative and slow to change. Its slow response to changes can be explained by several reasons. First, it is a long history of technological development of the construction complex, in the course of which a variety of materials and construction technology have already been tested and implemented. Second, it is the long lifetime of buildings and structures, within which the shortcomings of the applied technology can be identified. That is why builders are very cautious about choosing a new technology and new construction materials, because the responsibility for the result is theirs. Thirdly, it is the predominance of small firms, the low level of integration in the industry and excessive dependence on subcontractors. And finally, it is the lack of access to information about new products, materials and technology.

The level of innovation development in Russia's construction complex can be assessed only by the level of innovation activity of organizations that manufacture building materials, products and structures, i.e. by the type of economic activity "Production of other non-metal mineral products"; the construction materials industry belongs to this group. The data presented in figure 1 show that this sphere is characterized by the low level of innovation activity in comparison with other types of economic activity[1].

The share of organizations that implement technological innovation is about 9% in the total number of enterprises that produce construction materials *(tab. 1)*.

The use of new construction materials has a high social significance and potential. The development and usage of new construction materials in the historical aspect is the basis for innovation processes in construction[2].

[1] Federal State Statistics Service. Official statistical information. Science, innovation and information society. Science and innovation. Available at: http://www.gks.ru (accessed April 20, 2014).

[2] Kotlyarova S.N. Innovatsionnye bar'ery i perspektivy razvitiya otraslevykh rynkov na primere stroitel'noi otrasli [Innovation Barriers and Perspectives of the Industrial Markets Development on the Example of Construction Industry]. Ekonomika regiona [Economy of the Region], 2010, no.3, pp. 251-254.

Figure 1. Innovation activity of organizations by the types of economic activity

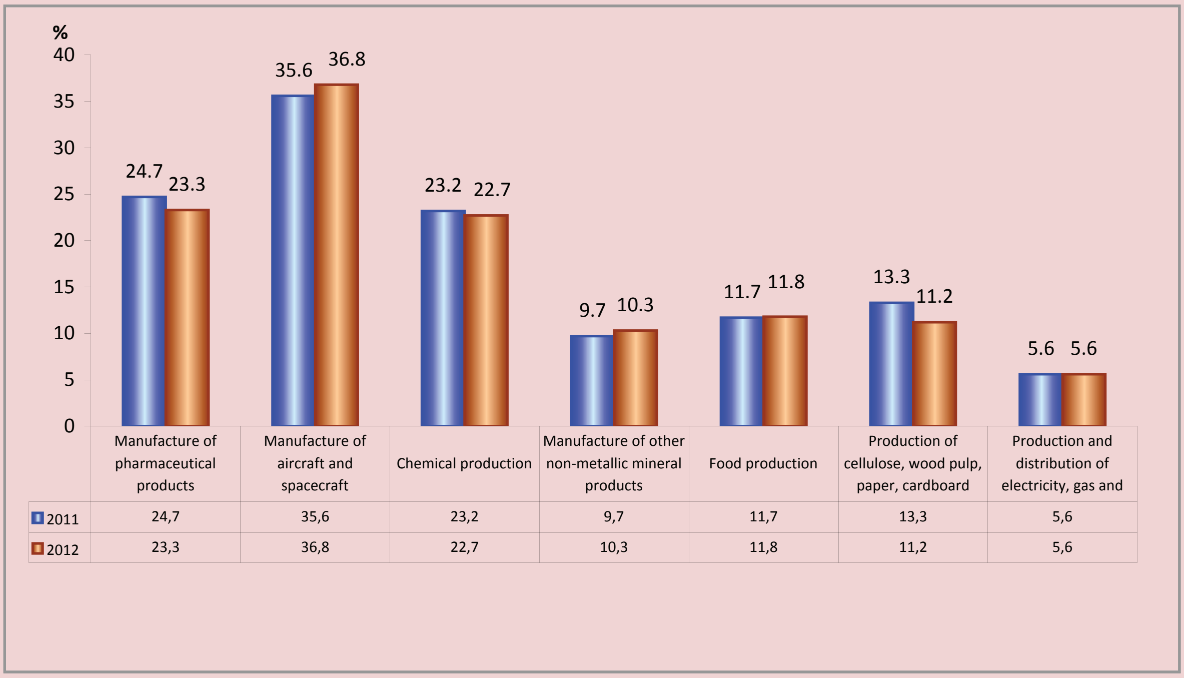


Table 1. Share of organizations that implement technological innovation in the total number of organizations, % *

Type of economic activity	2011	2012
Manufacture of pharmaceutical products	22.4	23.3
Manufacture of aircraft and spacecraft	33.6	36.1
Chemical production	21.1	20.9
Manufacture of other non-metallic mineral products	**8.4**	**8.9**
Food production	9.4	9.1
Production of cellulose, wood pulp, paper, cardboard	12.4	10.6
Production and distribution of electricity, gas and water	4.7	4.9

* Federal State Statistics Service. Official statistical information. Science, innovation and information society. Science and innovation. Available at: http://www.gks.ru (accessed April 20, 2014).

The emergence and application of new materials leads to the increase in the energy efficiency of residential and industrial buildings, reduction in construction costs and operating costs, improvement of comfort of buildings and structures. For instance, brick, which replaced clay, increased the strength of buildings and allowed the number of floors to be increased. The emergence of monolithic construction technology allows the construction period to be reduced and provides for significant savings. Monolith also makes free space planning possible. The use of plastic window units provides a better insulation of the houses' inhabitants from the influence of external factors.

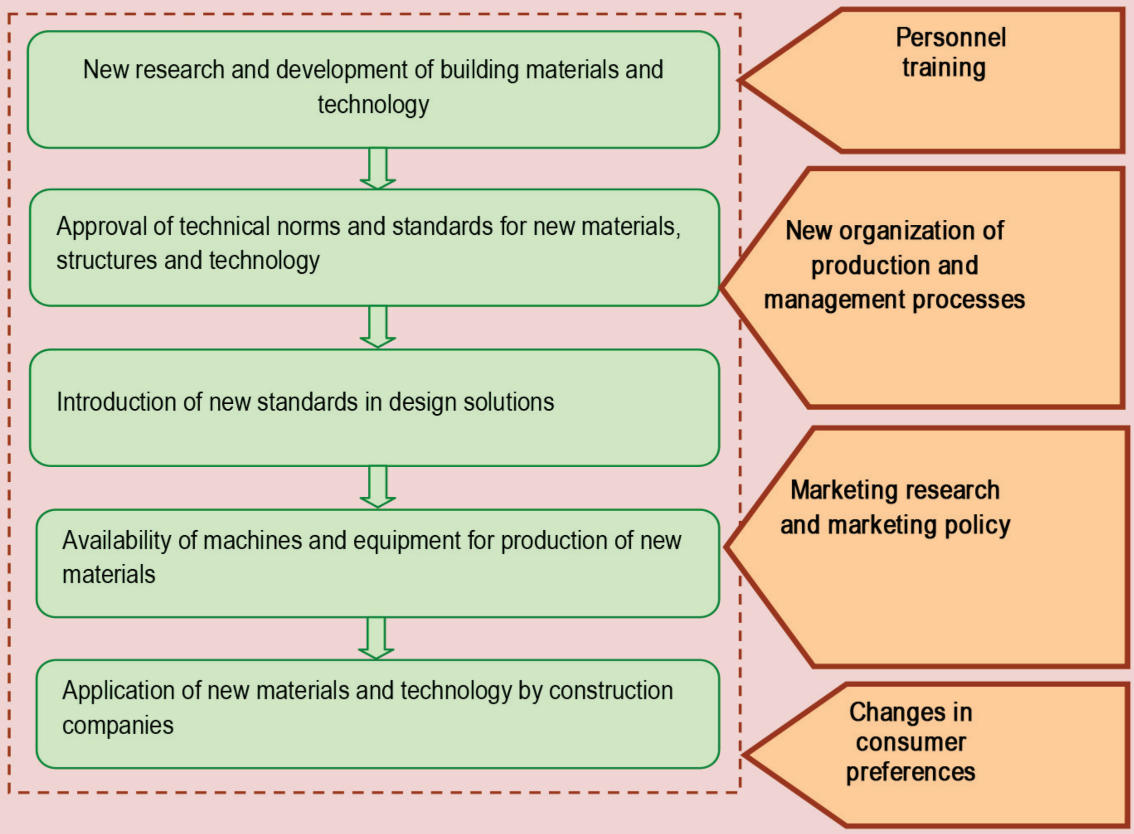
The development and introduction of new materials provides constant impetus for new architectural solutions.

To ensure the compliance with international standards (Oslo Manual, a single survey program – EU CIS) the statistics distinguish several types of innovation: technological, marketing, organizational, management, etc. But innovation in construction is complex and its components should not be considered separately. Technological product innovation has value only if it reaches the consumer market. But the specifics of innovations in the construction industry consists in the fact that there is a necessity to go through a long chain of interrelated innovation solutions, and it is a complex and time-consuming process *(fig. 2)*.

Administrative barriers and regulations hamper innovation breakthroughs in construction. The factors that impede the introduction of new technology in construction are as follows: absence or prolonged approval of technical norms and standards for new materials, constructions and technology; slow introduction of new standards in design solutions.

Another barrier for innovation is the corruption and conservatism of the author-

Figure 2. Stages and the main factors in the development and introduction of innovation in the construction complex



ities, who sometimes support large house-building plants that exhausted their potential. Besides, the apartment houses of bearing-wall construction that were built in large amounts in the Soviet period are no longer needed in big modern cities. The pace of introduction of innovation is slowed because of the low qualification of contractors and poor quality of construction materials, which are often produced in the process lines of the 1960s–1970s[3].

Innovation solutions are not in full demand among designers and architects, though these people, who design their projects taking into consideration modern materials and innovation technology, should be a link between the major real estate developers and construction materials producers.

The absence of information interaction between construction materials manufacturers and executives responsible for decision-making in construction companies also impedes the introduction of innovation materials. Thus, the barriers to the introduction of new technology and materials in construction are not ideological, but rather administrative in nature.

Russia's accession to the World Trade Organization further emphasized the need to promote innovation activities at construction enterprises. Experts predict the strengthening of foreign suppliers' influence in the construction materials market, the increase in the import of construction materials at a lower price (from China and Turkey) and, consequently, the rise of competition in the Russian construction market[4]. It is necessary to form barriers to cheap but low-quality imported products and to support new innovation technology in construction on the state level.

The formation of innovation system in the construction industry and integration of different types of innovation within the building complex can be facilitated through ***the formation and development of regional construction clusters***. Because within the framework of the cluster it is possible to form a strong connection between its participants, to increase the share of competitive construction materials produced by local building enterprises by introducing innovation methods in the organization of production[5].

At present, regional construction clusters have been formed and are actively functioning in three regions of the Russian Federation: in the Sverdlovsk Oblast (Ural Construction Cluster), the Saratov Oblast (Interregional Research and Production Cluster), the Vologda Oblast (International Cluster of Wooden House Building and Wood Processing). Each cluster was created for different purposes depending on the needs of the industry and the region. The Ural Construction Cluster seeks to improve the efficiency and competitiveness of the region's construction complex,

[3] Stupin I. Vragi stroitel'nykh innovatsii [The Enemies of Construction Innovation]. *Ekspert* [Expert], 2007, no.27(568), July 16.

[4] Posle vstupleniya v VTO rossiiskii stroitel'nyi rynok ozhidayut peremeny [After accession to the WTO the Russian Construction Market is Expecting Changes]. Available at: http://www.interfax.ru/realty/realtyinf.asp?sec=1457&id=261655 (accessed January 20, 2014)/

[5] Yamshchikova I.V., Kudryavtseva V.A. Klasternaya initsiativa kak put' innovatsionnogo razvitiya promyshlennosti stroitel'nykh materialov regiona [Cluster Initiative as a Way of Innovation Development of the Region's Construction Materials Industry]. Polzunovskii vestnik [Polzunov Bulletin], 2012, no.4, pp. 127-131.

preservation of market positions and market expansion. The Saratov Interregional Research and Production Cluster states its goal as the formation of a machine-building complex for the introduction of innovation materials in construction in order to reduce the cost of square meter of housing. The formation of such a cluster in the sphere of construction technology will allow for overcoming the technological gap and it gives a new impulse to the development of the construction complex. The Vologda International Cluster is aimed at attracting foreign advanced technology to develop a new branch – wooden house construction. Industrial low-rise wooden house building and structural steel construction are developing within the construction cluster.

The Sverdlovsk Oblast has a huge construction and industrial potential and takes a key place in the Ural area. That is why the Ural Construction Cluster is primarily aimed at the development of markets for the products of its construction companies. The development of housing construction in the neighboring regions is accompanied by increased demand and deteriorating regional capacities for the production of construction materials6. In this situation, the Ural Construction Cluster finds the majority of market outlets to be promising, and first of all, the markets of the neighboring Yamalo-Nenets and Khanty-Mansi autonomous okrugs. However, it is possible to enter these markets only through the establishment of coordination between the Sverdlovsk Oblast, Yamalo-Nenets and Khanty-Mansi autonomous okrugs in the sphere of development and accommodation of the construction industry enterprises, implementation of housing programs and development of the transport and logistics infrastructure. Thus, the development of the Ural Construction Cluster will solve the problem of the optimal allocation and development of productive forces in the large region.

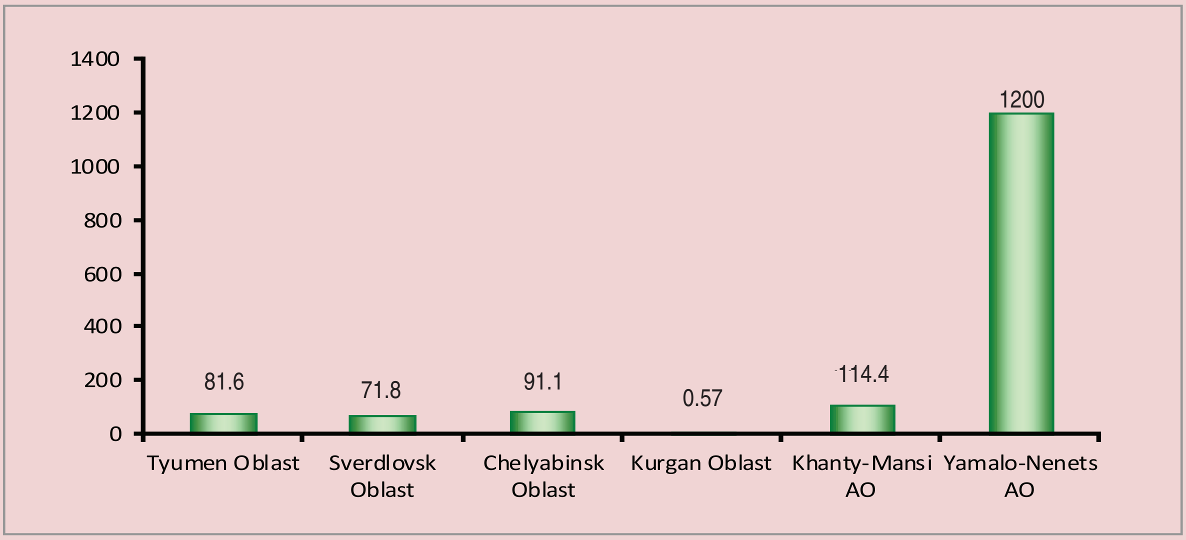
The development of northern territories acquires special importance in connection with the implementation of a large-scale program for socio-economic development in Russia's Arctic zone. This program provides for the implementation of many projects in the Arctic: the establishment of global transport, energy, information and telecommunication systems. Total investment for 7 years should be 1793 billion rubles, including at the expense of the federal budget – 623.3 billion rubles. Thus, the investment vector in the Russian Federation is shifting from the southern regions (construction of facilities for the 2014 Olympics) to the Arctic and adjacent northern territories. *Figure 3* shows that the greatest volumes of investments into priority investment projects are concentrated in the northern territories of the Urals[7], and therefore the Ural Construction Cluster intends to launch the development of northern resource areas.

It is important that the bulk of investment in the northern territories means new

[6] Loshchenko A.L., Kopsha S.P., Bikbau M.Ya. Stroitel'no-industrial'nyi klaster – peredovye tekhnologii i mashinostroenie dlya stroitel'stva [Construction-Industrial Cluster – Advanced Technology and Machinery for Construction]. Tekhnologiya betonov [Technology of Concrete], 2013, no.8.

[7] Ministerstvo regional'nogo razvitiya Rossiiskoi Federatsii [The Ministry of Regional Development of the Russian Federation]. Available at: http://www.minregion.ru/Priorit_invest (accessed October 20, 2013).

Figure 3. Volume of investment into priority investment projects, billion rubles



construction (industrial, transport, energy and residential facilities), taking into account the specifics of construction activities in the North and the design, engineering and technological solutions for Arctic conditions. These construction solutions should be comprehensive and complete; one organization or even several construction companies cannot offer or implement such a solution[8].

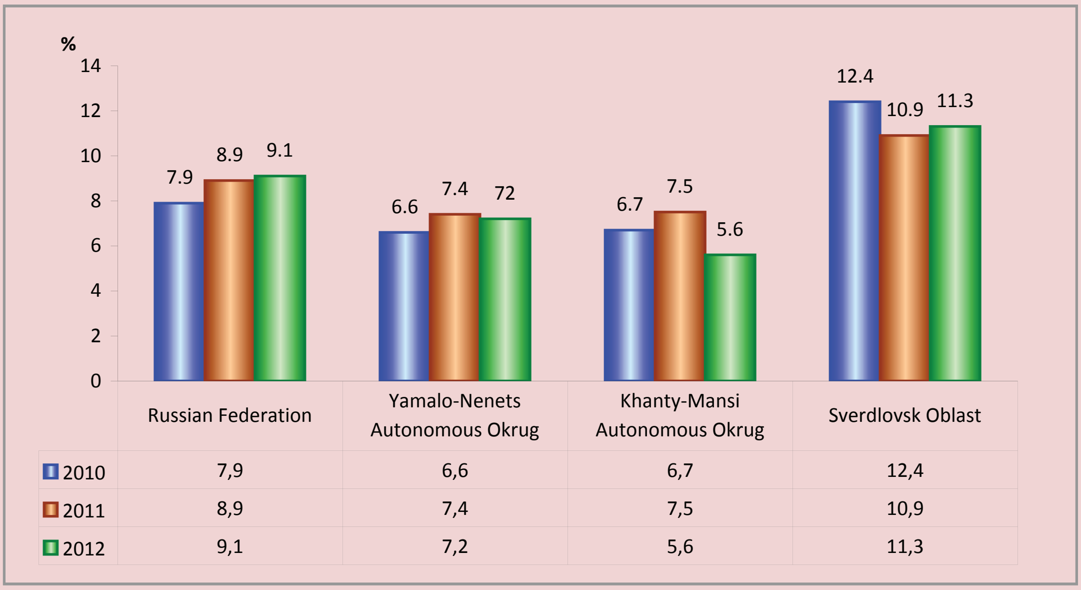
Cluster is a mechanism that is efficient in the conditions of market economy and that is able to unite independent organizations for the achievement of a common strategic goal. In this regard, the involvement of cluster groups is an important condition for the investment development of the Arctic and fulfilling major tasks of its development.

Comparing the share of organizations that are implementing technological innovation in the RF regions, it can be noted that the Sverdlovsk Oblast has higher rates in this respect than the national average *(fig. 4)*. The innovation activity of organizations in Yamalo-Nenets and Khanty-Mansi autonomous okrugs is low. Thus, the northern territories with low innovation activity require complex innovation decisions, which can be provided by the enterprises of the Ural Construction Cluster.

The consumers of construction products are interested not just in obtaining construction materials of affordable quality and price, but, above all, in obtaining the final results in the form of construction objects – fast and quality housing, industrial and infrastructure buildings and facilities. Consequently, the market needs ready-made solutions. The Ural Construction Cluster is built on the principle that all of its participants ensure the final result.

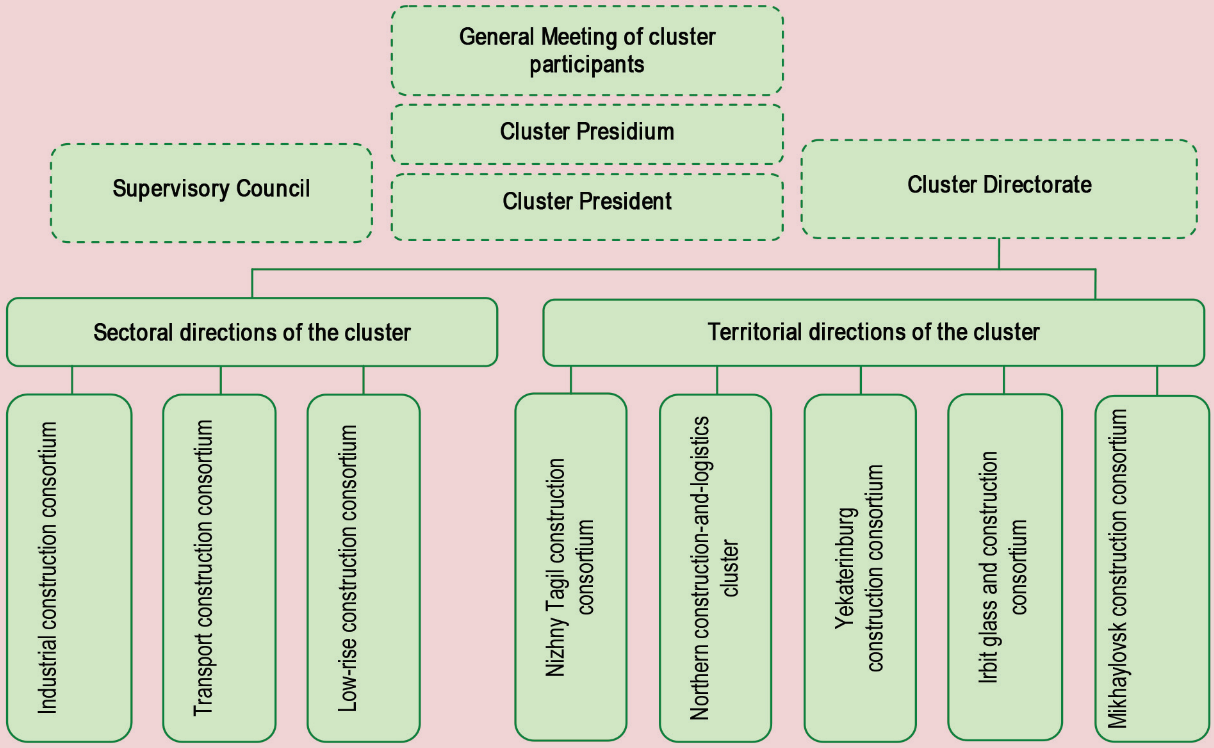
[8] Lavrikova Yu.G. Klasternyi podkhod v osvoenii severnykh i arkticheskikh territorii [The Cluster Approach in the Development of the Northern and Arctic territories]. SEVER I RYNOK: formirovanie ekonomicheskogo poryadka [The North and the Market: Formation of Economic Order], 2014, no.6(43), pp. 71-74.

Figure 4. Share of organizations that implemented technological innovation in the RF regions: 2010–2012, %



	Russian Federation	Yamalo-Nenets Autonomous Okrug	Khanty-Mansi Autonomous Okrug	Sverdlovsk Oblast
2010	7,9	6,6	6,7	12,4
2011	8,9	7,4	7,5	10,9
2012	9,1	7,2	5,6	11,3

Figure 5. Structure of the Ural Construction Cluster



The Cluster includes designers, construction materials manufacturers, construction firms, educational and research institutes, engineering companies, representatives of federal and regional ministries, infrastructure organizations, banks and insurance companies[9]. Currently, this approach allows the companies of the cluster to perform the whole cycle of construction works in the volume up to 40 billion rubles per year with their own designers, general contractors, contractors, banks with ready credit lines. This is important for large-scale investment projects.

The creation of six consortia in different spheres of construction within the cluster *(fig. 5)* can be called an innovation organizational approach to the formation of the Ural Construction Cluster. The consortia have territorial and sectoral characteristics; each of them has its own features and creation purposes[10].

The transport construction consortium has united more than 40 companies of transport construction, with work experience of more than 20 years, three institutes, construction materials plants, a subsidiary of a federal bank and an insurance company. With such a structure, the consortium can participate in electronic trading and competitions, involving the largest and most expensive orders. The objectives of the transport consortium are as follows: the construction of railways and motor roads of any complexity with full infrastructure.

The main goal of the industrial construction consortium is to build large industrial facilities of metallurgy, chemical industry, construction industry, mechanic and power engineering of any complexity with full infrastructure. Consortium enterprises participated in the federal programs for preparation for the APEC-2012 Summit in Vladivostok and the 2014 Winter Olympic Games in Sochi. The consortium includes institutions such as Uralgipromez and UralNIIAS.

The Yekaterinburg and Nizhny Tagil consortia are organized on a territorial basis and include construction industry enterprises and construction companies, municipal institutions, universities and banks. An obligatory condition of work is to implement any of the objects as a General Contractor. It is the prerogative of the “leader” of the consortium in this type of work, who by its own forces is able to perform up to 40% of the works on the given object. Prerequisites for the formation of these consortia are as follows: the implementation of a number of large investment projects in the field of construction in the cities; the large number of enterprises producing construction products; the availability of specialized educational institutions; the need for timely satisfaction of the needs of the territory in modern construction materials, products and structures for the implementation of housing programs or large investment projects.

The objective *of the Mikhaylovsk and the Irbit consortiums* is to develop the production of modern construction materials based on effective cooperation between enterprises with the aim of reducing costs,

[9] Lavrikova Yu.G., Kotlyarova S.N., Chumerin Yu.N., Devyatykh Ya.Yu. Kontseptsiya i praktika formirovaniya Ural'skogo stroitel'nogo klastera [The Concept and Practice of Formation of the Ural Construction Cluster]. Yekaterinburg: Institut ekonomiki UrO RAN, 2013. 142 p.

[10] Ibidem.

and also due to the necessity to meet the demand in construction materials with the expected increase in housing construction. A common infrastructure of networks and roads will be built; staffing issues and social problems in these two settlements will be addressed.

The low-rise construction consortium comprises the developers of cottage settlements and intends to cooperate with the authorities on the issues of provision of low-rise residential settlements with roads and engineering infrastructure.

The Northern construction-and-logistics cluster sees its main task in uniting the construction materials manufacturers that are located primarily in Nizhny Tagil, Krasnoturyinsk, Severouralsk, Serov and other northern territories of the Sverdlovsk Oblast, for the purpose of establishing productions in the northern regions of the Ural Federal District, especially in the Khanty-Mansi and Yamalo-Nenets autonomous okrugs. The Sverdlovsk Oblast has traditionally been a supplier of construction materials for these areas, and for the Tyumen Oblast as well. But now construction went far to the north and even beyond the Arctic circle. The north of the Sverdlovsk Oblast, Khanty-Mansi and Yamalo-Nenets autonomous okrugs are industrial construction zones, since they are rapidly developing industrial regions. Implementation of large investment projects will increase the demand for building materials, including those required in housing construction.

Thus, the main purpose of creating such sectoral and territorial associations is to organize modern innovation productions of energy and resource saving construction materials, products and structures, and to enhance the competitiveness of local producers of construction materials. The establishment of the Ural Construction Cluster will make it possible to increase the volumes of deliveries of construction materials in the regions of the Ural Federal District. And in the future it will not only reduce construction costs, but also expand the market of innovation construction materials produced in the region.

Innovation development of the construction complex is possible on the basis of the comprehensive understanding of innovation as a set of technological, organizational, marketing and other types of innovation, which at present should be implemented on the basis of the cluster model of development.

Sited works

1. *Innovation in the Construction Cluster: Obstacles and Prospects.* Available at: http://www.inno-expert.ru/consulting/building (accessed January 02, 2014).
2. Lavrikova Yu.G., Kotlyarova S.N., Chumerin Yu.N., Devyatykh Ya.Yu. *The Concept and Practice of Formation of the Ural Construction Cluster*. Yekaterinburg: Institut ekonomiki UrO RAN, 2013. 142 p.
3. Kotlyarova S.N. Innovation Barriers and Perspectives of the Industrial Markets Development on the Example of Construction Industryю *Economy of the Region*, 2010, no.3, pp. 251-254.
4. Lavrikova Yu.G. The Cluster Approach in the Development of the Northern and Arctic territories. *The North and the Market: Formation of Economic Order*, 2014, no.6(43), pp. 71-74.

5. Loshchenko A.L., Kopsha S.P., Bikbau M.Ya. Construction-Industrial Cluster – Advanced Technology and Machinery for Construction. *Technology of Concrete*, 2013, no.8.
6. *The Ministry of Regional Development of the Russian Federation*. Available at: http://www.minregion.ru/Priorit_invest (accessed October 20, 2013).
7. *After accession to the WTO the Russian Construction Market is Expecting Changes*. Available at: http://www.interfax.ru/realty/realtyinf.asp?sec=1457&id=261655 (accessed January 20, 2014).
8. Stupin I. The Enemies of Construction Innovation. *Expert*, 2007, no.27(568).
9. *Federal State Statistics Service. Official Statistical Information*. Science, Innovation and Information Society. Science and Innovation. Available at: http://www.gks.ru (accessed April 20, 2014).
10. Yamshchikova I.V., Kudryavtseva V.A. Cluster Initiative as a Way of Innovation Development of the Region's Construction Materials Industry. *Polzunov Bulletin*, 2012, no.4, pp. 127-131.

References

1. *Innovatsii v stroitel'nom klastere: bar'ery i perspektivy* [Innovation in the Construction Cluster: Obstacles and Prospects]. Available at: http://www.inno-expert.ru/consulting/building (accessed January 02, 2014).
2. Lavrikova Yu.G., Kotlyarova S.N., Chumerin Yu.N., Devyatykh Ya.Yu. *Kontseptsiya i praktika formirovaniya Ural'skogo stroitel'nogo klastera* [The Concept and Practice of Formation of the Ural Construction Cluster]. Yekaterinburg: Institut ekonomiki UrO RAN, 2013. 142 p.
3. Kotlyarova S.N. Innovatsionnye bar'ery i perspektivy razvitiya otraslevykh rynkov na primere stroitel'noi otrasli [Innovation Barriers and Perspectives of the Industrial Markets Development on the Example of Construction Industry] *Ekonomika regiona* [Economy of the Region], 2010, no.3, pp. 251-254.
4. Lavrikova Yu.G. Klasternyi podkhod v osvoenii severnykh i arkticheskikh territorii [The Cluster Approach in the Development of the Northern and Arctic territories]. *SEVER I RYNOK: formirovanie ekonomicheskogo poryadka* [The North and the Market: Formation of Economic Order], 2014, no.6(43), pp. 71-74.
5. Loshchenko A.L., Kopsha S.P., Bikbau M.Ya. Stroitel'no-industrial'nyi klaster – peredovye tekhnologii i mashinostroenie dlya stroitel'stva [Construction-Industrial Cluster – Advanced Technology and Machinery for Construction]. *Tekhnologiya betonov* [Technology of Concrete], 2013, no.8.
6. *Ministerstvo regional'nogo razvitiya Rossiiskoi Federatsii* [The Ministry of Regional Development of the Russian Federation]. Available at: http://www.minregion.ru/Priorit_invest (accessed October 20, 2013).
7. Posle vstupleniya v VTO rossiiskii stroitel'nyi rynok ozhidayut peremeny [After accession to the WTO the Russian Construction Market is Expecting Changes]. Available at: http://www.interfax.ru/realty/realtyinf.asp?sec=1457&id=261655 (accessed January 20, 2014).
8. Stupin I. Vragi stroitel'nykh innovatsii [The Enemies of Construction Innovation]. *Ekspert* [Expert], 2007, no.27(568).
9. Federal'naya sluzhba gosudarstvennoi statistiki. Ofitsial'naya statisticheskaya informatsiya [Federal State Statistics Service. Official Statistical Information]. *Nauka, innovatsii i informatsionnoe obshchestvo. Nauka i innovatsii* [Science, Innovation and Information Society. Science and Innovation]. Available at: http://www.gks.ru (accessed April 20, 2014).
10. Yamshchikova I.V., Kudryavtseva V.A. Klasternaya initsiativa kak put' innovatsionnogo razvitiya promyshlennosti stroitel'nykh materialov regiona [Cluster Initiative as a Way of Innovation Development of the Region's Construction Materials Industry]. *Polzunovskii vestnik* [Polzunov Bulletin], 2012, no.4, pp. 127-131.

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Reduction of the fiscal function of corporate tax: the factors and ways of increase

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Abstract. The article continues the series of publications on research into tax administration issues *.

Profit tax is one of the main tools of tax policy. It fulfills not only a fiscal, but also a regulatory function, allowing the state to influence the pace of economic development. However, despite the relatively high rate equal to 20%, the receipt of profit tax, primarily in the regional budgets has reduced in recent years.

The article considers the factors that reduce mobilizing functions of profit tax. It highlights the individual provisions of the tax legislation that influence the effectiveness of the fiscal policy in the sphere of profit taxation. The analysis of these provisions offers some options for improving the existing mechanism of profit administration that makes it possible to achieve an optimal balance between fiscal and regulatory functions of corporate tax.

Key words: profit taxation, corporate tax, tax preferences.

Profit tax plays a special role in the national economy. On the one hand, it is a significant source of budget revenues, and on the other hand – an important element in the structure of expenditures of organizations; that is why the effectiveness of

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the administration of this tax defines the effectiveness of fiscal measures of state influence on economic activity.

Profit tax forms 3% of the tax revenues of the federal budget, and this tax is crucial for the budgets of the RF subjects because it provides more than 30% of tax revenues (in 2005–2008 – more than 40%).

In the course of tax reforms implemented in Russia in 2000–2009 the structure of tax revenues of sub-federal budgets has undergone substantial transformation. Value added tax and mineral extraction tax were centralized and transferred to the federal budget. A number of regional and local taxes (sales tax, tax for the needs of educational institutions, tax on the maintenance of housing fund and others) were cancelled. As a result, territorial budgets lost 35% of revenue sources, and depended primarily on two payments linked to economic growth: corporate tax and individual income tax *(tab. 1)*.

In 2000–2013 the dynamics of inflow of profit tax and its role in the formation of tax revenues of regional budgets varied *(fig. 1)*, which was due to rate adjustments, alteration of rules for determining the tax base, and changes in macroeconomic conditions.

The first reduction in profit tax collection was observed in 2002 in connection with the reduction of the maximum tax rate from 35 to 24%. In subsequent years, the receipts of the tax grew rapidly until 2009, when the deterioration of the financial status of taxpayers, as well as the next decrease of rate from 24 to 20% caused the fall of payments by almost 700 billion rubles or by 40% in comparison with the 2008 level. The revenues from profit tax in the post-crisis period again showed positive dynamics; however, in 2013, this trend was reversed: regional budgets did not receive over 260 billion rubles, which was the main reason for the extremely low rate of increase in tax revenues and a sharp rise in the budget deficit *(tab. 2)*.

What are the reasons for such significant reduction of the participation of profit tax in the mobilization of revenue sources of the territories in 2013?

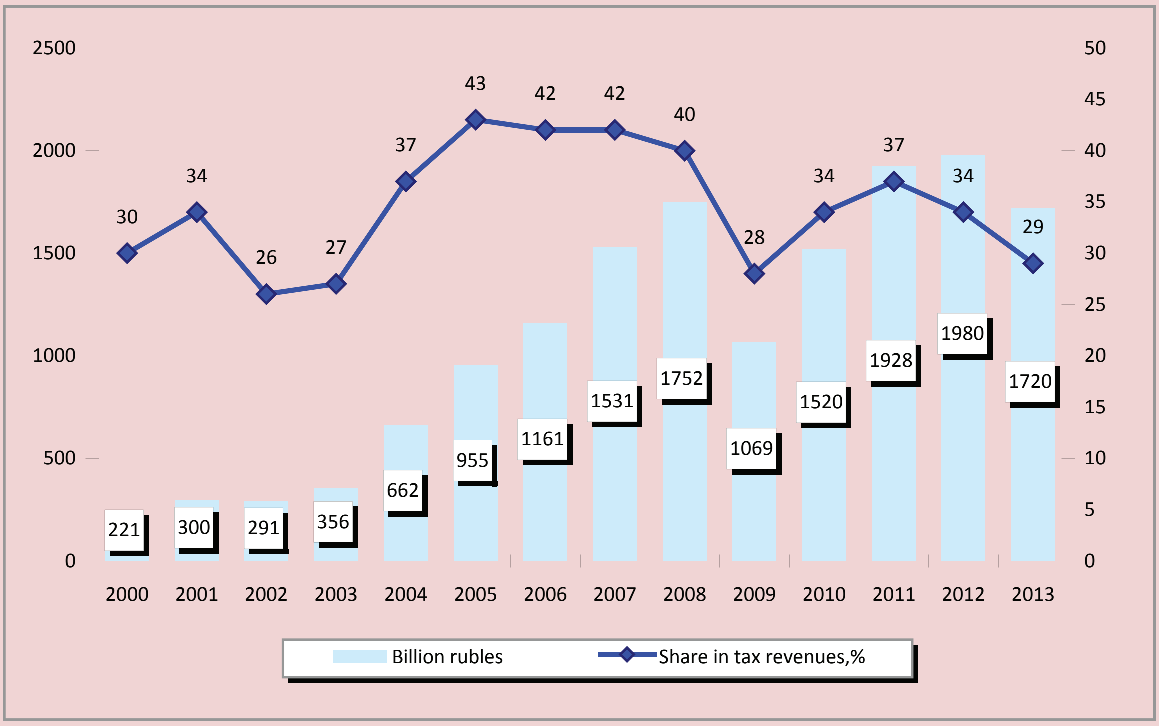
An important fiscal feature of this tax consists in the fact that the economic basis

Table 1. Structure of tax revenues of consolidated budgets of the RF subjects in 1999 and 2013

Tax revenues	1999		2013	
	Billion rubles	%	Billion rubles	%
Total	497.8	100.0	5966.4	100.0
Corporate tax	139.9	28.1	1719.7	28.8
Individual income tax	97.3	19.5	2499.1	41.9
Value added tax	67.1	13.5	0	0
Excises	24.9	5.0	491.7	8.2
Sales tax	19.3	3.9	0	0
Lump-sum taxes	5.7	1.1	292.8	4.9
Property taxes	52.5	10.5	900.7	15.1
Payments for the use of natural resources	34.7	7.0	43.2	0.7
Other taxes, duties and levies	56.4	11.3	19.2	0.4

Sources: Federal Treasury [3]; author's calculations.

Figure 1. Dynamics of receipts of profit tax into the budgets of the RF subjects in 2000–2013



Sources: Federal Treasury; author's calculations.

Table 2. Tax revenues and the deficit of consolidated budgets of the RF subjects

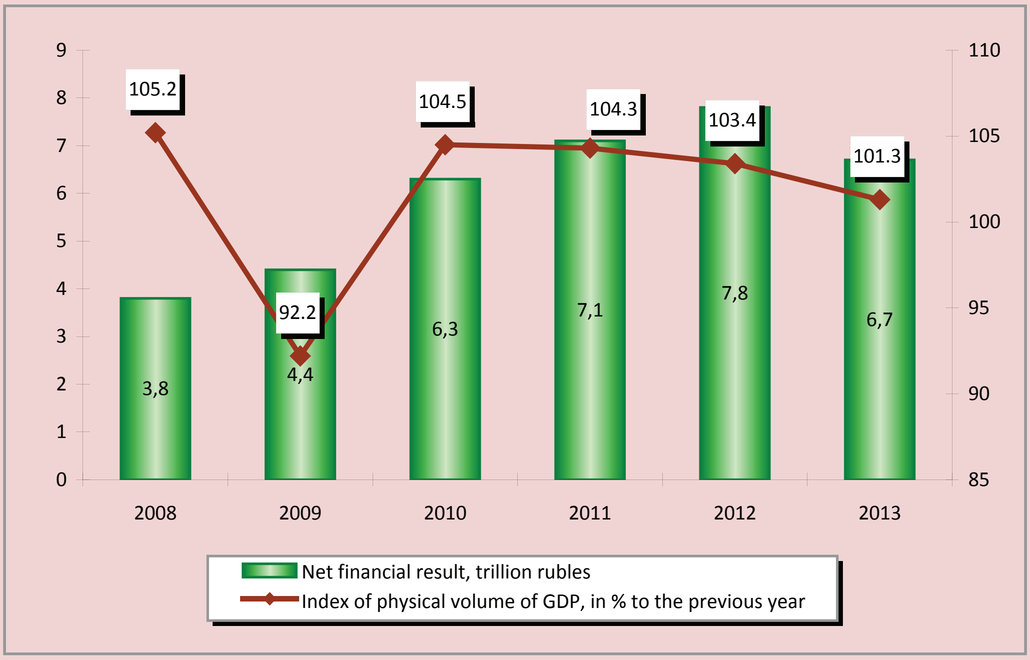
Indicators	2011		2012		2013	
	Billion rubles	In % to 2010	Billion rubles	In % to 2011	Billion rubles	In % to 2012
Tax revenues	5272.9	116.7	5800.2	110.0	5966.4	102.9
Profit tax	1927.9	126.9	1979.9	102.7	1719.7	86.9
Deficit	35.4	35.4	278.5	7.9 times.	642.0	2.3 times.

Source: Federal Treasury; author's calculations.

of its collection is the financial performance of organizations; that is why when macro-economic conditions deteriorate, the revenues from profit tax immediately react to the changing situation. In 2013, against the background of slowdown in economic growth, profit was also falling, which resulted in a significant narrowing of the tax base *(fig. 2)*.

The volatility of profit tax collection creates high risks of instability in budget systems of large industrial areas that are highly vulnerable in connection to this revenue source. For instance, in the crisis year of 2009, mining regions and regions with metallurgical specialization experienced a collapse of profit tax payments that was so profound that they could not recover even in 2013. As a result, the receipts of profit tax in the constituent entities of the Russian Federation in 2013 were lower than in 2008 *(tab. 3)*.

Figure 2. Dynamics of net financial result and the index of physical volume of GDP in 2008–2013



Source: Rosstat data [5].

Table 3. Receipts of profit tax to the budgets of the RF subjects

RF subject	2008		2009			2013		
	Billion rubles	Share, %*	Billion rubles	Share, %*	In % to 2008	Billion rubles	Share, %*	In % to 2008
Tyumen Oblast	68.4	46.8	47.1	45.2	68.9	66.0	62.0	96.5
Komi Republic	12.7	35.6	9.5	28.8	74.8	12.2	25.3	96.1
Perm Krai	36.0	42.9	17.2	27.4	47.8	33.1	33.1	91.9
Nizhny Novgorod Oblast	28.4	35.8	16.9	24.5	59.5	24.2	22.4	85.2
Krasnoyarsk Krai	52.6	49.2	23.3	24.9	44.3	42.6	30.7	81.0
Khanty-Mansi Autonomous Okrug	70.3	46.7	43.4	33.7	61.7	53.6	31.3	76.2
Belgorod Oblast	18.7	47.4	6.0	21.3	32.1	13.6	27.3	72.7
Chelyabinsk Oblast	30.4	38.1	4.9	9.7	16.1	17.5	17.2	57.6
Lipetsk Oblast	16.6	54.4	5.1	21.9	30.7	9.2	25.9	55.4
Kemerovo Oblast	34.7	42.1	9.4	16.8	27.1	15.1	18.4	43.5
Vologda Oblast	21.8	51.2	4.8	18.9	22.0	6.0	15.3	27.3
Russian Federation	1751.9	40.0	1069.0	28.2	61.0	1719.7	28.8	98.2

*The share of profit tax in total tax revenues of the budget of the RF subject.
Sources: Federal Treasury; author's calculations.

At the same time, the most important factor in the significant decrease of profit tax payments is connected with the existing mechanisms of legal regulation and administration. Let us consider it in detail. It should be noted that the Tax Code

Table 4. Profit tax, lost as a result of excluding certain types of revenues from the profit in 2008–2012, billion rubles

Indicators	2008	2009	2010	2011	2012	Total for 2008–2012	Average for 2008–2012
Amount of revenues excluded from the profit	1099.9	2151.9	1473.7	1686.0	2142.1	8553.5	1710.7
Profit tax lost, total	264.0	430.4	294.7	337.2	428.4	1755.0	351.0
- in the federal budget	71.5	43.0	26.5	33.7	42.8	217.5	43.5
- in the budgets of the RF subjects	192.5	387.4	265.2	303.5	385.6	1537.5	307.5
Sources: Federal Tax Service; author's calculations.							

does not provide for profit tax benefits[1]. The Ministry of Finance of the Russian Federation considers that the establishment of reduced tax rate cannot be equated with the provision of tax benefits because the tax rate, in contrast to the tax benefit, is a mandatory element of taxation. Thus, considering the benefits of profit tax for certain categories of payers, it is possible to speak only about the preferences that do not have the official status of tax benefits. Such gaps in the legislation does not allow the tax authorities, when they are carrying out control measures, to require that taxpayers produce the documents confirming the right to use preferences (this right applies only to the cases of the use of tax benefits), and to prevent unauthorized use of benefits for reducing their liabilities to the budget.

In general, the tax legislation provides for 128 preferences that reduce the inflow of profit tax into the budget [6], which undoubtedly hampers their administration. Let us consider the application of the most important of them.

Profits that are not taken into consideration when determining the tax base

The Tax Code establishes more than 60 preferences by the profit list, which are not taken into account in the formation of the taxation base. The most common non-taxable profits include: the sums of the advance payment for goods (works, services) when using the accrual method; the amount of the loan (borrowed) funds; the value of the property received as a contribution to the charter capital; the value of property received in the form of pledge or deposit; the funds of target financing, etc.

The average annual amount of non-taxable profits for 2008–2012 was 1.7 trillion rubles *(tab. 4)*.

The exclusion of certain types of revenues from the taxable profit led to an annual reduction in profit tax receipts in the amount of more than 350 billion rubles, including in the regional budgets – 307.5 billion rubles.

[1] When Chapter 25 "Tax on the profit of organizations" of the RF Tax Code entered into force as of January 01, 2002, a significant part of the profit tax benefits and deductions was cancelled. However, some benefits were preserves by defining the rules of deduction of expenses from the taxable base. The analysis of the tax legislation alterations has shown that tax incentives in the form of some preferences are being gradually restored.

Table 5. Dividends distributed to Russian organizations in 2009–2012, billion rubles

Indicators	2009	2010	2011	2012	Total for 2009–2012	Average for 2009–2012
Dividends, total	395.6	557.7	1124.9	1117.5	3195.7	798.9
Including dividends, the tax on which is calculated by the rate of 0%	260.9	394.6	915.6	923.9	2495.0	623.8
- share in the total sum of dividends, %	66.0	70.8	81.4	82.7	x	78.1
Revenues lost on profit tax because of application of zero rate*	23.5	35.5	82.4	83.2	224.6	56.2

* Calculated for the profit tax rate of 9%.

Sources: Federal Tax Service; author's calculations.

Table 6. Revenues of the largest corporations from participation in other organizations and lost profit tax in 2013, billion rubles

Indicators	Gazprom	Gazpromneft	Rosneft	Severstal	NLMK	Total
Profits	110.4	35.3	73.3	9.0	21.0	250.0
Lost profit tax*	22.1	7.1	14.7	1.8	4.2	50.0

* According to the corporations' statements, the revenues from participation in other organizations are excluded from the income taxable at the rate of 20%; in this regard, the lost profit tax was calculated at the same rate.

Sources: corporations' profit and loss statements; author's calculations.

Establishment of reduced rates and the zero rate of tax on the profit from paid dividends

The tax legislation provides for the following tax treatment of dividends from the point of view of the established rates:

- for Russian organizations – 0–9%;
- for foreign organizations – 15%, and on international agreements – 0–15%.

Tax systems in developed countries have a mechanism of exemption from taxation of the profit obtained in the form of dividends from subsidiaries. Therefore, the zero rate of profit tax charged on dividends from the strategic participation[2] of Russian organizations in other companies was introduced on January 1, 2008 in order to develop the competitiveness of Russia's tax system and to create additional incentives for attracting foreign investors. For 2009–2012 the share of the dividends distributed at the zero rate ranged from 66 to 83%, and the sum of revenues lost from the use of this rate amounted to 225 billion rubles, or 56 billion per year *(tab. 5)*.

For example, if we look at the public financial statements of the largest petroleum and metallurgical corporations, we can see that the taxable profit in 2013 alone was reduced by 250 billion rubles, due to the exclusion of profit from participation in other organizations[3], as a result, the budget did not receive 50 billion rubles of profit tax *(tab. 6)*.

[2] Participation is considered strategic, if it meets the following requirements established by the Tax Code of the Russian Federation: the shares are owned for a period over 365 calendar days, and the share in the charter capital exceeds 50%.

[3] According to the financial statements of the corporations, all of them are strategic investors – the ownership interest of the parent company in the charter capital of organizations, from which the dividends have been received, is more than 50% and, hence, profit from dividends is not subject to profit tax.

Table 7. Structure of foreign investments in the Russian Federation in 1995–2013

Indicators	1995		2005		2008		2013		2013 to 2008, %
	Billion U.S.dollars	%	Billion U.S.dollars	%	Billion U.S.dollars	%	Billion U.S.dollars	%	
Investments, total	3.0	100	53.7	100	103.8	100	170.2	100	164.0
Including direct investments	2.0	67.7	13.1	24.4	27.0	26.0	26.1	15.3	96.6
- contributions into fixed assets	**1.5**	**48.8**	**10.4**	**19.3**	**15.9**	**15.3**	**9.98**	**5.9**	**62.8**
- other investments	0.5	18.9	2.7	5.1	11.1	10.7	16.1	9.5	145.0
Portfolio investments (shares, securities)	0.04	1.3	0.5	0.8	1.4	1.4	1.1	0.6	77.2
Other investments (trade and other loans)	0.96	31.0	40.1	74.8	75.4	72.6	143.0	84.1	189.7

Sources: Rosstat; author's calculations.

Meanwhile, the introduction of the zero rate has not led to a significant growth of foreign investments in the country's economy, although formally, according to Rosstat, their dynamics showed a positive trend. However, the consideration of the structure of these investments changes the picture radically *(tab. 7)*.

As we can see, in 2013, from a total volume of 170 billion U.S. dollars, direct foreign investment was only 26 billion U.S. dollars, or 15.3%. But out of this amount, the investment in capital assets accounted for 10 billion U.S. dollars, the remaining 16 billion U.S. dollars, classified as direct investment, were the loans received from the foreign co-owners of the Russian companies.

It is necessary to point out a steady decline in the share of investments in fixed capital. If in 1995 it was 49% in the total volume of foreign investments, then in 2013 it was only 6%. The absolute volume of investments in 2008, i.e. after the introduction of the zero rate of taxation of dividends, has decreased by almost 40%.

The majority of foreign investments are presented by dynamically growing commercial and other loans, and the areas, in which these loans are used, are not connected with economic modernization. For example, according to Rosstat, in 2010 the financial sector received 33% out of the total amount of foreign investments, raw-materials industries received 12%, engineering and production of electronic equipment and vehicles received only 4%.

Thus, the introduction of the zero rate of taxation of dividends proved ineffective from the viewpoint of activization of foreign investors. Investments that flow into Russia, in fact, are not investments as such, because most of them are to be repaid, the fact that, among other things, testifies to the qualitative degradation of the structure of these investments.

The preference in the form of the zero rate on profit tax did not influence the reduction of dividends paid to foreign investors by the Russian organizations. On the contrary, in 2009–2012 these dividends increased 2.5-fold *(tab. 8)*.

Table 8. Dividends accrued to foreign organizations in 2009–2012, billion rubles

Indicators	2009	2010	2011	2012
Dividends accrued to foreign organizations	406.8	540.4	740.6	1035.1
Tax on the profit from the income obtained in the form of dividends from Russian organizations by foreign organizations	44.8	54.7	65.9	97.1
Tax on the profit from the income obtained in the form of dividends from foreign organizations by Russian organizations	2.7	2.5	1.8	1.2
Sources: Federal Tax Service; Federal Treasury				

Table 9. Structure of dividend payments to foreign organizations in 2009–2012

Indicators	2009		2010		2011		2012		Total for 2009–2012	
	Billion rubles	%	Billion rubles	%	Billion rubles	%	Billion rubles	%	Billion rubles	%
Dividends, total	333.2	100	506.9	100	637.7	100	878.1	100	2355.9	100
Including those by the rates										
0%	0.3	0.08	0.5	0.1	0.6	0.09	0.8	0.09	2.2	0.09
from 0 to 5%	256.9	77.1	410.9	81.1	518.3	81.3	676.2	77.0	1862.3	79.0
from 5 to 10%	34.1	10.2	36.1	7.1	35.9	5.6	49.5	5.6	155.6	6.6
over 10%	42.0	12.6	59.4	11.7	82.9	13.0	151.7	17.3	335.8	14.3
Sources: Federal Tax Service; author's calculations.										

And the profit tax on the dividends paid by the Russian companies to foreign tax residents in dozens of times exceeded the profit tax on dividends received by the Russian organizations from foreign ones; this indicates a steady outflow of capital from Russia.

Touching upon the problem of the export of capital, we cannot but point out that at the beginning of 2013 there were 78 double taxation treaties (DTT) concluded by Russia and oriented toward the provision of tax benefits to the companies registered in offshores, which encourages their use in order to minimize taxation. For instance, in 2009–2012, the lion's share of dividends paid to foreign beneficiaries was taxed at the rate of up to 5% *(tab. 9)*.

The use of low tax rates is favorable for domestic large corporations under foreign ownership with strategic share in the capital of Russian organizations. At that, as it was already mentioned, the dividends received by such corporations from subsidiaries are not subject to taxation, and the withdrawal of these dividends in offshores is taxed at the rate of 5%. At the same time, Russian companies with the share of capital of other organizations less than 50% pay dividends at the rate of 9%. These approaches, of course, lead to the deviation from neutrality and fairness – the basic principles of the tax system.

We estimate that if all the paid dividends were subject to profit tax at the standard rate of 20%, then total receipts of this payment to the federal budget[4] could increase by 80% and amount to 227 billion rubles per year *(tab. 10)*.

[4] Profit tax on paid dividends goes exclusively to the federal budget.

Table 10. Estimated profit tax lost as a result of granting preferences in taxation of dividends in 2009–2012

Indicators	2009	2010	2011	2012	Total for 2009–2012	Average for 2009–2012
Profit tax actually received by the federal budget	195.4	255.0	342.6	375.8	1168.8	292.2
Calculated profit tax lost as a result of granting preferences in the taxation of dividends	114.7	166.9	297.0	328.0	906.6	226.7
As a percentage of actually received tax	58.7	65.5	86.7	87.3	77.6	77.6
Sources: Federal Tax Service; Federal Treasury; author's calculations.						

Table 11. Profit tax lost in 2008–2012 due to the writing-off of losses, billion rubles

Indicators	2008	2009	2010	2011	2012	Total for 2008–2012	Average for 2008–2012
Losses that were written off	152.5	316.2	551.7	476.4	672.0	2168.8	433.8
Profit tax, total	36.5	64.2	110.3	95.3	134.4	440.7	88.1
Including							
- in the federal budget	9.9	6.4	11.0	9.5	13.4	50.2	10.0
- in the budgets of RF subjects	26.6	57.8	99.3	85.8	121.0	390.5	78.1
Sources: Federal Tax Service; author's calculations.							

It seems that the optimization of preferences in the taxation of huge dividends paid mainly to large corporations, the consideration of the issue concerning the possibility of increase of the rates for certain taxation schemes of dividend payments would, to some extent, make it possible to find additional sources for the increase of financial assistance from the federal budget to the regions[5] for the implementation of socio-economic development tasks set out by the President of the Russian Federation in the Decrees of May 7, 2012.

Accounting of losses of past years

In accordance with the Tax Code, taxpayers who have suffered losses in the previous taxation periods shall have the right to reduce the tax base of the reporting period by the whole amount of the loss or by part of this amount (to transfer the loss for the future).

The tax legislation stipulates that the tax base may be reduced by the amount of the resulting loss during the period of 10 years[6]. This to some extent creates prerequisites for the deliberate formation of losses and reduction of taxation. For instance, in 2008–2012 due to the reduction of the tax base by the amount of the loss or part of the loss, the losses of payments by profit tax amounted to 440.7 billion rubles, out of which in the federal budget – 50.2 billion rubles in regional budgets – 390.5 billion rubles *(tab. 11)*.

[5] When the total demand of the RF subjects in the financial resources for increasing the wages of public sector employees in 2014–2016 is 1.5 trillion rubles, the federal budget provides for thee subsidies to regional budgets in the amount of only 0.4 trillion rubles.

[6] In the Russian Federation up to 2007 there was a limitation on the deductibility of losses of past years the limit of 30% of the tax base defined before deduction of losses. In some countries (France, Germany, UK) the transfer of losses is allowed for an unlimited period. In Canada the transfer of losses is allowed for the period of 7 years, in Italy – 5 years. Tax legislation in Belarus does not provide for the transfer of losses [7].

In fact, this preference has no incentive function, but is only a mechanism of the tax compensation of losses. Significant shortfalls in revenue due to the write-off of losses prove that there is a necessity to review approaches to the application of this tax benefit.

Establishment of reduced rates of profit tax according to the legislation of the Russian Federation subjects

A significant amount of profit tax losses is associated with the fact that the representative authorities of the RF subjects established reduced rates for certain categories of taxpayers. The volume of these preferences grew from 41.5 billion rubles in 2008 up to 63.1 billion rubles in 2013.

For example, in 2012, only 17 regions did not enjoy the right to reduce rates. The most notable shortfall of payments took place in the RF subjects whose budgets are most dependent on profit tax *(tab. 12)*.

Unfortunately, statistical tax reporting does not contain information about specific economic entities that received privileges in the form of lower tax rates. However, as it is seen in the conditions of destabilization of territorial budget systems, regional authorities, when granting profit tax benefits, should take into account how they will subsequently affect the security of their own revenue sources.

Bonus depreciation

Bonus depreciation was introduced in 2006 with the aim of attracting investments in fixed capital. Its essence consists in the fact that a taxpayer is entitled to take into account from 10 to 30% of expenditures on capital investments as expenses that reduce the tax base of profit tax.

Table 13 shows that in 2008–2012 these costs, and accordingly, budget losses increased annually.

In general, profit tax receipts decreased by 110 billion rubles per year due to the provision of bonus depreciation taken into account when calculating profit tax. At that, according to Rosstat, the coefficient of fixed assets renewal increased only slightly – from 4.4 to 4.8%, and the growth rate of investment in fixed capital reduced from 110 to 107%. Thus, from the perspective of the increase in investment

Table 12. Profit tax preferences granted in accordance with the regional legislation in the RF subjects in 2010–2012

Subject	2010		2011		2012	
	Billion rubles	%*	Billion rubles	%*	Billion rubles	%*
Khanty-Mansi Autonomous Okrug	12.9	24.5	22.1	28.9	16.2	21.7
Perm Krai	6.3	25.0	9.4	27.6	5.3	14.8
Orenburg Oblast	2.0	11.7	3.1	13.6	3.4	13.8
Kaluga Oblast	0.4	6.1	0.8	11.1	1.2	10.2
Leningrad Oblast	0.5	2.6	0.9	4.4	1.3	5.0
Tyumen Oblast	5.4	7.6	6.3	5.8	4.2	3.9
Russian Federation	50.7	3.3	63.7	3.3	63.1	3.2

* As a percentage of the total amount of profit tax received by the budget.

Sources: Federal Tax Service; Federal Treasury; author's calculations.

Table 13. Influence of bonus depreciation on the profit tax receipts in 2008–2012, billion rubles

Indicators	2008	2009	2010	2011	2012	Total for 2008–2012	Average for 2008–2012
Capital investment expenditures	170.2	456.8	559.5	691.7	845.3	2723.5	544.7
Profit tax lost, total	40.8	91.4	111.9	138.3	169.1	551.5	110.3
Including							
- in the federal budget	11.0	9.2	11.2	13.8	16.9	62.1	12.4
- in the budgets of RF subjects	29.8	82.2	100.7	124.5	152.2	489.4	97.9
Sources: Federal Tax Service; author's calculations.							

Table 14. Profit tax that has not been received by the budget system of the Russian Federation as a result of granting tax preferences in 2008–2012

Tax preference	Profit tax lost, billion rubles		
	RF consolidated budget	Federal budget	Budgets of RF subjects
Income deductible from profit	351.0	43.5	307.5
Dividends taxable by the zero rate or reduced rates	226.6	226.7	0
Writing off of losses of previous years	88.1	10.0	78.1
Establishment of reduced rates by the authorities of RF subjects	51.5	0	51.5
Bonus depreciation	110.3	12.4	97.9
Total	827.5	292.6	534.9
As a percentage of the volume of received profit tax	43.4	75.8	32.4

activity, the effect of depreciation remains insignificant.

The results of this analysis allow us to conclude that the use of multiple preferences on profit tax did not help to achieve the goals set out in their introduction; it only led to the increased costs for the economy, primarily in the form of net losses of budget revenues.

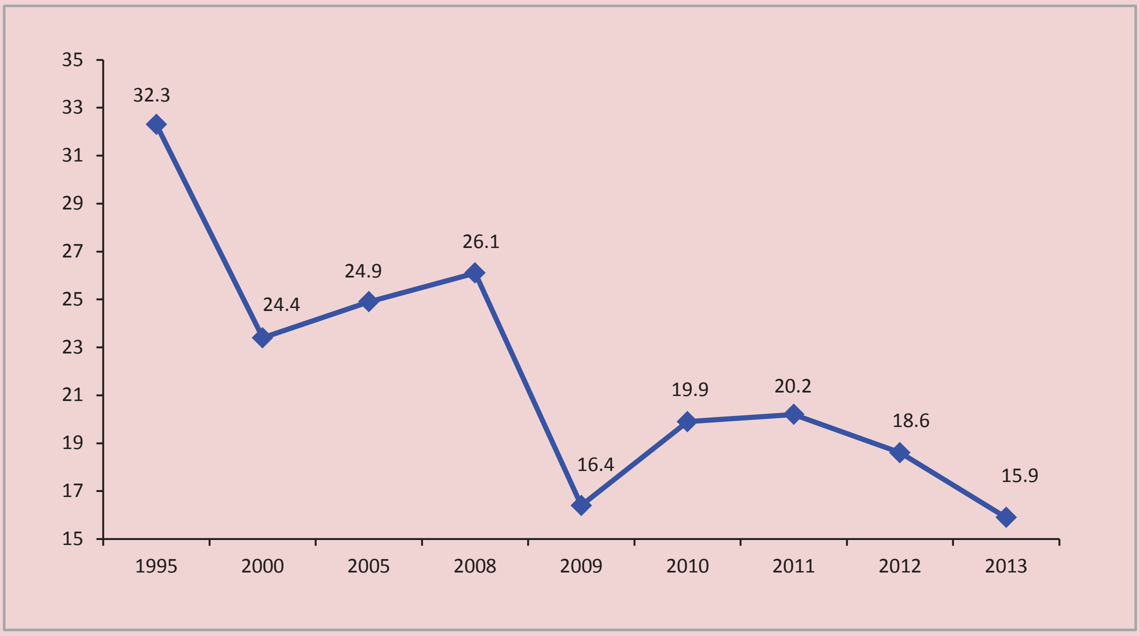
In general, only in the framework of the preferences under consideration, the annual revenue losses with regard to profit tax are estimated at 827.5 billion rubles, including federal budget's losses – 75.8 billion rubles, regional budgets' losses – 535 billion rubles *(tab. 14)*.

Assessing the consequences of the reform of profit tax, we can conclude that the changes that were undertaken have not produced the desired fiscal effect. For 1995–2013, the share of profit tax in Russia's consolidated budget has decreased twice – from 32 to 16% *(fig. 3)*.

The introduction of a number of profit tax preferences for stimulating economic development, which in the future would influence the growth of tax revenues, has also failed. According to Rosstat, the basic indicators of efficiency of the Russian economy in 2008–2012 were declining *(tab. 15)*.

With the adoption of the Tax Code in 2002, the abolition of a number of benefits for profit tax was partly compensated by the reduction of the tax rate from 35 to 24%, and in 2009 – from 24 to 20%. In addition, as we have seen, some of the benefits after the reform were retained in the form of preferences, but this did not prevent certain categories of taxpayers

Figure 3. Share of profit tax in tax revenues of Russia's consolidated budget in 1995–2013, %



Sources: Federal Treasury; Rosstat; author's calculations.

Table 15. Indicators of efficiency of the Russian economy in 2008–2012

Indicators	2008	2009	2010	2011	2012
Index of the physical volume of GDP, %	105.2	92.2	104.5	104.3	103.4
Share of added value of high-tech and science-intensive industries in GDP, %	22.8	24.4	22.8	21.9	22.3
The share of investments in fixed capital in GDP, %	21.4	20.9	20.6	20.3	20.8
Index of the yield on capital investment, %	102.0	89.1	101.3	100.8	99.8
Coefficient of renewal of fixed assets of manufacturing industries	6.9	6.2	5.9	6.4	6.5

from lobbying for obtaining additional tax benefits. It is about the owners of major transnational holdings, due to the efforts of which the zero rate of taxation of dividends was introduced in 2008, and in 2012 consolidated groups of taxpayers (CGT) were created that became a real disaster for most of the regional budget systems.

The first two years, in which the consolidated taxation scheme was in effect, showed its low efficiency. According to the Accounts Chamber of the Russian Federation, one-third of the total reduction of profit tax receipts in 2013 fell on the CGT, and sub-federal budgets did not receive 63.8 billion rubles from consolidated groups in general [8].

The legitimate summation of profits and losses of the participants became the main factor in the reduction of payments in the framework of CGT; it allows for deliberate inclusion of unprofitable enterprises into the group and thus greatly reduces taxes of profitable enterprises.

In addition, the introduction of consolidated taxation scheme was not accompanied by the creation of administrative mechanisms that would ensure proper control of tax authorities over the activities of CGT. Due to the fact that the administration of consolidated taxpayers is effected by interregional inspections, based in Moscow, tax departments of the Federal Tax Service in the field do not have direct access to tax reporting and do not have reliable information on the activities of the participants of CGT within their territories.

Another group of issues in the field of profit tax administration is connected with the methodology of determining the taxable profit. The point is that there are different approaches to the definition of "profit" as an economic category and "profit" for taxation purposes; that is why the profit as the object of tax administration differs from the profit as a result of industrial activity. If the latter is formed mainly under the influence of market factors, then the procedure for determining the taxable profit has its own specifics that take into account special approaches to recognition and measurement of income and expenses. As a result, organizations are required to maintain, together with the bookkeeping, a special tax accounting, which is not quite justified, since, in our opinion, it is the accounting that should be the basis for the calculation of taxes. Its advantages are: accuracy, reliability, it contains all the financial and economic operations, which cannot be said about the tax accounting, the very concept of which is based on the necessity to consider taxpayers' costs to the full extent. In addition, double accounting will inevitably lead to the increase of administration costs and generate tax disputes, the resolution of which also requires certain financial expenses.

Research findings by ISEDT RAS associates have shown that the calculation of profit tax in accordance with the methodology of tax accounting reduces the amount of payments, calculated in business accounting [1]. For example, judging by the statements of the largest taxpayers for 2013, the provisional profit tax, calculated according to business accounting standards (that is, at the rate of 20% of profit before tax), was significantly higher than the current profit tax payable calculated according to the rules of tax accounting *(tab. 16)*.

Thus, the lack of conformity between the profit as the object of tax administration with the economic content of the profit as

Table 16. Provisional and current profit tax calculated in the statements of large corporations for 2013, billion rubles

Corporation	Profit before tax	Provisional profit tax	Current profit tax	Margin
Severstal	9.2	1.8	0.0005	1.8
Gazprom	854.8	171.0	118.9	52.1
Surgutneftegas	313.1	62.6	38.1	24.5
Rosneft	154.8	31.0	18.3	12.7
Gazpromneft	82.1	16.4	15.6	0.8

Sources: financial statements of the corporations; author's calculaitons.

an objective category indicates the imperfection of the tax legislation, complicates the mechanism of formation of the tax base, which often entails profit tax refunds from the budget that distort its fiscal function, and ultimately reduces the effectiveness of state influence on socio-economic processes.

Judging by the results of the analysis and summarizing the opinion of some experts, we shall formulate several proposals for the adjustment of the current mechanism of corporate tax administration.

First, it is necessary to review the approaches to the establishment of preferences with regard to profit taxation and choice of the contingent of its payers, for which these preferences would be actually in demand. The provision of tax benefits should be very balanced and should take into account the excess of the potential benefits over costs.

Second, the most important task is to achieve the optimal consistency between taxable profit and its economic content, which, in our opinion, should be a priority in the process of tax administration.

Third, in order to create a system for monitoring and evaluating the effectiveness of tax preferences, we consider it advisable to supplement tax declarations with comprehensive information about the use of preferences with its subsequent inclusion in the statistical reporting of the Federal Tax Service.

Fourth, it is necessary to reconsider the approaches to application of tax benefits such as the write-off of losses: in particular, to prohibit organizations from transferring the losses, repeatedly received at the end of the tax period, to subsequent periods.

Fifth, it would be reasonable to adjust the rules for the taxation of dividends received by strategic investors, since such rules do not meet the principle of fairness of the tax system. In addition, it would be important to revise most of the double taxation treaties concluded by Russia, and to transfer the center of gravity of investors' tax incentives under the Russian jurisdiction [9].

Sixth, it is necessary to implement urgent measures on further developing of the law on CGT, primarily related to the rules of adjustment of the tax base [10] and establishment of responsibilities for each group member to disclose all the information about its financial performance to the tax authorities.

Seventh, a notable fiscal effect can be obtained by promoting the work with organizations that have profit tax arrears, which, as of May 1, 2014, is 255 billion rubles, including to the regional budgets – 205 billion rubles.

Certainly, the legislative adjustment of the existing profit tax regulating system will be an important reserve for the enhancement of its fiscal function.

Sited works

1. Ilyin V.A., Povarova A.I. *Public Administration Efficiency*. Vologda: ISERT RAN, 2014. 185 p.
2. Tax Code of the Russian Federation. *Spravochno-poiskovaya sistema "Konsul'tantPlyus"*.
3. *Official Website of the Federal Treasury of Russia*. Available at: http://www.roskazna.ru/
4. *Official Website of the Federal Tax Service of Russia*. Available at: http://www.nalog.ru/
5. *Official Website of the Federal State Statistics Service*. Available at: http://www.gks.ru/
6. Inspection of the Efficiency of Provision and Application of Tax Privileges and Preferences in the Administration of Corporate Tax: the Report on the Results of Control Measures. *Official Website of the Accounts Chamber of the Russian Federation*. Available at: http://audit.gov.ru/activities/control/
7. Sinel'nikov-Murylev S., Shkrebela E. *Improvement of Profit Tax in the Russian Federation in the Medium Term*. Moscow: Izd-vo Instituta Gaidara, 2011. 264 p.
8. According to Golikova, the Formation of Consolidated Groups of Taxpayers Resulted in Reduction of Profit Tax Payments. *News*, 2014, May 15. Available at: http://www.vedomosti.ru/finance/news/26534761/
9. Kheifets B.A. *De-Offshorization of the Russian Economy: Opportunities and Limits*. Moscow: Institut ekonomiki, 2013. 63 p.
10. Yurzinova I.L. Consolidated Group of Taxpayers: an Analysis of Possible Advantages and Disadvantages. *Official Website of the Journal "Modern Science: Actual Problems of Theory and Practice*". Available at: http://www.vipstd.ru/nauteh/index.php/ ep13-05/index.php

References

1. Ilyin V.A., Povarova A.I. *Problemy effektivnosti gosudarstvennogo upravleniya* [Public Administration Efficiency]. Vologda: ISERT RAN, 2014. 185 p.
2. Nalogovyi kodeks Rossiiskoi Federatsii [Tax Code of the Russian Federation]. *Spravochno-poiskovaya sistema "Konsul'tantPlyus"* [Reference-and-Search System "Consultant Plus"].
3. *Ofitsial'nyi sait Federal'nogo kaznacheistva Rossii* [Official Website of the Federal Treasury of Russia]. Available at: http://www.roskazna.ru/
4. *Ofitsial'nyi sait Federal'noi nalogovoi sluzhby Rossii* [Official Website of the Federal Tax Service of Russia]. Available at: http://www.nalog.ru/
5. *Ofitsial'nyi sait Federal'noi sluzhby gosudarstvennoi statistiki* [Official Website of the Federal State Statistics Service]. Available at: http://www.gks.ru/
6. Proverka effektivnosti predostavleniya i primeneniya nalogovykh l'got i preferentsii v chasti administrirovaniya naloga na pribyl' organizatsii: Otchet o rezul'tatakh kontrol'nogo meropriyatiya [Inspection of the Efficiency of Provision and Application of Tax Privileges and Preferences in the Administration of Corporate Tax: the Report on the Results of Control Measures]. *Ofitsial'nyi sait Schetnoi palaty RF* [Official Website of the Accounts Chamber of the Russian Federation]. Available at: http://audit.gov.ru/activities/control/

7. Sinel'nikov-Murylev S., Shkrebela E. *Sovershenstvovanie naloga na pribyl' v Rossiiskoi Federatsii v srednesrochnoi perspective* [Improvement of Profit Tax in the Russian Federation in the Medium Term]. Moscow: Izd-vo Instituta Gaidara, 2011. 264 p.
8. Titov S. Golikova: formirovanie konsolidirovannykh grupp nalogoplatel'shchikov privelo k snizheniyu uplaty naloga na pribyl' [According to Golikova, the Formation of Consolidated Groups of Taxpayers Resulted in Reduction of Profit Tax Payments]. *Vedomosti [*News], 2014, May 15. Available at: http://www.vedomosti.ru/finance/news/26534761/
9. Kheifets B.A. *Deofshorizatsiya rossiiskoi ekonomiki: vozmozhnosti i predely* [De-Offshorization of the Russian Economy: Opportunities and Limits]. Moscow: Institut ekonomiki, 2013. 63 p.
10. Yurzinova I.L. Konsolidirovannaya gruppa nalogoplatel'shchikov: analiz vozmozhnykh dostoinstv i nedostatkov [Consolidated Group of Taxpayers: an Analysis of Possible Advantages and Disadvantages]. *Ofitsial'nyi sait zhurnala "Sovremennaya nauka: aktual'nye problemy teorii i praktiki"* [Official Website of the Journal "Modern Science: Actual Problems of Theory and Practice"]. Available at: http://www.vipstd.ru/nauteh/index.php/---ep13-05/index.php

MODELLING AND FORECAST

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Building of the rating assessments of the Russian Federation subjects by the blocks of socio-economic indicators

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Abstract. The article implements the econometric approach to the building of rating assessments of the constituent entities of the Russian Federation. The author defines three blocks of indicators for the construction of integral indices: "quality of the population", "welfare of the population" and "quality of the social sphere". They serve as the basis for determining the value of a single combined integral indicator. The author also gives recommendations on the improvement of the medical and demographic situation and enhancement of the "quality of the population" at the regional level.

Key words: rating, econometric approach, quality of the population, medical and demographic situation.

The quality of the population is a certainty inseparable from the life of the population and arising from the very fact of its existence, an integral part of more private properties possessed by the population and appeared in the interaction with different phenomena in the world [1]. The idea about the population quality is based on the following data: demographic and health indicators (fertility, mortality, morbidity, life expectancy); level of education (share of population with secondary and higher education, average duration of the study); skill level. This research focuses on demographic and health indicators, as they are key indicators of the population quality reflecting physical, mental and social health of the nation.

The population quality has a direct impact on future generations, that is why the complex of economic, social, health and ecological measures aimed at preventing adverse trends is required even today. Success can not be achieved only due to the efforts being taken in a health sector. As the largest country, Russia has recently been giving ground in the number and quality of the population. The number of RF resident population on January 1, 2012 was 143.1 million, of which 105.7 million people (73.9%) are citizens and 37.4 million (26%) – rural inhabitants. For the 1990– 2011 period the population has declined by 5.3 million people.

Despite significant increases in life expectancy (LE) of the population in 2005–2011 (from 65.3 to 69.83 years), the Russian Federation is in line with Azerbaijan (68 years), Bolivia (66), Guatemala (69), leaving behind only the countries of Africa and several countries in Asia. The LE average in Russia is 11 years lower than in developed European countries, including men – 15 years, and women – 8 years. There are significant regional differences. So, LE in federal districts differs almost by 5 years. The highest indices of life expectancy persist in the republics of the North Caucasus and Moscow. In these regions LE at birth exceeded 71 years for men and 79 – for women in 2011. The lowest life expectancy of both men and women is in the Tuva Republic and Chukotka Autonomous Okrug (men – 56 years, women – 66 years).

According to the Rosstat data [10], the 2006–2012 period witnessed a slight decrease in the population mortality, including that from accidents, poisoning, injuries. Taking it into account we can see that the Russians three times more often die from external causes than the population in EU countries. Of all the decedent almost 30% are persons of working age (over 560 thousand people per year), 80% of them are men.

The Russian population is not only declining, but it is becoming less and less healthy. Demographic data indicate a population crisis and a worsening crisis in public health. According to N.M. Rimashevskaya, serious problems are related not only to the quantity but also the quality of the population, to the gene pool state as a basis for development of society and the state. One can just consider physical, mental and social health of people, change in their moral standards [9].

Therefore, the territories rating by the indicators "Quality of the population", "Welfare" and "Quality of the social sphere" is a major challenge for the scientific community as it promotes socio-economic and political decisions to stabilize and improve the situation at the regional level. The problem is difficult due to its interdisciplinary character; its solution requires the use of special methods of mathematical statistics and simulation.

The rating is a set of objects or phenomena, put in order by an index or ordinal indicator that shows the importance, significance, prevalence, popularity and other similar qualities of that object or phenomenon, as well as the method of this ordering. The examples can be the following: credit rating, banks rating, investment rating of regions, etc. [4, 6, 7, 8].

For example, the rating Agency "RIA Rating" has proposed a rating method, based on a comprehensive analysis of the socio-economic situation in RF subjects. Analyzed indicators are conditionally divided into four groups-subsets: a scale of economy, efficiency of economy, a public sector and a social sphere.

It ranks RF subjects in descending order by the value of integral rating points. The integral rating point for each region is calculated in three stages. The first stage identifies a rating point of separate indicators, the second stage – a rating point of the indicators group and the third – an integral rating point of the RF subject. The rating point of the RF subject for each indicator is calculated in the interval from 100 to 1 by processing multiple values of this indicator for all RF subjects so that the region with the best indicator value scores 100 points, and the worst – 1. However, the rating point calculation involves not only the rank of each RF subject by this indicator, but also the extent of the gap with the best result. The rating point of the indicators group is considered as the average of rating points of all members of the indicators group. The integral rating of the RF subject is calculated as a geometric mean of rating points of the indicators groups [6, 7].

Nowadays ratings are very popular, but very little attention is paid to building the rating based on demographic and health indicators and its relation to the socio-economic indicators [4, 6, 7, 8]. This research uses the method of S.A. Aivazyan, a detailed description of the algorithm and interpretation of results is presented in the work [1]. The Rosstat data for 2012 serve as an information base. The article discloses main stages of the calculation and obtained results.

Stage 1. The preliminary analysis singles out indicators to calculate indices "Quality of the population", "Welfare" and "Quality of the social sphere". They are presented in *table 1* (a post test set of separate indicators) [3, 5].

Stage 2. The second research stage typifies measurement scales of all analyzed variables in the following way:

1. If the initial indicator (separate indicator) x is associated with the analyzed integral property "Quality of the popu-

Table 1. System of indicators to calculate integral rating estimates

Block	Indicators
Block 1 “Quality of the population”	Life expectancy at birth (both sexes)
	Number of deaths before the age of 1 per 1 thousand born alive (infant mortality)
	Mortality from infectious and parasitic diseases (number of deaths per 100 thousand people)
	Mortality from neoplasms (number of deaths per 100 thousand people)
	Mortality from diseases of the cardiovascular system (number of deaths per 100 thousand people)
	Mortality from respiratory diseases (number of deaths per 100 thousand people)
	Mortality from diseases of the digestive system (number of deaths per 100 thousand people)
	Mortality from accidents, traumas and poisonings (number of deaths per 100 thousand people)
	Number of the disabled (per 1 thousand people)
	Contingent of patients with mental disorders and behavioral disorders (per 100 thousand people)
	Contingent of patients with alcoholism and alcohol psychosis (per 100 thousand people)
	Contingent of drug addicts (per 100 thousand people)
	Contingent of inhalants addicts (per 100 thousand people)
	Contingent of patients with syphilis (per 100 thousand people)
	Education level of the population (per 1 thousand population aged 15 and over, who have reported that they have higher education, according to the 2010 All-Russia population census)
	Number of educational institutions of higher professional education
	Number of specialists with higher professional education
	Number of students of educational institutions of higher professional education per 10 thousand people
Block 2 “Welfare”	GRP per capita (rubles)
	Per capita income (rubles)
	Level of the cost of living (rubles)
	Ratio of per capita income and cost of living
	Share of population with income below cost of living
	Share of the total area of housing per 1 resident (square meters)
	New housing supply per capita (square meters)
	Number of cars in private use (per 1 thousand people)
	Share of dilapidated housing (%)
Block 3 “Quality of the social sphere”	Arrears of wages (million rubles)
	Number of registered crimes (per 100 thousand people)
	Ratio of marriages and divorces (per 1 thousand marriages)
	Level of economic activity of the population (%)
	Number of doctors per 10 thousand people
	Number of nurses per 10 thousand people
	Number of hospital beds per 10 thousand people
	Termination of pregnancy (abortion) per 1 thousand women
	Number of theater spectators on 1 thousand people
	Number of museum visitors per 1 thousand people

lation”, “Welfare” and “Quality of the social sphere” and with the monotonically increasing dependence (i.e. the higher the x is, the higher the quality is), the value of the corresponding uniform variable $\tilde{x}$ is calculated by the formula:

$$\tilde{x} = \frac{x - x_{\min}}{x_{\max} - x_{\min}} \cdot N, \qquad (1)$$

where $x_{\min}, x_{\max}$ are the lowest (the worst) and the highest (the best) values of the initial indicator.

2. If the initial indicator (separate indicator) x is associated with the analyzed integral property "Quality of the population", "Welfare" and "Quality of the social niches" and with the monotonically decreasing dependence (i.e. the higher the x is, the higher the quality is), the value corresponding to the uniform variable $x_{\min}, x_{\mathrm{r}}$ is calculated by the formula:

$$\tilde{x} = \frac{x_{\max} - x}{x_{\max} - x_{\min}} \cdot N, \qquad (2)$$

where $x_{\min}, x_{\max}$ are the lowest (the worst) and the highest (the best) values of the initial indicator, $N=10$.

Stage 3. The method to calculate integral indicators by blocks includes several computational procedures. At first the method of principal components is implemented by the values of the post test set of separate indicators. The results are presented in *Table 2*.

The 50–55% threshold is chosen and the appropriate number of principal components for each block of variables is singled out for the indicator "accumulated percent of the explained variation". The calculations are conducted in the module "Factor analysis" of the statistical program Statistica 6.0.

The formation of block individual indicators and their weight coefficient for synthetic categories is presented in *tables 3, 4, 5*.

Depending on the number of principal components, the block contains either three or two sub-blocks of individual indicators. The criteria partition in sub-blocks is carried out on the basis of values of eigenvectors. The criteria number in the j sub-block is p_j. So, for the first sub-block of the block "Quality of the population", for the second – $p_2 = 4$, and third – $p_3 = 5$.

The weight $w_s(j)$ coefficients for the s individual indicator of the j sub-block are defined by the components $c_{1s}(j)$ of the first eigenvectors $C_1(j) = (c_{11}(j), c_{12}(j), ..., c_{1p_j}(j))$ of the covariance matrix of the set of individual indicators $(\tilde{x}^{(1)}(j), \tilde{x}^{(2)}(j), ..., \tilde{x}^{(p_j)}(j))$ by the formula:

$$w_s(j) = \begin{cases} c_{1s}(j) / \sum\limits_{v=1}^{p_j} c_{1v}(j), \quad \textit{if all... } c_{1v}(j), \\ \qquad v = \overline{1, p_j}, \textit{ of one sign;} \\ c_{1s}^2(j) \quad \textit{otherwise.} \end{cases} \qquad (3)$$

Table 2. Method of principal components for blocks "Quality of the population", "Welfare" and "Quality of the social niches"

Number of main component (j)	Eigenvalues ($\lambda_j^{(1)}$, $\lambda_j^{(2)}$, $\lambda_j^{(3)}$)	Percent of the variance explained by the main component	Accumulated percent of the explained variation
Block 1 "Quality of the population"			
1	4.84	26.91	26.91
2	3.12	17.33	44.24
3	2.34	13.00	57.24
Block 2 "Welfare"			
1	3.546	39.403	39.40
2	1.788	19.865	59.26
Block 3 "Quality of the social sphere"			
1	3.164	31.635	31.63
2	1.831	18.315	49.95

Table 3. Block individual indicators and their weight coefficients for the block "Quality of the population"

Sub-block 1		Sub-block 2		Sub-block 3	
Variables	Weighs	Variables	Weighs	Variables	Weighs
Life expectancy at birth (both sexes)	0.143	Number of deaths under 1 year per 1 thousand born alive	0.394	Mortality from infectious and parasitic diseases (number of deaths per 100 thousand people)	0.379
Mortality from respiratory diseases (number of deaths per 100 thousand people)	0.100	Mortality from neoplasms (number of deaths per 100 thousand people)	0.344	Mortality from diseases of the cardiovascular system (number of deaths per 100 thousand people)	0.036
Mortality from diseases of the digestive system (number of deaths per 100 thousand people)	0.105	Contingent of inhalants addicts (per 100 thousand people)	0.054	Number of the disabled (per 1000)	0.132
Mortality from external causes (number of deaths per 100 thousand people)	0.136	Number of students of educational institutions of higher professional education (per 10 thousand people)	0.209	Contingents of drug addicts (per 100 thousand people)	0.296
Contingents of patients with mental disorders and behavioral disorders (per 100 thousand people)	0.065			Contingents of patients with syphilis (per 100 thousand people)	0.156
Contingents of patients with alcoholism and alcohol psychosis (per 100 thousand people)	0.107				
Education level of the population (per 1 thousand population aged 15 and over who have reported that they have higher education, according to the 2010 All-Russia population census)	0.107				
Number of educational institutions of higher professional education	0.118				
Number of specialists with higher professional education	0.118				

Table 4. Block individual indicators and their weight coefficients for the block "Welfare"

Sub-block 1		Sub-block 2	
Variables	Weighs	Variables	Weighs
GRP per capita, rubles	0.180	Cost of living (rubles)	0.068
Per capita income (rubles)	0.179	Share of the total area of housing per 1 resident (square meters)	0.389
Ratio of per capita income and the cost of living	0.214	Share of dilapidated housing (%)	0.542
Share of population with income below the cost of living (%)	0.158		
New housing supply per capita (square meters)	0.161		
Number of cars in private use (per 1 thousand people)	0.109		

Table 5. Block individual indicators and their weight coefficients for the block “Quality of the social sphere”

Sub-block 1		Sub-block 2	
Variables	Weighs	Variables	Weighs
Number of registered crimes per 100 thousand people	0.129	Arrears of wages (million rubles)	0.047
Ratio of marriages and divorces (per 1 thousand marriages)	0.140	Number of theater spectators per 1 thousand people	0.496
Level of economic activity of population (%)	0.046	Number of museum visitors per 1 thousand people	0.456
Number of doctors per 10 thousand people	0.078		
Number of nurses per 10 thousand people	0.190		
Number of hospital beds per 10 thousand people	0.222		
Termination of pregnancy (abortion) (per 1 thousand women)	0.195		

The value of the sub-block index $y_i(j)$ for *i* territory of each synthetic categories “Quality of the population”, “Welfare” and “Quality of the social sphere” is calculated by the formula:

$$y_i(j) = \sum_{s=1}^{p_j} w_s(j) \cdot \tilde{x}_i^{(s)}(j), \qquad (4)$$

where $\tilde{x}_i^{(s)}(j)$ is an uniform value of the *s* individual indicator of the *j* block for the *i* territory, and $w_s(j)$ – weight coefficients defined by the formula (3).

So, for example, for the block “Quality of the population” $j = 1$ the value = 9, $j = 2$, the value = 4 and $j = 3$, the value $p_i = 5$. Consequently, we get three sub-blocks of indices for all RF subjects – $y_i(1)$, $y_i(2)$, $y_i(3)$. The similar calculations are applied to blocks “Welfare” and “Quality of the social sphere”.

Stage 4. The integral indicator for each analyzed synthetic categories is calculated. At this stage, we move from *k(l)*=3 (or 2) of the sub-block indices of the given (*l*) synthetic category to a single composite integral indicator, a scalar measure of the synthetic category $\hat{y}^{(l)}$ (*l=1, 2, 3*):

$$\hat{y}_i^{(l)} = N - \left[\sum_{j=1}^{k(l)} q_l(j)(y_i^{(l)}(j) - N)^2\right]^{1/2}, \qquad (5)$$

where $$q_l(j) = \frac{\tilde{\lambda}_j^{(l)} \cdot s_l^2(j)}{\sum_{v=1}^{k(l)} \tilde{\lambda}_v^{(l)} \cdot s_l^2(v)},$$

$$s_{(l)}^2(j) = \frac{1}{n}\sum_{i=1}^{n}(y_i^{(l)}(j) - \overline{y}^{(l)}(j))^2,$$

$$\overline{y}^{(l)}(j) = \frac{1}{n}\sum_{i=1}^{n} y_i^{(l)}(j),$$

$$\tilde{\lambda}_j^{(l)} = \frac{\lambda_j^{(l)}}{\sum_{v=1}^{3(\text{либо } 2)} \lambda_v^{(l)}},$$

where *n* is a number of RF subjects, *j* is a number of sub-blocks of the *l* block, *N=10* (a reference value).

Stage 5. The calculation of a single composite integral indicator for the synthetic category of the highest level of commonality $\hat{y}^{св.}$ between three total indices for the *i* territory is carried out by the same method as the construction of block indices, particularly:

$$\hat{y}_i^{св} = N - \left[\sum_{j=1}^{3} \tilde{q}_l (\hat{y}_i^{(l)} - N)^2 \right]^{1/2}, \qquad (6)$$

where $$\tilde{q}_l = \frac{\tilde{\lambda}^{(l)} \cdot \tilde{s}_l^2}{\sum_{l=1}^{3} \tilde{\lambda}^{(l)} \cdot \tilde{s}_l^{\,2}},$$

$$\tilde{\lambda}^{(l)} = \sum_{j=1}^{k(l)} \tilde{\lambda}_j^{(l)},$$

$$\tilde{s}_l^2 = \frac{1}{n} \sum_{i=1}^{n} (\hat{y}_i^{(l)} - \overline{y}^{(l)})^2,$$

$$\overline{y}^{(l)} = \frac{1}{n} \sum_{i=1}^{n} \hat{y}_i^{(l)}.$$

The results of the calculations carried out by formulas (5) and (6) and the ranks for RF regions are presented in *table 6.*

The data presented in table 6 reveal that there are considerable differences in the rankings by the indicators blocks in the regions. By the indicator "Quality of the population" the first places are occupied by Moscow, the Republic of Ingushetia, Saint Petersburg, the Republic of North Ossetia, the Kabardino-Balkar Republic, the Republic of Dagestan, the Tyumen Oblast, the Karachay-Cherkess Republic, the Republic of Tatarstan, the Belgorod Oblast; the last – by the Pskov Oblast, the Novgorod Oblast, the Republic of Khakassia, the Sakhalin Oblast, the Kemerovo Oblast, the Irkutsk oblast, the Amur oblast, Jewish Autonomous Okrug, Chukotka Autonomous Okrug and the Tyva Republic.

Demographic indicators are essential for the assessment of health condition and

Table 6. Distribution of RF subjects on a single composite integral index on the basis of integral indices of 3 blocks: "Quality of the population", "Welfare" and "Quality of the social sphere"

RF subject	single composite integral index	Rank of the region	Quality of the population	Rank of the region	Welfare	Rank of the region	Quality of the social sphere	Rank of the region
Moscow	6.86	1	7.97	1	7.83	1	6.37	2
Saint Petersburg	5.94	2	6.66	3	6.38	3	7.23	1
Voronezh Oblast	5.30	3	5.55	18	5.01	18	3.20	33
Omsk Oblast	5.11	4	5.06	31	4.80	23	4.49	3
Novosibirsk Oblast	4.87	5	5.58	16	7.50	2	2.32	76
Moscow Oblast	4.82	6	4.97	41	5.15	13	3.44	21
Ivanovo Oblast	4.81	7	4.98	38	4.68	33	3.72	11
Nizhny Novgorod Oblast	4.79	8	4.17	70	4.12	56	3.42	22
Republic of Karelia	4.76	9	5.87	9	6.02	5	3.45	20
Republic of Tatarstan	4.73	10	4.74	52	4.63	35	3.37	26
Yaroslavl Oblast	4.65	11	5.05	32	4.46	42	4.32	4
Tula Oblast	4.62	12	5.81	12	5.03	17	3.15	36
Murmansk Oblast	4.57	13	4.61	58	4.74	26	3.47	19
Sverdlovsk Oblast	4.57	14	5.83	10	5.48	8	3.05	44
Belgorod Oblast	4.54	15	4.91	44	4.73	28	3.36	27

The continuation of the table 6

Kamchatka Krai	4.53	16	5.37	24	5.33	9	3.15	38
Tomsk Oblast	4.52	17	5.38	23	4.05	58	3.49	18
Tyumen Oblast	4.52	18	5.91	7	6.11	4	2.54	69
Republic of Bashkortostan	4.49	19	5.79	13	5.67	7	2.51	71
Krasnodar Oblast	4.45	20	4.91	43	5.97	6	3.38	25
Rostov Oblast	4.44	21	5.57	17	4.80	24	3.17	34
Kaliningrad Oblast	4.43	22	5.02	35	4.70	30	3.52	15
Ryazan Oblast	4.43	23	5.17	28	4.43	43	3.22	31
Volgograd Oblast	4.43	24	5.21	27	5.13	14	2.75	63
Lipetsk Oblast	4.42	25	5.51	19	4.73	27	2.82	61
Arkhangelsk Oblast	4.40	26	5.07	30	4.28	52	3.51	16
Astrakhan Oblast	4.36	27	4.83	49	4.07	57	3.82	8
Ulyanovsk Oblast	4.36	28	5.03	33	4.93	20	3.03	46
Novgorod Oblast	4.33	29	5.11	29	4.38	48	3.35	29
Kostroma Oblast	4.32	30	4.99	37	5.07	16	2.99	50
Kaluga Oblast	4.31	31	4.94	42	4.63	36	3.31	30
Mari El Republic	4.31	32	4.50	62	3.32	74	3.92	7
Kursk Oblast	4.30	33	4.15	72	4.70	31	3.39	24
Krasnoyarsk Oblast	4.30	34	5.45	21	4.41	44	3.08	41
Chelyabinsk Oblast	4.29	35	4.72	53	4.69	32	3.81	9
Bryansk Oblast	4.28	36	4.82	50	3.94	60	3.95	5
Orel Oblast	4.28	37	4.68	57	4.49	41	3.04	45
Vladimir Oblast	4.26	38	4.70	56	5.11	15	3.01	49
Penza Oblast	4.26	39	4.83	48	4.25	54	2.98	53
Perm Oblast	4.24	40	5.42	22	3.71	66	3.58	14
Tambov Oblast	4.23	41	4.97	40	4.96	19	2.87	57
Republic of Mordovia	4.23	42	4.97	39	3.89	63	3.71	12
Chuvash Republic	4.18	43	4.91	45	4.16	55	3.95	6
Samara Oblast	4.17	44	4.88	46	4.02	59	3.11	39
Udmurt Republic	4.17	45	4.42	63	5.19	12	3.76	10
Vologda Oblast	4.16	46	4.85	47	4.37	50	2.88	55
Magadan Oblast	4.11	47	4.33	68	4.74	25	3.50	17
Kirov Oblast	4.11	48	5.03	34	4.39	45	3.17	35
Republic of Khakassia	4.06	49	4.08	73	3.81	64	3.07	42
Komi Republic	4.04	50	5.25	26	4.54	40	2.26	77
Primorsky Krai	4.01	51	4.15	71	4.38	49	3.07	43
Altai Krai	3.99	52	4.57	60	5.32	10	3.10	40
Pskov Oblast	3.99	53	4.75	51	3.57	70	2.85	58
Republic of Adygea	3.97	54	4.70	55	4.57	37	2.87	56
Khabarovsk Krai	3.96	55	4.58	59	4.38	46	2.98	52
Smolensk Oblast	3.93	56	4.71	54	4.38	47	2.62	67
Republic of Buryatia	3.93	57	4.38	67	3.70	67	2.99	51
Orenburg Oblast	3.92	58	5.76	14	2.66	78	2.66	66
Amur Oblast	3.91	59	4.21	69	4.56	38	3.20	32
Chukotka Autonomous Okrug	3.90	60	3.28	79	5.32	11	2.81	62
Kemerovo Oblast	3.90	61	4.56	61	3.58	69	3.35	28
Zabaykalsky Krai	3.88	62	5.02	36	4.90	22	2.34	74
Leningrad Oblast	3.87	63	5.49	20	3.32	75	3.15	37

The ending of the table 6

Sakhalin Oblast	3.81	64	3.99	74	4.91	21	2.83	59
Republic of Kalmykia	3.80	65	3.60	77	3.90	61	2.96	54
Sakha (Yakutia) Republic	3.75	66	3.92	75	4.68	34	2.70	65
Kurgan Oblast	3.74	67	4.40	65	4.72	29	3.02	47
Tver Oblast	3.71	68	4.39	66	3.89	62	2.60	68
Altai Republic	3.63	69	6.21	4	4.55	39	3.39	23
Republic of North Ossetia	3.61	70	7.04	2	0.83	79	2.40	72
Saratov Oblast	3.60	71	6.02	6	2.73	77	2.54	70
Republic of Dagestan	3.58	72	5.25	25	4.27	53	3.62	13
Republic of Ingushetia	3.55	73	4.42	64	3.10	76	2.07	80
Jewish Autonomous Oblast	3.40	74	3.58	78	3.39	72	2.20	78
Tyva Republic	3.18	75	5.82	11	4.30	51	2.32	75
Stavropol Krai	3.08	76	6.08	5	3.57	71	2.73	64
Irkutsk Oblast	3.07	77	2.92	80	0.81	80	2.82	60
Kabardino-Balkar Republic	2.99	78	5.90	8	3.62	68	2.40	73
Karachay-Cherkess Republic	2.92	79	3.71	76	3.79	65	3.01	48
Chechen Republic	2.81	80	5.70	15	3.38	73	2.15	79

quality of the population in Russia. They have very high regional specificity. The highest LE value is observed in the North Caucasian Federal District, and the lowest – in the Siberian and Far Eastern federal districts. However, the degree of completeness of death records and certainty in the population's estimates in some regions of North Caucasus are questionable. The example a are the following: the LE values in the republics of Ingushetia (78.3 years), Dagestan (74 years), Chechen (73.2 years) are comparable with the figures in Japan, Finland and Germany for the same year. What is more, the structure of morbidity and mortality is very different for areas with younger and older populations.

By the composite index "Welfare" the leaders are Moscow, the Moscow Oblast, Saint-Petersburg, the Tyumen Oblast, the Republic of Tatarstan, the Sverdlovsk Oblast, the Krasnodar Oblast, the Belgorod Oblast, the Republic of Bashkortostan, the Samara Oblast and the outsiders – the Kabardino-Balkar Republic, Jewish Autonomous Okrug, the Chechen Republic, the Mari-El Republic, the Sakha (Yakutia) Republic, the Altai Republic, the Republic of Dagestan, the Republic of Kalmykia, the Republic of Ingushetia and the Tyva Republic.

By the index "Quality of the social sphere" the first places are occupied by Saint Petersburg, Moscow, the Omsk Oblast, the Yaroslavl Oblast, the Astrakhan Oblast, the Udmurt Republic, the Mari El Republic, the Kostroma Oblast, the Krasnoyarsk Oblast, the Magadan Oblast, the last – by Krasnodar Krai, the Republic of Ingushetia, the Karachay–Cherkess Republic, the Leningrad Oblast, Stavropol Krai, the Moscow Oblast, Jewish Autonomous region, the Republic of Adygea, the Chechen Republic and the Altai Republic.

By the single composite integral index the first 10 places are occupied Moscow, Saint Petersburg, the Voronezh, Omsk, Moscow, Nizhny Novgorod, Novosibirsk and Ivanovo oblasts, the Republic of Tatarstan and Karelia; the last places – by the Republic of Dagestan, the Saratov oblast, the Altai Republic, Jewish Autonomous Okrug, Stavropol Krai, the Kabardino-Balkar Republic, the Tyva Republic, the Karachay-Cherkess Republic, the Irkutsk Oblast and the Chechen Republic.

The identification of the correlation between single composite integral index and integral indices of block indicators (*tab. 7*).

All correlation coefficients turn out to be significant at the level of $p<0.05$. The highest correlation is observed between the integral index and other blocks due to conducting computational procedures. However, if the regions of the North Caucasian Federal District are not considered due to the specific situation with statistics, the correlation value increases dramatically between all blocks (*tab. 8*).

We can conclude that the quality of the population is directly connected with the population's wellbeing and quality of social sphere. The ratings indicate the priorities of socio-economic policy at the regional level. Maintaining and improving the quality of the population directly depends on the successful solution of a wide range of tasks of socio-economic development (ensuring stable economic growth, population welfare, poverty reduction, intensity of human capital development and creation of effective social infrastructure (health, education, social security, affordable housing market, flexible labor

Table 7. Pearson correlation between a single composite integral index and integral indices of block indicators ($p<0.05$)

Blocks	"Quality of the population"	"Welfare"	"Quality of the social sphere"	Single composite integral index
"Quality of the population"	1.00	0.27	0.28	0.41
"Welfare"	0.27	1.00	0.37	0.67
"Quality of the social sphere"	0.28	0.37	1.00	0.70
Single composite integral index	0.41	0.67	0.70	1.00

Table 8. Pearson correlation between a single composite integral index and integral indices of block parameters ($p<0.05$) (without the North Caucasian Federal District)

Blocks	"Quality of the population"	"Welfare"	"Quality of the social sphere"	Single composite integral index
"Quality of the population"	1.00	0.58	0.45	0.76
"Welfare"	0.58	1.00	0.31	0.69
"Quality of the social sphere"	0.45	0.31	1.00	0.68
Single composite integral index	0.76	0.69	0.68	1.00

market, improvement of sanitary and epidemiological situation, etc.). The measures to improve the demographic situation should be comprehensive due to the reorientation of target programs to the solution of demographic policy problems, taking into account regional specifics.

The conducted research and calculation results reveal such priority directions to improve health state of the population and stabilize demographic processes as socio-economic methods, formation of healthy lifestyle, development of the health system, formation of moral and ethical values.

Sited works

1. Aivazyan S.A. *Analysis of the Quality and Way of Life of the Population*. Moscow: Nauka, 2012. 432 p.
2. *Demographic Yearbook of Russia 2012: Statistical Digest*. Rosstat. Moscow, 2012. 525 p.
3. *Healthcare in Russia. 2011: Statistical Digest*. Moscow: Rosstat, 2011. 360 p.
4. Molchanova E.V., Kruchek M.M. Econometric Approach to the Building of Rating Assessments of the Territories (Case Study of the Republic of Karelia). *Economic Analysis: Theory and Practice*, 2014, no.3(354), pp. 56-64.
5. *The Regions of Russia. Socio-Economic Indicators. 2012: Statistical Digest*. Moscow: Rosstat, 2012. 999 p.
6. *The Rating of the Russian Federation Subjects by Socio-Economic Position. The Results of 2012.* Rating Agency "RIA Rating". Moscow, 2013.
7. *Rating of the Quality of Life in the Regions of the Russian Federation. The Results and Methods of Calculation*. Rating Agency "RIA Rating". Moscow, 2012.
8. Rimashevskaya N.M., Bochkareva V.K., Migranova L.A., Molchanova E.V., Toksanbaeva M.S. Human Potential of Russian Regions. *Population*, 2013, no.3, pp. 82-141.
9. Rimashevskaya N.M. Social Policy of Nation Preservation: Drastic Change of Negative Health Trend of the Russian Population. *Economic and Social Changes: Facts, Trends, Forecast*, 2010, no.4(12), pp. 48-61.
10. *Federal State Statistics Service*. Available at: http://www.gks.ru.

References

11. Aivazyan S.A. *Analiz kachestva i obraza zhizni naseleniya* [Analysis of the Quality and Way of Life of the Population]. Moscow: Nauka, 2012. 432 p.
12. *Demograficheskii ezhegodnik Rossii 2012: stat. sb*. [Demographic Yearbook of Russia 2012: Statistical Digest]. Rosstat. Moscow, 2012. 525 p.
13. *Zdravookhranenie v Rossii. 2011: stat. sb*. [Healthcare in Russia. 2011: Statistical Digest]. Moscow: Rosstat, 2011. 360 p.
14. Molchanova E.V., Kruchek M.M. Ekonometricheskii podkhod k postroeniyu reitingovykh otsenok territorii (na primere Respubliki Kareliya) [Econometric Approach to the Building of Rating Assessments of the Territories (Case Study of the Republic of Karelia)]. *Ekonomicheskii analiz: teoriya i praktika* [Economic Analysis: Theory and Practice], 2014, no.3(354), pp. 56-64.

15. *Regiony Rossii. Sotsial'no-ekonomicheskie pokazateli. 2012: stat. sb.* [The Regions of Russia. Socio-Economic Indicators. 2012: Statistical Digest]. Moscow: Rosstat, 2012. 999 p.
16. *Reiting sotsial'no-ekonomicheskogo polozheniya sub"ektov RF. Itogi 2012 g.* [The Rating of the Russian Federation Subjects by Socio-Economic Position. The Results of 2012]. Reitingovoe agentstvo "RIA Reiting" [Rating Agency "RIA Rating"]. Moscow, 2013.
17. Reiting kachestva zhizni v regionakh RF. Rezul'taty i metodika raschetov [Rating of the Quality of Life in the Regions of the Russian Federation. The Results and Methods of Calculation]. Reitingovoe agentstvo "RIA Reiting" [Rating Agency "RIA Rating"]. Moscow, 2012.
18. Rimashevskaya N.M., Bochkareva V.K., Migranova L.A., Molchanova E.V., Toksanbaeva M.S. Chelovecheskii potentsial rossiiskikh regionov [Human Potential of Russian Regions]. *Narodonaselenie* [Population], 2013, no.3, pp. 82-141.
19. Rimashevskaya N.M. Sotsial'naya politika sberezheniya naroda: radikal'noe izmenenie negativnogo trenda zdorov'ya rossiiskogo naseleniya [Social Policy of Nation Preservation: Drastic Change of Negative Health Trend of the Russian Population]. *Ekonomicheskie i sotsial'nye peremeny: fakty, tendentsii, prognoz* [Economic and Social Changes: Facts, Trends, Forecast], 2010, no.4(12), pp. 48-61.
20. *Federal'naya sluzhba gosudarstvennoi statistiki* [Federal State Statistics Service]. Available at: http://www.gks.ru.

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Economic journal: problems and prospects of promotion at the national and international level

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Abstract. The increasing importance of scientific journals for the development of academic science in general, for outlining the main research priorities, for establishing the integrity of research space and continuity of scientific process sets out new issues connected with the development and promotion of scientific titles at the national and international level.

The article generalizes the publishing experience of the journal "Economic and social changes: facts, trends, forecast", issued by the Institute of Socio-Economic Development of Territories of the Russian Academy of Sciences. The author gives the characteristics of the Journal as a scientific publication devoted to the analysis and forecast of changes in the economy and social sphere in different countries, regions and local areas. Special attention is paid to the evaluation of the title according to several dynamic parameters. The article outlines long-term objectives for promotion of the Journal at the national and international level.

Key words: scientific economic journal, scientometric indicators for the development and promotion of scientific journal, citation index, impact factor.

The journal "Economic and social changes: facts, trends, forecast" has been published by the Institute of Socio-Economic Development of Territories of the Russian Academy of Sciences since 2008. It is particularly important that the foundation of the Journal was supported by the heads of other economic institutes under the Russian

Academy of Sciences that are located in the Northwestern Federal District of the Russian Federation. They participated directly in the formation of the Journal's Editorial Council and Editorial Board. V.A. Ilyin, Doctor of Economics, Professor, Honored Science Worker of the Russian Federation is the founder and Chief Editor of the Journal.

Academician A.D. Nekipelov (the then Vice-President of the Russian Academy of Sciences) in his address to the readers, contributors, members of the Editorial Council and Editorial Board pointed out that the new title would have a positive impact on the consolidation of the efforts of academic institutions in handling the following issues: promotion of sustained development of the domestic economy through scientific support; establishment of effective interaction with government authorities and business by uniting the efforts of central and regional academic institutions in the substantiation of rational ways of economic and social development in Russian North-West[1].

In the first three years the Journal was published quarterly. Each issue was devoted to the topic, which was set out in the annual plan and had, in the opinion of the Editorial Council and Editorial Board, priority importance for the development of northern regions.

In that period the main section of the Journal – "Development strategy" – focused on the analysis of trends and results of market reforms in various regions of the North-West, on the substantiation of strategic directions, criteria for assessing the achievement of planned milestones and stages of their implementation[2].

The issues of 2008 were devoted to the discussion of the regions' transition to the innovation way of development, the increase of productivity in certain sectors, and in the whole regional economy. One of the key discussion topics was the development of the forest sector that possesses considerable reserves for growth in the North-West of Russia due to the presence of large areas of forest resources and years of experience of their use.

In 2009 the Journal published a series of articles on the boosting of small business, agro-industrial complex and provision of food security, on the prospects of machine-building and regional tourism development

[1] Privetstvie vitse-prezidenta RAN akademika A.D. Nekipelova [Welcome Address of A.D. Nekipelov, Academician, RAS Vice President]. Ekonomicheskie i sotsial'nye peremeny: fakty, tendentsii, prognoz [Economic and Social Changes: Facts, Trends, Forecast], 2008, no.1, pp. 8-9.

[2] See, for example: Gulin K.A. Kontseptsiya dolgosrochnogo sotsial'no-ekonomicheskogo razvitiya ("Rossiya – 2020"): vyzovy dlya regionov [Concept for Long-Term Socio-Economic Development ("Russia – 2020"): Challenges for Regions]. Ekonomicheskie i sotsial'nye peremeny: fakty, tendentsii, prognoz [Economic and Social Changes: Facts, Trends, Forecast], 2008, no.4, pp. 8-14; Lazhentsev V.N. Dinamika sotsial'no-ekonomicheskogo razvitiya Respubliki Komi [Dynamics of Socio-Economic Development of the Republic of Komi]. Ekonomicheskie i sotsial'nye peremeny: fakty, tendentsii, prognoz [Economic and Social Changes: Facts, Trends, Forecast], 2008, no.1, pp. 18-35; Shishkin A.I. Sotsial'no-ekonomicheskoe razvitie Karelii [Socio-Economic Development of Karelia]. Ekonomicheskie i sotsial'nye peremeny: fakty, tendentsii, prognoz [Economic and Social Changes: Facts, Trends, Forecast], 2008, no.2, pp. 6-13; Larichkin F.D., Antonov S.A. Sovershenstvovanie strategicheskogo planirovaniya regional'nogo razvitiya s uchetom kachestva ekonomicheskogo rosta [Improvement of Strategic Planning of Regional Development Taking into Account the Quality of Economic Growth]. Ekonomicheskie i sotsial'nye peremeny: fakty, tendentsii, prognoz [Economic and Social Changes: Facts, Trends, Forecast], 2008, no.2, pp. 14-20.

in the North-West of Russia. In response to the existing situation, the Journal published articles on the reasons of the financial crisis that had struck Russia, and also on the measures to overcome its consequences[3].

The topics such as the improvement of the local government system, energy development and energy security in the regions and their social development were discussed in the Journal's special issues of 2010. Besides, the authors considered different aspects of foreign economic activity that acquired considerable importance in the NWFD regions due to the specialization in raw materials and semi-finished products based on the extraction of iron ores and other mining and mineral resources.

As the number of the Journal's annual issues increased from four to six in 2011 it became possible to shift from the subject planning to the problem planning. However, at present some sections still include articles selected by subject.

For instance, the series of articles published in 2012 in the framework of Russia-Belarus scientific cooperation within the Union State reveal the stages of development of this cooperation, development of common research space, development of trade and economic integration of the NWFD regions of the Russian Federation and the Republic of Belarus, main trends in their socio-demographic processes associated primarily with health care, education and enhancement of people's welfare[4].

ISEDT RAS published a special issue of the Journal dedicated to the economic and social aspects of Russia-Belarus integration

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[3] See, for example: Iogman L.G. Ekonomika regiona: ot krizisa k ustoichivomu razvitiyu [Economy of the Region: from Crisis to Sustainable Development]. *Ekonomicheskie i sotsial'nye peremeny: fakty, tendentsii, prognoz* [Economic and Social Changes: Facts, Trends, Forecast], 2009, no.3, pp. 14-24; Kostygov N.V. Vologodskaya oblast': antikrizisnaya programma deistvii [The Vologda Region: Anti-Crisis Action Program]. *Ekonomicheskie i sotsial'nye peremeny: fakty, tendentsii, prognoz* [Economic and Social Changes: Facts, Trends, Forecast], 2009, no.1, pp. 14-17; Gulin K.A., Dement'eva I.N. Ekonomicheskoe polozhenie i sotsial'noe samochuvstvie naseleniya regionov Severo-Zapada Rossii v usloviyakh krizisa [Economic Status and Social Well-Being of the North-West Russia Regions' Population amid the Economic Crisis]. *Ekonomicheskie i sotsial'nye peremeny: fakty, tendentsii, prognoz* [Economic and Social Changes: Facts, Trends, Forecast], 2009, no.4, pp. 18-28; Sovetov P.M. Reveransy antikrizisnykh vozdeistvii gosudarstva [Anti-Crisis Influence Reverences of the State]. *Ekonomicheskie i sotsial'nye peremeny: fakty, tendentsii, prognoz* [Economic and Social Changes: Facts, Trends, Forecast], 2009, no.2, pp. 14-18; Selin V.S. Stsenarnyi prognoz razvitiya regiona v usloviyakh ekonomicheskoi nestabil'nosti [Scenario Development Forecast of the Region under the Conditions of Economic Instability]. *Ekonomicheskie i sotsial'nye peremeny: fakty, tendentsii, prognoz* [Economic and Social Changes: Facts, Trends, Forecast], 2009, no.1, pp. 18-25; Leus S.M., Istomin A.V. Otsenka vliyaniya ekonomicheskogo krizisa na bazovye otrasli i perspektivnye proekty v Murmanskoi oblasti [Estimation of Economic Crisis Influence on the Basic Branches and Prospective Projects in the Murmansk Region]. *Ekonomicheskie i sotsial'nye peremeny: fakty, tendentsii, prognoz* [Economic and Social Changes: Facts, Trends, Forecast], 2009, no.2, pp. 19-29; Nemkovich E.G., Kurilo A.E. Vliyanie krizisa na ekonomiku Karelii i vozmozhnosti ego preodoleniya [The Crisis Influence on Economy of Karelia and Opportunity of its Overcoming]. *Ekonomicheskie i sotsial'nye peremeny: fakty, tendentsii, prognoz* [Economic and Social Changes: Facts, Trends, Forecast], 2009, no.1, pp. 18-25.

[4] See, for example: Dedkov S.M., Egorov V.K. Rossiisko-belorusskoe nauchnoe sotrudnichestvo na pervom etape soyuznykh otnoshenii: vosstanovlenie edinogo nauchnogo prostranstva [Scientific Collaboration between Russia and Belarus at the First Stage of Allied Relations: the Restoration of a Single Research Area]. *Ekonomicheskie i sotsial'nye peremeny: fakty, tendentsii, prognoz* [Economic and Social Changes: Facts, Trends, Forecast], 2012, no. 2, pp. 50-59; Uskova T.V., Selimenkov R.Yu., Asanovich V.Ya. Modelirovanie vneshneekonomicheskoi deyatel'nosti regionov SZFO RF i Respubliki Belarus' [Methodological Modeling Aspects of Foreign-Economic Activity in the Regions of the North-West Federal District and the Republic of Belarus]. *Ekonomicheskie i sotsial'nye peremeny: fakty, tendentsii, prognoz* [Economic and Social Changes: Facts, Trends, Forecast], 2012, no.2, pp. 60-70; Shabunova A.A., Leonidova G.V., Shukhatovich V.R., Artyukhin M.I. Sotsial'no-demograficheskie aspekty razvitiya trudovogo potentsiala [Socio-Demographic Aspects of Labour Potential Development]. *Ekonomicheskie i sotsial'nye peremeny: fakty, tendentsii, prognoz* [Economic and Social Changes: Facts, Trends, Forecast], 2012, no.2, pp. 71-82.

cooperation on the threshold of the 9th session of the Russia-Belarus InterAcademy Council on the Issues of Development of the Union State and the International Research-to-Practice Conference "Integration within the Union State as the main tool for the implementation of Russia and Belarus security strategy" that were held in the city of Vologda (July 3–5, 2013).

In 2012–2013, the Editorial Board directed its main efforts to select such articles, which revealed the reasons for slowdown in the recovery of Russia's economy in general and in the context of its territories, the ways to overcome factors hampering the country's transition to innovation development. A new selection of publications was formed by the materials on the influence of the interests of private corporations' owners on the formation of regional budgets and increase in the regions' public debt[5]. During these years the Journal published several articles on the content and stages of socio-cultural modernization, without which it is impossible to enhance economic efficiency and eliminate excessive income differentiation[6].

One of the factors indicating the growth in the Journal's quality and scientific level is its inclusion in the List of leading scientific titles recommended by the Higher Attestation Commission for publication of the main findings of Candidate's and Doctor's of Sciences dissertations.

Today we can say with confidence that during the six years that passed since its first issue, the journal "Economic and social changes: facts, trends, forecast" has gained its own niche in the field of economic periodicals.

About 500 scientific articles were published during this period. In recent years the volumes of the Journal's issues has been constantly increasing *(tab. 1)*.

The tendency towards the growth of the total number of published articles indirectly indicates the systematic increase in the scale of research and the enhancement of research activity.

The title has acquired a fairly large group of contributors; besides, the geographic distribution of authors has been steadily increasing from year to year.

[5] See: Ilyin V.A. Vliyanie interesov sobstvennikov metallurgicheskikh korporatsii na natsional'noe i regional'noe razvitie [The Influence of Ferrous Metallurgy Corporations' Interests on the Regional Development]// Ekonomicheskie i sotsial'nye peremeny: fakty, tendentsii, prognoz [Economic and Social Changes: Facts, Trends, Forecast], 2011, no.3, pp. 14-38; Povarova A.I. Vliyanie interesov sobstvennikov metallurgicheskoi korporatsii na finansovye rezul'taty golovnogo predpriyatiya (na primere OAO "Severstal'»" [The Influence of the Metallurgical Corporation Owners' Interests on the Financial Performances of the Parent Enterprise (in the Case of OJSC "Severstal")]. Ekonomicheskie i sotsial'nye peremeny: fakty, tendentsii, prognoz [Economic and Social Changes: Facts, Trends, Forecast], 2011, no.5, pp. 36-51; Ilyin V.A., Povarova A.I. Byudzhetnyi krizis regionov v 2013–2015 godakh – ugroza bezopasnosti Rossii [Budget Crisis of the Regions in 2013 – 2015: a Threat to Russia's Security]. Ekonomicheskie i sotsial'nye peremeny: fakty, tendentsii, prognoz [Economic and Social Changes: Facts, Trends, Forecast], 2012, no.6, pp. 30-41.

[6] See: Sztompka P. Modernizatsiya kak sotsial'noe stanovlenie (10 tezisov po modernizatsii) [Modernization as Social Becoming: Ten Theses on Modernization]. *Ekonomicheskie i sotsial'nye peremeny: fakty, tendentsii, prognoz* [Economic and Social Changes: Facts, Trends, Forecast], 2013, no.6, pp. 119-126; Lastochkina M.A., Shabunova A.A. Vozmozhnosti i ogranicheniya modernizatsionnogo razvitiya regionov Severo-Zapadnogo federal'nogo okruga [Opportunities for and Constraints in the Modernization Development of the Regions of the Northwestern Federal District]. *Ekonomicheskie i sotsial'nye peremeny: fakty, tendentsii, prognoz* [Economic and Social Changes: Facts, Trends, Forecast], 2013, no.5, pp. 39-52.

Table 1. Dynamics of the number of scientific articles published in the journal "Economic and social changes: facts, trends, forecast" in 2008–2014

Year	2008	2009	2010	2011	2012	2013	2014*
Total number of scientific articles per year	41	48	56	95	106	99	36
Number of articles as calculated per issue	10.25	12.0	14.0	15.8	17.7	16.5	18.0

* Taking into consideration the articles from issues 1 and 2 (2014).

The Journals' Editorial Board is implementing several measures to attract foreign contributors. The Journal's founder considers that a modern scientific title should be not just a platform for scientific discussions among domestic scientists, but also a platform that combines the achievements of researchers from different countries. Without meeting this condition, the task of advancing Russian scientific titles to the world, will remain unsolved.

In the past period the Journal published works of scientists from China, Poland, France, Finland, Azerbaijan, Belarus, Kazakhstan and Ukraine. At that, the share of foreign articles in the last three years was more than 10% of the total number of publications in the Journal *(tab. 2)*.

It should be noted that a significant share in the total number of foreign publications in the Journal belongs to the scientists from Belarus (56.5%) and China (28.2) *(fig. 1)* that can be considered the result of close cooperation between ISEDT RAS, the National Academy of Sciences of Belarus and Jiangxi Academy of Social Sciences (China). In addition, the fact that scientific cooperation with colleagues from abroad has been brought to a higher level is supported by joint publications of ISEDT RAS scientists and foreign authors, in particular, the contributors from Belarus.

As the data in *table 3* shows, the geographic distribution of Russian contributors to Journal is constantly expanding.

Thus, the authors from eight Federal Districts, two federal cities and more than 20 regions of the Russian Federation published their articles in the Journal on average for the period under review. Moreover, the highest

Table 2. Dynamics of the number of foreign articles* published in the journal "Economic and social changes: facts, trends, forecast" in 2008–2014

Indicator	2008	2009	2010	2011	2012	2013	2014**
Number of foreign articles	2	1	8	5	14	12	4
Share of foreign articles in the total number of publications, %	4.9	2.1	14.2	5.6	13.2	12.1	11.1

* Including joint publications by Russian and foreign authors.

** Data for the first half-year of 2014.

Figure 1. Share of foreign articles in the total number of publications in the journal “Economic and social changes: facts, trends, forecast” in 2008–2014

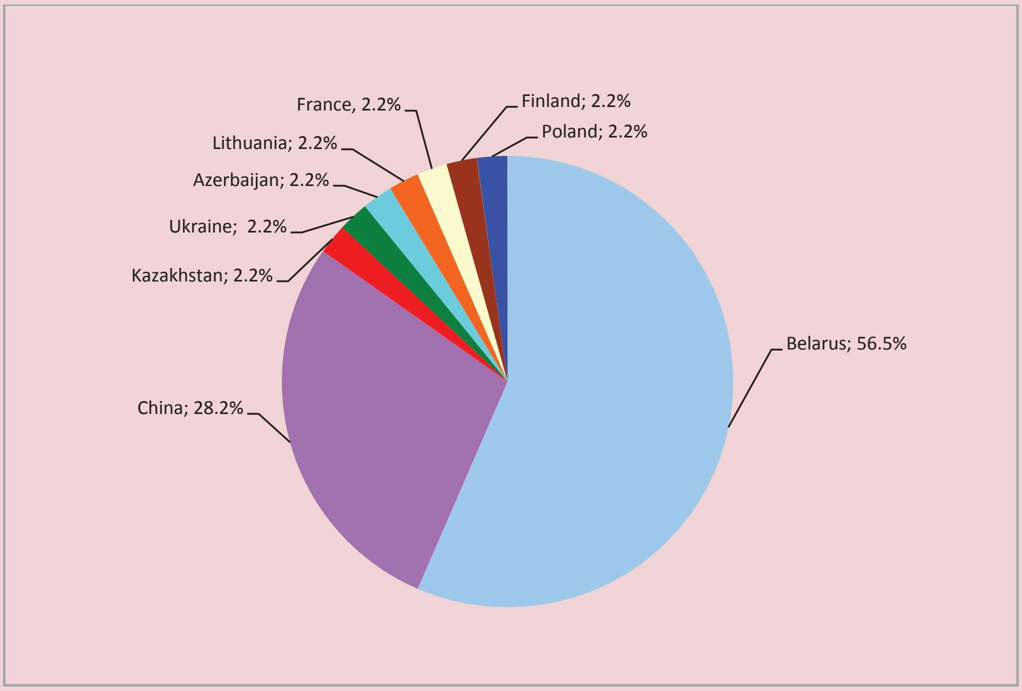


Table 3. Dynamics of the number of Russian Federation subjects and Federal Districts*, from which the authors have published articles in the journal “Economic and social changes: facts, trends, forecast” in 2008–2014

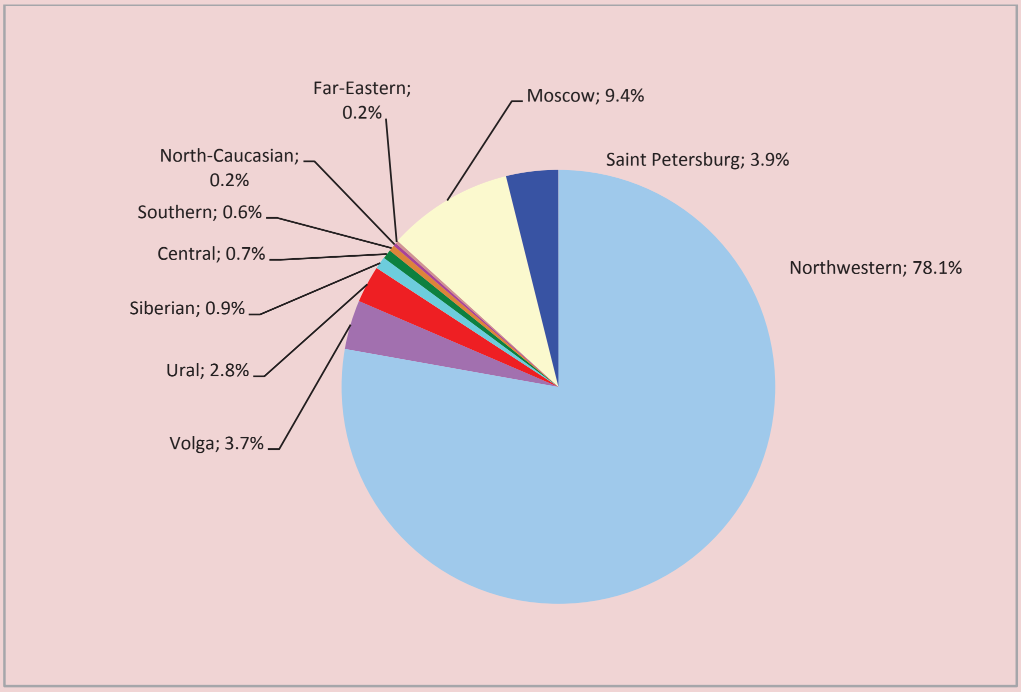
Indicator	2008	2009	2010	2011	2012	2013	2014**
Number of RF subjects	7	8	8	10	15	15	11
Number of Federal Districts	3	3	5	6	7	6	7

* Including the city of federal significance.
** Data for the first half-year of 2014.

proportion of publications belongs to the authors from the Northwestern Federal District *(fig. 2)*. As for the Russian Federation subjects, among them we can point out Moscow, Saint Petersburg; Krasnoyarsk, Perm, Stavropol and Khabarovsk Krais; Khanty-Mansi Autonomous Okrug; the Republics of Komi, Karelia, Bashkortostan, Mordovia and Udmurtia; the Vologda, Arkhangelsk, Murmansk, Pskov, Kaliningrad, Yaroslavl, Kostroma, Ulyanovsk, Sverdlovsk, Novosibirsk, Kemerovo, Volgograd and Rostov oblasts.

Judging by the figures for 2008 and 2013, i.e. the initial and final publication periods of the Journal, the representation of the Federal

Figure 2. The share of articles of Russian authors ranked by Federal Districts in the total amount of Russian publications in the journal "Economic and social changes: facts, trends, forecast" in 2008–2014



Districts in the Journal has increased twice (from 3 to 6 respectively) and the subjects of the Russian Federation – more than twice (from 7 to 15).

The expanding geographic distribution of contributors indicates that the journal "Economic and social changes: facts, trends, forecast" is gaining an increasing recognition in the Russian scientific community and among the readers of scientific literature.

The Editorial Council plays an important role in the formation and development of the Journal. The Council currently comprises 23 authoritative Russian and foreign scientists. Among them there are Academicians and Corresponding Members of the Russian Academy of Sciences, Doctors of Sciences, heads of RAS institutes, Academicians of the NAS of Belarus and prominent researchers from France, Finland and China. Every year the members of the Editorial Council take part in the expert assessment of the title, in which they analyze the quality of published materials and make proposals regarding the Journal's development. It should be stressed that the involvement of the Editorial Council into the handling of tasks on the Journal's development is productive, because it makes it possible to sum up various expert opinions and choose the optimal route for the promotion of the title, using modern organizational and information technology.

What exactly has been done in this direction, and what measures are being implemented now? First of all, note that the information about the articles published in

Figure 3. Dynamics of the total number of citations of the journal “Economic and social changes: facts, trends, forecast” in RSCI (as of July 15, 2014)

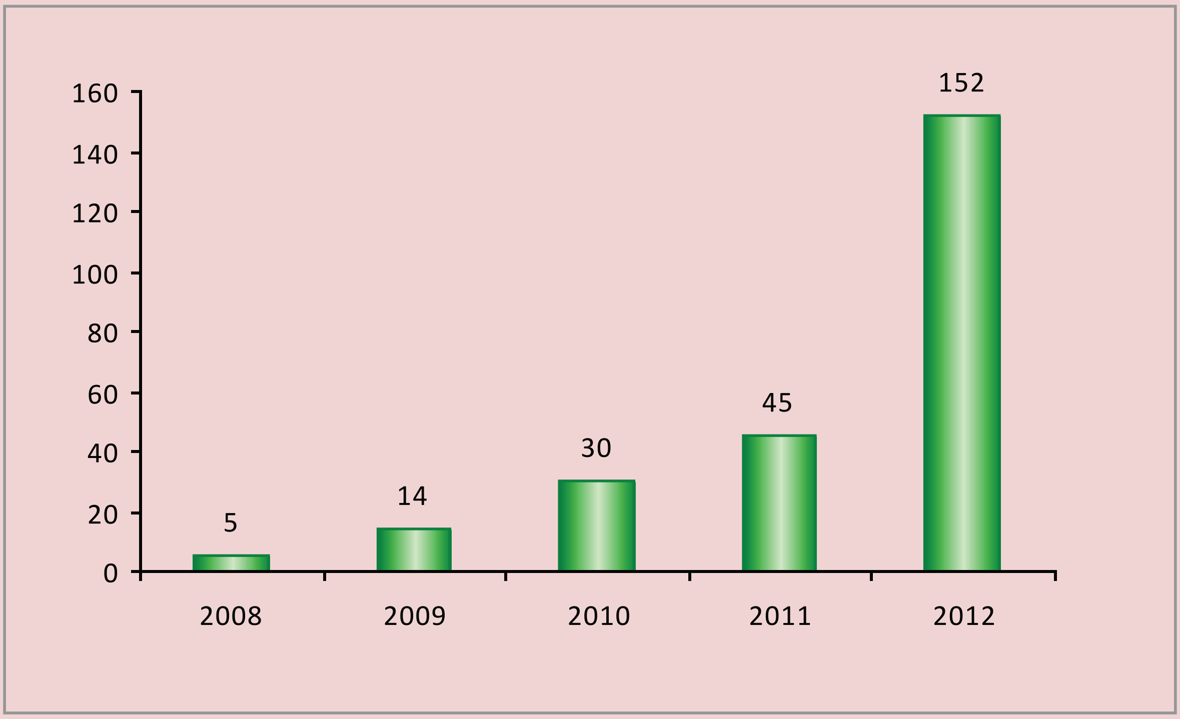
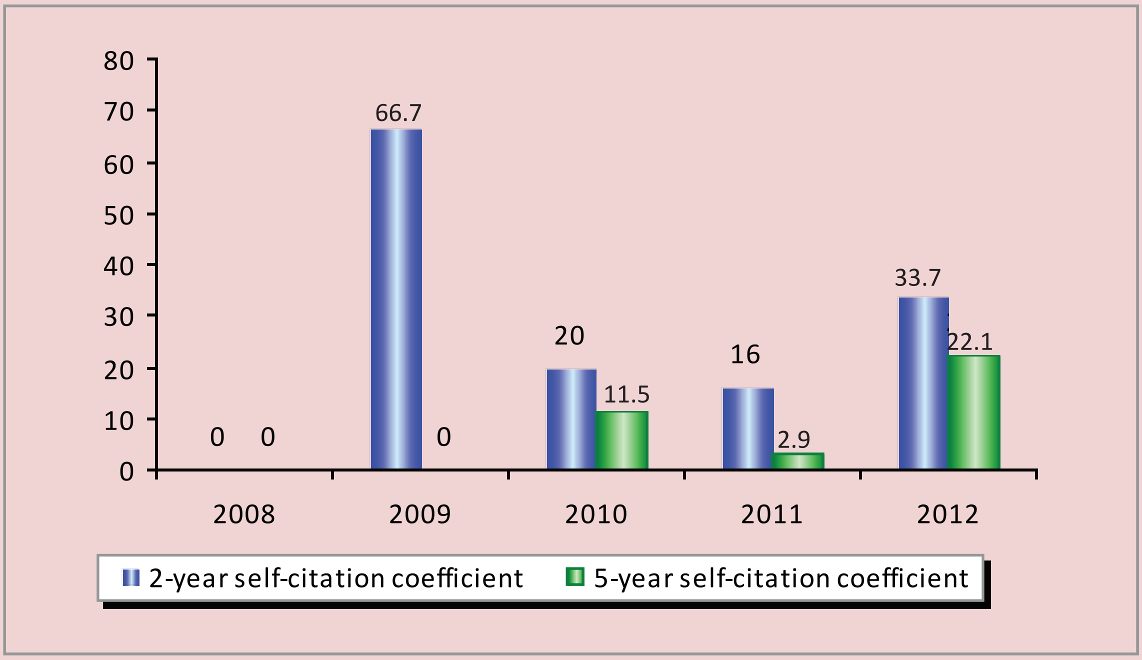


Figure 4. Dynamics of self-citation coefficient of the journal “Economic and social changes: facts, trends, forecast” in RSCI (as of July 15, 2014)



the Journal regularly goes to the database of the All-Russian Institute for Scientific and Technical Information under the Russian Academy of Sciences (VINITI RAS), which is the largest information center engaged in the issues of Exact, Natural and Technical Sciences.

The journal is indexed in the Russian Science Citation Index (RSCI) – the national information-analytical system, which accumulates publications of Russian authors, as well as citations of these publications, received from more than 4000 Russian journals.

Today the RSCI data make it possible to evaluate a title on a number of scientometric indicators. Although, currently, the global citation indices[7] are considered to be the target parameters for assessing the quality and productivity of scientific activity of individual scientists, scientific journals and organizations, the use of their indicators does not give an objective picture for evaluating the activity of Russian scientists, because domestic publications are poorly represented in the international databases [9].

Earlier, the Journal wrote about the general approaches to scientometric analysis of activity of scientific institutions and provided the estimated characteristics of publication activity of ISEDT RAS and its titles on the basis of the statistical data of the Russian Science Citation Index[8]. Here we should emphasize again that in our opinion, a journal's impact factor and citation metrics are the most important indicators in the assessment of the publication activity of the scientific journal on the basis of bibliometric indicators. We must bear in mind the fact that the total number of publications can only serve as a primary criterion for evaluation of research and publication activity of an institution. This indicator does not provide information on the quality of scientific products and its relevance. Therefore, it is advisable to use citation indicators for a more objective assessment of the quality of a scientific title [11,12,14,15].

The total number of citations of the journal "Economic and social changes: facts, trends, forecast" in RSCI is increasing. The growth rate in 2012, compared with the previous year, amounted to 338% *(fig. 3)*. This indicator shows indirectly that there is a certain improvement in the quality of the materials published in the Journal and the increase of demand for them.

However, the analysis has shown that along with the increase in the number of citations in 2012, the ratio of Journal's self-citations also increased [9] *(fig. 4)*.

On the one hand, the growth of self-citation coefficient can be explained by a sharp increase in the total number of citations of the Journal in 2012, and on the other hand, by the insufficient use of the expanding base of scientific information by the authors.

A marked increase in the RSCI impact factor in 2012 was a significant positive

[7] The international databases Web of Science (Thomson Reuters, USA) and Scopus (Elsevier, Netherlands) are recognized as the leading global citation indices.

[8] See: Tret'yakova O.V., Kabakova E.A. Vozmozhnosti i perspektivy ispol'zovaniya indeksov tsitirovaniya v otsenke rezul'tatov deyatel'nosti nauchnogo uchrezhdeniya [Opportunities for and Prospects of Using Citation Indices in Evaluating the Performance of Research Institution]. Ekonomicheskie i sotsial'nye peremeny: fakty, tendentsii, prognoz [Economic and Social Changes: Facts, Trends, Forecast], 2013, no.6 (30), pp. 189-200.

[9] Self-citation coefficient is the share of references of a jornal to itself in all citations.

Table 4. Impact factor of the journal "Economic and social changes: facts, trends, forecast" in RSCI (as of July 15, 2014)

Indicator	Year					Growth rate in 2012 in comparison with 2011, %
	2008	2009	2010	2011	2012	
2-year RSCI impact factor	-	0.184	0.248	0.231	0.732	317
2-year RSCI impact factor without self-citation	-	0.061	0.198	0.194	0.486	251
5-year RSCI impact factor	-	-	0.257	0.217	0.560	258
5-year RSCI impact factor without self-citation	-	-	0.228	0.210	0.436	208

Table 5. Dynamics of the integral indicator and positions of the journal "Economic and social changes: facts, trends, forecast" in Science Index rating on the subject "Economics. Economic Sciences" in 2010–2012 (as of July 15, 2014)

Indicator	Year		
	2010	2011	2012
Value of the integral Science Index	698	1397	4983
Place in the Science Index rating on the subject "Economics. Economic Sciences"	111	111	65
Total number of journals in the rating on the subject "Economics. Economic Sciences"	221	247	269

achievement of the Journal. Note that the traditional method is the calculation of the two-year impact factor of the title [6; 13]. Here we present the value of the five-year impact factor (including self-citation and without self-citation) for a more objective assessment of the Journal's impact factor of the journal *(tab. 4)*.

The data presented in the table allow us to conclude that, in general, the Journal's RSCI impact factor increased more than twice in 2012 compared with 2011.

There have been substantial improvements in the integral indicator of the Journal in the Science Index system, used to build the rating of Russian scientific journals in RSCI *(tab. 5)*. The integral Science Index related to articles published over the last five years is calculated on the basis of the number of citations received during the year for which the indicator is calculated[10].

The publication of the Journal and its indexation in RSCI started only in 2008, that is why it certainly lags behind the journals, the citation of which began earlier, i.e. their citation period covers the full five-year period.

Nevertheless, the Journal's position in the Science Index rating on the subject "Economics. Economic Sciences" (first quartile) is quite significant. And this position can be evaluated more accurately when considering the results of citation in 2013 in general for the period, fully presented in RSCI.

The Journal's registration with international citation databases Scopus and Web

[10] The methodology for calculating the integral index of a scientific journal in the SCIENCE INDEX rating. Available at: http://elibrary.ru/help_title_rating.asp

of Science should become an important step in its promotion. In this regard the Editorial Board is consistently implementing appropriate measures. The English version of the Journal has been published since 2009. The Journal is indexed in international information systems Ulrich's Periodicals Directory, Index Copernicus, Google Scholar, and placed in the international databases EBSCOhost and ProQuest.

All issues of the Journal are submitted for evaluation to Web of Science. Targeted measures are being implemented for the preparation of the Journal to submit an application for its inclusion in Scopus. It is necessary to point out that, beginning from 2014, the Journal is published in a format that conforms to the requirements of international databases.

An important component of the Journal policy is to ensure open access to its full-text versions. As of June 1, 2014, the journal "Economic and social changes: facts, trends, forecast" meets the criteria of openness of the publication. Full-text electronic versions of articles and all other published materials are available free at the Journal's official website on the Internet (http://esc.vscc.ac.ru). By the end of 2014 it is planned to register the title with the Directory of Open Access Journals (DOAJ).

A regular monitoring of various aspects of activities related to the publication of the Journal allows us to implement its promotion consistently. Although the funds that could be involved in this process are limited, the entire range of marketing activities is implemented based on the needs and interests of target groups that make up the main readers of the title. This approach makes it possible to use available resources rationally and efficiently in order to meet marketing objectives.

The data in *table 6* show that the main audience of the Journal is represented by five target groups, including researchers, university professors, graduate students and university students, representatives of authorities and administration, representatives of various spheres of socio-economic activities, and public activists.

The interests and needs of the first two target groups (researchers, university professors and graduate students), are similar in the sense that they are not only readers, but also authors of articles that can be published in the Journal. In this regard, marketing activities aimed at meeting the needs of these target groups include, first of all, address distribution of information materials about the Journal, guidelines for authors, mailing of free copies of issues to contributors, placement of full-text electronic versions of articles and all other published materials with free access on the Journal's official website and in Russian and foreign databases and also the presentation of the Journal in the framework of scientific seminars, conferences, exhibitions of scientific products.

In order to expand the audience, represented by authorities and administration and employees of various spheres of socio-economic activities, the following activities are implemented: the targeted free distribution of the Journal and digests to inform readers about new issues, regular publication of the results of the public opinion monitoring concerning the assessment of various aspects of public administration efficiency, as well as materials based on the results of expert opinions.

The Journal informs the public with the activity of academic institutions and research results in various fields of Social Sciences. For this purpose, ISEDT RAS new releases are

Table 6. Characteristics of the target audience of the journal "Economic and social changes: facts, trends, forecast"

№ п/п	Target audience of the Journal	Needs and interests of the target group	Marketing activities for promotion of the Journal
1.	Research Associates	Findings of relevant theoretical and applied research in various fields of Social Sciences (Economics and Management, Sociology, Social Demography and others). Publication of their research findings.	1. Involvement as contributors to the Journal. 2. Address distribution of information materials about the Journal and guidelines for authors. 3. Mailing of free copies of issues to contributors. 4. Presentation of the Journal in the framework of scientific seminars and conferences. 5. Placement of full-text electronic versions of articles and all other published materials with free access on the official website of the Journal, in Russian and foreign databases.
2.	University professors, graduate students and university students	The use of materials of scientific publications for teaching. Publication of their research findings.	1. Involvement as contributors to the Journal. 2. Address distribution of information materials about the Journal and guidelines for authors. 3. Mailing of free copies of issues to contributors. 4. Presentation of the Journal in the framework of exhibitions of scientific titles by ISEDT RAS in higher education institutions. 5. Placement of full-text electronic versions of articles and all other published materials with free access on the Journal's official website and in Russian and foreign databases.
3.	Representatives of authorities and administration	The application of research results, presented in the scientific journal, for making management decisions, for the use in long-term regional programs, projects, development concepts.	1. Publication of the results of expert opinions. 2. Publication of the results of the public opinion monitoring concerning the assessment of various aspects of public administration efficiency. 3. Free address distribution of the Journal.
4.	Employees of different spheres of socio-economic activity	The use of research findings in their practical activities.	1. Address mailing of information digests on new issues. 2. Publication of the results of the public opinion monitoring concerning the assessment of various aspects of public administration efficiency.
5.	Public	Learning about the activities of academic institutions and latest research findings through the scientific journal.	1. Publication of popular science notes on the Journal's materials. 2. Announcement of new issues of the Journal on the website of the Institute and in the media. 3. Free distribution of the Journal in the largest libraries. 4. Placement of full-text electronic versions of articles and all other published materials with free access on the Journal's official website and in Russian and foreign databases.

systematically announced on the website, and popular science notes on the Journal's materials are published in the media. In addition, the Journal is distributed free of charge in the largest libraries of the country, and its full-text electronic versions are available on its official website, and in Russian and foreign databases.

Summing up, it should be noted that in the six years of issuing the Journal "Economic and social changes: facts, trends, forecast" a number of important tasks were implemented. It publishes the findings of fundamental and applied academic research in Economics; the Journal has become a platform for discussing various issues devoted to analysis and forecast of changes in the economy and social sphere in different countries and regions, and in local areas.

Today we can say that the Journal has acquired its contributors and readership, which is expanding every year. The demand for the Journal in Russian scientific community is confirmed indirectly by the data of the analysis of its scientometric indicators in the national citation index RSCI.

However, the Editorial Board of the Journal will have to solve many tasks of its development and promotion. First of all, it is necessary to implement consistent measures aimed at improving the quality of publications, attract new authors, including leading foreign scientists, expand the publication of joint research findings with colleagues from abroad. The most important task for the near future is to promote the Journal to a higher level by all the qualitative parameters. For this purpose it is necessary not just to enter global databases, but also to raise the quality of publications up to the world standards.

In conclusion, we note that the modern academic publications are in need of state support, without which it will be difficult to facilitate their entry in the leading citation systems. And without promoting economic journals even to a global average level, it is impossible to integrate into the international scientific space.

Sited works

1. Balatsky E.V. The Role of Academic Journals: A Period of Uncertainty. *The Journal of the New Economic Association*, 2011, no.12, pp. 164-166.
2. Ilyin V.A. From the Chief Editor. *Economic and Social Changes: Facts, Trends, Forecast*, 2008, no.1, pp. 3-4.
3. Kirillova O.V. *Editorial Preparation of Scientific Journals according to International Standards. Recommendations of the Scopus Database Expert*. Moscow, 2013.
4. Kleiner G.B. The Mission of an Academic Journal: Between Fundamental Approach and Topicality. *The Journal of the New Economic Association*, 2011, no.12, pp. 171-173.
5. Minakir P.A. *To Publish Impossible to Reject*. The Journal of the New Economic Association, 2011, no.12, pp. 177-179.
6. Pislyakov V.V. Methods of Evaluating Scientific Knowledge by Citation Indicators. *Sociological Journal*, 2007, no.7, pp. 128-140.
7. Polterovich V.M. The Mission of an Economic Journal and the Institution of Refereeing. The Journal of the New Economic Association, 2011, no.12, pp. 194-197.
8. Welcome Address by RAS Vice-President, Academician A.D. Nekipelov. *Economic and Social Changes: Facts, Trends, Forecast*, 2008, no.1, pp. 8-9.
9. Tatarkin A.I. An Academic Journal as Seen from the Country Regions. *The Journal of the New Economic Association*, 2011, no.12, pp. 182-185.
10. Tret'yakova O.V., Kabakova E.A. Opportunities for and Prospects of Using Citation Indices in Evaluating the Performance of Research Institution. *Economic and Social Changes: Facts, Trends, Forecast*, 2013, no.6 (30), pp. 169-179.
11. Axarloglou K., Theoharakis V. Diversity in economics: An analysis of journal quality perceptions. *Journal of the European Economic Association*, 2003, no.1 (6), pp. 1402-1423.
12. Br uninger M., Haucap J. Reputation and Relevance of Economics Journals. *Kyklos,* 2003, no.56 (2), pp. 175-198.
13. Garfield E. *The Agony and the Ecstasy – the History and the Meaning of the Journal Impact Factor. Report at the Fifth International Congress on Peer Review in Biomedical Publication*. Chicago, 2005. Available at: http://garfield.library.upenn.edu/papers/jifchicago2005.pdf
14. Kodrzycki Y.K., Pingkang Yu. New Approaches to Ranking Economics Journals. *Contribution to Economic Analysis and Policy,* 2006, vol. 5, art. 24.

15. Liebowitz S.J., Palmer J.P. Assessing the Relative Impacts of Economics Journals. *Journal of Economic Literature*, 1984, no.22 (1), pp. 77-88.

References

1. Balatsky E.V. Rol' akademicheskikh zhurnalov: period neopredelennosti [The Role of Academic Journals: A Period of Uncertainty]. *Zhurnal novoi ekonomicheskoi assotsiatsii* [The Journal of the New Economic Association], 2011, no.12, pp. 164-166.
2. Ilyin V.A. Ot glavnogo redaktora [From the Chief Editor]. *Ekonomicheskie i sotsial'nye peremeny: fakty, tendentsii, prognoz* [Economic and Social Changes: Facts, Trends, Forecast], 2008, no.1, pp. 3-4.
3. Kirillova O.V. *Redaktsionnaya podgotovka nauchnykh zhurnalov po mezhdunarodnym standartam. Rekomendatsii eksperta BD Scopus* [Editorial Preparation of Scientific Journals according to International Standards. Recommendations of the Scopus Database Expert]. Moscow, 2013.
4. Kleiner G.B. Missiya akademicheskogo zhurnala: mezhdu fundamental'nost'yu i aktual'nost'yu [The Mission of an Academic Journal: Between Fundamental Approach and Topicality]. *Zhurnal novoi ekonomicheskoi assotsiatsii* [The Journal of the New Economic Association], 2011, no.12, pp. 171-173.
5. Minakir P.A. Publikovat' nel'zya otklonit' [To Publish Impossible to Reject]. *Zhurnal novoi ekonomicheskoi assotsiatsii* [The Journal of the New Economic Association], 2011, no.12, pp. 177-179.
6. Pislyakov V.V. Metody otsenki nauchnogo znaniya po pokazatelyam tsitirovaniya [Methods of Evaluating Scientific Knowledge by Citation Indicators]. *Sotsiologicheskii zhurnal* [Sociological Journal], 2007, no.7, pp. 128-140.
7. Polterovich V.M. Missiya ekonomicheskogo zhurnala i institut retsenzirovaniya [The Mission of an Economic Journal and the Institution of Refereeing]. *Zhurnal novoi ekonomicheskoi assotsiatsii* [The Journal of the New Economic Association], 2011, no.12, pp. 194-197.
8. Privetstvie vitse-prezidenta RAN akademika A.D. Nekipelova [Welcome Address by RAS Vice-President, Academician A.D. Nekipelov]// *Ekonomicheskie i sotsial'nye peremeny: fakty, tendentsii, prognoz* [Economic and Social Changes: Facts, Trends, Forecast], 2008, no.1, pp. 8-9.
9. Tatarkin A.I. Akademicheskii zhurnal: kakim on viditsya iz regionov [An Academic Journal as Seen from the Country Regions]. *Zhurnal novoi ekonomicheskoi assotsiatsii* [The Journal of the New Economic Association], 2011, no.12, pp. 182-185.
10. Tret'yakova O.V., Kabakova E.A. Vozmozhnosti i perspektivy ispol'zovaniya indeksov tsitirovaniya v otsenke rezul'tatov deyatel'nosti nauchnogo uchrezhdeniya [Opportunities for and Prospects of Using Citation Indices in Evaluating the Performance of Research Institution]. *Ekonomicheskie i sotsial'nye peremeny: fakty, tendentsii, prognoz* [Economic and Social Changes: Facts, Trends, Forecast], 2013, no.6 (30), pp. 169-179.
11. Axarloglou K., Theoharakis V. Diversity in economics: An analysis of journal quality perceptions. *Journal of the European Economic Association*, 2003, no.1 (6), pp. 1402-1423.
12. Bräuninger M., Haucap J. Reputation and Relevance of Economics Journals. *Kyklos,* 2003, no.56 (2), pp. 175-198.
13. Garfield E. *The Agony and the Ecstasy – the History and the Meaning of the Journal Impact Factor. Report at the Fifth International Congress on Peer Review in Biomedical Publication*. Chicago, 2005. Available at: http://garfield.library.upenn.edu/papers/jifchicago2005.pdf
14. Kodrzycki Y.K., Pingkang Yu. New Approaches to Ranking Economics Journals. *Contribution to Economic Analysis and Policy,* 2006, vol. 5, art. 24.
15. Liebowitz S.J., Palmer J.P. Assessing the Relative Impacts of Economics Journals. *Journal of Economic Literature*, 1984, no.22 (1), pp. 77-88.

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Estimation of the largest enterprises' impact on the socio-economic development of territories

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Abstract. The key basic trends of modern society development are associated with the transfer of some government functions to big business. Thus, scientific and public circles argue about social partnership between government, business and employees and offer different variants of the corporate social responsibility concept.

The article presents the experience to assess social responsibility of business on the example of the largest chemical enterprises located in the Vologda and Novgorod oblasts. The evaluation results have revealed a number of problems hindering the formation of socially responsible behavior of enterprises, particularly the lack of standardized reporting on corporate social responsibility; provision of formal corporate social responsibility report; business' non-system participation in social and economic development of territories. According to the authors, the development of a special model to regulate participants' mutual relations can increase social responsibility of Russian business. Unified interests and resources of business and government promote the development of an agreed strategy in the field of regional social-economic development.

Key words: regional development, social responsibility of business, chemical industry, business structures.

Corporate social responsibility (CSR) is one of the modern forms of government-business interaction encouraging effective solution of social and economic problems of territories' development. However, the Russian business environment is only developing the estimate of this category and scientific works pay insufficient attention to the study of specific mechanisms, promoting the role of business entities in solution of social tasks. Meanwhile, foreign science has been studying the issues to form socially responsible business (SRB) for a long time. The strategic approach to the study of this issue (K. Davis (1960), R. Ackerman (1973), R. Freeman (1984), E. Epstein (1987), T. Donaldson and L. Preston (1995), P. Steuer, M. Porter and M. Kramer (2005), O. Falk and S. Hiblich (2007)) involves the expansion of the boundaries of social responsibility beyond the decisions of short-term domestic industrial and social problems. It presupposes the activities aimed at solving social, environmental and internal and external economic issues.

Many Russian authors (L.I. Abalkin, A.A. Andreev, Yu.E. Blagov, S.E. Litovchenko, N.A. Krichevskii, M.I. Liborakina, A.N. Garkavenko and others) believe that social responsibility increases the resistance not only of an economic entity but of an economic system as a whole due to steady budget replenishment, improvement of ecological situation and preservation of natural resources and increase in the level and life quality of the population.

The corporate social responsibility issue is becoming increasingly important nowadays in Russia as enterprises are the basis for the formation of economic relations and social processes in modern society. However, there are no documents regulating social responsibility of business in most regions of Russia, though the largest enterprises conduct business there and use their resources, its economic and employment potential. Therefore, the current practice to evaluate the role of enterprises in social and economic development of the territory, as a rule, is measured by its share in gross regional product, revenues in the regional budget and the share of job places in their total number in the region.

This traditional approach is used as a basis to assess the role of two North-West largest chemical enterprises JSC “PhosAgro” (the Vologda Oblast) and JSC “Acron” (the Novgorod Oblast). The data are provided in *Table 1*. The main activity of JSC “PhosAgro” is production and sale of phosphate-nitrogen-potash fertilizers, fluorides and other chemical products. As of January 1, 2012, the average number of staff amounted to 6224 people, and the total production of phosphate-nitrogen fertilizers – 11141.3 thousand tons. The contribution of JSC “PhosAgro” in the regional budget system is very significant, especially in 2008 when the enterprise’s tax payments amounted to 11% of all tax revenues.

However, the company’s financial standing worsened due to the crisis and in 2009 its contribution to the regional economy reduced significantly. As of 2012, the holding’s share in total tax revenues amounted to only 4.5%; it formed only 3.4% of GDP, which is below the level of 2008 by 5.8 percentage points. However, the share of employees in total employment of the region increased from 0.68 to 1.03%.

JSC “Acron” is also one of the world’s largest producers of mineral fertilizers. The high degree of vertical integration (development of potash and phosphate deposits, three large production facilities, its own transport infrastructure and international sales network) promotes

Table 1. Indicators characterizing the contribution of JSC "Acron" and JSC "PhosAgro" in the socio-economic development of the territory

Indicator	Enterprise	2007	2008	2009	2010	2011	2012	Change 2007–2012
Share of gross added value of enterprises in GRP of the territory, %	Acron	9.8	16.8	7.1	7.8	11.9	12.3	2.59
	PhosAgro	3.0	9.2	2.1	4.0	5.8	3.4	0.4
Tax payments in the local budget, in % to total tax revenues of the budget of the territory	Acron	23.3	24.6	12.3	13.3	25.9	14.8	-8.5
	PhosAgro	5.0	11.0	3.0	5.0	5.6	4.5	-12.6
Ratio of employees' average wages and region's average wages, times	Acron	2.69	2.08	1.94	1.67	1.67	1.61	-1.08
	PhosAgro	1.45	1.38	1.55	1.44	1.42	1.51	0.06
Share of employees in total employment in the region, %	Acron	1.1	1.1	1.2	1.2	1.2	1.3	0.18
	PhosAgro	0.68	0.72	0.70	0.72	0.73	1.03	0.35

Sources: data of the Federal State Statistics Service, annual reports of JSC "PhosAgro", JSC "Acron".

Table 2. Share of tax payments in the consolidated budgets of the RF subjects received from chemical production in 2007–2012, %

Subject	2007	2008	2009	2010.	2011	2012	Change 2007–2012
Vologda Oblast	5.0	12.9	5.5	7.5	9.4	13.1	8.1
Novgorod Oblast	19.2	32.8	17.9	15.7	20.3	10.5	-8.7

Sources: data of the Federal State Statistics Service; Official website of the Treasury of Russia. Available at: http://www.roskazna.ru

dynamic development of the enterprise. In 2012 the number of its employees amounted to 4029 people. The mineral fertilizers production increased by 9 % to the 2011 level, reaching 2557 thousand tons. However, as in "PhosAgro", the enterprise's revenues have recently fallen, involving the reduction of tax payments to regional and local budgets (*tab. 2*).

It is obvious that the basis for socially responsible behavior of business is successful and dynamic development of industrial-economic activities of a certain enterprise, which stimulate the social sphere in terms of job places, commodity mass, tax replenishment of budgets of all levels and additional social programs. This, it ultimately provides high and sustainable growth rates of the economy as a whole and its individual administrative-territorial formations.

However, do traditional approaches give a more balanced assessment of social responsibility of business? Some researchers measure its level on the basis of enterprises' social reporting, which makes it impossible to use the method in the regions where enterprises are not legally bound to provide such reporting. Others evaluate the level of social responsibility of business by means of questionnaire surveys of enterprises that estimate only the level of social investment. Some other authors apply this indicator considering social and labor relations only at the level of certain enterprises; it requires the access to corporate reports that is difficult in the current market conditions [1, 17, 18 and others]. The lack of the unified methodology is caused by significant complexity to obtain accurate information while analyzing the reports on real volumes and resources for financing certain activities.

In our opinion, the methodology, developed at the Kemerovo State University, increases the reliability of assessment of the business structures' contribution to the territorial development. It is based on the identification of the coefficient of socially responsible enterprise's impact on the regional development by multiplication of the indices of its activities' impact by the economic growth, improvement of the ecological situation, the level and quality of life of the population [11].

We calculate the growth rates in order to ensure comparability and proportionality of heterogeneous indicators for each component. The generalized indicators are calculated through the synthesis of individual articles based on the geometric mean value, which gives the opportunity to hold constant not the sum but the product of individual indices. Thus, the analysis results are not distorted.

In our opinion, as these indicators characterize changes in the total amounts of the enterprise's activity, it is reasonable to calculate the integral coefficient of the impact of enterprise's socially responsible activities on the regional development by means of the geometric mean value:

$$K_{rdi} = \sqrt{K_{egi} \cdot K_{igi} \cdot K_{esi}},$$

where K_{rdi} is a coefficient of enterprise's socially responsible activities on the regional development;

is K_{egi} an index of the impact of enterprise's activities on the economic growth of the region (it is calculated by multiplying the index, indicating the increase in gross added value, and the index, disclosing the increase in tax payments to regional and local budgets, in the reported period compared to the base period);

is K_{igi} an index of the impact of enterprise's activities on the level and quality of life of the population in the region (it is calculated by multiplying the index, indicating the growth of workers' average wages at the enterprise and the index, revealing the increase in the number of employees at the enterprise, in the reported period compared to the base period);

is K_{esi} an index of the impact of enterprise's activities on the ecological situation in the region (it is calculated by multiplying the index, indicating the reduction in harmful substances emissions into water sources and the index, revealing the reduction in harmful substances emissions into the atmosphere).

The economic effect for the region (the index of the impact of enterprise's activities on economic growth) is expressed in the increase in total gross regional product. The social effect (the index of the impact of enterprise's activities on the level and quality of life of the population in the region) is to ensure conditions for preserving social stability and a decent level and quality of life of the population in the region. The ecological effect (the index of the impact of enterprise's activities on the ecological situation in the region) is to reduce the negative impact of enterprise's activities on the ecological situation in the region.

The coefficient of the impact of enterprise's socially responsible activities on the regional development shows that scale of enterprise's activities has changed in certain areas during the study period. Hence, if the volume of production, amount of taxes in the region budget, paid by the enterprise and the level of employment in the enterprise are great, the emissions and pollutants into the atmosphere and water are insignificant, than the index value is the highest. It indicates the growth of the company's contribution to regional development in the period under analysis.

To calculate the maximum value of the coefficient of the impact of enterprise's socially responsible activities on the regional development, it is advisable to use tools of strategic management, particularly the concept of a "win-win strategy", when the state, business and employees benefit ("nonzero game") [16]. Therefore, we are talking about the strategy of compromise cooperation, which is characterized by a balance of interests of authorities, business structures and employees.

The approbation of the offered method is carried out on the example of the above mentioned enterprises of the chemical branch, joint stock companies "PhosAgro" and "Acron".

The first holding had the highest value of the integral index (1.78) of social responsibility in 2010 *(tab. 3)* due to the significant increase (by more than 5 percentage points) in the index of the impact of enterprise's activities on the economic growth of the region. Moreover, the high level of this index in this period was also caused by the growth of gross added value (in 2.3 times) and tax payments to regional and local budgets (in 2.2 times).

However, the values of the integral index of enterprise's social responsibility, the share of gross added value in the GRP and budget revenues have recently declined significantly. In 2012, gross added value and tax payments decreased by 40.2 and 13.2%, respectively. In 2012 in comparison with 2008 the integral indicator of social responsibility of JSC "PhosAgro" decreased by 22% and was 1.21.

The similar picture was observed in JSC "Acron" (for comparison: in 2011 the given

Table 3. Calculation of the coefficient of the impact of activity of JSC "PhosAgro" on regional development

Indicator	2008	2009	2010	2011	2012	Change 2008–2012
1. Index of the impact of enterprise's activities on the economic growth of the region K_{egi}	3.100	0.027	5.089	2.225	0.517	-2.58
Index of the gross added value growth	3.74	0.16	2.33	1.77	0.60	-3.14
Index of the increase in tax payments in regional and local budgets	0.83	0.16	2.18	1.25	0.87	0.04
2. Index of the impact of enterprise's activities on the level and quality of life of the population in the region K_{igi}	1.224	1.119	1.034	1.094	1.687	0.46
Index of the average wages growth	1.19	1.15	1.04	1.08	1.19	0.00
Index of the increase in the average number of employees	1.03	0.97	1.00	1.01	1.42	0.39
3 .Index of the impact of enterprise's activities on the environment situation in the region K_{esi}	0.994	1.184	1.080	1.510	2.025	1.031
Index of the reduction in harmful substances emissions in the atmosphere	0.90	1.07	1.13	1.36	1.92	1.02
Index of the reduction in harmful substances emissions in water						
Coefficient of the impact of enterprise's activityon regional development K_{rdi}	1.10	1.11	0.95	1.11	1.05	-0.05

Sources: data of annual reports of JSC "PhosAgro"; author's calculations.

Table 4. Calculation of the coefficient of the impact of activity of JSC "Acron" on regional development

Indicator	2008	2009	2010	2011	2012	Change 2008–2012
1. Index of the impact of enterprise's activities on the economic growth of the region K_{egi}	5.544	0.239	1.059	4.082	0.715	-4.83
Index of the gross added value growth	2.28	0.43	1.20	1.77	1.07	-1.21
Index of the increase in tax payments in regional and local budgets	2.43	0.55	0.88	2.30	0.67	-1.76
2. Index of the impact of enterprise's activities on the level and quality of life of the population in the region K_{igi}	0.950	1.042	1.006	1.140	1.215	0.27
Index of the average wages growth	0.96	1.01	0.97	1.11	1.10	0.14
Index of the increase in the average number of employees	0.99	1.03	1.03	1.02	1.10	0.11
3 .Index of the impact of enterprise's activities on the environment situation in the region K_{esi}	1.345	0.734	1.016	0.898	0.941	-0.404
Index of the reduction in harmful substances emissions in the atmosphere	1.22	0.80	1.02	0.95	0.96	-0.26
Index of the reduction in harmful substances emissions in water	1.10	0.92	0.99	0.94	0.98	-0.12
Coefficient of the impact of enterprise's activityon regional development K_{rdi}	1.92	0.57	1.03	1.61	0.94	-0.98

Sources: data of annual reports of JSC "Acron"; author' s calculations.

figure was 1.61 against 0.94 in 2012). The unstable situation in the world fertilizers market and the production cost growth has led to reduction in net profit of the enterprise. As a consequence, the level of its social responsibility has fallen by 51% for five years (*tab. 4*).

Thus, summary indices, integrating the variety of separate estimates, comprehensively characterize the degree of enterprises' economic, social and environmental impact on regional development. In the economic and social sphere it is very significant; it is primarily expressed in the share of the regional budget revenues and the population's incomes and creation of new jobs. At the same time, the social reports of the analyzed enterprises do not have quantitative information on employees who received treatment at the expense of the enterprise and on the amount of costs on health resort treatment. However, enterprises indicate that they invest in creating conditions for workers' health resumption, organization of their treatment and implementation of preventive measures and so on. It is also impossible to trace the annual dynamics of investments to develop infrastructure of the city and surrounding areas, objects of culture and sports, to support public associations and carry out cultural and sport festivals. The analysis of the enterprises' non-production sphere has identified a lack of effective cooperation with local and regional authorities.

The main problem in the development of corporate social responsibility in Russia is related to the lack of the legislative basis in this field and, consequently, the lack of unified forms of social reporting. It is not possible to identify the retrospective and system dynamics of social investments in the development of both its own personnel and the local community.

So, the enterprises' implementation of social obligations is important as their staff has a key influence on the enterprises' efficiency. The provision of growing investments in the activities aimed at reducing injuries and occupational illnesses is required under the enterprise's functioning strategies, meeting international standards in the field of labor protection and industrial safety.

One of the crucial factors of sustainable development is also efficient use of energy and ecological compatibility of production. It is a strategic priority for industrial enterprises due to limited resources. It is necessary to withstand the conformity to world ecological standards (ISO 14000 "International standard on environmental management", ISO 26000:2010 "Guidance on social responsibility", etc.). Good results in this sphere encourage investment in energy efficiency and reduction in emissions into the environment, reduction in penalties, etc.

Hence, the assessment of social responsibility of business is critical as enterprises can not only inform the stakeholders on their social development and contribution to socio-economic development of the territory, but also identify weak points and prepare preemptive measures of their elimination. They attract additional investment required to create new job places, strengthen local infrastructure, promote poverty reduction and spread of advanced technologies, encourage interregional cooperation and economic growth.

That is why it is necessary to develop a number of strategic directions. Their implementation will increase the role of Russian business in regional development. In particular, the state should monitor that all the market subjects fulfill social, tax and other fiscal obligations and support the development of civil society institutions. Business should meet statutory obligations and expand the existing range of key stakeholders [2, p. 80].

The social programs, aimed at regional development, can become more effective, firstly, due to their focus on the important social result and compliance with the enterprise's business interests of or the so-called "business-effect". Secondly, their efficiency is raised due to the development and implementation of social programs as a result of joint work of enterprises, public authorities and regional government on the basis of social partnership principles, but not as a one-time campaign "socially responsible business". The third aspect is the use of an innovative approach to support new social technologies and modern management mechanisms, primarily the competitive distribution of funds, equity financing, monitoring and evaluation of social and economic results of enterprises' activity [6, p. 127].

The analysis result is a diagram of interaction of socially responsible business participants in the region based on the compromise cooperation strategy (*figure*). The goals of sustainable development of the territory, successful modernization of the economy and social sphere involve the establishment of effective mechanisms of interaction between society, business and the state, aimed at coordinating efforts of all parties when developing and implementing social and economic policy.

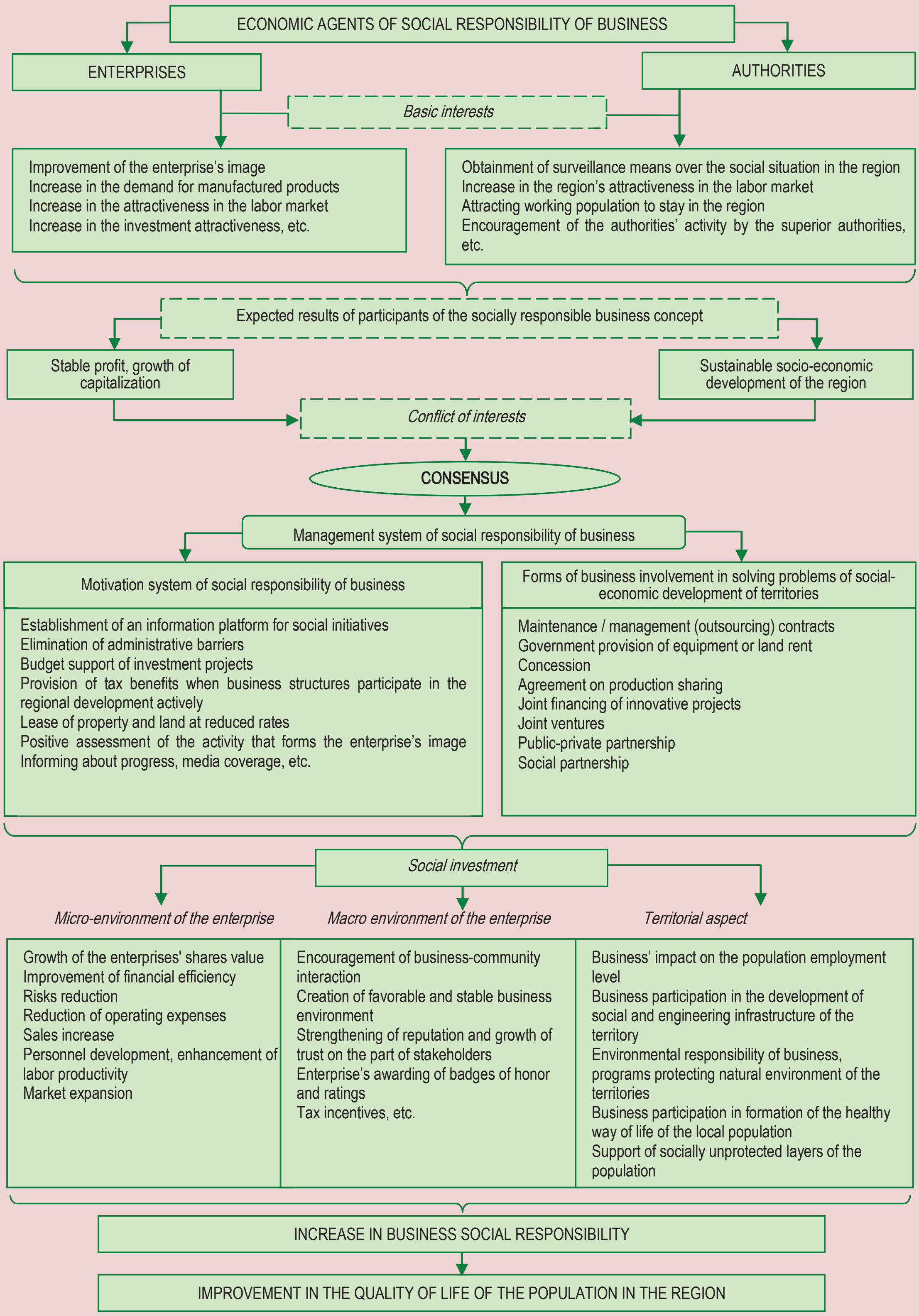
To increase the role of Russian business in regional development it is necessary to:

➦ take into consideration social activities, which give an opportunity to efficiently solve socio-economic problems and to provide sustainable competitive advantages;

➦ actively integrate socially responsible business in the system of corporate governance, develop organizational support of social activities by setting up specialized committees, introduce principles of regular work on social reporting;

➦ interact with "internal" and "external" stakeholders on a permanent basis and consider these mutually beneficial relation-

Scheme of interaction between the participants of socially responsible business in the region



ships as a critical resource for enterprises' sustainable development [7];

➦ support the process of progressive experience exchange and spread of best practices in the field of socially responsible business.

At the same time, regional authorities are required to:

– conduct an open dialogue with business on the joint decision of critical problems of regional development, paying particular attention to mechanisms of mutually beneficial public-private and social partnerships;

– develop a legislative basis and practice of material and moral encourage of business to participate in the solution of social problems by means of corporate social investment;

– increase socially responsible business' opportunities in the fight against corruption and enhance the overall efficiency of the state;

– facilitate the development of civil society institutions, participants of the dialogue with business, also by means of competitive funding;

– promote the spread of sustainable development ideas through the education system, activities of state and non-profit organizations and mass media.

Thus, the formation of socially responsible behavior in the business environment is possible only with the state support and its active participation in the solution of social problems. The first step is a detailed study of the regulatory base and legislative regulation of this process, as well as development and approval of unified forms of social reporting. However, the mechanism of socially responsible entrepreneurship can not be considered as the main (and the only) way to mitigate social contradictions and ensure social security and sustainable development. This is just one element in the system, where the state's coherent social and economic policy plays a leading role.

So, social responsibility should be viewed as one of the mechanisms of enterprises' functioning. It increases not only the stability of the economic entity, but also of the regional economic system as a whole. The growth of regional development sustainability is due to stable budget revenues, improved environment, preserved natural resources and increased level and quality of life of the population.

Sited works

1. Andreeva E.L. *Mechanisms to Assess the Impact of Social Responsibility of Business on Sustainable Development of Regions*. Ekaterinburg: Institut ekonomiki UrO RAN, 2010. 43 p.
2. Barabanov A., Razgulina E. Social Responsibility of Business and Development of Territories. *Theoretical and Practical Issues of Management*, 2013, no.5, pp. 73-81.
3. Garkavenko A.N., Loseva E.Yu., Pilyugin E.A. Social Responsibility of Business as a Mechanism of Counteraction to Crisis Phenomena. *Economy of the Region,* 2009, no. 3, pp. 174-180.
4. Conceptual Bases of Formation of Social Responsibility of Business in Russia: Collection of Scientific Works. Edited by Doctor of Economics, Professor E.M. Kozakov. Yekaterinburg: Institut ekonomiki UrO RAN, 2008. 140 p.
5. *Corporate Social Responsibility: Public Expectations. Consumers, Managers, Opinion Leaders and Experts Assess the Social Role of Business in Russia*. Edited by S.E. Litovchenko, M.I. Korsakov. Moscow: Assotsiatsiya menedzherov, 2003. 100 p.
6. Kravtsova T.V. Technology of Social Investment and Growth of Social Responsibility of the Regional Business. *Terra Economicus*, 2010, vol. 8, no. 4–3, pp. 125-129.
7. *Official Website of Russian Managers Association*. Available at: http://www.amr.ru/
8. *Official Website of JSC "Acron"*. Available at: http://www.acron.ru/
9. *Official Website of JSC "EuroChem"*. Available at: http://www.eurochem.ru/
10. *Official Website of JSC "PhosAgro"*. Available at: http://www.phosagro.ru/
11. Perekrestov D.G., Povarich I.P., Shabashev V.A. *Corporate Social Responsibility: Theoretical and Practical Issues: Monograph*. Moscow: Izdatel'skii dom "Akademiya estestvoznaniya", 2011. 216 p.

References

12. Andreeva E.L. *Mekhanizmy otsenki vliyaniya sotsial'noi otvetstvennosti biznesa na ustoichivoe razvitie regionov* [Mechanisms to Assess the Impact of Social Responsibility of Business on Sustainable Development of Regions]. – Ekaterinburg: Institut ekonomiki UrO RAN, 2010. 43 p.
13. Barabanov A., Razgulina E. Sotsial'naya otvetstvennost' biznesa i razvitie territorii [Social Responsibility of Business and Development of Territories]. *Problemy teorii i praktiki upravleniya* [Theoretical and Practical Issues of Management], 2013, no.5, pp. 73-81.
14. Garkavenko A.N., Loseva E.Yu., Pilyugin E.A. Sotsial'naya otvetstvennost' biznesa kak mekhanizm protivodeistviya krizisnym yavleniyam [Social Responsibility of Business as a Mechanism of Counteraction to Crisis Phenomena]. *Ekonomika regiona* [Economy of the Region], 2009, no. 3, pp. 174-180.
15. *Kontseptual'nye osnovy stanovleniya sotsial'noi otvetstvennosti biznesa v Rossii: sb. nauch. tr.* [Conceptual Bases of Formation of Social Responsibility of Business in Russia: Collection of Scientific Works]. Edited by Doctor of Economics, Professor E.M. Kozakov. Yekaterinburg: Institut ekonomiki UrO RAN, 2008. 140 p.
16. *Korporativnaya sotsial'naya otvetstvennost': obshchestvennye ozhidaniya. Potrebiteli, menedzhery, lidery obshchestvennogo mneniya i eksperty otsenivayut sotsial'nuyu rol' biznesa v Rossii* [Corporate Social Responsibility: Public Expectations. Consumers, Managers, Opinion Leaders and Experts Assess the Social Role of Business in Russia]. Edited by S.E. Litovchenko, M.I. Korsakov. Moscow: Assotsiatsiya menedzherov, 2003. 100 p.
17. Kravtsova T.V. Tekhnologiya sotsial'nogo investirovaniya i rost sotsial'noi otvetstvennosti regional'nogo biznesa [Technology of Social Investment and Growth of Social Responsibility of the Regional Business]. *Terra Economicus*, 2010, vol. 8, no. 4–3, pp. 125-129.

18. *Official Website of Russian Managers Association*. Available at: http://www.amr.ru/
19. *Official Website of JSC "Acron"*. Available at: http://www.acron.ru/
20. *Official Website of JSC "EuroChem"*. Available at: http://www.eurochem.ru/
21. *Official Website of JSC "PhosAgro"*. Available at: http://www.phosagro.ru/
22. Perekrestov D.G., Povarich I.P., Shabashev V.A. *Korporativnaya sotsial'naya otvetstvennost': voprosy teorii i praktiki: monografiya* [Corporate Social Responsibility: Theoretical and Practical Issues: Monograph]. Moscow: Izdatel'skii dom "Akademiya estestvoznaniya", 2011. 216 p.
23. Razgulina E.D. Vklad krupneishikh predpriyatii metallurgicheskoi otrasli v razvitie territorii [Contribution of Metallurgical Industry Enterprises in the Development of Territories]. *Problemy razvitiya territorii* [Problems of Development of Territories], 2013, no.5(67), pp. 25-32.
24. Razgulina E.D. Uchastie biznesa v reshenii sotsial'nykh zadach razvitiya territorii [Participation of Business in Solving Social Problems of Territorial Development]. *Sovremennye nauchnye issledovaniya i innovatsii* [Modern Scientific Research and Innovation], 2013, no.9. Available at: http://web.snauka.ru/issues/2013/09/26334
25. Tatarkin A.I. Modernizatsionnaya missiya Urala v povyshenii integratsionnoi aktivnosti rossiiskoi ekonomiki. Chast' 2 [Modernization Mission of the Urals to Enhance the Integration Activity of the Russian Economy. Part 2]. *Regional'naya ekonomika i upravlenie: elektronnyi nauchnyi zhurnal* [Regional Economics and Management: Online Science Journal], 2013, no.1(33).
26. Uskova T.V. *Upravlenie ustoichivym razvitiem regiona: monografiya* [Management of Sustainable Development of the Region: Monograph]. Vologda: ISERT RAN, 2009. 355 p.
27. Hrdinová G. Kontseptsiya sozdaniya sistemy ustoichivoi strategii korporativnoi sotsial'noi otvetstvennosti [The Concept for Creating the System of Sustainable Strategy of Corporate Social Responsibility]. *Problemy razvitiya territorii* [Problems of Development of Territories], 2014, no.2(70), pp. 49-66.
28. Chubarova T.V. *Sotsial'naya otvetstvennost' v rynochnoi ekonomike: rabotnik, biznes, gosudarstvo* [Social Responsibility in the Market Economy: the Employee, Business, State]. Saint Petersburg: Nestor-Istoriya, 2011. 320 p.
29. Sakál P., Hrdinová G. Corporate Social Responsibility (CSR) verzus HCS model 3E. *Finanční a logistické* řízení *podniku: zborník z medzinárodnej vedeckej konferencie*. Ostrava: VŠB-TU Ostrava. 2009, pp. 499-505.

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Gender analysis of the Russian labor market

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Abstract. The issue of gender inequality in the labor market affects all world countries to some extent. As salary is the basis of population's sources of income in Russia, unequal pay to men and women for equal work can trigger gender discrimination in the labor market and beyond.

The article focuses on the gender analysis of the Russian labor market. It focuses on conjunctural conditions of the labor market in a gender aspect, socio-economic characteristics of men and women as subjects of the labor market and the institutional features of the Russian labor market.

The study reveals that, despite lower wages, women, judging by their socio-economic characteristics, possess competitive advantages over men, having higher level of education and better state of health. In addition to horizontal segregation, traditional partition of industries to "male" and "female", the main causes of gender wage gaps are discriminatory social attitudes and social role of women. The issue to address gender discrimination in the modern Russian society becomes more critical due to contradiction between normative-legal acts, stipulating the gender equality in all spheres of life, and discriminatory social attitudes.

The article gives a brief overview of research and practice publications on the problem of gender disparities in labor remuneration and methods to address them in the developed world. The state statistical monitoring of labor productivity in terms of gender is considered as a tool for in-depth study of discrimination.

Key words: labor market, gender, wages, inequality, discrimination.

The issue of gender inequality in the labor market affects all world countries to some extent. It is relevant, because the inequality in the sphere of social and labor relations and, in particular, in the field of labor remuneration, is the basis for economic and social inequality, since salary is one of the population's main sources of income. For instance, in Russia in 2012 it was 41.5% of the total income of the population [7, p. 170]. Gender inequality can create an economic base for the development of informal institute of gender discrimination, which causes adverse socio-economic consequences. Though rights equality and freedoms of men and women are formally declared, their implementation in practice can be very difficult. It results in unreasonably worse labor conditions for women, reduction in their productivity and economic losses for the whole territory.

The significant number of research and practical work is devoted to the problem in national and foreign literature (R. Kapelyushnikov, V. Gimpel'son, G. Becker, T. Petersen, V. Snartland, E. Milgrom and others).

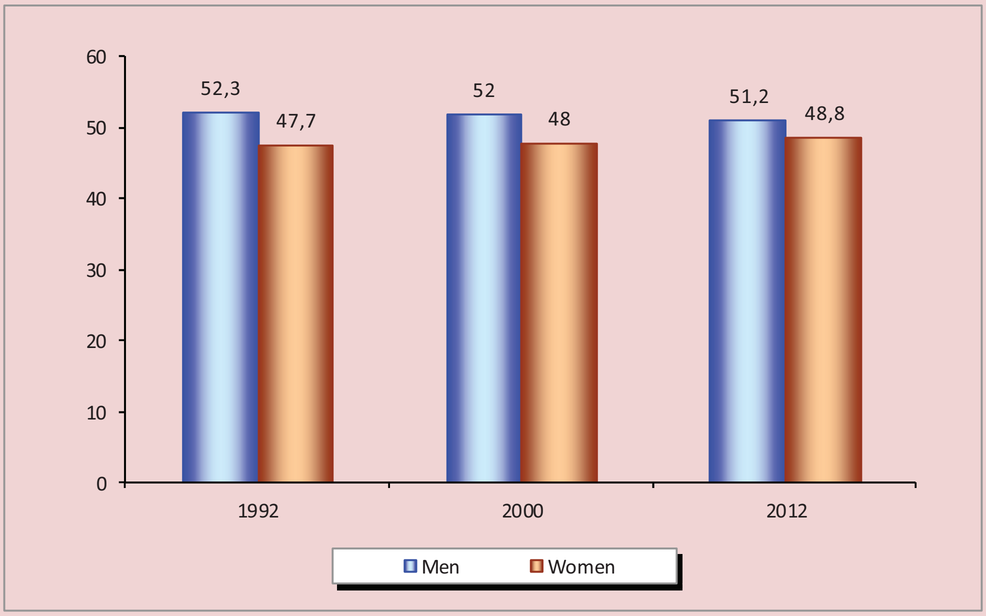
The present study analyzes the Russian labor market in the gender aspect, namely: conjunctural conditions of the labor market – economic activity, employment and unemployment, vertical and horizontal segregation; socio-economic parameters affecting employment – education and health state; institutional conditions – legal regulation and social attitudes. The research includes only economically active population, only those men and women that are part of the Russian labor market.

The indicator of the degree of women's participation in the labor market is the ratio of economically active men and women (*fig. 1*). This indicator is used by the experts of the World Economic Forum (WEF) to assess the overall access of women to the labor market.

The given data reveal that the proportion of women in the gender structure of the Russian labor market has not undergone significant changes, increased by only 1.1% over a twenty-year period. Thus, men and women take almost equal part in this sphere. According to the "Global Competitiveness Report", published annually by the WEF, the gender structure of the labor market is Russia's competitive advantage, ranking 41 by this indicator (among 148 countries) [19, p. 27]. The proportion of economically active women in the labor market in the period of 1992–2012 is almost equal to their proportion in the number of employed population. Therefore, the Russian labor market provides both gender groups with opportunities for economic activity.

This conclusion is confirmed by unemployment indicators in the gender aspect. Today the level of unemployment among women is a bit lower than among men, although the early 1990s experienced no gender differences. Probably, such data are caused by the inaccuracy of statistical measurements, as unemployment an institute was only arising in Russia in that period. However, in 1996 the gap between female and male unemployment was 0.7 p.p. [8, p. 160]. One reason for less unemployment among women is that they often agree on lower wages due to their gender role (*tab. 1*).

Figure 1. Ratio of men and women in the structure of the economically active population, %



Sources: Trud i zanyatost' v Rossii 2001: stat. sb. [The 2001 Labor and Employment in Russia: Statistics Digest]. Rosstat. Moscow, 2001, p. 34; Trud i zanyatost' v Rossii 2005: stat. sb. [The 2005 Labor and Employment in Russia: Statistics Digest]. Rosstat. Moscow, 2005, p.31; Trud i zanyatost' v Rossii 2013: stat. sb. [The 2013 Labor and Employment in Russia: Statistics Digest]. Rosstat. Moscow, 2013, p. 41; author's calculations.

Table 1. Unemployment rates of men and women in the Russian Federation

Gender group	1992	2000	2012
Overall unemployment rate, %			
Men	5.2	10.2	5.8
Women	5.2	9.4	5.1
Total	5.2	9.8	5.5
Gap between the levels of male and female unemployment, p.p.	0.0	0.8	0.7
Registered unemployment rate			
Total number of the unemployed registered with the employment service, thousand people	61.9	1037	1064.7
Number of women registered with the employment service, thousand people	43.1	714.8	593
Share of women in the total number registered with the employment service, %	69.6	68.9	55.7
Average duration of job search, months			
Men	3.9	8.6	7.4
Women	4.9	9.7	7.7
Total	4.4	9.1	7.5
Difference in the duration of job search by men and women, months.	-1	-1.1	-0.3

Sources: Trud i zanyatost' v Rossii 2001: stat. sb. [The 2001 Labor and Employment in Russia: Statistics Digest]. Rosstat. Moscow, 2001, pp. 160-200, 224-225; Trud i zanyatost' v Rossii 2005: stat. sb. [The 2005 Labor and Employment in Russia: Statistics Digest]. Rosstat. Moscow, 2005, pp. 111, 151, 180-181; Trud i zanyatost' v Rossii 2013: stat. sb. [The 2013 Labor and Employment in Russia: Statistics Digest]. Rosstat. Moscow, 2013, pp. 119, 165, 196; author's calculations.

The Russian labor market model stipulates stable employment at low wages [3]. That is, unemployment and wages are not in direct dependence from each other. At the same time the situation can be different in the gender aspect: attracted by, established in the labor market, employers can give preference to women as women's wages are lower.

The unemployment structure comprises youth unemployment – the share of the 15–29 year old population in the total number of the unemployed. According to our estimates, the level of youth unemployment among women and men is almost the same, respectively 43.4 and 42.9% in 2012 [13, p. 119]. Such a high percentage is caused by economic disadvantages of hiring young people with no work experience. Young women unemployment is complicated by the fact that often the entrepreneur is not economically interested to take social responsibility for their reproductive function, as it concerns provision them with benefits for pregnancy and childbirth, maternity pay and retention of position [2, p. 32]. Such approach influences employment of young women, especially without children, who are in the risk group.

The women position in the labor market is reflected by the level of the registered unemployment: if in the beginning of the transformation period women comprised about 70% of the unemployed registered with the employment service, in 2012 its share fell to 55.7 %. On the one hand, it can indicate stabilization of female employment. On the other hand, it can reveal a higher level of women's confidence to public institutions, which correlates with the data of empirical studies [4, p. 113]. Moreover, women, remained unemployed, resort to employment services more actively.

As for incomplete unemployment, it does not reveal significant gender inequality: in 2012 women sought work 9 days longer, while in 1992 the gap amounted to one month. Duration of job search reflects the degree of social mobility. Men traditionally have a bit higher degree than women. The situation in the labor market is generally favorable for women due to relatively low wages for their work. With other conditions being equal, women have to either make more efforts to get a well-paid job or to agree to a low-paid one. In addition, they often prefer guaranteed work, albeit with lower wages, since the search for well-paid work is connected with additional costs, which may not be compatible with their social and biological functions.

Obviously, the labor force quality is largely determined by the educational component, the value of which increases due to the requirements of innovative economy [6, p. 62]. To compare the labor force quality of men and women, we have used such factors as the share of men and women with higher and secondary professional education in the economic population structure of Russia (*tab. 2*).

Table 2. Share of men and women with higher and secondary professional education in the economic population structure of Russia

Gender group	1992	2000	2012
Economically active population with higher education			
Thousand People			
Men	5717	6921	10046
Women	6140	7812	12370
Total	11857	14733	22416
In %			
Men	48	47	45
Women	52	53	55
Total	100	100	100
Economically active population with secondary professional education			
Thousand People			
Men	10284	9195	8158
Women	13234	10886	11390
Total	23518	20081	19548
In %			
Men	44	46	42
Women	56	54	58
Total	100	100	100

Sources: Trud i zanyatost' v Rossii 2001: stat. sb. [The 2001 Labor and Employment in Russia: Statistics Digest]. Rosstat. Moscow, 2001, p. 37; Trud i zanyatost' v Rossii 2005: stat. sb. [The 2005 Labor and Employment in Russia: Statistics Digest]. Rosstat. Moscow, 2005, p. 35; Trud i zanyatost' v Rossii 2013: stat. sb. [The 2013 Labor and Employment in Russia: Statistics Digest]. Rosstat. Moscow, 2013, p. 45; author's calculations.

According to professional education, the structure of female and male labor force varies: the share of women with higher and secondary professional education is traditionally higher than that of men and tends to moderate growth. In the 1992–2012 period the share of women with higher and secondary professional education have increased by three and two percentage points, respectively, amounting to 55% and 58%.

However, despite a higher level of education women lag behind men by level of wages. It is connected with the traditional concentration of women in low-paid sectors of the national economy. Women work in spheres that usually require higher or secondary professional education, continuous retraining and improvement of professional skills, such as health, education, social services sphere, which, traditionally maintained by women. According to G.S. Becker, investments in human capital that comprise the cost of professional education have a high degree of risk and do not always pay off [15]. This statement is true for the Russian labor market. High level of education does not guarantee having a well-paid job, but it provides more opportunities to find a job with better working conditions. Thus, for women, obtaining professional education is often not an investment in future high wages, but a competitive advantage when seeking employment.

According to the WEF "Global Competitiveness Report", Russia ranks 83 among 133 states by the ratio of wages of men and women. Russian women's salaries amount to 63% of men's. This ratio is observed in Slovenia, the Dominican Republic, Cyprus, Senegal and Costa Rica [17, p. 50]. It corresponds to the calculated by Rosstat differentiation in average accrued wages, which for women amounted to 64.1 % of men's salaries in 2011 [13, p. 460]. And for ten years this gap, reaching 63.2% in 2000, has not decreased [8, p. 357].

However, this method to estimate differentiation is not quite correct. The average monthly salary (including that in the sectoral aspect) does not seem to reflect inequalities in remuneration. In accordance with the International Labor Organization Convention (ILO) no. 100, equal pay to men and women for equal work means establishing wage rates without gender discrimination [5] (with time-based pay system; when there is a piece rate wage system, the same measurement units of output produced).

The estimate of average monthly salary does not reveal the nature of work performed, as it reflects the situation in aggregate labor market. For maximum approximation of the wages evaluation to the category of "work of equal value" male and female workers were grouped by major activities. At the same time, this grouping excludes a factor of vertical segregation (distribution within the official hierarchy).

To eliminate differences in wages caused by the unequal length of time worked (in 2012 the length of a working week for men amounted to 39.4 hours, for women – 36.8 hours [13, p. 110]), we considered an hour as a minimum accounting unit of time.

In 2011, the average hourly wage of women was at the level of 58-85% of men's salaries who have the same qualification categories (*tab. 3*).

Women get lower wages in all spheres, with the only exception being the sphere

Table 3. Average hourly wages of men and women in the Russian Federation by major activities in 2011*in rubles, in current prices

Employees categories by major activities	Men's wages	Women's wages	Ratio of women's wages to men's, %
Heads of enterprises and their structural subdivisions	224.2	154.9	70
Specialists of the highest level qualification	143.7	111.7	77
Specialists of the middle level qualification	133.1	77.7	58
Qualified worker	109.2	76.3	71
Unqualified workers	51.8	45.3	85

*Official statistical data for later years are not available.

Sources: Trud i zanyatost' v Rossii 2013: stat. sb. [The 2013 Labor and Employment in Russia: Statistics Digest]. Rosstat. Moscow, 2013, pp. 468-469; author's calculations.

of natural sciences and healthcare, where women's hourly wages amount to 97.9 rubles and men's hourly wages – 92.7 rubles [13, p. 468]. The study indicates a general trend: the higher the wage is, the higher the gender differences are. On average, one work hour for women amounts to 72% of the fee per hour for men of the relevant qualification. So, the difference in hourly wages is a bit less than that in average monthly wages in aggregate labor market.

To identify objective economic conditions of such differentiation we estimate the parameters of the labor market and compare socio-economic characteristics of men and women that determine the specifics of their work.

Primarily traditional sectoral concentration of women in the national economy structure, i.e. horizontal segregation, leads to gender differences in remuneration. To assess this concentration, we range Russian economy sectors by the share of women workers and average monthly wage (*tab. 4*).

As noted above, the highest concentration of women is in the economy, characterized by the lowest wages, such as education, health care, social services and trade. There is an exception, the financial sector, having the highest level of wages and relatively high concentration of women. However, this sphere does not a significant impact on aggregate labor market due to the small share of the employees, engaged in the national economy (only 2%) [13, p. 84].

Table 4. Gender structure of the national economy sectors and remuneration in the Russian Federation in 2012, in rubles, in basic prices

Economy sector	Concentration of women		Wages (exclusive of gender differentiation)		
	In %	Range	In rubles	In % of average	Range
Education	81.5	1	18995	71	13
Health care and social services	79.9	2	20641	78	12
Hotels and restaurants	77.0	3	16631	62	14
Other community, social and personal services	69.5	4	20985	79	11
Financial activity	67.4	5	58999	222	1
Wholesale and retail trade	61.6	6	21634	81	10
Operations with real estate, lease and provision of services	41.5	7	30926	116	5
Public administration and military security	41.3	8	35701	134	3
Manufacturing	39.9	9	24512	92	9
Agriculture	36.8	10	14129	53	15
Production and distribution of electricity, gas and water	28.4	11	29437	111	6
Transport and communications	27.0	12	31444	118	4
Mining	20.1	13	50401	189	2
Construction	14.8	14	25951	97	8
Fisheries	11.8	15	29201	110	7
Total	49.0		26629	100	

Sources: Trud i zanyatost' v Rossii 2013: stat. sb. [The 2013 Labor and Employment in Russia: Statistics Digest]. Rosstat. Moscow, 2013, p. 87, 436; author's calculations

The important factor of people's successful labor activity is the state of their health that determines productivity and labor intensity. To assess the health state of adult population, the World Health Organization (WHO) uses the death rate indicator, calculated as the death probability of people aged 15–60 per 1000 people in the respective age group. This age period is close to the working age period that allows you to estimate the health labor resources (tab. 5). According to the WHO, in 2011 in Russia the death rate among adult men amounted to 351% and among adult women – to 131%.

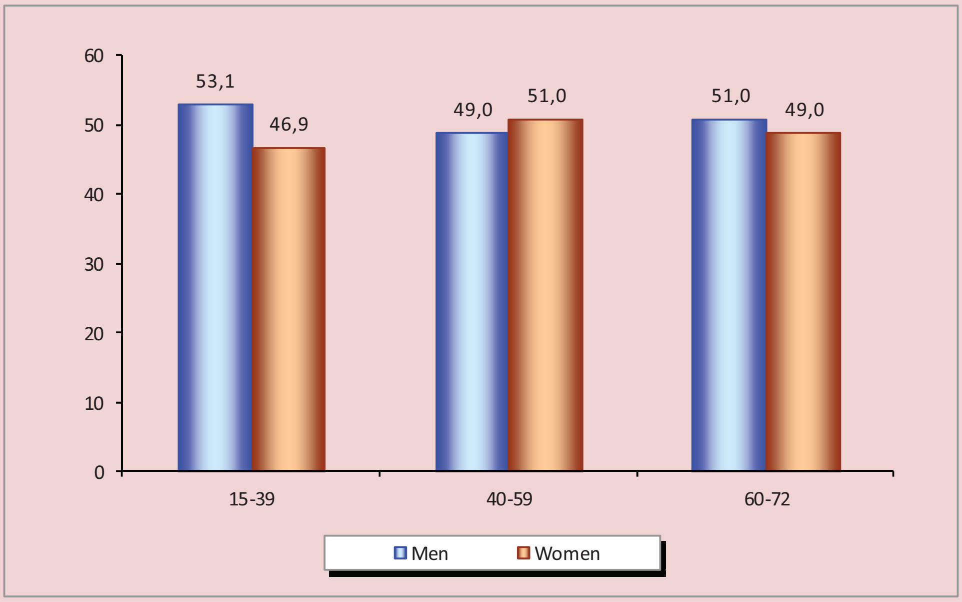
It indicates that the health state of the Russians is much worse than that of people in developed European countries. Mortality of adult men in Russia is close to that in Kenya (346%) and Eritrea (347%); mortality of adult women – to Libya (134%) and North Korea (131%). As in most countries women in Russia have a better state of health. Demographic situation in Russia is characterized by a significant gap in the health state of men and women: if the death rate of adult men with corresponds to similar indicators of Sub-Saharan Africa countries, the mortality of adult women in Russia is closer to the countries of Asia, North Africa and the Commonwealth of Independent States. The health state of adult population affects economic activity of different age groups. In 2012 there was the most significant gender disparity in the population group of people aged 15–39: the share of economically active men in the labor market exceeded the share of women by 6.2% and amounted to 53.1% *(fig. 2)*. In older age groups this ratio stabilized – 51% of the labor market participants aged 40–59 were women.

Table 5. Mortality of adult population (aged 15-60 years) in the world

Territory	1990	2011	Trend
Men's mortality			
Norway	128	77	-51 ▼
UK	129	91	-38 ▼
Germany	157	96	-61 ▼
Kenya	395	346	-49 ▼
Eritrea	528	347	-181 ▼
Russia	318	351	33 ▲
Djibouti	375	352	-23 ▼
Women's mortality			
Norway	65	49	-16 ▼
Germany	77	51	-26 ▼
UK	78	57	-21 ▼
Russia	117	131	14 ▲
DPRK	91	131	40 ▲
Libya	164	134	-30 ▼
Kyrgyzstan	156	135	-21 ▼

Sources: World Health Statistics 2013: Statistics Digest. Geneva: World Health Organization, 2013, pp. 53-57; author's calculations.

Figure 2. Economic activity of men and women in Russia in 2012
(in % of total population of the relevant age group)



Sources: Trud i zanyatost' v Rossii 2013: stat. sb. [The 2013 Labor and Employment in Russia: Statistics Digest]. Rosstat. Moscow, 2013, p. 41; author's calculations.

In the population group of people aged 60–72 the share of economically active men exceeded the share of women by 2%, however, this age group comprises only 4.5% of the aggregate labor market.

It should also be noted that the Russian Federation is one of those states, where adult mortality has increased for 1990–2011.

One of the factors that have a negative impact on the health status of the population is working conditions. In this respect women are in a more advantageous position than men. In Russia in 2012 18.2% of the total number of men employed in the economy worked in harmful and dangerous working conditions, 4.6% – of the total number of women; harmful and dangerous working conditions amounted to 11.2% of the total number of jobs [13, pp. 87, 353-355]. Working conditions of men and women are also different due to gender distribution by types of economic activity: most workplaces with harmful and dangerous working conditions are concentrated in traditionally "male" economy sectors: mining, construction, manufacturing, distribution of gas and water, transport and communications.

Having considered the basic parameters of the labor market and socio-economic characteristics of men and women, we see that nowadays there are no objective characteristics of the female labor force, contributing to segregation in the labor remuneration, as women and men are almost equally presented in the labor market, female unemployment is lower than men's. Women's competitive disadvantages are longer job search and youth unemployment. At the same time, women have certain competitive advantages, surpassing men by the level of education and health. Moreover, these benefits are gradually growing: adapting to the requirements of the labor market, seeking to work in more favorable conditions (women are, as a rule, more concerned about their health state than men), women try to get professional education. Often they are unable to use their advantages. Differentiation in labor remuneration of men and women is not being caused by economic, but social and institutional conditions. Women's social role is caring for children, their upbringing, housekeeping often at the expense of employment and career.

As for institutional reasons, E.V. Bazueva indicates the significant conflict between formal and informal institutions: if the system of formal rules (national and international legislation) guarantee equal rights for men and women in all life spheres, the system of informal rules (customs, traditions, social attitudes) presupposes a secondary position of women [1, p. 56]. In her opinion, in the future Russia expects strengthening of these institutional factors due to the rapprochement of the state and the Orthodox Church, preaching traditional attitudes towards social roles given to each gender [1, p. 55].

The social roles of women are viewed as natural and not discriminatory. No problem arises in case if their performance is voluntary and conscious (a woman gives more time and effort to household chores deliberately). However, if these social roles and attitudes are contradictory to a woman's personal choice, imposed by the society and create conditions for gender segregation, they become discriminatory and can have adverse socio-economic consequences. The situation can aggravate if the discriminatory conditions in the sphere of informal institutions are in conflict with formal institutions. So, it is problematic to overcome this, only issuing laws that contain direct prohibition on discrimination or different forms of "positive actions". In our opinion, to achieve equality in the remuneration, women have to make great efforts, increasing gender gap in education and health until women's socio-economic roles become more required than informal institutional barriers in the Russian labor market.

More convincing evidences of wage discrimination (unequal pay for equal work) on the gender basis are provided with the analysis of the productivity of men and women. However, the Russian statistics service does not estimate labor productivity in the gender aspect. Monitoring of productivity of men and women can become an effective tool to measure gender inequality in the Russian labor market.

Today we have only foreign authors' scientific and empirical researches on the issue of the gender analysis of labor productivity. According to T. Petersen, V. Snartland and E. Milgrom and others, in developed countries the gap in productivity of men and women of working professions is small and amounts to 3% in Norway, 2% – in the United States and 1% in Sweden [18].

One of the effective ways to overcome gender discrimination is the employers' transition to the practice of "effective employment contract", stipulating the use of piecework remuneration forms [18]. The reason for it is that to identify price differences according to sex is much more complicated than according to an hour of time worked, since the finished product is already not a labor force manifested in hours but an impersonal result of its use. But it should be noted that application of the effective contract system would be premature till the Russian population survey' studying the level of labor productivity is carried out and female productivity is evaluated in sectoral and qualification aspects.

Sited works

1. Bazueva E.V. Institutional Environment of Modern Russia: Gender Indicator of Efficiency. *Bulletin of the Perm State University*, 2011, no. 2 (9), pp. 47-60.
2. Berezovskaya G.V. Women in the Labor Market of the City of Ust-Ilimsk: Gender Inequality and Ways of Its Overcoming. *Almanac of Modern Science and Education,* Tambov: Gramota, 2008. No. 4 (11). In 2 parts. Part 2. Pp. 31-33.
3. Kapelyushnikov R. I. *The End of the Russian Model of the Labor Market?: Preprint*. Moscow: Izd. dom Gosudarstvennogo universiteta Vysshei shkoly ekonomiki. 80 p.
4. Kozhina T.P. People's Confidence in Governmental and Public Institutions: Regional Aspect. *Problems of Development of Territories*, 2013, no.3(65), pp. 100-115.
5. Convention on Equal Remuneration for Men and Women for Work of Equal Value: Adopted on 29 June 1951 at Session 34 of the General Conference of the International Labor Organization. *Konsultant Plus: Reference-Legal System*.
6. Leonidova G.V., Panov A.M. Territorial Aspects of Labor Potential Quality. *Problems of Development of Territories*, 2013, no. 3 (65), pp. 60-70.
7. *The 2013 Socio-Economic Indicators: Statistics Digest*. Rosstat, Moscow, 2013. 990 p.
8. *The 2001 Labor and Employment in Russia: Statistics Digest*. Rosstat, Moscow, 2001. 580 p.
9. *The 2005 Labor and Employment in Russia: Statistics Digest*. Rosstat, Moscow, 2005. 502 p.
10. *The 2007 Labor and Employment in Russia: Statistics Digest*. Rosstat, Moscow, 2007. 611 p.
11. *The 2009 Labor and Employment in Russia: Statistics Digest*. Rosstat, Moscow, 2009. 623 p.
12. *The 2011 Labor and Employment in Russia: Statistics Digest*. Rosstat, Moscow, 2011. 637 p.
13. *The 2013 Labor and Employment in Russia: Statistics Digest*. Rosstat, Moscow, 2013. 661 p.
14. Shabunova A.A., Rossoshanskii A.I. On Gender Wage Differential in Labor Market. *Problems of Development of Territories*, 2013, no.5 (67), pp. 50-56.
15. Becker G.S. *A Theoretical and Empirical Analysis with Special Reference to Education (3rd Edition)*. The University of Chicago Press, 1994. Available at: www.nber.org/chapters/c11231

16. *Global Competitiveness Report 2013–2014: Statistics Digest*. Geneva: World Economic Forum, 2014. 551p.
17. *Global Gender Gap Report 2013: Statistics Digest*. Geneva: World Economic Forum, 2013. 388 p.
18. Petersen T., Snartland V., Meyersson Milgrom E.M. *Are Female Workers Less Productive Than Male Workers?: Research in Social Stratification and Mobility*. Available at: www.irle.berkeley.edu/.../139-06.pdf (access date: April 3, 2014).
19. *World Health Statistics 2013: Statistics Digest*. Geneva: World Health Organization, 2013. 168 p.

References

20. Bazueva E.V. Institutsional'naya sreda sovremennoi Rossii: gendernyi kriterii effektivnosti [Institutional Environment of Modern Russia: Gender Indicator of Efficiency]. *Vestnik Permskogo universiteta* [Bulletin of the Perm State University], 2011, no. 2 (9), pp. 47-60.
21. Berezovskaya G.V. Zhenshchiny na rynke truda goroda Ust'-Il'minsk: gendernoe neravenstvo i puti ego preodoleniya [Women in the Labor Market of the City of Ust-Ilimsk: Gender Inequality and Ways of Its Overcoming]. *Al'manakh sovremennoi nauki i obrazovaniya* [Almanac of Modern Science and Education], Tambov: Gramota, 2008. No. 4 (11). In 2 parts. Part 2. Pp. 31-33.
22. Kapelyushnikov R. I. *Konets rossiiskoi modeli rynka truda?: preprint* [The End of the Russian Model of the Labor Market?: Preprint]. Moscow: Izd. dom Gosudarstvennogo universiteta Vysshei shkoly ekonomiki. 80 p.
23. Kozhina T.P. Institutsional'noe doverie: regional'nyi aspekt [Tekst] / T. P. Kozhina [People's Confidence in Governmental and Public Institutions: Regional Aspect]. *Problemy razvitiya territorii* [Problems of Development of Territories], 2013, no.3(65), pp. 100-115.
24. Konventsiya o ravnom voznagrazhdenii muzhchin i zhenshchin za trud ravnoi tsennosti: prinyata 29 iyunya 1951 goda na 34 Sessii General'noi konferentsii Mezhdunarodnoi organizatsii truda [Convention on Equal Remuneration for Men and Women for Work of Equal Value: Adopted on 29 June 1951 at Session 34 of the General Conference of the International Labor Organization]. *Konsul'tantPlyus: sprav.-poiskovaya sistema* [Konsultant Plus: Reference-Legal System].
25. Leonidova G.V., Panov A.M. Trudovoi potentsial: territorial'nye aspekty kachestvennogo sostoyaniya [Territorial Aspects of Labor Potential Quality]. *Problemy razvitiya territorii* [Problems of Development of Territories], 2013, no. 3 (65), pp. 60-70.
26. *Regiony Rossii. Sotsial'no-ekonomicheskie pokazateli 2013: stat. sb.* [The 2013 Socio-Economic Indicators: Statistics Digest]. Rosstat, Moscow, 2013. 990 p.
27. *Trud i zanyatost' v Rossii 2001: stat. sb.* [The 2001 Labor and Employment in Russia: Statistics Digest]. Rosstat, Moscow, 2001. 580 p.
28. *Trud i zanyatost' v Rossii 2005: stat. sb.* [The 2005 Labor and Employment in Russia: Statistics Digest]. Rosstat, Moscow, 2005. 502 p.
29. Trud i zanyatost' v Rossii 2007: stat. sb. [The 2007 Labor and Employment in Russia: Statistics Digest]. Rosstat, Moscow, 2007. 611 p.
30. *Trud i zanyatost' v Rossii 2009: stat. sb.* [The 2009 Labor and Employment in Russia: Statistics Digest]. Rosstat, Moscow, 2009. 623 p.

31. *Trud i zanyatost' v Rossii 2011: stat. sb*. [The 2011 Labor and Employment in Russia: Statistics Digest]. Rosstat, Moscow, 2011. 637 p.
32. *Trud i zanyatost' v Rossii 2013: stat. sb*. [The 2013 Labor and Employment in Russia: Statistics Digest]. Rosstat, Moscow, 2013. 661 p.
33. Shabunova A.A., Rossoshanskii A.I. O gendernoi differentsiatsii zarabotnoi platy na rynke truda [On Gender Wage Differential in Labor Market]. *Problemy razvitiya territorii* [Problems of Development of Territories], 2013, no.5 (67), pp. 50-56.
34. Becker G.S. *A Theoretical and Empirical Analysis with Special Reference to Education (3rd Edition)*. The University of Chicago Press, 1994. Available at: www.nber.org/chapters/c11231
35. *Global Competitiveness Report 2013–2014: Statistics Digest*. Geneva: World Economic Forum, 2014. 551p.
36. *Global Gender Gap Report 2013: Statistics Digest*. Geneva: World Economic Forum, 2013. 388 p.
37. Petersen T., Snartland V., Meyersson Milgrom E.M. *Are Female Workers Less Productive Than Male Workers?: Research in Social Stratification and Mobility*. Available at: www.irle.berkeley.edu/.../139-06.pdf (access date: April 3, 2014).
38. *World Health Statistics 2013: Statistics Digest*. Geneva: World Health Organization, 2013. 168 p.

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Spatial behavior of prices in the Russian Federation in 2003–2012

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Abstract. The heterogeneity of economic development and specifics of the spatial position of regions implies that the regional markets in the country are characterized by varying degrees and trends of price dynamics. The multidirectional and disproportionate changes in the prices in the regional markets, in turn, show that integration in the national market is poor. The work presents the results of research into the spatial behavior of prices in the Russian Federation in 2003–2012, carried out mainly using the descriptive analysis of consumer prices based on the identification of the measures of dispersion of price indicators – standard deviation and the range of variation. The analysis of consumer price indices dynamics shows that the year 2008 is a period of greatest price growth, and also proves that the prices for services and foodstuffs are subject to the highest fluctuations. The analysis of the prices for the fixed set of goods and services shows that consumer prices in the Russian Federation subjects during the analyzed period changed unevenly; however, beginning from 2009 there is a positive trend of reducing fluctuations in their growth rates. The assessment of the spatial dynamics of consumer prices in Russia in 2003–2012 reveals the regions that deviate from the general trend of price behavior to the greatest extent. Judging by the results of the assessment, the greatest differences in prices were observed in the subjects of the Far Eastern Federal District (FEFD). Another important fact is as follows: the high volatility of food prices was observed not only in the remote regions, but also in the neighboring subjects of the Far Eastern Federal District; it allows us to assume that the integration of the food market of the border regions of the district at the national level is poor.

Keywords: spatial behavior of prices, price volatility, spatial market integration.

Nowadays, “space” is one of the key categorical concepts in the research devoted to integration processes in different spheres of public activity and in different regions [1].

The study of market integration is aimed at assessment of spatial behavior of prices. Prices and their dynamics are an important indicator of efficiency of the economic system and optimal allocation of limited resources. Large differences in prices between regions of the country, their volatility and disproportionate changes can indicate weak integration of the national market and violation of the conditions of common economic space. According to one of the approaches to the assessment of spatial market integration, often applied in empirical studies, two markets will be integrated, if prices change in similar direction and proportion [12].

Large distances between regional markets, leading to substantial transport costs, and such factors as poor infrastructure, a lack or a poor condition of roads, communications, administrative restrictions, cause multidirectional and disproportionate price changes in some regions of the country and disintegration of the national market space. The territorial vastness of the Russian Federation and heterogeneity of the socio-economic development of its regions suggest that consumer prices behave differently, and regional markets are characterized by different degrees of integration at the national level. In this paper we try to test this hypothesis using the statistical analysis of consumer prices dynamics and to identify which RF regions have differed in prices behavior to a greater degree for the last decade. The analysis results give grounds for the conclusion about the degree of integration of the national market and selection of those regions that are least integrated at the national level.

It should be noted that in the scientific literature there is a limited number of papers that present an in-depth statistical analysis of the dynamics of consumer prices in the RF. Moreover, most of these works are connected with the assessment of prices behavior in the transition period. Foreign researchers have been interested in this issue as well. So, for example, P. De Masi and V. Koen, who have studied the trends of regional disparities in prices in Russia in the early post-reform period, have found out that the significant differences in regional prices, characteristic for the study period, can not caused by a large distance between regions and limited market integration in the country [10]. Similar findings have been obtained in the study carried out by B. Gardner and K. Brooks [11]. According to D. Berkowitz and D.N. DeJong, the reason for significant inter-regional differences in prices are “anti-market” regions, or regions of “a red belt”, which, unlike other regions, are characterized by the specific price behavior [9].

The most important domestic studies are conducted by A.A. Tsyplakov and K.P. Glushchenko. The research of A.A. Tsyplakov, presenting the statistical analysis of the dynamics of regional price levels for the post-reform period, has revealed that in 1994–1999 there were regional differences in the dynamics of prices, but they were relatively small [8].

K.P. Glushchenko, having indicated significant differences in the levels of prices for goods between different territories of the country in 1990–2000s, has disclosed weak integration of the Russian consumer market in this period [2]. On the basis of evaluation of the dynamics of the Russian market integration in 1992–2000, the author has come to the conclusion that in 1994–1999, after reaching a peak of the Russian market fragmentation in 1993–1994, the general trend is the convergence of prices and strengthening of integration processes [3]. However, later, taking into account such an indicator of the market integration as the strict law of one price, K.P. Glushchenko makes the conclusion about relatively weak integration of the Russian market in 1994–2000 [6].

The research, estimating spatial dynamics of consumer prices in Russia in 2003–2012, is carried out to assess the level of the country's economic space integration in the conditions of market economy and to identify the regions, deviating more from the general trend of price behavior. To achieve this goal we have identified:

– what product groups are characterized by the highest price changes;

– what federal districts and RF subjects are characterized by the greatest price volatility;

– what are the differences in the prices dynamics of certain commodity groups in federal districts and RF subjects.

The descriptive analysis of prices is a basic research tool. The most commonly used descriptive methods are frequency distribution, measures of central tendency, measures of variability (dispersion) and measures of relative position. To estimate spatial dynamics of the price range, we use measures of dispersion, such as standard variation and variation range, evaluating the extent of variation of variable values in the variational series.

The initial data for the analysis are relative prices indicators, consumer price indices (CPI), and absolute ones, cost of a fixed set of goods and services and cost of the minimum set of food products. Selection of multiple indicators, representing the prices, is connected with the specific character of statistical observation. The consumer price index is used in many works devoted to the analysis of spatial prices behavior and the assessment of market integration. At the same time, it is possible to note both advantages and disadvantages of this indicator. The index gives an opportunity to analyze the prices behavior for the three groups of goods – food, non-food and services. But this figure is not ideal for the spatial analysis of prices as weights, determined by the structure of consumer expenses of the population and used for calculating the CPI, are different among the regions.

Calculation of the cost of a fixed set of goods and services and the cost of a minimum set of food products is based on common norms of consumption that can be used in the research of interregional differentiation of consumer prices levels. However, the indicator of the cost of a fixed set of goods and services does not allow us to make conclusions about spatial dynamics of separate groups of goods.

The sources of price indicators are databases of consumer prices presented on the website of the Federal State Statistics Service [7].

The time period of the analysis is indicated from 2003 to 2012. Most empirical researches provide the results of estimation of spatial behavior of prices in the period of their liberalization, as well as in the period of ruble devaluation and in the 1998 economic crisis. Thus, these works reveal the prices behavior, determined by the post-reform shocks, the transition to market economy and its formation. This article assesses the dynamics of consumer prices in conditions of relatively stable economy, which has completed the transition to the market.

The dynamics of the consumer price growth rate in 2003–2012 had no definite trend, there were both periods of growth and periods of decline. The variations in the rate of consumer price increase amounted to 7.2%. The lowest index value (6.1%) was observed in 2011. The highest index value in 2008 can be explained by the impact of the global financial crisis. The slowdown in consumer price growth by 3% in 2003–2006 and 7.2% in 2009–2011 discloses some stability in the economy in the indicated periods. However, in 2012, the rate of consumer price growth increased again, exceeding the minimum index value for the period by 0.5%.

To determine the dynamics of the price growth of separate commodity groups we have used monthly values of consumer price indices of food products, manufactured goods and services. By comparing these indicators we have found out that services prices experienced the greatest fluctuations and seasonal influence in the examined period. So, annually, except for 2012, there was sharp price growth in January. The greatest value of the interval of services price fluctuations amounted to almost 9% in 2008. The maximum price range was 2.3% in 2005.

Services prices immobility can cause their high volatility but not significant differences in prices of such mobile products, as food. This type of product is of interest in the spatial analysis of price fluctuations.

If you compare price fluctuations in the groups of food and non-food items, you can see that they are much more vivid in the first group in the analyzed period. Thus, the price range of food products amounted to 0.9% in relation to the average value in the analyzed period, of non-food – only 0.2%. The greatest price ranges of food products, in relation to the average value, were in 2003, 2007 and 2012.

Spatial behavior of prices in 2003–2012 was estimated by comparison of the indicators, representing prices in Federal districts and separate subjects of the Russian Federation. The research does not consider the North-Caucasian Federal District, as Rosstat has been publishing data on the considered indicators of the district only since 2009. Therefore, we have studied prices behavior in 7 federal districts and 76 subjects of the Russian Federation, including Moscow and Saint Petersburg.

Comparison of the general price index in federal districts in dynamics has not lead to selection of districts with excessive growth or decline of prices in the study period. In general, they were changing quite synchronously in federal districts, there were no large differences in their dynamics.

On the basis of annual consumer price indices we have calculated minimum and maximum variations of the price growth rate from the average national level (*tab. 1*). The calculation results have confirmed the insignificance of their dispersion in federal districts. In the analyzed period the greatest variation was observed in 2007 (from -2.27 to +1.23%) and the lowest – in 2012 (from -0.64 to +0.31%). However, it should be noted that in the Far Eastern Federal district we have observed extreme (minimum or maximum) limit variations from the average national level. This prices behavior stems from the fact that the district includes almost all remote regions of the country, which differ significantly from other regions by the level and dynamics of prices.

It is quite obvious that the differences in price growth in the RF subjects are

Table 1. Variation of the price growth rate in federal districts and RF subjects from the Russian average level, %

Indicator	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
In federal districts										
Interval	2.85	2	3.1	1.6	3.5	1.5	1.94	2.9	1.6	0.95
Minimum value/FD	-1.65/ UFD	-1.33/ UFD	-0.72/ VFD	-0.4/ SFD	-2.27/ FEFD	-0.68/ UFD	-0.88/ VFD	-1.1/ FEFD	-0.31/ NWFD	-0.64/ FEFD
Maximum value/ FD	1.2/ NWFD	0.67/ VFD	2.38/ FEFD	1.2/ UFD	1.23/ VFD	0.82/ NWFD	0.89/ FEFD	1.06/ UFD	0.7/ FEFD	0.31/ CFD
In RF subjects										
Interval	9.42	8.3	14	6.4	9.1	9.4	11.29	11.16	6.16	4.7
Minimum value/RF Subject	-3.04/ Republic of Mordovia	-2.33/ Omsk Oblast	-3.42/ Chuvash Republic	-3.5/ Jewish Autono-mous Oblast	-4.47/ Nenets Autono-mous Okrug	-3.38/ Chukotka Autono-mous Okrug	-2.87/ Nenets Autono-mous Okrug	-7.38/ Chukotka Autono-mous Okrug	-3.04/ Yamalo-Nenets Autono-mous Okrug	-2.62/ Yamalo-Nenets Autono-mous Okrug
Maximum value/RF Subject	6.38/ Krasno-yarsk Krai	5.97/ Nenets Autono-mous Okrug	10.58/ Kam-chatka Krai	2.9/ Sakha (Yakutia) Republic	4.63/ Ryazan Oblast	6.02/ Magadan Oblast	8.42/ Chukotka Autono-mous Okrug	3.78/ Republic of Kalmykia	3.12/ Magadan Oblast	2.08/ Magadan Oblast
Calculated by: Federal'naya sluzhba gosudarstvennoi statistiki, Tsentral'naya baza statisticheskikh dannykh [Federal State Statistics Service, the Central Base of Statistical Data]. Available at: http://www.gks.ru/wps/wcm/connect/rosstat_main /rosstat/ru/statistics/tariffs/#										

characterized by long intervals and. In the period under analysis the maximum price range was observed in 2005 (from -3,42% in the Chuvash Republic to +of 10.58% in Kamchatka Krai), and the lowest – in 2012 (from -2,62% in Yamalo-Nenets Autonomous Okrug to +2,08% in the Magadan Oblast). From 2009 to 2012 there was a positive trend, as the fluctuation interval of the price growth rate narrowed from 11.3 to 4.7%. The extreme fluctuations values in the annual price growth rate are more often determined by the Magadan Oblast, Chukotka and Nenets Autonomous okrugs.

The general trend of price dynamics can be specified by considering the changes in prices of certain goods. As services are immobile goods, we can take into account only consumer price indices of food and non-food items.

The greatest consumer price growth for food products was observed in 2008, when they grew by 16.5% in average, the lowest growth of prices was registered in 2011 and amounted to 3.87%

The calculation of minimum and maximum price growth rates for food products in federal districts has revealed that most of these indicators were typical for the region. Thus, the maximum rate of consumer prices growth for food products was typical for the Far Eastern Federal District in 2003, 2005, 2009 and 2011.

Table 2. Variation of the price growth rate for food products in federal districts and RF subjects from the Russian average level, %

Indicator	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
In federal districts										
Interval	4.46	2.9	4	2.8	5.3	2.2	3.82	4.95	2.81	2.34
Minimum value/FD	-2.31/ SFD	-1.49/ UFD	-1.17/ VFD	-0.97/ VFD	-3.96/ FEFD	-0.65/ CFD	-1.26/ VFD	-3.62/ FEFD	-0.66/ CFD	-1.63/ FEFD
Maximum value/ FD	2.15/ FEFD	1.41/ SFD	2.83/ FEFD	1.83/ UFD	1.34/ NWFD	1.55/ SFD	2.56/ FEFD	1.33/ SFD	2.15/ FEFD	0.71/ SFD
In RF subjects										
Interval	15.07	11.2	10.8	11.3	15	13.5	14	16.31	7.99	6.47
Minimum value/ RF Subject	-7.75/ Yamalo-Nenets Autono-mous Okrug	-2.99/ Amur Oblast	-3.67/ Chuvash Republic	-4.37/ Jewish Autono-mous Oblast	-10.06/ Chukotka Autono-mous Okrug	-9.15/ Chukotka Autono-mous Okrug	-4.42/ Nenets Autono-mous Okrug	-12.26/ Chukotka Autono-mous Okrug	-3.74/ Voronezh Oblast	-4.53/ Nenets Autono-mous Okrug
Maximum value/ RF Subject	7.32/ Chukotka Autono-mous Okrug	8.21/ Republic of Kalmykia	7.13/ Chukotka Autono-mous Okrug	6.93/ Sakha (Yakutia) Republic	4.94/ Ryazan Oblast	4.35/ Republic of Kalmykia	9.58/ Chukotka Autono-mous Okrug	4.05/ Ivanovo Oblast	4.25/ Republic of Buryatia	1.94/ Voronezh Oblast

Calculated by: Federal'naya sluzhba gosudarstvennoi statistiki, Tsentral'naya baza statisticheskikh dannykh [Federal State Statistics Service, the Central Base of Statistical Data]. Available at: http://www.gks.ru/wps/wcm/connect/rosstat_main /rosstat/ru/statistics/tariffs/#

The assessment of fluctuations in the annual price growth rate for food products in Federal districts in relation to the average national level indicates that the price differences are generally insignificant (*tab. 2*). The 5.3% maximum variation was registered in 2007, with the variation from the average Russian level being in the range from -3.96% (FEFD) to +1.34% (NWFD). The 2.2% minimum variation was observed in 2008, with the variation being in the range from -0.65% (CFD) to +1.55% (SFD). Extreme fluctuation values in the annual rate of price growth in 2003–2012 are more characteristic of the Far Eastern Federal District, which confirms the specific character of the region regarding the prices behavior.

In the context of RF subjects the differences in food price growth rates are more significant. In the analyzed period the average fluctuations interval, determined by minimum and maximum variations of the price growth rates from the national average in the RF subjects, is 3.5 times higher than this indicator, calculated at the level of federal districts. The 16.31% maximum interval was measured in 2010, the 6.47% minimum interval – in 2012. There is no definite tendency to decrease differences in growth rates in the studied period. Chukotka Autonomous Okrug had extreme fluctuation values in the annual price growth rate more frequently.

Differences in the growth rates of consumer prices for non-food products in federal districts are in two times lower than for food. The 3.3% maximum fluctuation value was recorded in 2005 (The Ural Federal District (UFD). The greatest growth of prices for non-food products was more typical for the FEFD and the UFD. However, in the Far Eastern Federal District the growth rate of non-food prices differs from national trends to a lesser extent than in the case of food prices.

Quantitative assessment of fluctuations in the price growth rates for non-food products in federal districts against the average Russian level has showed that price fluctuations are low (*tab. 3*). The 3.3% maximum interval was in 2005, when the variation from the Russian average was observed in the range from -1.01% (NWFD) to +2.3% (in the UFD). The minimum 1% interval was in 2007, when the variation was in the range from -0.4% (SFD) to +0.6% (VFD). Extreme fluctuation values of growth rate of non-food prices are more often measured in the Ural, Southern and Far Eastern Federal districts.

However, in the context of the RF subjects the differences in growth rates of non-food prices were more significant: the average fluctuation value in the analyzed period amounted to 10.6%. The maximum interval amounted to 14.8% in 2005 and per cent, the minimum – to 7.8% in 2011. At the same time, there is no definite tendency to decrease differences in growth rates. The extreme fluctuation values of non-food prices are more frequently observed in Nenets Autonomous Okrug. All the stated above conclusions about spatial prices behavior are based on a consumer price

Table 3. Variation of the price growth rate for non-food products in federal districts and RF subjects from the Russian average level, %

Indicator	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
In federal districts										
Interval	2.49	1.3	3.3	1.8	1	2.5	2.08	1.31	1.19	1.07
Minimum value/FD	-0.64/ CFD	-0.77/ NFD	-1.01/ NWFD	-0.61/ NFD. NWFD	-0.44/ NFD. FEFD	-0.56/ UFD	-0.8/ NWFD	-0.46/ SFD	-0.56/ SFD	-0.65/ SFD
Maximum value/ FD	1.85/ SFD	0.53/ CFD	2.29/ UFD	1.19/ UFD	0.56/ VFD	1.94/ FEFD	1.28/ FEFD	0.85/ UFD	0.63/ UFD	0.42/ FEFD
In RF subjects										
Interval	12.38	13	14.8	11.8	7.9	10	11.73	8.67	7.78	8.15
Minimum value/ RF Subject	-3.41/ Novosibirsk Oblast	-3.67/ Chukotka Autono-mous Okrug	-3.61/ Republic of Tatarstan	-6.21/ Nenets Autono-mous Okrug	-3.34/ Nenets Autono-mous Okrug	-4.16/ Nenets Autono-mous Okrug	-5.15/ Nenets Autono-mous Okrug	-2.97/ Kamchatka Krai	-3.66/ Yamalo-Nenets Autono-mous Okrug	-2.44/ Chelyabinsk Oblast
Maximum value/ RF Subject	8.97/ Khanty–Mansi Autono-mous Okrug	9.33/ Nenets Autono-mous Okrug	11.19/ Yamalo-Nenets Autono-mous Okrug	5.59/ Astrakhan Oblast	4.56/ Perm Krai	5.84/ Kursk Oblast	6.58/ Khanty–Mansi Autono-mous Okrug	5.7/ Sakhalin oblast	4.12/ Jewish Autono-mous Oblast	5.71/ Magadan Oblast

Calculated by: *Federal'naya sluzhba gosudarstvennoi statistiki, Tsentral'naya baza statisticheskikh dannykh* [Federal State Statistics Service, the Central Base of Statistical Data]. Available at: http://www.gks.ru/wps/wcm/connect/rosstat_main /rosstat/ru/statistics/tariffs/#

index. However, a regional CPI is not very convenient for interregional comparisons. Weight of goods included the prices that are presented in the CPI are different for in each region, therefore, the regional indexes are not quite comparable [5].

For more accurate estimates of differences in regional growth rates we have used such an indicator as the cost of a fixed set of consumer goods and services. This figure is identical for all regions and covers 83 items of goods and services, including 30 kinds of food, 41 – of non-food items and 12 services. It should be noted that the bulk of spending on consumption accounts for goods and services included in this set.

To estimate price variations in federal districts we have singled out minimum and maximum variations in the growth rates of the cost of a fixed set of consumer goods and services from the average national level in federal districts (tab. 4). The 3.1% interval minimum value was in 2003–2012, the 4.3% maximum – in 2005 and 2010. The lowest fluctuation from the average national level in federal districts was observed in 2006 and amounted to 1.7%. In general, it can be concluded that the differences in price growth rates in federal districts, compared with the average Russian level in the studied period, were insignificant and did not have a clear tendency to increase

Table 4. Variation of the price growth rate for the cost of a fixed set of consumer goods and services in federal districts and RF subjects from the Russian average level, %

Indicator	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
In federal districts										
Interval	3.65	1.78	4.29	1.73	5.07	3.13	3.04	4.27	2.27	1.76
Minimum value/FD	-2.11 / SFD	-1.27/ UFD	-1.5/ NFD	-0.62/ FEFD	-3.71/ FEFD	-1.61/ NFD	-1.34/ SFD	-3.57/ FEFD	-0.76/ SFD	-0.81/ FEFD
Maximum value/ FD	1.54/ NFD	0.51/ CFD	2.79/ FEFD	1.11/ UFD	1.36/ NWFD	1.52/ UFD	1.7/ FEFD	0.7/ VFD	1.51/ FEFD	0.95/ NFD
In RF subjects										
Interval	17.87	15.37	23.64	11.09	14.89	14.59	15.42	16.77	10.98	10.87
Minimum value/ RF Subject	-6.25/ Republic of Mordovia	-5.76/ Astrakhan Oblast	-5.98/ Irkutsk Oblast	-5.87/ Nenets Autonomous Okrug	-8.56/ Chukotka Autonomous Okrug	-4.76/ Republic of Buryatia	-5.33/ Nizhny Novgorod Oblast	-11.22/ Chukotka Autonomous Okrug	-5.81/ Altai Republic	-5.33/ Nenets Autonomous Okrug
Maximum value/ RF Subject	11.62/ Komi Republic	9.61/ Republic of Buryatia	17.66/ Kamchatka Krai	5.22/ Tambov Oblast	6.33/ Ryazan Oblast	9.83/ Nenets Autonomous Okrug	10.09/ Altai Republic	5.55/ Republic of Mordovia	5.17/ Jewish Autonomous Oblast	5.54/ Altai Republic

Calculated by: *Federal'naya sluzhba gosudarstvennoi statistiki, Tsentral'naya baza statisticheskikh dannykh* [Federal State Statistics Service, the Central Base of Statistical Data]. Available at: http://www.gks.ru/wps/wcm/connect/rosstat_main /rosstat/ru/statistics/tariffs/#

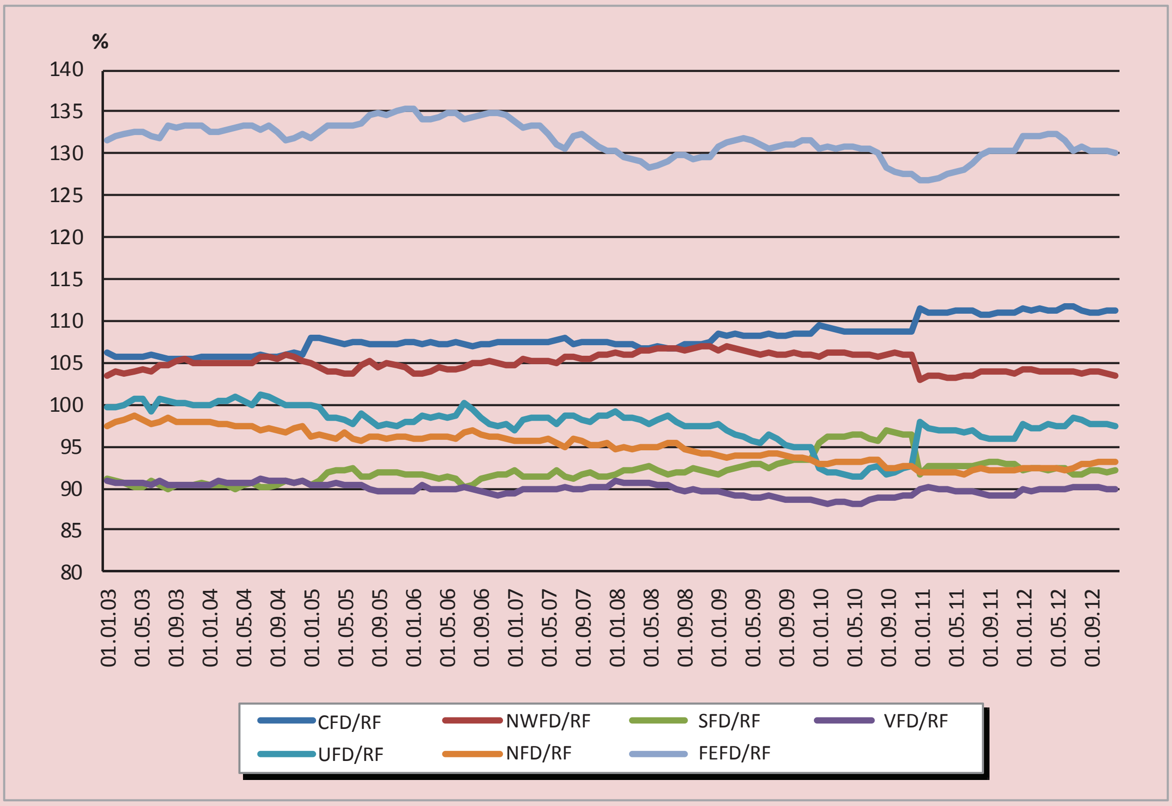
or decrease. The minimum and maximum variation of the growth rate of the cost of a fixed set of consumer goods and services in federal districts was often determined by the values of this indicator in the Far Eastern Federal District.

The average fluctuation in the growth rate of the cost of a fixed set of consumer goods and services in the context of the RF subjects (15.1%) exceeds the same indicator calculated at the level of federal districts in five times. Thus, the greatest interval value amounted to 23.6% in 2005, the lowest – 10.9 in 2012. It confirms the conclusion, obtained from the analysis of the CPI, that there are rather large differences in price growth rates in the context of the RF subjects.

As Rosstat does not publish data on the cost of the components of a fixed set of goods and services, the analysis of dynamics of consumer price levels on the basis of this indicator is limited to the general assessment. However, comparing the cost of a fixed set of goods and services in different regions, it is possible to calculate a territorial price index. Comparison of territorial price indices in federal districts in 2003–2012, calculated as the ratio of the cost of a fixed set of goods in different federal districts to the respective average indicator, indicates significant differences in values and dynamics of the index for the Far Eastern Federal District *(fig. 1)*.

The analysis of differences in the cost of a fixed set of goods and services in the

Figure 1. Dynamics of territorial price indices in 2003–2012

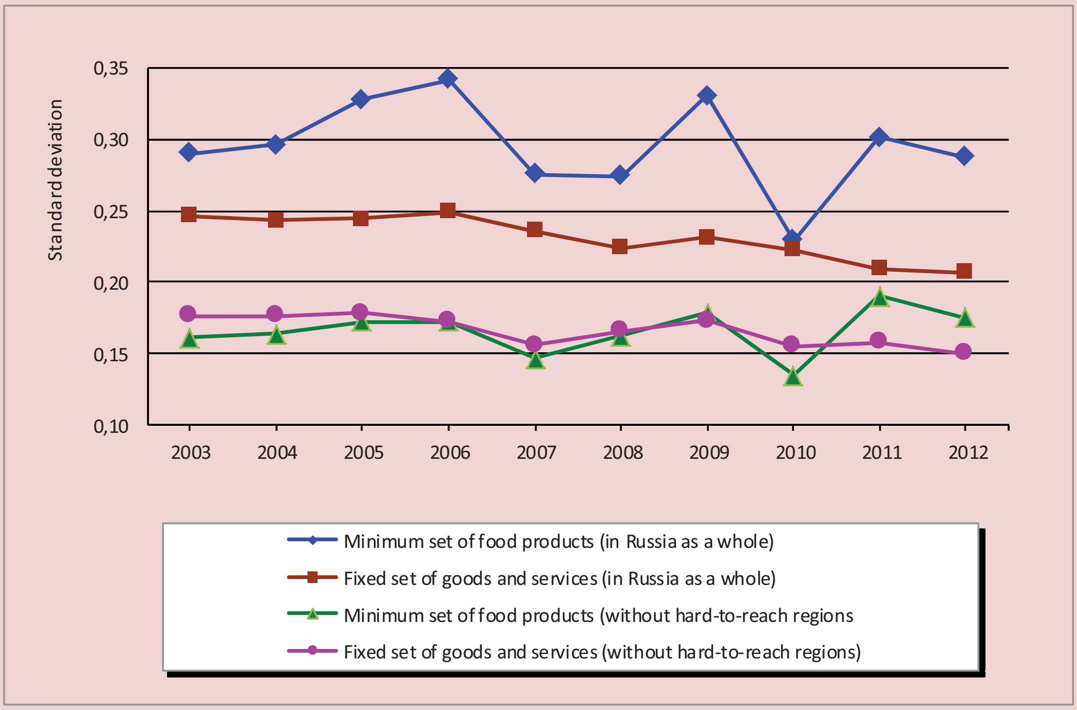


Calculated by: Federal State Statistics Service data. Available at: http://www.gks.ru/dbscripts/cbsd/DBInet.cgi?pl=1923006

context of RF subjects has showed that the maximum value of the territorial price index complies with the following hard-to-reach regions: Chukotka Autonomous Okrug – 202.2%, the Sakhalin Oblast – 151.4%, the Kamchatka Oblast – 168%, the Sakha (Yakutia) Republic – 138.5%, the Magadan Oblast – 141.8%. There are other regions where the cost of a fixed set of goods and services exceeds the national average by 30%. They are Khabarovsk Krai (130.1%), Yamalo-Nenets Autonomous Okrug (149.3%), Khanty-Mansi Autonomous Okrug (135.9%), and Moscow (145.6%). The regions where the cost of a fixed set of goods and services is below 15% and more in comparison with the national average are the following: the Oryov Oblast (81.8%), and the Republic of Bashkortostan (84.7%), the Mari El Republic (81.7%), the Republic of Tatarstan (84.6%), the Udmurt Republic (85%), the Chuvash Republic (82.8%) and the Orenburg Oblast (84.3%).

The average value of the territorial price index, calculated at the level of RF subjects, was 102% in 2003–2012. The maximum value of the standard deviation of the territorial price index was 24.9% in 2006, the minimum – 20.7% in 2012.

Figure 2. Dynamics of differences in regional price levels in 2003–2012



Calculated by: Federal State Statistics Service data. Available at: http://www.gks.ru/dbscripts/cbsd/DBInet.cgi?pl=1923003; http://www.gks.ru/dbscripts/cbsd/ DBInet.cgi?pl= 1923006

To evaluate the dynamics of consumer prices for food products we have used another statistic indicator – the cost of a minimum set of food products.

The CPI analysis has revealed greater volatility in food prices. To verify the results, we have compared the values of the minimum set of food products with the dynamics of territorial levels of prices *(fig. 2)*.

The trajectory of the variations of territorial price levels, calculated on the basis of a fixed price for goods and services, indicates a downward trend in the territorial distribution of the price index. So, in 2003 the level was 25%, and in 2012 – 21%. Except for hard-to-reach regions the variation is in the range of 15–18%.

The volatility of food price differences, calculated on the basis of the cost of the minimum set of food products, is much higher. In 2003–2012 the average level of variation was 30%, without hard-to-reach regions – 17%, and deviations up and down from it in the first case were approximately 5%, and the second – 3%. Thus, it confirms the conclusion about larger dynamics of food prices in comparison with the dynamics of a general price level.

Taking into account the assessment of changes in the value of the minimum set of food products in different regions, it was found that the highest volatility of food prices is usually characteristic of regions with higher average price levels. So, in 2003–2012 the dynamics of variations in price levels, calculated on the basic of the cost of the minimum set of food products, at the level of 8% and more is measured in such regions, as Nenets Autonomous Okrug – 9.65% (the average level of prices –183%, the Sakha (Yakutia) Republic 8.68% (150%), Kamchatka Krai – 8,65% (171.7%), Primorsky Krai – 9,45% (132.2%), the Khabarovsk Oblast – 8.5% (130.2%), the Amur Oblast – 8.49% (113.22%), the Magadan Oblast – 10.27% (167.36%), the Sakhalin Oblast – 12.14% (153,17%), Chukotka Autonomous Okrug – 30.27% (279.51%). Large variations in food prices in the Sakha (Yakutia) Republic, Kamchatka Krai, Magadan and Sakhalin oblasts, and Autonomous Okrug are caused by the inaccessibility of these regions. However, the fact that food prices in the Far Eastern Federal District are characterized by high volatility seems quite interesting and unexpected.

Conclusion

The spatial analysis of the statistical indicators dynamics in 2003–2012, such as a consumer price index, the cost of a fixed set of goods and services and the cost of the minimum set of food products, has led to the following conclusions:

1. The highest price growth, followed by the period of decline, was observed in 2008 due to the financial crisis.

2. Prices for services and food products have the highest fluctuations in time. Firstly, it is caused by their immobility and less competitive markets, secondly, –the seasonality of agricultural production to a certain extent. The lowest growth of prices for non-food goods is due to the greater competitiveness of their markets and the greater share of imports.

3. Deviation of the consumer price growth rates and the cost of a fixed set of consumer goods and services from the average national level is insignificant in federal districts, with the largest deviations being typical for the FEFD, UFD and SFD; consequently, these regions are the least integrated at the national level.

4. Consumer prices at the level of RF subjects change unevenly, however, since 2009 the fluctuations in their growth rates have been decreasing.

5. The highest price volatility is observed in the RF hard-to-reach subjects that is why, these regions are the least integrated at the national level.

6. The highest price volatility is characteristic of the Far Eastern Federal District, which includes remote regions of the country. However, the highest volatility of food prices is typical not only for hard-to-reach regions of the Far East Federal district, but also for border regions of the district, indicating weak integrity of their food market at the national level.

The last conclusion is quite interesting, since it raises new questions concerning the causes of the situation. Allegedly, they can be of different nature, including the following: influence of external markets, especially China markets, a high share of transport costs in the price of goods, low economies of scale due to limited local markets and monopolists' impact.

Sited works

1. Vityaz' P.A., Shcherbin V.K. Problems of designing new types of integration spaces. *Economic and Social Changes: Facts, Trends, Forecast*, 2013, no.3, pp. 28-45.
2. Glushchenko K.P. Consumer Prices in Russia in 1992–2000: Spatial Aspect. *Region: Economics and Sociology*, 2001, no.2, pp. 46-71.
3. Glushchenko K.P., Ivanov E.Yu., Nizhegorodtsev R.M. Modeling and Evaluation of the Dynamics of Integration of the Russian Market. *Information and Economics: Theory, Models, Technology: Collected Scientific Works*. Barnaul: Izd-vo Altaiskogo gos. un-ta, 2002. Pp. 200-206.
4. Glushchenko K.P. *Integration of the Russian market. Empirical Analysis*. Moscow: EERC, 2004. 84 p.
5. Glushchenko K.P. Regions of Russia in the First Half-Year of 2004. *Region: Economics and Sociology*, 2004, no.4, pp. 212-223.
6. Glushchenko K.P. The Law of One Price in the Russian Economic Space. *Applied Econometrics*, 2010, no.1, pp. 3-19.
7. *Federal State Statistics Service, the Central Base of Statistical Data*. Available at: http://www.gks.ru/wps/wcm/connect/rosstat_main /rosstat/ru/statistics/tariffs/#
8. Tsyplakov A.A. *Statistical Analysis of the Dynamics of Regional Price Levels*. Available at: http://www.nsu.ru/exp/ref/Media:4edf329cc871dec 519000 3821-Tsyplakov.pdf
9. Berkowitz D., DeJong D.N. The Border inside the Russian Economic Space. *Region: Economics and Sociology*, 2000, no.1, pp. 85-99.
10. De Masi P., Koen V. Relative Price Convergence in Russia. *IMF Staff Papers,* 1996, Vol. 43(1), pp. 97-122.
11. Gardner B., Brooks K. Food Prices and Market Integration in Russia: 1992–93. *American Journal of Agricultural Economics*, 1994, no.76, pp. 641-646.
12. Goodwin B.K., Schroeder T.C. Cointegration Tests and Spatial Price Linkages in Regional Cattle Markets. *American Journal of Agricultural Economics,* 1991, no.73, pp. 452-464.

References

1. Vityaz' P.A., Shcherbin V.K. Problemy konstruirovaniya novykh tipov integratsionnykh prostranstv [Problems of designing new types of integration spaces]. *Ekonomicheskie i sotsial'nye peremeny: fakty, tendentsii, prognoz* [Economic and Social Changes: Facts, Trends, Forecast], 2013, no.3, pp. 28-45.
2. Glushchenko K.P. Potrebitel'skie tseny v Rossii v 1992–2000 gg.: prostranstvennyi aspekt [Consumer Prices in Russia in 1992–2000: Spatial Aspect]. *Region: ekonomika i sotsiologiya* [Region: Economics and Sociology], 2001, no.2, pp. 46-71.
3. Glushchenko K.P., Ivanov E.Yu., Nizhegorodtsev R.M. Modelirovanie i otsenka dinamiki integrirovannosti rossiiskogo rynka [Modeling and Evaluation of the Dynamics of Integration of the Russian Market]. *Informatsiya i ekonomika: teoriya, modeli, tekhnologii: sb. nauch. trudov* [Information and Economics: Theory, Models, Technology: Collected Scientific Works]. Barnaul: Izd-vo Altaiskogo gos. un-ta, 2002. Pp. 200-206.
4. Glushchenko K.P. *Integrirovannost' rossiiskogo rynka. Empiricheskii analiz* [Integration of the Russian market. Empirical Analysis]. Moscow: EERC, 2004. 84 p.

5. Glushchenko K.P. Regiony Rossii v pervom polugodii 2004 goda [Regions of Russia in the First Half-Year of 2004]. *Region: ekonomika i sotsiologiya* [Region: Economics and Sociology], 2004, no.4, pp. 212-223.
6. Glushchenko K.P. Zakon edinoi tseny v rossiiskom ekonomicheskom prostranstve [The Law of One Price in the Russian Economic Space]. *Prikladnaya ekonometrika* [Applied Econometrics], 2010, no.1, pp. 3-19.
7. *Federal'naya sluzhba gosudarstvennoi statistiki, Tsentral'naya baza statisticheskikh dannykh* [Federal State Statistics Service, the Central Base of Statistical Data]. Available at: http://www.gks.ru/wps/wcm/connect/rosstat_main /rosstat/ru/statistics/tariffs/#
8. Tsyplakov A.A. *Statisticheskii analiz dinamiki regional'nykh urovnei tsen* [Statistical Analysis of the Dynamics of Regional Price Levels]. Available at: http://www.nsu.ru/exp/ref/Media:4edf329cc871dec519000 3821-Tsyplakov.pdf
9. Berkowitz D., DeJong D.N. Granitsa vnutri rossiiskogo ekonomicheskogo prostranstva [The Border inside the Russian Economic Space]. *Region: ekonomika i sotsiologiya* [Region: Economics and Sociology], 2000, no.1, pp. 85-99.
10. De Masi P., Koen V. Relative Price Convergence in Russia. *IMF Staff Papers,* 1996, Vol. 43(1), pp. 97-122.
11. Gardner B., Brooks K. Food Prices and Market Integration in Russia: 1992–93. *American Journal of Agricultural Economics*, 1994, no.76, pp. 641-646.
12. Goodwin B.K., Schroeder T.C. Cointegration Tests and Spatial Price Linkages in Regional Cattle Markets. *American Journal of Agricultural Economics,* 1991, no.73, pp. 452-464.

FROM THE EDITOR'S MAILBOX

Letter from the German National Library of Economic

In order to promote the journal «Economic and social changes: facts, trends, forecast» in the international space the Editorial Board is implementing a number of measures. In May 2014 at the suggestion of the member of the Editorial Board, Professor Jacques Sapir the English-language editions of the journal were sent to the number of foreign national libraries with a request to read the content, themes and to assess the level of the articles for inclusion in library's collections.

In June 2014 the reply from German National Library of Economics was received, in which the desire to receive the journal on a regular basis was expressed. We are enclosing this letter.

Dear V. A. Ilyin,

Thank you very much for sending No. 2 (32) 2014 of «Economic and social changes: facts, trends, forecast» (ISSN 2307-0331) on approval.

Please note a standing order for this journal and supply us with No. 1 (31) 2014 and No. 3 (33) 2014 and following issues as soon as published.

We are looking forward to confirmation of our standing order and hope we can co-operate further.

Kind regards,
Christine Guder
Acquisition and Descriptive Cataloguing Section
ZBW – German National Library of Economics
Leibniz Information Centre for Economics
Dusternbrooker Weg 120
D-24105 Kiel
Germany

The order of the German National Library of Economics has been confirmed and has already been completed. The journal «Economic and social changes: facts, trends, forecast» will be sent to the German National Library of Economics on a regular basis.

Requirements to manuscripts

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.

Authors are responsible for the selection and authenticity of the facts, quotations, statistical and sociological data, proper names, place names and other information, as well as for ensuring that the article does not contain the data that cannot be liable to open publication.

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