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FROM THE CHIEF EDITOR

Vladimir A. ILYIN
Doctor of Economics, Professor, Honoured Scientist of the Russian Federation, Director of ISEDT RAS, Chairman of the Public Chamber in the Vologda Oblast
ilin@vscc.ac.ru
opvologda@mail.ru

Anxious expectations remain

May 7 marks one year since V.V. Putin began his third Presidency. What changes have happened in Russian socio-political and socio-economic life for this year? Especially regarding the fact that these changes are taking place alongside the challenging global events, related to the formation of the new world order.

In our opinion, the most important political result of the first year of V.V. Putin's third Presidency concerning the Russian society consists in the fact that a precarious model of governing the state, the so-called 'power tandem', is now fading into the past. But it is fading slowly: the team of the previous President, formed during his 4 years in office, moved to D.A. Medvedev's Government and it tries to pursue its course of extreme liberalism, the maximum withdrawal of the state from the spheres of economic and social policy.

This course is actually aimed at the creation of conditions that do not promote the execution of President Putin's 11 decrees as of May 7, 2012, which contain the orders (where definite figure indicators are established) to the RF Government headed by D.A. Medvedev. These orders are aimed at solving the tasks set in V.V. Putin's election papers.

The most evident proof of this approach can be seen in the RF Government Resolution 'Main guidelines of activities of the Government of the Russian Federation up to 2018' dated January 31, 2013, that contains 37 pages of 'good intentions and wishes' to fulfill the tasks set in these Presidential decrees. **The table below shows that from the 30 figure indicators, contained in V.V. Putin's decrees, the 'Main guidelines of activities of the Government of the Russian Federation up to 2018' lack 19 indicators; the intermediate or final values of 5 indicators are absent; and the planned values of 2 indicators have been changed.**

It should be noted that such a policy of emasculating the actual target indicators of enhancement of the population's life quality, the quality of economy, state and civil society, and drowning these indicators in empty talk has been foreseen by some experts.

So, V. Tretyakov in his article *Citizens have something to worry about* (*Literaturnaya Gazeta*, issue of March 28, 2012) writes about the

disputes over the article of K. Zatulin *How to prevent stealing the fruits of victory,* which claims that the danger exists that V.V. Putin and his supporters' victory will be emasculated or stolen. V. Tretyakov is not surprised at such attempts: *'... it feels like everything will carry on this way. Sometimes it seems that Putin succumbs to the pressure of the defeated party. That this text, like a magnifying glass, gathers all the questions in one focus. The focus of choice that Putin will or will not make in the coming weeks'.*

Today it is possible to assume that, apparently, V.V. Putin had a previously elaborated evolutionary version of *'a painful process of formation of a real national elite, for whom their homeland is a community of people united by the common history, culture and traditions, and this elite bears a great responsibility for its present and future'*[1].

It is crucially important that the split of the power elite that took shape in 2011 didn't go deep and didn't spread, and the anti-system opposition failed to turn into a serious political factor. This opened actual opportunities for the renewal of the composition of the ruling elite, (first of all, in the state power bodies), for the establishment of a coalition of more active structures and groups, which are able of not just proposing solutions, but taking responsibility for their implementation as well.

The new directions of V.V. Putin's activities after his election as President manifest themselves in the expanding scale of anti-corruption measures. The public is aware of the proceedings that have been initiated against former and working officials. The fact that public officials, including MPs, conceal their assets in business is now subject to moral condemnation and legal prosecution. On V.V. Putin's initiative, officials and deputies have been obliged to declare their deposits in foreign banks and real estate abroad.

[1] A. Migranyan. A year after presidential elections. Izvestia. 2013. No. 40. Issue of March, 5.

And in this regard, it has to be admitted that a full list of events, covering the first year of V.V. Putin's Presidency, prepared by analysts, includes such contradictory points as Russia's accelerated accession to the World Trade Organization, adoption of the new law on education that envisages the marketization of the national education system, the post-election implementation of the earlier decision concerning the rise in the tariffs for the services of natural monopolies, etc. The controversial points also include the adoption of the federal budget for 2013 and a three-year budget plan for 2013 – 2015 that have been worked out on the basis of the 'fiscal rule' that aggravates the underfunding of the national economy and social sphere and expands the scale of concessional lending to Russia's strategic rivals.

The Presidential Address to the Federal Assembly at the end of 2012 didn't give answers to the following key questions: will the results of the aggressive privatization of state property, carried out in the 'turbulent' 1990-s, be revised? Will the unlimited offshoring of the Russian oligarchs' business be stopped? Will Russia get back what has been stolen from it? [2]

The official statistics shows that last year has already witnessed the decline in the rate of industrial production, which, from the point of view of national economy, is the key indicator of its condition. According to the performance results of the first quarter of 2013, Russia's industry has shown zero dynamics vs. a 4% growth in the first quarter of 2012. In comparison with the fourth quarter of 2012, excluding seasonality, the decline in the industry amounted to 7.1%.

[2] Find more information on the subject in: Boldyrev Yu.Yu. On the 2012 President's Address to MPs and more. Rossiyskiy Ekonomicheskiy Zhurnal. 2012. No. 6; Nagorniy A., Konkov N. The process is underway: Russia and the world on the eve of big upheavals. Zavtra. 2013. No. 10. March; Housing and communal services go wild. Literaturnaya Gazeta. 2013. No. 10 – 11. March; etc.

Targets set in the Decrees of Russia's President as of May 7, 2012 that were not reflected in the RF Government Resolution 'Main guidelines of activities of the Government of the Russian Federation up to 2018' dated January 31, 2013*

Targets set in Presidential Decrees	Presence in the 'Main guidelines…' of the Government
Decree of the RF President 'On the long-term state economic policy' No. 596 dated May 7, 2012	
1.3-fold increase in the share of hi-tech and knowledge-intensive production in the gross domestic product by 2018 as compared to 2011	Absent
Improvement of Russia's position in the World Bank rating of business environment up to the 50th in 2015 and up to the 20th in 2018	Improvement of Russia's position in the World Bank rating of business environment up to the 20th in 2018 (intermediate value of the indicator for 2015 is absent)
Decree of the RF President 'On the activities for the implementation of the state social policy' No. 597 dated May 7, 2012	
The 1.4 – 1.5-fold increase of real wages by 2018	Creation of favourable conditions for the 1.4 – 1.5-fold increase of disposable incomes from 2013 up to 2018 (substitution of the planned indicator)
Bringing the average salaries of kindergarten teachers to the regional average in the sphere of general education in the specific region	Absent
Increase in the number of highly qualified workers by the year 2020 so that it would amount to not less than one third of the number of qualified workers	Absent
Creation of up to 14.2 thousand jobs for disabled persons annually in the period of 2013 – 2015	Absent
Creation of not less than 5 centres for cultural development in small towns by 2015	Creation of multifunctional centres for cultural development in small and medium-sized towns using modern telecommunication technologies (quantitative indicators are absent)
2-fold increase in the number of exhibition projects realized in the constituent entities of the Russian Federation by 2018	Absent
Increase in the number of children participating in creative activities and events up to 8% of the total number of children by 2018 in order to discover and support young talent	Absent
Decree of the RF President 'On the improvement of state policy in health care sphere' No. 598 dated May 7, 2012	
Reduction of death rate from cardiovascular diseases to 649.4 cases per 100 thousand population	Absent
Reduction of death rate from neoplasms (including malignant) to 192.8 cases per 100 thousand population	Absent
Reduction of death rate from tuberculosis to 11.8 cases per 100 thousand population	Absent
Reduction of death rate in road traffic accidents by 10.6 cases per 100 thousand population	Absent
Reduction of infant mortality, in the first place through its reduction in the regions with a high value of its indicator, to 7.5 per 1000 live births	Absent
Increasing the volume of domestic production of medicines according to the list of strategically important medicines and the list of vital and essential pharmaceuticals up to 90%	2-fold increase in the share of domestic medicines in the volume of consumption by the Russian Federation health care, from 25% up to 50% (substitution of the planned indicator)
Decree of the RF President 'On the measures for the implementation of state policy in the sphere of education and science' No. 599 dated May 7, 2012	
Increase from 3% up to 25% by 2020 in the share of secondary vocational education institutions and higher education institutions, the premises of which are adjusted for educating people with disabilities	Absent

* The table contains the analysis of Presidential Decrees No. 596-601, 604, 606.

End of the table

Targets set in Presidential Decrees	Presence in the 'Main guidelines…' of the Government
Increase up to 2.44% by 2020 in the share of publications by Russia's scientists in the total number of publications in the world scientific journals included in the WEB of Science data base	Absent
Decree of the RF President 'On the measures for providing the citizens with affordable and comfortable housing and enhancing the quality of housing and communal services' No. 600 dated May 7, 2012	
Increase in the share of borrowed funds in the total volume of capital investments in heat supply systems, water supply and sewerage systems and wastewater treatment up to 30% by 2017	Absent
Increase in the number of granted loans up to 815 thousand a year	Creation of a housing mortgage system available for the majority of population (definite measures for achieving the target indicator are absent)
Provision of Russia's citizens with an opportunity to improve their housing conditions no less than once every 15 years	Absent
Reduction in the price for 1 square metre of living space by 20% through increase in the volume of commissioned economy class housing	Volumes of commissioned housing will increase up to 80 – 110 million square metres a year (measures on reducing the price for 1 square metre of living space are not defined, the class of planned commissioned housing is not stated)
Provision of affordable and comfortable housing to 60% of Russian families willing to improve their housing conditions	Housing problem is proposed to be solved mainly through the large-scale construction of quality and affordable housing, as well as through the enhancement of the quality and reliability of communal services' provision to population (definite measures to achieve the target indicator are absent)
Decree of the RF President 'On the main guidelines of improving the state management system' No. 601 dated May 7, 2012	
Reduction in the average number of appeals from the representatives of business community to the state government body of the Russian Federation (local government body) for obtaining one state (municipal) service connected with entrepreneurial activity to 2 by the year 2014	Absent
Decree of the RF President 'On the further improvement of military service in the Russian Federation' No. 604, dated May 7, 2012	
Provision of housing to the military personnel of the Russian Federation Armed Forces, other forces, military formations and bodies to the full extent in 2013 in accordance with the legislation of the Russian Federation. Formation of the military housing fund by 2013	Completion of the programmes on the provision of military personnel with permanent and military housing (definite measures to achieve the target indicator are absent)
Establishment of money allowances of military personnel at a level not less than the remuneration of employees at the enterprises of the leading sectors of the economy	Absent
Annual increase in the pensions of citizens dismissed from military service by not less than 2% above inflation rate	Absent
Annual increase in the number of military personnel serving under the contract not less than by 50 thousand people, over the period of 5 years	Absent
Decree of the RF President 'On the measures for the implementation of demographic policy in the Russian Federation' No. 606, dated May 7, 2012	
Provision of increase in cumulative birth rate up to 1.753 by 2018	Increase in birth rate (definite measures to achieve the target indicator are absent)
Co-financing, at the expense of federal budget allocations, of expenditure obligations of the subjects of the Russian Federation, emerging at the awarding of payment, in those subjects of the Russian Federation, in which the demographic situation is unfavourable and the value of total fertility rate is below the national average	Introduction of monthly monetary payment for the systematic supporting of families with three or more children in the regions (the principles and necessity of making a list of regions that will receive the co-financing of expenditure obligations are not defined)

A recent forecast by the Ministry of Economic Development (MED) expects the decline in the main indicators of the RF economic development for the current and next years. In particular, GDP growth rates for 2013 have been reduced from 3.6% to 2.4%, industrial production growth rates – from 3.6% to 2%, growth rates of investments in fixed capital – from 6.5% to 4.6%. At the same time, MED Head Andrey Belousov points out that in autumn 2013 Russia's economy will run a risk of going into recession if the government does not undertake special measures to stimulate the economy[3].

Instead of taking urgent steps for the revival of economy, Russia's leading business companies continue, in spite of the Cyprus lessons, to withdraw assets abroad. Only for the first quarter, almost 26 billion U.S. dollars (over 750 billion rubles) have been taken away from Russia[4]. A variety of mechanisms are used for this purpose, and first of all, the placement of the largest corporations, located in Russia and increasing their borrowings in foreign banks, under foreign control.

According to the specified data of the Central Bank, the external debt of the Russian Federation at the beginning of 2013 amounted to nearly 623 billion U.S. dollars. In 2012 it increased by 93 billion U.S. dollars, or 17.2%. The annual growth of Russia's external debt in the ruble equivalent amounts to a quarter of the 2013 federal budget[5].

The pre-crisis level of gross regional product still hasn't been restored in some of Russia's regions. The gap between the regions by the volume of GRP production per capita continues to increase. The incomes of a considerable part of Russian citizens are barely enough to satisfy even their primary needs.

The issues of formation of sub-federal budgets are becoming more acute. The increasing share of funding the state's social obligations is being shifted onto them. For instance, the execution of the social programme, contained in the Presidential decrees as of May, requires about 5 trillion rubles, including for the increase of public sector workers' wages – 2.6 trillion rubles, out of which 1.5 trillion rubles should be allocated by the RF constituent entities mainly from their own revenues. Additional financial support, envisaged for these purposes in the federal budget, does not compensate for even one-third of the territorial budgets' expenditures. As a result, the debt burden of the regional budgets is increasing continuously (from 600 billion rubles in 2008 up to 1600 billion rubles in 2012). 19 regions had the debt burden exceeding 50% of their own revenues in 2012, 4 regions – in 2008[6].

It should be noted that on the part of V.V. Putin the estimation of the federal and regional officials' performance is becoming more severe. The graveness of warnings expressed to D.A. Medvedev's Government is proved by the fact that one such episode was shown in Dmitry Kiselev's programme '*Vesti Nedeli*' (News of the Week) on the Russian Television Channel Rossiya-1: the President held a meeting on the rundown housing issues, which took place in Elista on April 16, 2013, and it was attended by 4 Government ministers, 4 governors and a number of federal and local officials. The Head of State, speaking at the closed part of the session, criticized government officials and heads of the regions for their sluggishness in implementing the decrees of May, 2012 that contain his election promises: *'How do we work? The quality of the work is pitiful, everything is done superficially. If we continue this way, we won't do a thing! But if we work persistently and competently, we will make it. Let's raise the quality of our work. It ought to be done! If we don't do it, it will have to be admitted that it is either me working inefficiently or it is you*

[3] Website of the business news agency PRIME.
[4] Pravda newspaper. Issue of April 11, 2013.
[5] Ibid.
[6] For more details see: Ilyin V.A., Povarova A.I. Problems of government management efficiency. Budget crisis in the regions: monograph. Vologda: ISEDT RAS, 2013.

failing to do your job properly. Take notice that, judging by the current situation, I, personally, lean toward the latter. I think it's clear. No one should have any illusions"[7].

Such an unambiguous reaction of the President to the performance results of the Russian executive power in the post-election year clearly indicates the graveness of the current situation and expresses a high degree of anxiety on the part of the Head of State concerning the future of his obligations to his voters. Those very obligations, the fulfillment of which will ensure the enhancement of the quality of life, the quality of government, the quality of the development of civil society and, ultimately, the competitiveness of the country.

As in the previous issues, we publish the results of the recent public opinion monitoring of the state of the Russian society *.

The following tables show the dynamics of some parameters of social well-being and socio-political sentiments in the Vologda Oblast for the period from December 2011 to April 2013.

Table 1. Estimation of power activity
(How do you assess the current activity of..?)

Vertical power structure	Approval in % to the total number of respondents									Dynamics indices, Apr. 2013 to Apr. 2012		Dynamics indices, Apr. 2013 to Feb. 2013	
	Dec. 2011	Feb. 2012	Apr. 2012	June 2012	Aug. 2012	Oct. 2012	Dec. 2012	Feb. 2013	Apr. 2013				
The President of the RF	51.7	47.3	50.3	54.5	53.7	50.9	53.3	55.5	55.5		1.10		1.00
The Chairman of the Government of the RF	52.9	52.6	51.7	49.5	48.5	47.1	48.3	47.9	48.5	0.94			1.01
The Governor of the Vologda Oblast	41.9	37.7	37.7	44.7	45.3	43.6	42.5	43.0	44.4		1.18		1.03

Vertical power structure	Disapproval in % to the total number of respondents									Dynamics indices, Apr. 2013 to Apr. 2012		Dynamics indices, Apr. 2013 to Feb. 2013	
	Dec. 2011	Feb. 2012	Apr. 2012	June 2012	Aug. 2012	Oct. 2012	Dec. 2012	Feb. 2013	Apr. 2013				
The President of the RF	35.7	35.7	33.3	28.9	31.1	32.1	34.6	29.2	31.5	0.95			1.08
The Chairman of the Government of the RF	32.7	32.0	33.1	31.5	34.5	32.8	35.9	34.4	35.7		1.08		1.04
The Governor of the Vologda Oblast	36.1	33.8	32.6	31.8	32.7	33.7	35.4	33.8	34.9		1.07		1.03

Notes. Hereinafter, it is pointed out: green – improvement; yellow – without changes; red – change for the worse.

[7] NEWSru.com. Russia's news. Wednesday, April 17, 2013.

* 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, 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 populations, the proportions between the inhabitants of settlements of various types (rural communities, small and medium-sized city), age and sex structure of the adult population of the region. Sampling error does not exceed 3%.

The results of the ISEDT RAS polls are available at www.vscc.ac.ru

Table 2. What party expresses your interests?

Party	Dec. 2011	Elections for the State Duma 2011, fact	Feb. 2012	Apr. 2012	June 2012	Aug. 2012	Oct. 2012	Dec. 2012	Feb. 2013	Apr. 2013	Dynamics indices, Apr. 2013 to Apr. 2012		Dynamics indices, Apr. 2013 to Feb. 2013	
United Russia	26.1	**33.4**	26.0	28.3	31.9	31.4	26.6	30.4	30.5	28.5		1.01	0.93	
KPRF	13.4	**16.8**	10.1	11.4	10.0	9.5	10.4	12.2	9.7	11.0	0.96			1.13
LDPR	9.2	**15.4**	9.1	9.5	7.7	6.7	6.8	7.2	6.3	7.1	0.75			1.13
Just Russia	13.9	**27.2**	10.2	8.2	4.6	5.6	5.5	5.5	5.3	5.1	0.62		0.96	
Other	4.6	-	3.1	3.2	2.8	2.3	2.4	3.5	3.5	3.4		1.06	0.97	
No party	23.9	-	25.7	28.6	31.5	33.2	36.1	32.5	35.3	37.1		1.30		1.05
It's difficult to answer	9.0	-	15.8	10.8	11.6	11.1	12.3	8.7	9.3	7.8	0.72		0.84	

Table 3. Estimation of social condition

In % to the total number of respondents									Dynamics indices, Apr. 2013 to Apr. 2012		Dynamics indices, Apr. 2013 to Feb. 2013	
Dec. 2011	Feb. 2012	Apr. 2012	June 2012	Aug. 2012	Oct. 2012	Dec. 2012	Feb. 2013	Apr. 2013				
What would you say about your mood in the last days?												
Usual condition, good mood												
64.2	62.9	63.4	69.0	71.3	69.0	68.0	66.6	68.6		1.08		1.03
Feeling stress, anger, fear, depression												
30.2	33.5	30.2	23.4	23.3	25.5	26.5	30.5	26.0	0.86		0.85	
What statement, in your opinion, suits the current occasion best of all?												
Everything is not so bad; it's difficult to live, but it's possible to stand it												
78.6	74.9	76.5	77.3	73.2	77.5	79.9	75.5	77.9		1.02		1.03
It's impossible to bear such plight												
14.1	18.1	16.8	13.6	17.0	15.6	13.7	16.1	16.5	0.98			1.02
Consumer Sentiment Index												
85.6	89.8	90.1	93.4	92.3	91.7	91.7	92.3	90.4		1.00	0.98	
What category do you belong to?												
The share of people who consider themselves to be poor and extremely poor												
41.9	43.2	43.6	45.0	44.2	44.1	47.0	45.9	48.2		1.11		1.05
The share of people who consider themselves to have average income												
42.2	44.9	46.5	45.3	43.4	44.7	43.4	44.3	42.6	0.92		0.96	

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As in the previous issues, we publish the journal articles rating in this one.

The first ten articles, published in 2010-2013, according to the frequency of their viewing for the recent 12 months (May 2012 — April 2013)

Rating	Article	Total time of reading for the recent 12 months, minutes	Total time of reading, for the whole accounting period*, minutes	Number of views for the whole accounting period	Number of views for the recent 12 months	Number of views for the recent 3 months	Average time of viewing for the whole accounting period*, minutes	Issue	Release date	Authors
1	Agriculture of the Vologda Oblast on the eve of Russia's accession to the World Trade Organisation	7034	7034	210	210	38	34	No.21	June 2012	Anishchenko Nikolay Ivanovich Ivanova Marina Nikolayevna Bilkov Valentin Alekseyevich
2	Modernization of the Russian economy as the imperative of the country's prospective innovative development	3088	5166	190	98	5	27	No.16	August 2011	Kondakov Igor Anatolyevich
3	Threats to the region's economic security and the ways to overcome them	1223	3282	167	53	12	20	No.14	April 2011	Uskova Tamara Vitalyevna Kondakov Igor Anatolyevich
4	Demographic problems of the Republic of Belarus and their solutions	1069	1403	100	76	5	14	No.16	August 2011	Shakhotko Lyudmila Petrovna
5	Fiscal federalism and inter-budget relations in the Russian Federation	925	2835	204	58	5	14	No.13	February 2011	Avetisyan Ishkhan Artashovich
6	Methodology of the comparative estimation of the scientific and technical potential of the region	783	3500	184	36	2	19	No.12	December 2010	Zadumkin Konstantin Alekseyevich Kondakov Igor Anatolyevich
7	Assessment of the critical threshold values of the indicators of the state of Russian society and their use in the socio-economic development management	725	725	37	37	8	20	No. 22	August 2012	Glazyev Sergey Yuryevich Lokosov Vyacheslav Veniaminovich
8	Topical issues of the improvement of intergovernmental dealings in the system of local government	628	698	44	40	1	16	No.19	March 2012	Uskova Tamara Vitalyevna Pechenskaya Mariya Aleksandrovna
9	Problems of sustainable development of rural areas in the Vologda Oblast	538	573	40	37	8	14	No.17	October 2011	Shestakov Sergey Aleksandrovich
10	Public-private partnership in the scientific and technological sphere of defense industry: Russian and foreign experience	503	503	36	36	4	14	No.20	April 2012	Nikolayev Aleksey Yevgenyevich

* Account of the site's viewing has been carried out since 2009, December, 12.

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LBC 65.042(2Rus-4Vol)

On the issue of formation of development institutions in the region

The article analyzes the region's socio-economic position and identifies the problems hampering its development in the post-crisis period. It reveals the essence and regional experience of formation of development institutions as a tool for economic growth. The efficiency of the development institution is shown and key factors of its formation are identified in the case of the Kaluga Oblast.

Region, economic crisis, diversification, investments, development institutions.

Tamara V.
USKOVA
Doctor of Economics, ISEDT RAS Deputy Director
tvu@vscc.ac.ru

Roman Yu.
SELIMENKOV
Ph.D. in Economics, Deputy Head of ISEDT RAS Department
rus_vscc@mail.ru

The global economic and financial crisis, which affected Russia's economy at the end of 2008, caused its destabilization, the aggravation of social problems and uncertainty of prospects. By the beginning of 2009, Russia's economy has entered a recession, accompanied by devaluation of ruble, increase in unemployment and the suspension of investment programmes.

Negative dynamics in industrial production was observed in almost all the regions of the country. The Vologda Oblast was no exception.

In 2009, due to the crisis, the region experienced a significant decrease in growth rates of physical volume of GRP – by 13% to 2008 *(fig. 1)*.

In terms of per capita GRP, the Vologda Oblast ranked 4th in 2008 among the regions

Figure 1. Dynamics of growth rates of physical volume of GRP, % to 2000 [6, 9]

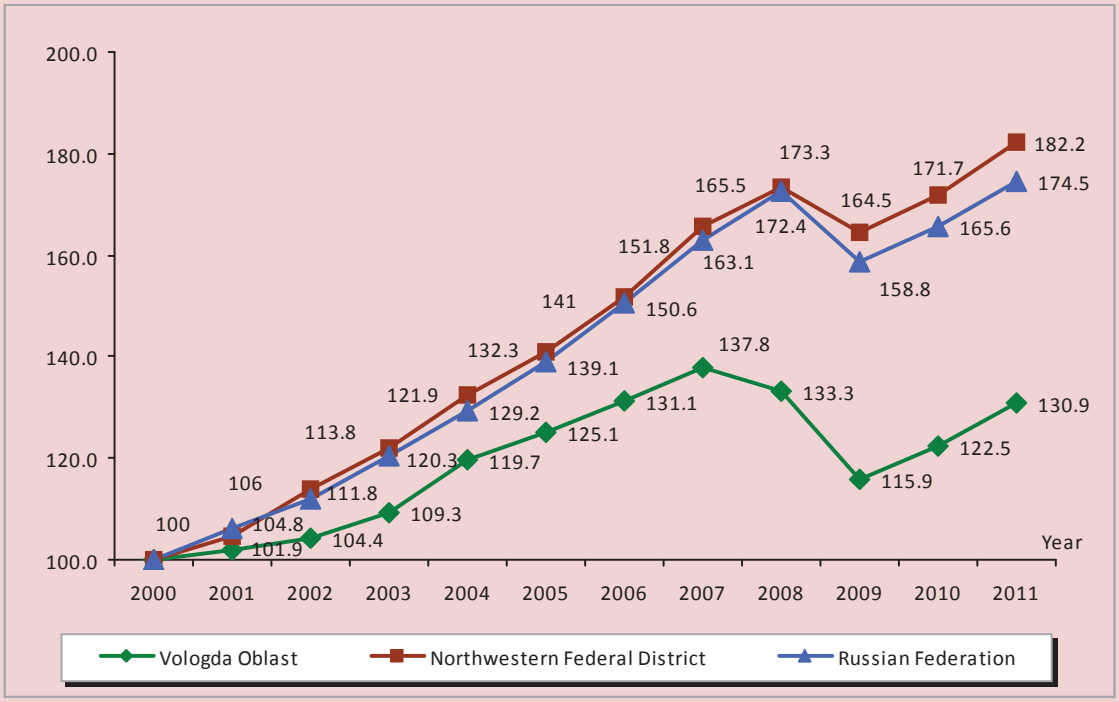


Table 1. Gross regional product per capita in the regions of the Northwestern Federal District (at current basic prices), thousand rubles [6]

Territory	2000	2005	2007	2008	2009	2010	2011
Komi Republic	56.6	176.1	256.6	314.3	330.0	390.7	484.9
Saint Petersburg	39.8	141.8	235.4	299.4	306.5	349.3	420.6
Arkhangelsk Oblast	44.8	129.0	212.9	231.5	260.6	302.8	361.0
Murmansk Oblast	59.2	156.7	233.8	263.8	252.0	292.9	329.0
Leningrad Oblast	33.3	122.0	182.7	226.0	252.9	286.4	326.5
Vologda Oblast	**53.4**	**156.4**	**199.0**	**242.3**	**176.2**	**217.8**	**264.2**
Kaliningrad Oblast	24.3	87.1	154.0	191.5	180.8	208.2	243.8
Novgorod Oblast	29.3	95.3	132.3	177.5	183.2	200.2	236.0
Republic of Karelia	38.5	113.0	158.0	175.5	162.6	186.7	223.0
Pskov Oblast	20.5	55.8	87.5	105.4	108.8	128.7	152.9
NWFD	*40.6*	*130.8*	*203.0*	*248.7*	*251.0*	*289.6*	*345.3*
Russian Federation	*39.5*	*125.7*	*195.8*	*237.6*	*224.2*	*263.8*	*316.6*

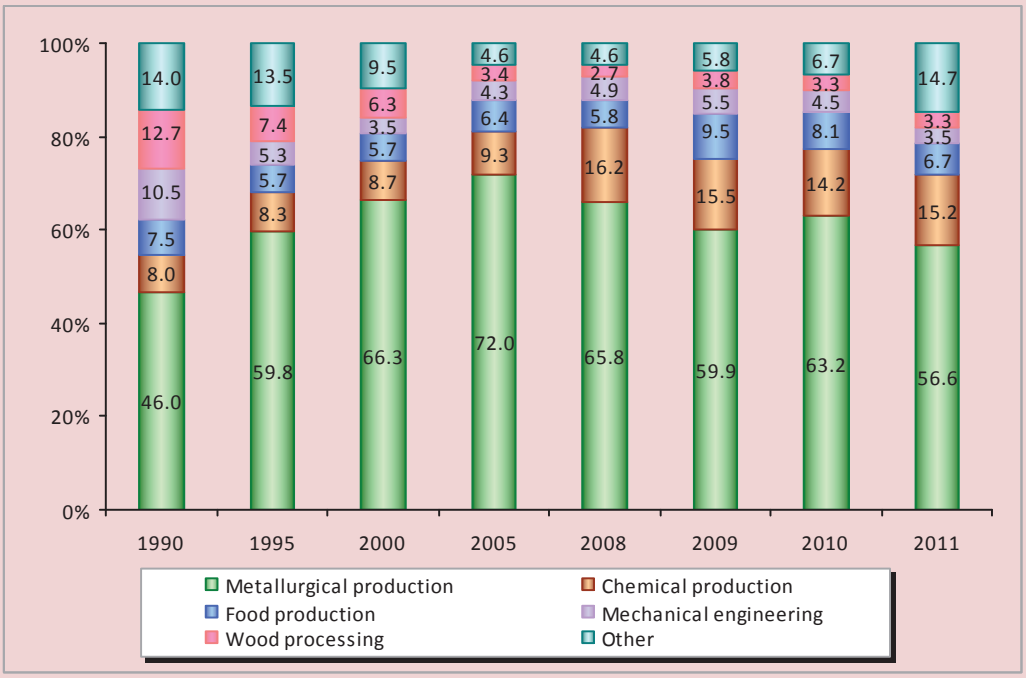
of the Northwestern Federal District (242.3 thousand rubles). In 2009, however, this indicator decreased (to 176.2 thousand rubles) and the oblast moved to the 8th place. The region managed to reach the pre-crisis level of GRP only in 2011, but it didn't restore its 2008 position in the rating (ranking 6th in 2011; *tab. 1*).

One of the reasons for the current situation lies in the mono-structure of economy, i.e. its orientation toward one particular industry, which plays an important role in the creation of the oblast gross regional product *(fig. 2)*.

By the volume of shipped industrial products per capita, the oblast ranks 10th in Russia and 3rd among the regions of the Northwestern

Figure 2. Contribution of goods-producing industries of the Vologda Oblast to GRP, % [9]

Figure 3. Commodity composition of output, shipped by the industries of the Vologda Oblast, % [10]



Federal District (NWFD). This indicator 1.4 times exceeds the Russian average.

The oblast's industrial sector is represented by metallurgy, chemical production, mechanical engineering, wood processing, food industry, etc. At that, metallurgical and chemical productions comprise the major part *(fig. 3)*. Even though, their share decreased slightly in 2011 (72%), it remains high.

The global financial crisis has shown that the development of the region's industrial sector depends very much on the situation on the world markets, because about 30% of the goods produced in the oblast are exported (for comparison: in Russia as a whole – about 40%). Metallurgical and chemical products form the basis of export (95%).

In the early 2000s, price increase on the world markets determined the growth rates of industrial production. However, since 2008, they have declined under the crisis (95.3% to the previous year), and the situation grew even worse in 2009 (90.5%). The growth of industrial production in the region began only in 2010, but its pace slowed down again in 2011 *(tab. 2)*.

Decline in production had a direct impact on the financial performance of the Vologda Oblast enterprises. Due to the crisis, their revenues in the prices of 2009 reduced almost 4-fold and amounted to 20.8 thousand rubles per capita. In 2010, the oblast enterprises worked at a loss, the situation stabilized only in 2011 *(tab. 3)*.

Reduction of equity funds of enterprises influenced the volume of their investments in production. In the pre-crisis period, the investments in the Vologda Oblast increased most rapidly in comparison with those of NWFD and Russia. However, their decline in the region was also more substantial under the crisis. At the same time, the pre-crisis level still hasn't been reached *(fig. 4)*.

It is necessary to add that the reduction of budget sufficiency also indicates the problems of the region's economy. The crisis, affecting the financial condition of industrial enterprises, 'undermined' one of the main sources of budget revenues – profit tax revenues. Their volume has decreased by more than 20%, and the oblast has shifted down to the 9-th position

Table 2. Industrial production index of NWFD regions in 2001 – 2011 (in % to the previous year) [9]

Region	2001	2005	2007	2008	2009	2010	2011	2011 to 2000, %
Kaliningrad Oblast	110.1	127.4	114.4	101.8	95.3	117.0	118.0	559.9
Leningrad Oblast	104.78	108.1	102.8	101.0	96.9	113.8	106.2	317.7
Arkhangelsk Oblast	98.85	117.3	107.0	105.5	115.4	102.1	82.1	267.9
Saint Petersburg	106.97	105.7	110.1	103.6	83.4	109.4	113.8	219.8
Novgorod Oblast	104.8	108.3	106.4	102.3	87.7	113.9	110.0	185.4
Pskov Oblast	105.2	98.7	108.0	105.1	89.6	116.9	109.8	180.5
Komi Republic	108	104.1	106.3	102.9	98.3	100.4	104.3	147.6
Vologda Oblast	**96.9**	**106.5**	**104.9**	**95.3**	**90.5**	**111.1**	**104.6**	**146.1**
Republic of Karelia	98.8	118.7	116.0	97.0	78.5	110.2	99.4	143.7
Murmansk Oblast	101.1	100.2	98.2	94.6	96.5	105.2	98.7	105.3
NWFD	103.7	*108.5*	*106.9*	*100.6*	*92.6*	*108.4*	*105.5*	*205.1*

Table 3. Balanced financial result of the performance of large and medium-sized enterprises of NWFD regions per capita, thousand rubles (in current prices) [9]

Territory	2000	2005	2007	2008	2009	2010	2011	2011 to 2000, times
Komi Republic	13.9	25.3	21.7	28	39.6	63.1	105.8	7.6
Saint Petersburg	6.4	13.6	50.2	58	57.2	71.6	100.1	15.6
Murmansk Oblast	12.5	16.8	42.5	39.4	37.9	50.2	51.8	4.1
Leningrad Oblast	6.1	24.4	29.6	34.6	27.3	37.6	38	6.2
Arkhangelsk Oblast	5.3	9.9	3.4	-0.4	19.9	25.9	36.8	6.9
Republic of Karelia	4	15.5	10.6	10.6	-5.1	21.9	28.3	7.1
Vologda Oblast	**22.2**	**43.1**	**50.9**	**79.4**	**20.8**	**-18**	**23.9**	**1.1**
Kaliningrad Oblast	4.4	11.3	7.1	7.8	5.4	23.8	20.3	4.6
Pskov Oblast	1	0.9	2.1	2.1	1.6	3.3	1.5	1.5
Novgorod Oblast	3.9	11.5	16.6	20.8	37.2	25.5	-10	-2.6
NWFD	*7.9*	*17.5*	*31.7*	*41.9*	*33.7*	*42.2*	56.7	7.2
Russian Federation	*8.1*	*22.5*	*28.3*	*31.2*	*30.6*	*44.3*	49.9	6.2

Figure 4. Index of physical volume of investments in fixed capital (in constant price terms, in % to 2000) [9, 10]

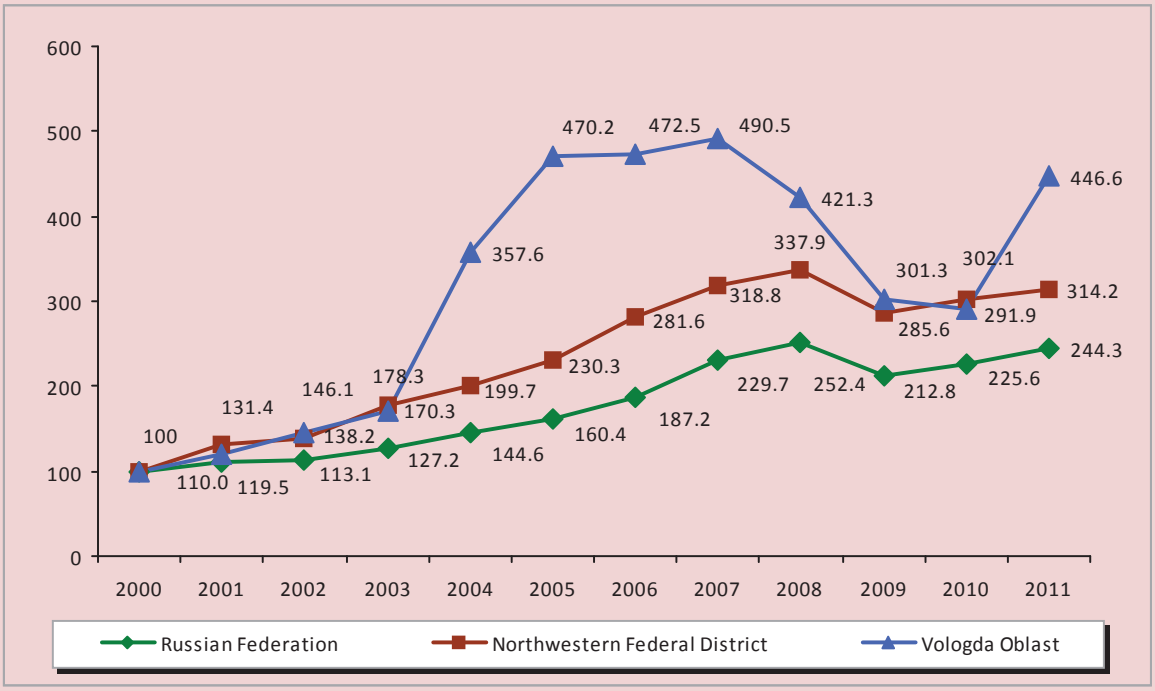


Table 4. Execution of consolidated budget in NWFD regions by incomes per capita (thousand rubles in current price terms) [9]

Territory	2000	2005	2007	2008	2009	2010	2011	2011 to 2000, times
Saint Petersburg	8.1	31.3	61.6	74.9	69.8	72.4	83.1	10.3
Murmansk Oblast	6.8	19.9	47.8	55.9	55.4	65.4	71.2	10.5
Komi Republic	9.9	24.9	35.3	45.8	47.7	55	64.4	6.5
Republic of Karelia	7.1	25.6	29.2	39.3	37.5	49.4	55.8	7.9
Arkhangelsk Oblast	4.8	17.4	31.8	42	40.5	51.4	53.0	11.0
Kaliningrad Oblast	4.6	16.1	29.5	39.7	44.9	40.9	51.6	11.2
Leningrad Oblast	5.6	20.3	29.7	38.8	38.2	41.7	47.9	8.6
Novgorod Oblast	4.7	16.7	22.7	33.7	36.9	36.4	44.4	9.4
Vologda Oblast	**7.4**	**21.4**	**34.8**	**41.7**	**33.1**	**38.4**	**42.2**	**5.7**
Pskov Oblast	4.1	12.6	20.4	26	28.8	33.4	41.3	10.1
NWFD	*5.5*	*23.1*	*42.5*	*53*	*50.8*	*55.8*	*63.8*	*11.6*
Russian Federation	*7.3*	*21*	*34.1*	*43.7*	*41.8*	*45.7*	*53.5*	*7.3*

among NWFD regions by the indicator of fiscal capacity *(tab. 4)*. At the same time, from 2011, the region has been receiving subsidies [5].

Therefore, the structure of the industry dominated by metallurgical and chemical production, the dependence of the region's economy on a few large enterprises (in particular, OAO Severstal and the group of companies PhosAgro AG) are among the destabilizing factors of the economy.

Obviously, in these circumstances, the tasks of economy diversification, innovation development, establishment of advanced industrial and social infrastructure as the basis for economic growth and enhancement of population's life quality require urgent solving.

However, they are impossible to be handled in the conditions of the regional budget deficit. At the same time, the attraction of private and foreign investments is impeded by high risks and long-term payback. The mechanism that will help to solve the problems of economic development and diversification and to enhance the efficiency of using the country's resources is to be found in specialized organizations with state participation – the institutions of development.

It is considered that development institutions are structures designed to accumulate financial resources and direct them to the development of promising economic sectors, introduction of innovations, implementation of important infrastructural and social projects. In fact, development institutions are a tool of direct government participation aimed at promoting certain industries (or regions) in the cases, when market-based instruments are inefficient.

At present, there are a lot of development institutions in the world (about 750), most of them are united into development banks. They played a significant role in the development of such big countries as Germany, Japan, China, Italy, India and Brazil. This proves that market methods are not efficient enough to achieve the optimal economic development. Development institutions are especially effective and useful in the conditions of recovery, reconstruction and modernization of economy, when it is necessary to concentrate resources on the solution of priority tasks. Russia's economy is currently in such a state [3].

It should be noted that the formation of development institutions in Russia took place in 2006 – 2008. In January 2006, the Eurasian Development Bank was established by the Russia – Kazakhstan intergovernmental agreement. Russian Venture Company, the Russian Investment Fund for information and communication technologies and JSC Special Economic Zones were established in the same year. The Russian Corporation of Nanotechnologies and the Fund of assistance to reforming housing and communal services started their work in 2007, and Vnesheconombank, which took over Roseximbank and Russian Development Bank, was reorganized into the state corporation 'Bank for Development and Foreign Economic Affairs'. The Russian Housing Development Foundation (the RHD Foundation) was the latest one, established in 2008.

Development institutions are being created also at the regional and local levels. Some of them are the subsidiaries or associated partners of federal structures: for example, regional venture funds of Russian Venture Company and corporations for the development of individual regions (special economic zones, technology parks), local funds for support of small business [8]. We can conclude that, at present, the system of development institutions is being formed in Russia *(fig. 5)*.

Regional development corporations (agencies), i.e. the nongovernmental structures operating at the intersection of governmental and business interests and preparing the chosen territories for the launch of certain projects, are an efficient tool of regional policy widely spread in developed countries [11].

It is known that these structures were created in the Kaluga, Rostov, Penza, Volgograd, Ulyanovsk, Samara, Yaroslavl and Vologda oblasts. However, only one is actually working – the Kaluga Oblast Development Corporation, which is established on the basis of industrial parks (IP), united into the automotive cluster. For the period of 2008 – 2011, the volume of attracted investments in the Kaluga Oblast has reached 2.7 billion U.S. dollars, and the total portfolio of agreed investment projects has exceeded 4.5 billion U.S. dollars [4]. At the same time, at the initial stage (2007), the creation of infrastructure facilities for the projects implementation was subsidized from the budget funds. But soon a new mechanism was found. In addition to budget subsidies, it includes the attraction of borrowed funds under

Figure 5. The system of regional development institutions

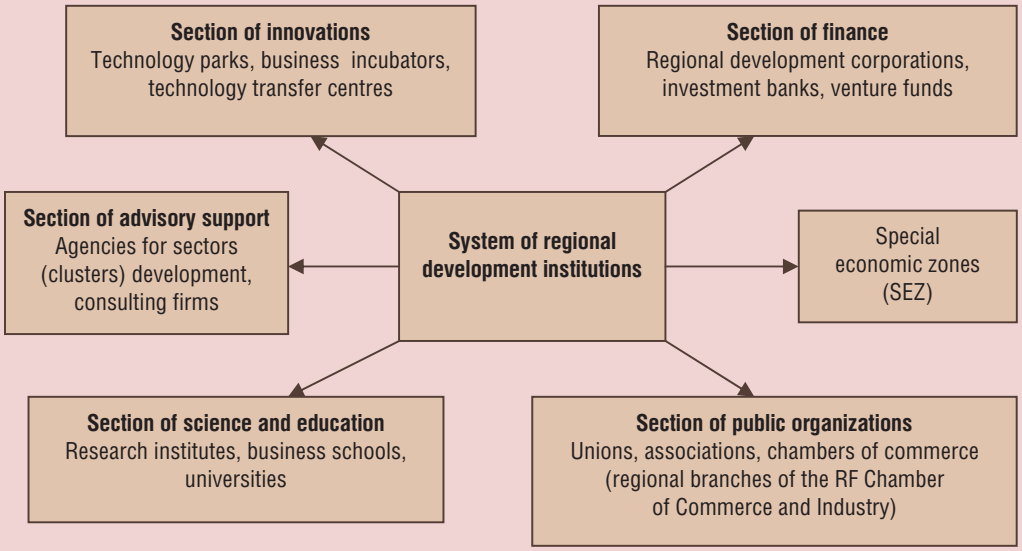


Table 5. Volume of funding allocated to land use and infrastructure engineering in industrial parks, million rubles [4]

Name	Funding, million rubles	%
Industrial Park 'Rosva'	3027	45.6
Industrial Park 'Grabtsevo'	2 515	37.9
Industrial Park 'Kaluga-South'	152	2.3
Industrial Park 'Vorsino'	825	12.4
General economic expenses	116	1.7
Total	**6 635**	**100**

the state guarantees. Vnesheconombank (VEB) and the European Bank for Reconstruction and Development (EBRD) became the major partners of the Kaluga Oblast in creating the infrastructure.

In 2008 – 2011, the Corporation, at the expense of loan funds and the authorized capital, carried out a complex of works on land use and infrastructure engineering in the industrial parks 'Rosva', 'Kaluga-South', 'Vorsino', in the technopark 'Grabtsevo' *(tab. 5)*.

Due to the creation of an integrated industrial platform, cornerstone investors were attracted and a wide range of investment projects was implemented *(tab. 6)*.

The Corporation's development is characterized by the attraction of the total volume of investments from industrial parks' residents in the amount of 80 billion rubles, while the investments spent on the industrial platform slightly exceeded 6.6 billion rubles. The direct multiplicative effect is about 12 rubles of investors' funding per 1 ruble of the Corporation's expenses. Over 11 thousand new jobs have been created in the framework of the investment activity, the number of people employed in the region's economy in 2011 amounted to 480 thousand people and unemployment rate was 31 thousand people. The total volume of tax revenues to the Kaluga Oblast consolidated budget from the Corporation's activities for the period from 2007 to 2012 exceeded 6.5 billion rubles, or approximately 4% of the total tax revenues of the budget for these years [4].

Table 6. List of implemented investment projects in the Kaluga Oblast industrial parks [4]

Name of the park	Investment project	Economic results
Industrial Park 'Rosva' Funding – 3 billion rubles	Peugeot Citroen Mitsubishi Automobiles Rus launched SKD assembly on March 23, 2010.	73 thousand motor vehicles were manufactured, 1200 new jobs were created.
	General Electric launched its power installations repair plant on November 8, 2010.	59 new jobs were created.
Industrial Park 'Grabtsevo' Funding – 2.5 billion rubles	CKD assembly room was launched at the Volkswagen plant in October 2009. Currently, Volkswagen cars are manufactured using complete production cycle.	340 thousand motor vehicles were manufactured. 6100 new jobs were created.
	Such companies as Magna (bumpers, front-end modules), Visteon (spare parts for cars' interior), Benteler (suspension parts) launched their productions in 2010.	Data is not available.
Industrial Park 'Kaluga-South' Funding – 0.15 billion rubles	Volvo Truck plant was launched in January 2009.	5.3 thousand motor vehicles were manufactured. The number of new jobs at the plant reached 750.
Industrial Park 'Vorsino' Funding – 0.8 billion rubles	L'Oréal cosmetic factory was launched on September 23, 2010. KT&G launched its tobacco processing plant on October 8, 2010. YAPP launched its plant in 2011.	Over 2 thousand new jobs were created, over 20 billion rubles of foreign investments were attracted.

Thus, the establishment of the regional development institution gave a new impetus to the development of the Kaluga Oblast economy and allowed the regional authorities to influence the territory's development trends more efficiently. This experience is especially relevant for the cities and territories that depend too much on the state of affairs in a certain industry, and sometimes in one particular enterprise.

Thus, a comparative assessment of the main socio-economic indicators in the Kaluga and Vologda oblasts indicates that, during the crisis, the economic recession in the Kaluga Oblast was less significant than that in the Vologda Oblast *(tab. 7)*.

Besides, the Kaluga Oblast development indicators, due to the diversification of its economic structure over the period of the Corporation's functioning, significantly exceeded those of the Vologda Oblast.

It should be noted that the idea of economy diversification and enhancement of the region's economic growth through the creation of development institutions found support in the Vologda Oblast as well. However, this institution in the region is at its initial stage – it was created in 2012. During the Corporation's functioning, a portfolio of potential investors and projects has been formed, the decisions have been made to remove administrative and legal barriers for speeding up the preparation of necessary documentation, production platforms have been designed on the basis of the Industrial Park 'Sheksna' in Sheksninsky District of the oblast [5].

At the same time, the key factors of investment attractiveness and competitive advantages of the territory are a necessary condition for the success of the Vologda Oblast Development Corporation. These factors include the strong dominant sector of the economy (metallurgy and chemical industry); developed agriculture, food industry and timber complex that have a high clustering potential; the presence of natural resources in significant amounts (land, water, forest, etc.); the advantageous geopolitical position (proximity to Moscow and Saint Petersburg, a large consumer base within the range of 500 km); developed transport infrastructure (railroads and motorways, the Volga-Baltic Waterway, Europe-Asia air corridor).

Besides, the advantageous geopolitical position, financial support from the federal centre and the presence of cornerstone investors became the crucial factors for the Kaluga Oblast *(tab. 8)*.

Table 7. Main socio-economic indicators [9]

Region	2007	2008	2009	2010	2011	2011 to 2006, %
Indices of physical volume of GRP, in % to the previous year						
Kaluga Oblast	112.6	115.8	93.6	110.1	112.9	151.7
Vologda Oblast	105.1	96.7	87.1	105.7	106.9	100
Industrial production indices, in % to the previous year						
Kaluga Oblast	110.7	122.9	94.7	144.9	125.6	2.3-fold
Vologda Oblast	104.9	95.3	90.5	111.1	104.8	105.3
Indices of physical volume of investments in fixed capital, in % to the previous year						
Kaluga Oblast	163.5	159.9	83.6	116.4	85.7	2.2-fold
Vologda Oblast	103.8	85.9	71.5	116.1	153.4	113.5
Indices of changes in average annual number of persons employed in the economy, in % to the previous year						
Kaluga Oblast	100.3	100.5	99.9	99.8	100	100.5
Vologda Oblast	100.5	99.6	97.4	100.5	98.6	96.6
Indices of changes in consolidated budget revenues (by the tax on the profit of organizations), in % to 2007						
Kaluga Oblast	100	142.4	88.2	203.9	204.9	-
Vologda Oblast	100	139.7	30.8	68.9	76.8	-
Consolidated budget revenues, million rubles						
Kaluga Oblast	25679.1	32085	31142	38596.5	45348.3	1.8-fold
Vologda Oblast	39398.5	50823.5	40127.3	46174.5	50693.3	1.3-fold

Table 8. Key factors of formation of the Kaluga Oblast Development Corporation [4]

Factor	Characteristic
Macroeconomic	High indicators of GRP per capita, etc.
Geopolitical	Proximity to Moscow 20% of Russia's population within the range of 400 km
Managerial	Firm commitment of the Governor and Administration Support during the project construction, assistance in communication and coordination with monopolies
Infrastructural	Presence of industrial parks and developed infrastructure
Financial	Support of the federal centre by loan resources of VEB and EBRD
Cluster	Presence of other enterprises in the same segment Efficient chain of suppliers for the automotive cluster Focus of the oblast Administration on the promotion of the clusters: automotive, pharmaceutical, FMCG
Privileges	A number of tax concessions (property tax exemption, low rate of profit tax)
Ratings	Stable FITCH and Expert RA credit ratings
Cornerstone investors	Presence of cornerstone investors (Western companies): VW, SAB Miller, etc.

In our opinion, the Vologda Oblast Development Corporation should have been created much earlier, when the inter-regional competition for potential investors and financial resources of the federal centre was just beginning to unfold. However, the region's experience proves that these structures are able to create the conditions for accelerated economic growth of the territory. In this respect, we believe that the establishment of a regional development institution can become the key factor in the diversification of the oblast economy, in addition, it will reduce the gap in economic growth, and restore its budgetary sufficiency.

At the same time, the establishment of such a Corporation is not the only tool promoting the territory's development. The forecast and regulation of the country's spatial development should be oriented

toward the territories of priority development. This orientation should become an important feature of the regional policy of the federal centre. The areas of priority development can comprise transport and logistics hubs, areas of industrial and agricultural development, the zones of innovation development, zones of advanced technologies development, tourism, resort and other recreational zones, cultural and natural landscapes [1]. Government authorities should expand the range of the region's development tools, providing the solution to the complex problems of the territories.

References

1. Ilyin V.A., Uskova T.V. Methods of overcoming the spatial socio-economic differentiation. Federalizm. 2012. No. 3 (67). P. 7-18.
2. Ilyin V.A., Povarova A.I. Problems of execution of the territorial budgets of the Russian Federation in 2011. Ekonomika. Nalogi. Pravo. 2012. No. 5. P. 87.
3. Development institutions as an instrument of implementation of the investment policy of the state. JSC Regional Fund – the development institution of Bashkortostan Republic. Available at: http://regfondrb.ru
4. Official website of the Kaluga Oblast Development Corporation. Available at: http://invest.kaluga.ru
5. Official website of the Vologda Oblast Development Corporation. Available at: http://www.invest35.ru
6. Official website of the Federal State Statistics Service. Available at: http://www.gks.ru
7. Petrikova Ye.M. Development institutions as the factors of economic growth. Economic portal. Available at: http://institutiones.com/general/1180-instituty-razvitiya.html
8. Russian development institutions: regional aspect. Available at: http://raexpert.ru/researches/regions/ros_evolution/
9. Regions of Russia. Socio-economic indicators. 2011: statistical digest. Moscow: Rosstat, 2012.
10. Statistical yearbook of the Vologda Oblast. 2011: statistical digest. Vologda: Vologdastat, 2012.
11. Uskova T.V. Managing sustainable development in the region: monograph. Vologda: ISEDT RAS, 2009.
12. Uskova T. Public-private partnership as a mechanism of economic modernization. Vykonnost' podniku. 2012. No. 2. P. 107-113.

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Assessment of the potential of large business' participation in the socio-economic development of the Arctic region

The article deals with the issue of corporate social responsibility (CSR) of large corporations and studies its role in the life of local communities in Russia's Arctic regions. The authors summarize some foreign and domestic theoretical studies and propose a classification of CSR forms and development stages. The obtained theoretical data serves as the basis for the analysis of CSR at the largest mining enterprises of the Murmansk Oblast, which is presented in the article.

Corporate social responsibility, mining and industrial corporations, local communities, Arctic region.

Viktor V.
SNEGOV
Deputy Chairman of Kola Scientific Centre of RAS
snegov@admksc.apatity.ru

Vladimir V.
DYADIK
Ph.D. in Economics, Senior Scientific Associate at G.P. Luzin Institute of Economic Problems of Kola Scientific Centre of RAS
vdyadik2006@rambler.ru

Development of the Arctic zone of Russia in the modern geopolitical and economic context is viewed by Russian society as an important imperative of the country's long-term development. A broad debate on the issues concerning the determination of a role and place of Northern territories in the formation of Russia's socio-economic potential and its rating on the global political arena is becoming more intense, as the interest of the leading circumpolar powers in the Arctic shelf resources increases. The growth in consumption of oil and gas products, mining, chemical, metallurgical industry products in the world and national markets is accompanied by an increasing importance of the Russian North. Meanwhile, handling the issues of sound natural resources management in the Northern territories, enhancing the economic presence of Russia in the Arctic zone is complicated by the whole range of infrastructural, socio-demographic and institutional problems.

According to the authors of the project 'Development strategy for the Arctic zone of the Russian Federation and for ensuring national security in the period up to 2020',

the main threats to the competitiveness of Russia' Arctic zone among other things include the increase of spatial asymmetry in the development between individual subarctic territories, the aggravation of social stratification of the employed in different industries in terms of income, the narrowing of the social base of development. Obviously, a big number of problems of the Northern territories is conditioned by the peculiarities of the existing settlement system, that has a strong bias toward high urbanization. It should be noted that this tendency is the stronger, the more the respective territory has been involved in industrialization process. The cities, emerged in the Soviet period around mineral resources extraction centres for ensuring their development objectives are faced with three major groups of challenges [1].

The first range of issues is stipulated by the inadequacy of the manpower balance in the North. The structure of labor resources was formed in the framework of the Soviet northern contract. The system assumed that healthy, young people agreed to work in uncomfortable living conditions provided that they could earn enough money for a comfortable old age. At that, the northern contract was a social agreement, which did not establish the criteria for the quality and efficiency of work in the Northern territories. The work was not market-oriented, and the development of the North, adopted in the Soviet Union was not market-oriented as well. This happened in connection with the fact that the Northern territories were developed for the industrial needs of the whole country and the existence of certain Northern corporations was justified by what they were doing in the framework of cooperation with other industrial groups.

A huge infrastructure of the Northern cities and towns is the second problem. The provision of its functioning is a financial burden for municipalities. In spite of severe climatic conditions, the planning and architectural image, as well as the engineering maintenance of Northern cities and towns do not differ essentially from those of the cities and towns, located in the conditions of a more moderate climate.

The third challenge consists in the low labour productivity, the problem of excessive employment. Taking part in global competition, Russia's corporations have to struggle for the increase of labour productivity, which will inevitably lead to the restructuring of non-core assets, the release of employees. And again there arise the questions concerning the deterioration of labour balance and growth of social costs.

The maximum responsibility for the solution of the listed problems is rested traditionally on the state and local authorities of the federal level, as well as of the regional level of the Northern territories. However, experience proves that this activity widely involves corporations, working in the Northern regions. At that, if the common position of the state concerning the Northern territories for a number of reasons is not completely defined yet, then the interest of the companies in the issues of socio-economic development of their production residences is quite justified. It seems that in this case the task of ensuring labor resources reproduction in the right quantity and quality is of paramount importance. At the same time, there exist other motives (they are described later), encouraging business to participate in the life of local communities.

Corporate resource for the solution of social issues is very important, and in some cases, it is even possible to talk about its comparability with the state one. Using this resource for general purposes can bring substantial synergy effect, give a new impetus to the development of the Northern territories. Therefore, the subject of this study is a set of issues on the qualitative analysis of the phenomenon of social responsibility of large corporations operating in the Arctic regions of Russia (in the case of

the largest mining enterprises of the Murmansk Oblast and their parent holding structures), and the role of this resource as a factor of socio-economic development of local communities.

Theoretical framework and methodology of the study

The complex of companies' actions aimed at solving socio-economic problems, traditionally associated with the exclusive competence of the state, is described by the category of corporate social responsibility in the global scientific and business practice.

A CSR concept is believed to originate in two theoretical structures that emerged in the 1970s. The author of the first one*, the theory of corporate egoism,* is the Nobel laureate M. Friedman, who wrote in 1971 in *The New York Times*: "There is one and only one social responsibility of business – to use its resources and engage in activities designed to increase its profits so long as it stays within the rules of the game" [2]. Another viewpoint is called *the theory of enlightened self-interest*. It identifies corporate social responsibility is identified with sponsorship and charity as the varieties of social investment. The central message of the theory consisted in the notion that current reduction in the companies' profits due to the socially oriented expenses creates a favourable social environment, promoting sustainable business development [2].

The subsequent evolution of theoretical notions concerning the phenomenon of CSR has led to the emergence of extensive scientific platform, classifying the possible socially-oriented activities of companies and formalizing the managers' motivation to implement CSR. In the modern conditions of social development, the interpretation of the CSR concept, when it comprises everything, including the ability to pay wages and salaries to their employees in time and to pay taxes in time, is characteristic for the 'young, emerging markets...like the Russian and Chinese ones' [3]. A narrower interpretation adopted in Western companies, states that 'social responsibility is the ability and willingness of business of its own accord to deal with the issue that is not only directly associated with production, sales of goods and services, but also with the welfare of the society of the country in which the company operates' [2], and the society includes the consumers of the company's products, it also includes the company's employees as well as their families. Paying tribute to the pluralism of opinions on the part of scientific and business community in the issues of formalizing the category of CSR, in general, one can understand its contents as a system of voluntary relations between the employee, the employer and the society (the state), aimed at the improvement of social and labour relations, the maintenance of social stability in the work team and the surrounding community, the development of social and environmental activities at the national and international levels [3].

Systematization of the ideas of domestic and foreign researchers concerning the internal structure of the corporate social responsibility phenomenon allows a number of conclusions to be made.

Firstly, the social responsibility of business has a multi-level character. The basic level envisages the fulfillment of the following obligations: timely payment of taxes, payment of wages and salaries, the provision of new jobs, where possible (expansion of staff size). The second level of CSR involves the provision of employees with adequate work and life conditions: improving their qualification level, preventive treatment, housing construction, development of social sphere. The third level of responsibility implies the 'exit' of a company's social and environmental programmes beyond the corporate boundaries.

Secondly, it can be observed that at present there exists a well-established set of 'action points' of corporations in the field of CSR. These directions can be divided into internal ones and those relating to the outward manifestations of social responsibility *(tab. 1)*.

Table 1. Forms of corporate social responsibility by the criterion of the relation to the main business of the company

No.	Internal	External
	A	B
1.	Enhancement of work safety	Charity
2.	Stability of salaries and wages payment, maintenance of socially important salaries and wages	Promotion of environmental protection
3.	Additional medical and social insurance of employees	Cooperation with local community, local and state authorities
4.	Development of human resources through training programmes and skills upgrading	Readiness to participate in crisis situations
5.	Provision of support to employees in emergencies	Responsibility to the consumers of goods and services (the production of quality goods, products certification, etc.)

Thirdly, it is possible to classify the main motives of implementing corporate social responsibility:

– development of its own staff and the enhancement of labour productivity in the company;

– stability and sustainability of the company's development in the long term through the establishment of closer cooperation with the state;

– preservation and enhancement of the main state institutions' activities. Maintenance of social stability in the society as a whole.

The given conclusions concerning the internal structure of CSR provide a theoretical framework for a necessary empirical analysis of the integrity and complexity of social strategies implemented by the largest mining companies of the Murmansk Oblast, as well as their parent holding structures. The main methodological technique of the analysis is the comparison of the companies' principles, directions and motives of responsibility with the 'standard' principles, directions and motives, previously defined through theoretical generalizations. Social strategies of the companies are being consistently analyzed. At the first stage, the phase of CSR practices development at the enterprises of the group is defined. At the second stage, on the basis of the corporate social responsibility matrix (see tab. 1) the concrete practices of social responsibility, implemented by the company, are reviewed. At the third stage, the main motives of CSR, declared by the companies, are analyzed.

The largest mining enterprises in the Murmansk Oblast include OJSC Apatit, JSC Kola Mining & Metallurgical Company (JSC Kola MMC), OJSC Olenegorsky GOK, OJSC Kovdorsky GOK. All the four plants are included into the vertically integrated business-groups, which are the major producers in ferrous and non-ferrous metallurgy, phosphorous-containing fertilizers, and which have a great impact on the socio-economic development of their residential territories. According to the statistics and annual reports of companies, in 2011 they provided jobs for a quarter to almost a half of the able-bodied population in the cities and towns of their presence *(tab. 2)*.

Tax revenues from OJSC Apatit, JSC Kola MMC, OJSC Olenegorsky GOK, OJSC Kovdorsky GOK in the local budgets of the towns of Apatity, Kirovsk, Monchegorsk, Zapolyarny, Nikel, Olenegorsk and Kovdorsky District by the main 'municipal' tax, i.e. individual income tax, amounted to 36.3%, 35.1%, 19.8% and 51.3%[1] respectively in 2011. Such a close integration of the companies in the socio-economic structure of the territories once again emphasizes the importance of CSR practices for the local communities.

[1] The data on the tax paid by JSC Kola MMC have been consolidated according to three budgets: of the towns of Monchegorsk, Zapolyarny and Nikel. The data on OJSC Apatit have been consolidated according to the budgets of Kirovsk and Apatity.

Table 2. Share of workers of the largest mining companies in the Murmansk Oblast in the total number of employees of municipal entities

Municipal entity	Number of persons working at large and medium enterprises of the municipal entity, pers.	Share of employees of backbone enterprises in the total number of working population, %			
		OJSC Apatit	JSC Kola MMC	OJSC Olcon	OJSC Kovdorsky GOK
Town of Apatity	16852	33.1			
Town of Kirovsk	18349				
Town of Monchegorsk	15598		33.2		
Town of Zapolyarny	8113				
Urban-type settlement of Nikel	2981				
Town of Olenegorsk	8801			24.5	
Kovdorsky District	7892				45.6

Before moving on to the description of the results obtained by analyzing the development of corporate social responsibility practices at the largest mining enterprises of the Murmansk Oblast, it is necessary to make some methodological clarifications. Firstly, it should be taken into account that these companies are the production sites of large holdings with a centralized decision-making system. And their main task consists in the implementation of production function, and as for the issues of social strategy development, they are the prerogative of the higher levels of corporate hierarchy. Therefore, the main source of information for the analysis of CSR is the data of the parent companies: OJSC PhosAgro, OJSC MMC Norilsk Nickel, OAO Severstal and JSC EuroChem.

Secondly, a substantial allowance has to be made for the factor of information disclosure. The fact is that the majority of Russian corporations form their social accounting only at the level of the holding as a whole. At that, the disclosure of information on the social programmes, as a rule, is carried out on a much smaller scale in the reports and development strategies of the constituting enterprises of the holding.

Analysis of CSR programmes

PhosAgro, one of the largest world manufacturers of mineral fertilizers, declares its readiness to participate in the responsibility for ensuring the country's food security and the development of the domestic market of mineral fertilizers, compliance with ecological norms and rules, rational nature management. Being the largest, and, in some regions, the main employer *(tab. 3)*, OJSC PhosAgro recognizes its responsibility for the social stability and sustainable economic growth of the territories of its presence.

The major social programmes of OJSC PhosAgro are aimed at the following:

– improvement of working and living conditions of the company's employees, living conditions of their family members, development of the regions;

– charitable projects for the benefit of local communities;

– activities in the sphere of ecology and industrial safety, aimed at the improvement of ecological situation, reduction of harmful emissions, enhancement of the safety of production and usage of the company's products;

– programmes, aimed at the development of relations with international branch-wise scientific community and the support of young Russian chemical scientists [4].

The development phase of CSR practices at OJSC PhosAgro can be referred to the third stage, at which the company's social and ecological programmes go beyond the corporate limits. The company's social accounting for the year 2011 indicates *its participation in the implementation of all the forms of responsibility presented in table 1.*

Table 3. Number of employees and average remuneration at the major mining enterprises of the Murmansk Oblast in 2011

Indicator	OJSC Olcon	OJSC Apatit	JSC Kola MMC	OJSC Kovdorsky GOK
Average number of employees, persons	2154	11648	8857	3601
Average monthly remuneration, rubles	39800	41369	49970	43366
Average monthly nominal accrued wages in December 2011 in the Murmansk Oblast on the average	32797			

The main motives for the company's activities in the sphere of CSR are as follows:

– motivation of employees to improve the level of professional training and personal growth;

– reduction of the risks of social conflicts between the employees and managers of enterprises;

– enhancement of life quality of the company's employees, their education and cultural level, health condition of employees and their family members;

– development of efficient and long-term relations with executive authorities of all levels;

– formation of a positive public opinion about the company, enhancement of its attractiveness as an employer.

The facts indicate that the holding's management pays much attention to the issues of social responsibility. At the same time, the official web site of OJSC PhosAgro, as well as the accounting of OJSC Apatit itself contain extremely insufficient information about the social practices implemented by OJSC Apatit. The company does not produce independent social accounting, it does not define sections dedicated to CSR in its annual and quarterly statements. In addition, OJSC Apatit does not disclose information concerning the volume of taxes and other obligatory payments transferred to the regional and local budgets. The only figure on the basis of which it is possible to estimate the scale of the enterprise's social responsibility, is contained in part 8 of the report for 2011: "In the reporting year, the Company's expenses on the social sphere, cultural activities, payments under the collective agreement, charity and other similar non-production needs amounted to 1 billion 252 million rubles."

OJSC MMC Norilsk Nickel states as its social mission the production of necessary goods using the safest and most efficient technologies on a sustainable, long-term basis for promoting social progress and prosperity of society, sustainable development of territories and well-being of the regions' population, improvement of living standards of its employees [5].

The main principles of corporate social responsibility, implemented by the company, are grouped in three sections. In relation to society as a whole, they are as follows:

- production of goods required by society and meeting the requirements of safety of competitive products in the volumes, quality and range that comply with the needs of a modern market;
- production in the most efficient way, taking into account the interests of business and society and using resource-saving technologies;
- unconditional compliance with the legislation of the countries where the enterprises are located, also with regard to tax payment;
- compliance with international agreements, including the standards of doing business, worked out by international community.

In relation to local communities:

– provision of jobs to the population on the territories of presence;

– payment of taxes to local and regional budgets;

– socially responsible restructuring in a way acceptable to local communities;

– ensuring environmental and industrial safety of production, participation in regional projects on environmental protection;

– implementation of projects facilitating the socio-economic development of territories;

– support of socially unprotected categories of citizens.

Principles of corporate social responsibility of business in relation to the personnel:

• provision of jobs with competitive remuneration and social benefits;

• unconditional compliance with the norms in the sphere of social and labour relations set by the law and collective agreements;

• ensuring safe and convenient working conditions based on the priority of employees' safety and their health preservation;

• promotion of a comprehensive professional and cultural development of employees.

It should be noted that the achievements of MMC Norilsk Nickel in organizing socially responsible business are much more significant in comparison with its 'counterparts'. This is the only one out of the four companies under the analysis that has an administrative mechanism of CSR development management integrated into the holding's organizational structure. Unlike OJSC PhosAgro, OAO Severstal and JSC EuroChem, Norilsk Nickel has developed a long-term strategy of its own sustainable development (including in the area of social responsibility) contained in fundamental corporate documents. Finally, the third feature indicating the leadership of MMC Norilsk Nickel in the level of CSR management quality lies in the fact that the company has formed special social reports for 2009 – 2011 according to the international standard GRI G3 (in 2010 – 2011 social reports under GRI G3 standard were also prepared by JSC EuroChem).

The formal analysis of CSR development at the enterprises of MMC Norilsk Nickel produced results similar to those obtained with respect to the corporate social responsibility of OJSC PhosAgro. *The development phase of CSR practices at OJSC PhosAgro can be classified as the third stage*, at which the company's social and ecological programmes go beyond the corporate limits.

The high level of organization of socially responsible business in the parent company, obviously, determines the directions of activities of its departments. For instance, the annual report of JSC Kola MMC contains the specialized section devoted to the implementation of social programmes for employees, their family members, local communities of Monchegorsk, Zapolyarny and Nikel. The total amount of the company's expenses on the implementation of CSR programmes in 2011 amounted to 532437 thousand rubles, 119800 thousand rubles were spent on the charitable support for state, municipal and public organizations; the company's expenditures on the financing of the corporate pension programme amounted to 38083 thousand rubles, and 374554 thousand rubles were directed to other social payments and the financing of corporate programmes.

As for OAO Severstal, it pays major attention in CSR sphere to the people, health care, work safety and environmental protection, society and charity [6].

The list of specific social practices that are described on the company's website, is similar in content to the same programmes of OJSC PhosAgro and OJSC MMC Norilsk Nickel. The analysis of the data contained in the company's social reports and programme declarations allows the following conclusion to be made: *the development phase of CSR practices at OAO Severstal can be classified as the third stage*, at which the company's social and ecological programmes go beyond the corporate limits.

The company *participates in the implementation of all the forms of CSR, presented in the matrix in table 1, and the basic motives of corporate social responsibility of OAO Severstal correspond to the 'standard' directions of the companies' social activity.*

OJSC Olcon, which represents Severstal holding in the Murmansk Oblast, exerts the least impact on the territory of presence (the town of Olenegorsk) out of the companies considered in the present study (see the data in tab. 2 and 3). The company does not make up an independent social report and it does not single out a section dedicated to CSR in its annual accounts. Therefore, without access to insider information, it is not possible to evaluate the extent of social programmes of OJSC Olcon.

The EuroChem group has created an efficient system of corporate social responsibility, described by the company itself as the most developed in the agrochemical industry of the Russian Federation [7]. It should be noted that such statements are not groundless. The main evidence of the holding's achievements in the sphere of CSR are can be found in the social reports prepared by EuroChem for 2010 – 2011 in accordance with the international standard GRI G3, as well as the extent of the company's social and environmental programmes. The EuroChem group is currently in the third *development phase of CSR practices* when the company's social and environmental programmes go beyond the corporate limits. The company *participates in the implementation of all the forms of CSR, presented in the matrix in table 1, and the basic CSR motives of the company correspond to the 'standard' directions of socially oriented business.*

OJSC Kovdorsky GOK, which is a structural unit of JSC EuroChem, is a backbone enterprise of Kovdorsky District, the Murmansk Oblast. The company's importance for the local community is determined by the fact that it provides almost half of the jobs in the municipal entity and over a half of the local budget's own revenues. Socially-oriented activities of the company are highlighted in detail in its statements and cover a wide range of spheres. The main expenditures in 2011 were directed to the financing of labour safety measures (52.3 million rubles), social programmes and liabilities of the company (32.8 million rubles), to the support of the socially important projects and financing of charitable activities (24 million rubles).

Actual motives and trends of CSR development

Assessing the potential of corporate social-economic resource of large mining business is a difficult and controversial task. The enormous scale of CSR activities remains in the shade due to the incomplete disclosure of information in programme documents and statements of corporations. In addition, this activity of Russian companies is not well-structured at present. The conducted analysis of its strategic directions in the four major mining holdings in comparison with specific practices implemented by their production divisions located in the Murmansk Oblast allows a number of conclusions to be made.

Despite the fact that the parent companies of holdings try to comply with the global trends in the set of declared incentives and guidelines in the sphere of CSR, the work 'on site' is carried out not in all the directions. Peripheral enterprises implement the social responsibilities that developed spontaneously. The work of management companies is often reduced to the arrangement of information on the activities, implemented by peripheral enterprises, into neat reports at the level of the group.

Only the companies, which have been implementing such practices over the years, possess clear strategies and institutional mechanisms for CSR management. Among the analyzed groups and enterprises within these groups, only MMC Norilsk Nickel and its subsidiary, JSC Kola MMC, can be included in this category.

Taking into account the conclusions concerning the heterogeneity of CSR forms and the low level of its internal organization (with regard to its large scale), additional attention should be focused on finding the actual motives of this activity. As it was shown earlier, the CSR motives, officially declared by the companies, are practically similar to each other and they fit perfectly into certain 'ideal' groups of motives that have been defined by theoretical generalizations in the present study. These groups include:

1) development of the companies' personnel and the increase of their labour productivity;

2) stability and sustainability of the company's development in the long term achieved through the establishment of closer contacts with the state;

3) preservation and enhancement of the performance of the main state institutions. The maintenance of social stability in the society as a whole.

However, empirical data prove that only the first two groups of motives are the most important for Russian businessmen. According to a poll conducted in 2011 by the Grant Thornton International, one of the world's leading companies in the field of audit, business consulting and economic research [8], among the 7 thousand 767 companies in 39 countries the main motive, which makes Russian businessmen carry out CSR policy, is the attraction and retention of key employees. 63% of respondents named this factor the key driving force of CSR, which goes in line with the global tendency. The managers of 56% of the surveyed companies consider the maintenance of the personnel in general, the enhancement of productivity and cost reduction to be the priority tasks of CSR.

The main result of another study (project 'The political dimension of doing good: managing the state through CSR in Russia and China' [9]), conducted in 2011 by the SKOLKOVO Institute for Emerging Market Studies on the empirical basis of social reports of 660 companies from Russia, China and the OECD member states, consisted in the corroboration of the hypothesis, that in the countries with developing markets (such as Russia and China) CSR practices are understood and used by companies as strategic actions (not subject to government regulation or administrative requirements), undertaken in order to influence the development programme of the state or to obtain different types of resources, using the practice of socio-environmental development support for this purpose.

Accordingly, it can be stated that, by implementing CSR practices, modern Russian business is interested, in the first place, in enhancing its own personnel potential and gaining political and economic benefit from profitable relations with the state. As for the tasks of preserving and improving the work of the main state institutions, as well as maintenance of social stability in society, they are still in the background.

At the same time, the corporate resource in dealing with socio-economic problems of local communities undoubtedly remains significant, because the amount of funding, which the companies are ready to spend on CSR development programmes, is comparable to the size of the budgets of administrative-territorial units where these companies are situated.

In this respect, the priority task of state and local self-government authorities should consist in the alignment of development plans with the plans of the companies' management carrying out their activities in the relevant areas; maximum involvement of local communities in the dialogue with business representatives. It is obvious, that only such joint actions can 'activate' the third group of CSR motives and make the company face the necessity of constructive participation in handling the issues of socio-economic development of the territories of their presence.

References

1. Aleksandrov F.O. Social policy and the problem of reproduction of activities in the North: on the typology of the Northern cities and settlements. Available at: http://www.csr-nw.ru free (access date: February 24, 2012).
2. Krichevskiy N.A., Goncharov S.F. Corporate social responsibility. Dashkov and Co., 2007.
3. Corporate social responsibility: public expectations. Ed. by S.E. Litovchenko, M.I. Korsakov. Moscow, 2003. P. 61.
4. Official website of PhosAgro group of companies. Available at: http://www.phosagro.ru (access date: November 23, 2012).
5. Official website of Norilsk Nickel group of companies. Available at: http://www.nornik.ru (access date: November 23, 2012).
6. Official website of Severstal group of companies Available at: http://www.severstal.com (access date: November 23, 2012).
7. Official website of EuroChem group of companies. Available at: http://www.eurochem.ru (access date: November 23, 2012).
8. Official website of Grant Thornton International group of companies. Available at: http://www.gtrus.com (access date: October 31, 2011).
9. The political dimension of doing good: managing the state through CSR in Russia and China. Available at: http://www.skolkovo.ru/public/en/research/news-research/item/1883-2011-08-1089/ (access date: September 1, 2011).

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Assessment of economic potential of the Chelyabinsk Oblast: state and development prospects

The article presents the results of economic activities in the Chelyabinsk Oblast for the last years, main indicators of improving regional investment policy, perspectives on implementation of regional economic projects. It provides economic indicators of the development of the Chelyabinsk Oblast industry potential in the case of metallurgical, machine-building, nuclear, etc. enterprises.

Economic activities, economic indicators, regional investment policy, industrial production index, investment projects.

Yekaterina A.
MYAKOTA
Senior Lecturer of the Economics Department, National Research Nuclear University 'MEPhI'
kaf51@mephi.ru

Aleksandr G.
VOROBIEV
Professor, Doctor of Economics, Head of Economics Department, National Research Nuclear University 'MEPhI'
AGVorobyev@mephi.ru

Aleksandr V.
PUTILOV
Professor, Doctor of Technical Sciences, Dean of the Faculty of Management and Economics of High Technologies, National Research Nuclear University 'MEPhI'
AVPutilov@mephi.ru

Introduction

The goal and objective of the paper is to provide an overall analysis of the regional economic situation in the post-crisis period in the case of the Chelyabinsk Oblast, one of the leading industrial regions. The significance of the regional economic potential research is determined by the necessity of elaborating proposals on its innovation development. The analysis should obviously be commenced

with the most industrially developed regions. Several approaches to regional economic analysis are described in literature [1, 2, 3, 4]. The Chelyabinsk Oblast is economically one of the largest subjects of the Russian Federation. A considerable industrial potential, comprising metallurgical, machine-building, military-industrial and nuclear enterprises is largely determined here, as well as throughout the Southern Urals, by the level of economy. Several leading universities, three subdivisions (branch) of National Research Nuclear University 'MEPhI' are situated in the Chelyabinsk Oblast; the educational potential of the region is rather large, therefore the innovation direction of development is preferable. Moreover, the Chelyabinsk Oblast is one of the most energy-intensive oblasts in the Russian Federation: electricity consumption makes more than 32 billion kWh per year. Chelyabinsk power system ranked 3rd in the Ural Federal District and 12th in Russia in electricity yield in 2010 and 2011 [5]. Power plants provide about 78% of the total electricity demand in the region. Since the oblast's generating enterprises are included into the system of Urals unified energy ring and the Unified energy system, electricity shortage is recouped by power purchased in the wholesale electricity and capacity market.

1. State and prospects of regional economy.

The socio-political situation in the Chelyabinsk Oblast is stable and manageable, the economy has been developing quite successfully. A certain threat to the maintenance of economic stability comes from low level of the population's income, growth in the prices for goods and housing and communal services, environmental problems. Diversification of economy, support of small and medium businesses, innovation sectors, the development of agrarian-industrial complex are the priority directions of the local authorities' economic policy *(table)*. Particular attention has been given to attracting investments in the economy. The key task facing all municipalities comprises search for investors, site preparation for investment projects, elaboration and promotion of new brands in the Russian and foreign markets [6].

Key indicators of the Chelyabinsk Oblast economic development in 2012

Indicator	Indicator value			Region's location	
	in the region	in the federal district (FD)	in the Russian Federation	in the federal district (FD)	in the Russian Federation
Industrial production index by types of economic activity	102.7	100.8	102.9	2	45
including, %: - mining - manufacturing - production and distribution of electricity, gas, water	 107.9 102.8 99.3	 97.9 106.8 101.3	 101.0 104.5 101.3	 2 3 6	 26 49 48-50
Oblast's share in the total volume of FD own production shipped, %	14.3	-	-	-	-
Total volume of own production shipped in manufacturing (per one employer), thousand rubles	424.7	852.8	380.4	5	24
Oblast's share in agricultural production of the RF, %	1.7	-	-	-	18
Volume growth of 'construction' work, %	89.4	100.2	101.9	6	73
Housing growth, %	127.5	107.4	102.7	2	12
Fixed-asset investment growth, %	105.1	116.4	111.6	5	59
Foreign investments (total), million U.S. dollars	1193.8	3726.4	74789.0	2	7
Share of direct foreign investments in the total volume of investments, %	1.1	11.6	10.2	6	71
Self-sufficiency of consolidated budget, %	83.75	97.04	87.04	5	26

In spite of the oblast authorities taking an active stand on attracting investments in January – September of 2012, the volume of foreign investments in the oblast's economy declined by 33%, as compared with the same period of 2011, and amounted to 1.799 billion U.S. dollars. The export volume of investment capital (1.762 billion dollars in January – September of 2012) indicates the need further improve the regional investment policy *(fig. 1)*.

2. Dynamics of the Chelyabinsk Oblast economic indicators.

Metallurgical industry plays a major role in shaping the economic and financial results of the oblast. The global economic recovery, accompanied by rising demand and prices for metals in domestic and foreign markets in 2010 – 2011, contributed to the growth of economic indicators of the region. In 2011 the growth of GRP of the Chelyabinsk Oblast reached 5.8%, growth of industrial production made 6.3% compared to the level of 2010 [7].

At the same time, the stagnation in the world metals markets, since the end of 2011 up to 2012, led to deteriorating operational and financial indicators of the region's basic metallurgical enterprises, adversely affecting the development of the region's economy.

In January – May of 2012, the region's economy was characterized by the slowdown in industrial production growth. Industrial production index amounted to 104% as compared to January – May of 2011, including mining (99.8%), manufacturing (104.9%), production and distribution of electricity, gas, water (96.6%). The volume of industrial production reduced by 4% in May of 2012 month on month *(fig. 2)*.

The volume of metallurgical production was observed to increase by 1.2% in January – May of 2012, but dropped by 2.2% in May 2012 month on month. The share of loss-making enterprises amounted to 35% (32.9% across the RF) in January – April of 2012; the profit of enterprises decreased by 13.9%, as compared with the corresponding period of 2011; the amount of losses increased by 58.1%.

Figure 1. Dynamics of fixed-asset investments index

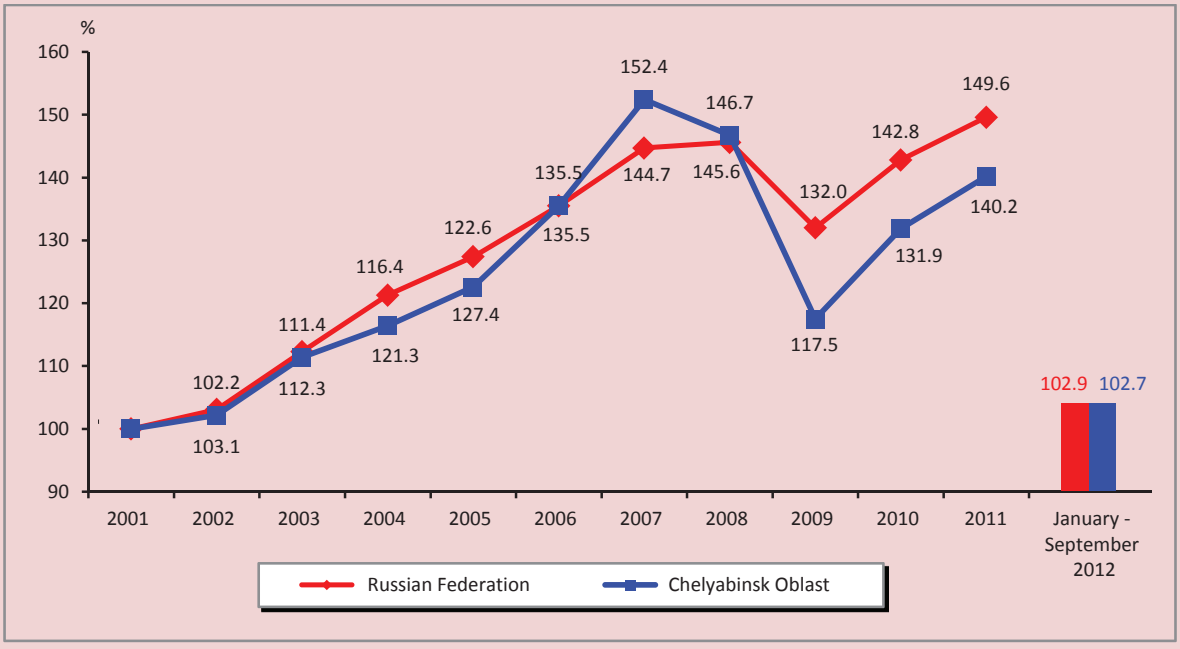
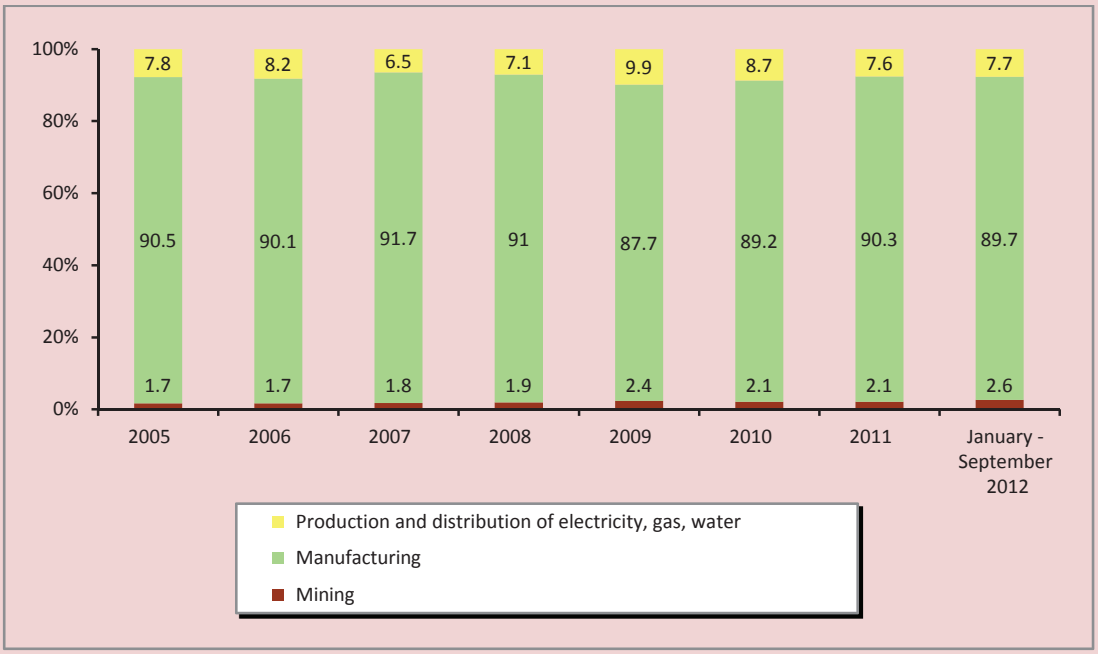


Figure 2. Volume structure of own-production shipped, by types of economic activity



The sales volume decline of 10.3% was observed in the foreign economic activity of the region in January – April of 2012, as compared with the corresponding period of 2011, including 10% drop in export *(fig. 3)*.

Negative economic trends in the region are related primarily to the slowdown in metallurgical production development since the second half of 2011, caused by worsening situation in foreign and domestic markets (decrease in demand for metal products, growth in raw materials prices), the profits of the oblast's largest metallurgical enterprises had considerably reduced by the end of 2011, OJSC MMK and OAO Mechel ended the year with a loss of 125 million U.S. dollars and 19.674 billion rubles, respectively. According to the results of the first quarter of 2012, the financial indicators of the largest metallurgical enterprises of the oblast worsened significantly [8].

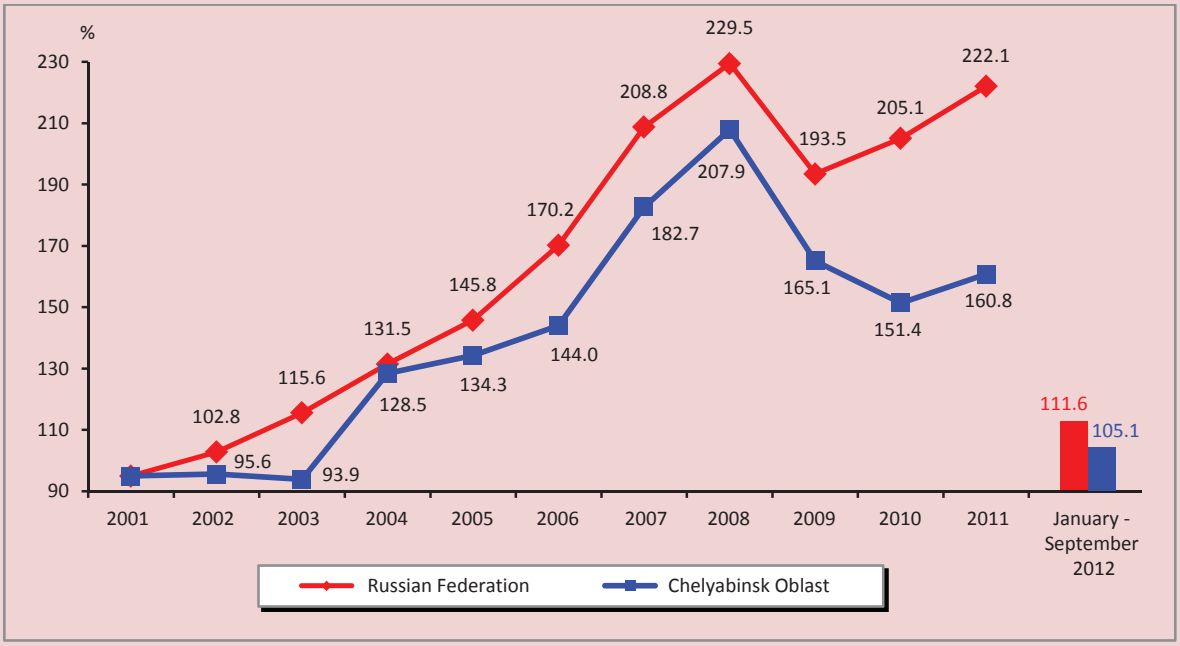
Thus, OAO Chelyabinsk metallurgical plant reported a net loss of 103.68 million rubles (in the first quarter of 2011, the income received was over 1.85 billion rubles). Product sales decreased by 10%.

OJSC ChTPZ reduced steel pipe output by 20% in comparison with the first quarter of 2011; the production of large-diameter pipes was cut down by 27% due to the decrease in demand, connected with the completion of JSC Gazprom's large projects. The net loss of OJSC ChTPZ in the first quarter of 2012 made 1.02 billion rubles. In 2012, the group ChTPZ was in a difficult financial situation because of the need to repay debt on short-term loans taken in 2008 – 2009 for the financing of large investment projects. Total amount of accounts payable makes about 107 billion rubles.

OJSC MMK increased production volumes, however, raising production was overshadowed by falling prices for most products. As a result, net profit of the enterprise amounted to 3 billion rubles, i.e. 33% less than in the first quarter of 2011.

The fall in nickel price on the world trading platforms in July of 2012 led to a critical situation in JSC Ufaleynickel (due to depreciation of fixed assets, the product's prime cost of the enterprise was significantly higher than its market value).

Figure 3. Dynamics of industrial production index by types of economic activity



JSC Ufaleynickel has urgent need for replenishment of working assets. However, banks have withdrawn credits so far, because of the unstable financial position of the enterprise and the worsening situation in the world economy.

According to experts, financial indicators in metallurgical industry will not improve significantly in the near future, due to the absence of preconditions for the world growing demand in products, falling volume of single orders owing to the completion of Sochi Olympics facilities construction.

The situation in the metallurgical industry has a significant influence on the socio-economic situation in the region, as metallurgy remains a basic sector of the oblast's industry, despite the measures taken by the regional government and aimed at economic diversification *(fig. 4)* [9, 10].

Positive trends were observed in machine-building on the background of stagnation in the region's metallurgical sector in 2012. The index of machinery and equipment production made 125.8% in comparison with the corresponding period of 2011; the index of electrical equipment production was 123.1%. At the same time, the growth set in machine building was not maintained in May of 2012. The volume of machinery and equipment production dropped by 3.5%, and the production of transport and equipment fell by 7.5%, as compared to the prior month [8].

The main problems in machine-building industry are the depreciation of basic production assets, low competitiveness of products, the shortage of circulating assets for technical re-equipment, high energy tariffs.

As a result of the insufficient modernization level of machine-building plants, Russia's accession to the WTO may have a negative impact on the region's machine-building industry. According to the results of surveys conducted by an independent analytical centre WTO-inform, on the consequences of the WTO entry for the Russian regions, the Chelyabinsk Oblast might incur losses up to 100 million rubles by 2020; metallurgical sector will be

developing, while other sectors of the industry will practically cease to exist, leading to the reduction of more than 50 thousand jobs.

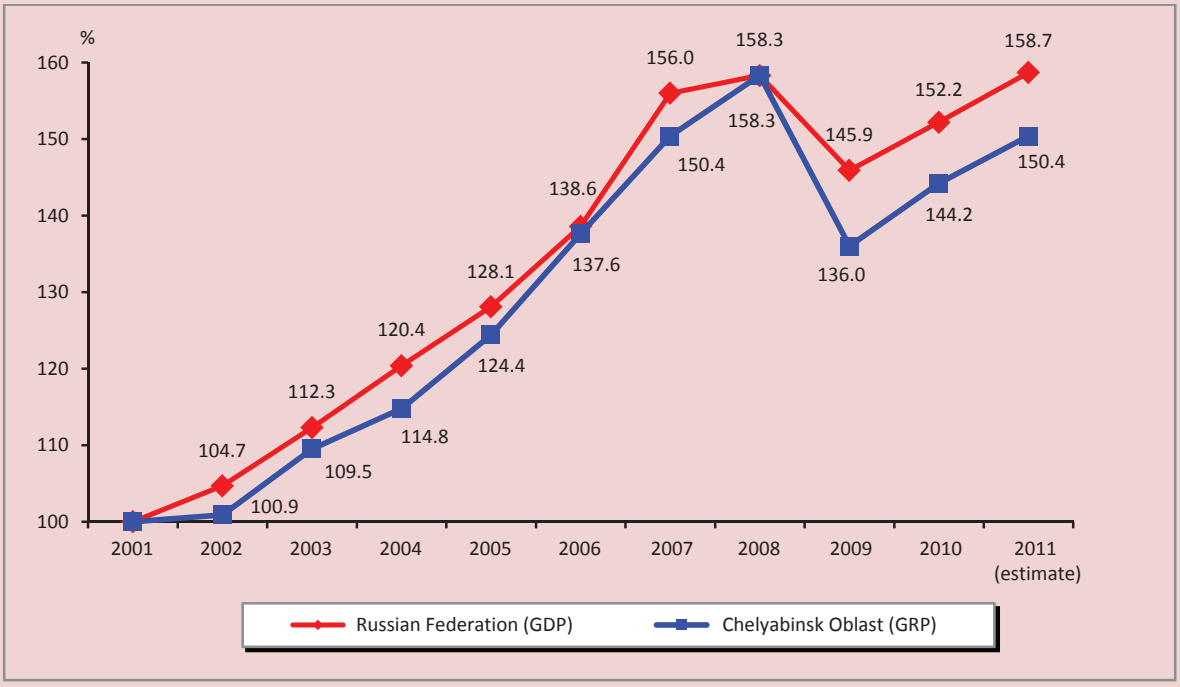
At the same time, the real mechanisms for protecting enterprises at the level of subjects are not enough. It is necessary to make decisions on support of domestic machine-building at the level of the Government of the Russian Federation, in particular moving to long-term orders from the Ministry of Defense, making it possible to plan the economy of an enterprise for 3 – 5 years; limiting the growth of natural monopolies' tariffs; reducing bank interest rate on loans for the modernization of production; finding solution to the problem of railway transportation (the reform of JSC Russian Railways and the transfer of more than 60% of the rolling stock to private ownership has led to an unjustified growth of tariffs, rail cars shortage, forcing enterprises to shift to the use of their own trucks) [11].

In the second half of 2012, the financial state of industrial enterprises was observed to be deteriorating, due to rising tariffs for natural monopolies' services since July, 1, 2012 and related to increasing industry costs. At the same time, enterprises will not be able to compensate for the rise in the cost of industrial production under conditions of low demand as a result of increase in products prices.

Attracting investors to free facilities is the task of an utmost importance. The possibility of implementing projects on the establishment of modern steel manufacturing (the project of CJSC KONAR in cooperation with the Italian company CividaleGroup), as well as hydraulic cylinders manufacturing (project of the Ural engineering centre) is being considered.

The situation remains difficult at the Federal state unitary enterprise Signal and Plastics Plant, as a result of the Russia's Defence Ministry refusal of 2011 to place

Figure 4. Indices dynamics of physical volume of gross domestic product (GDP) and gross regional product (GRP)



procurement state orders for ammunition and special chemicals up to 2015. The Federal state unitary enterprise Signal dismissed 10% of the employees, and in December of 2011 was reorganized into a joint stock company. The state has invested 3.4 billion rubles in the authorized capital of the defense enterprise. The change of the legal form will contribute to enhancing control over the enterprise activities.

In 2012, the number of defense enterprises experienced change in ownership: enterprises of the defense-industry complex were nationalized, while civil industries plants were privatized. In this context, the key issue that is to be settled at the level of Russia's Defense Ministry is the use of standby mobilization capacities, involving high maintenance costs [11, 12].

The enterprises significant for the oblast's development, such as CTZ-Uraltrak LTD., OJSC ChTPZ, OJSC MMK, etc., supported by the regional authorities were able to attract credit resources.

The oblast's government takes an active stand on providing support to the problem enterprises of the region: search for investors, efficiency control over bankruptcy administration, resolution of conflicts, which may lead to rising protest moods among employees, control over salary arrears.

Due to financial difficulties of the group ChTPZ the oblast's authorities intend to provide the necessary support to the company management in giving state guarantees for refinancing loans.

Special attention is given to promoting goods of local producers on the oblast market. In order to increase the loading level of the enterprises capacities, the oblast government forms annually the territorial industrial production orders. In 2012, the territorial order for metal products amounted to 2.267 million tons, for coal to 1.2 million tons, for cement to 496 thousand tons. 49 enterprises of the oblast were among suppliers of the territorial order for machine-building products. The electronic database of the oblast enterprises has been created, containing information on product range and demand for raw materials, as well as information and analytical system of support for small and medium manufacturing enterprises (the market of production orders and services).

In 2012 the oblast Ministry of industry held passportization of modern manufacturing facilities in order to minimize costs for the startup of new production facilities due to the intensive development of intraregional cooperation. On the whole, it can be stated that the economy of the Chelyabinsk Oblast needs innovation development based on high technologies. Nuclear technologies, being rather significant in the region may become one of the directions of high-tech development, although such proposals need further consideration, as all the enterprises and organizations are located in closed administrative territorial units.

3. Economic situation in one-company cities of the Chelyabinsk Oblast

Eight cities and towns of the Chelyabinsk Oblast (Asha, Verkhny Ufaley, Karabash, Magnitogorsk, Miass, Satka, Ust-Katav, Nyazepetrovsk), as well as three closed administrative territorial units or CATU (Snezhinsk, Tryokhgorny, Ozersk), are recognized as monocities. All CATU have separate subdivisions (branches) of National Research Nuclear University 'MEPhI' and are multi-profile nuclear centres, therefore, potential sites of high tech development, particularly nuclear technologies. It is reasonable to formulate appropriate proposals on the basis of new developments, Innovation development programme, and modernization of the State Corporation Rosatom [3, 4, 5, 6, 7, 8], as regional economic environment allows this to be done.

To date, all one-company cities of the Chelyabinsk Oblast have worked out comprehensive investment development plans (CIP), however, the pilot projects of only two cities (Satka, Karabash) have been approved at the federal level. The town of Asha became a participant of the UN Development Programme in Russia (UNDP) [5]

In January 2012, Heads of such cities and towns, as Nyazepetrovsk, Asha, Karabash and Ust-Katav submitted to Russia's ministry of Regional Development reports on economic situation, they also presented the investment projects, aimed at the economic diversification of municipalities. All of the presented projects were approved by the Ministry. The possibility of financing the construction start of a mountain-skiing complex in the town of Asha and mining-and-metallurgical integrated works in the town of Nyazepetrovsk for the 2012 – 2013 period was being considered.

In 2011 all monoterritories demonstrated industrial output growth, however, they still depend on the local economic mainstays.

The development strategy of Satkinsky Municipal District includes 3 directions: the development of tourism industry; the modernization of engineering infrastructure facilities; development of small power engineering; organization of new productions. While implementing the projects it is planned to create more than 6 thousand of new working places, Moreover, it is expected that 5 thousand vacancies will contribute to the development of tourism in the town of Satka. Satkinsky District was included in the 'Community Development Support Programme based on Information and Communication Technologies in the Russian Federation for 2011-2014'. The project 'Introduction of a soft hardware platform Dispatcher Centre of Energy Resources Consumption Monitoring' is to be financed by the Fund 'Sustainable Development' with the support of Russia's Ministry of Economic Development.

In January – May of 2012, the industrial production index in Satkinsky Municipal District made up 89.9%, the level of registered unemployment accounted for 3.2% of the economically active population in 2004.

Investment projects of the town Karabash include the following: processing of industrial production waste, use of natural resources and the establishment of enterprises in the sphere of services. It is planned to allocate 10 billion rubles for the modernization of local economic mainstay ZAO Karabashmed, that will increase the production 2 times, up to 120 thousand tons of copper per year. In 2011, the total amount of investments in construction and installation works amounted to 767.2 million rubles, about 3 to 4 billion rubles are to be invested in the modernization of the production in 2012. In 2011, three large investment projects were launched (the construction of a clothing manufacture, wood-cement panels plant and fish processing and storage complex), that will result in the creation of over 500 jobs. The total projects cost amounts to 1.1 billion rubles.

Under the support of the oblast government, the investors, willing to make investments in the disposal of ZAO Karabashmed industrial waste, have been found. Ferromet LLC (Chelyabinsk) plans to set up fine dust processing facilities on the territory of former radio plant (the project cost is 450 million rubles). Karabash industrial complex LLC (Moscow) is going to build a plant for the processing of metallurgical slags (the project cost is 500 million rubles).

In January – May 2012 the industrial production index of Karabash urban district made up 91.9%, the level of registered unemployment was 4.7%.

The comprehensive investment plan (CIP) has been developed for Ashinsky urban settlement under the agreement between the government of the Chelyabinsk Oblast and the Agency of the United Nations Development Programme (UNDP). The main activities and investment projects, stipulated by the CIP

are the following: the reconstruction of OAO AMZ steel-rolling mill (the project cost is 11 billion rubles); the construction of a year-round ski complex 'Two valleys' (2012 – 2014); the creation of a multifunctional rehabilitation complex 'the Urals Gates' (2011 – 2020); the implementation of the comprehensive programme on Asha municipal services modernization.

In January – May 2012 the industrial production index of Ashinsky Municipal District made up 103.1%, the level of registered unemployment was 4.8%.

A large investment project on the construction of mining-and-metallurgical integrated works with a capacity of 5 million tons per year in Suroyamsky deposits is to be implemented in Nyazepetrovsky Municipal District. The oblast authorities held a meeting with potential investors, i.e. the managements of the companies FlemingFamily-and-Partners (Britain), KobeSteel (Japan), SunInvestmentPartners (Hong Kong). Construction of the plant will allow for creating of over 3 thousand workplaces on the monoterritory with the highest level of unemployment throughout the region (9.6% in May of 2012, with the average oblast ratio of 1.5%) [8].

Conclusion

The term 'innovation cluster' has emerged in the Russian economic dictionary. The analysis of possibility of creating such clusters should be based on regional economic trends, the region's scientific and educational potential. Due to the fact that several large-scale atomic industry enterprises, as well as a number of branches of the National Research Nuclear University 'MEPhI' have been functioning in the Chelyabinsk Oblast, the involvement of the existing nuclear and educational complexes in the monitoring of the regional economy and power engineering development, and in the formation of a cluster innovation approach to the development of the regional economy becomes topical for consideration in the near future. All the trends of the recent years, presented in figures 1, 3 and 4 show that the growth rate following the crisis period of 2008 – 2009 even exceeds the rates, characteristic of the previous period of the Chelyabinsk Oblast development.

Based on the research conducted, it is reasonable to examine the issue concerning the nuclear technologies contribution to the oblast economy: new generation nuclear fuel, radioactive isotopes for medical and technological purposes, etc. The implementation of economic approaches and innovation projects completion will lead to the formation of a unified innovation and investment programme on the Chelyabinsk Oblast's further development, the elaboration of the corresponding organizational and economic measures, that, in turn, may contribute to attraction of investments into the regional economy.

References

1. Drury C. An introduction to management and cost accounting: a manual for higher schools. Translated. Ed. by N.D. Eriashvili Foreword by Prof. P.S. Bezrukikh. 3rd ed., revised. Moscow: Audit, UNITY, 1998.
2. Ditger Khan. Planning and control: the controlling concept. Moscow: Finance and statistics, 1997.
3. Taburchak P.P., Vikulenko A.Ye., Ovchinnikova L.A. et al. Analysis and diagnostics of financial and economic activity of an enterprise: a manual for higher schools. Ed. by P.P Taburchak., V.M Tumin., M.S. Saprykin. Saint-Petersburg: Khimizdat, 2001.
4. Tkach V.I., Tkach M.V. Management accounts: international experience. Moscow: Finance and statistics, 1994.
5. Vorobiev A.G., Myakota Ye.A., Putilov A.V. Approaches to assessment of energy security in the region (by the example of Chelyabinsk Oblast). Economic and social changes: facts, trends, forecasts. 2010. No. 4(12). P. 71-79.

6. Biryukov D.V. Effectiveness of investments at the macroeconomic and regional levels. Journal of Russian Entrepreneurship. 2010. No. 2. P. 4-10.
7. Putilov A.A., Vorobiev A.G., Strikhanov M.N. Innovation activity in the nuclear industry. V. 1: Basic principles of innovation policy. Moscow: publishing house 'Ore and Metals', 2010.
8. Rosstat data for 2011 – 2012.
9. Putilov A.A., Vorobiev A.G., Putilov A.V, Goldman Ye.L. Public corporations and development of high-tech sectors of the real sector of the economy: a historical perspective and global experience. Economy in the industry. 2009. No. 2. P. 2-13.
10. Putilov A.A., Vorobiev A.G., Putilov A.V, Goldman Ye.L. Public corporations and development of high-tech sectors of the real sector of the economy: the economic benefits and the role of industrial modernization. Economy in the industry. 2009. No. 3. P. 13-21.
11. Putilov A.A., Vorobiev A.G., Putilov A.V. Economics of uranium raw materials in pre- reactor technological conversion of nuclear energy resources. Non-ferrous metals. 2010. No. 4. P. 89-95.
12. Putilov A.A., Vorobiev A.G., Petrov V.A. Characteristics of raw uranium in prereactor technological redistribution of nuclear energy resources. Non-ferrous metals. 2012. No. 4. P. 10-16.

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Industry characteristics of investment processes in the Northwestern Federal District

The paper determines the relationship between the region's investment activity[1] and the structural features of the economy (in terms of the types of economic activity). The presence of holding structures interests in the region can contribute to the depletion of the region's financial resources. The solution requires the relations between state authorities and business structures to be settled. The information base for research comprises the works of national economists, statistical yearbooks, published by the Federal Statistics Service. Statistical analysis methods are applied to substantiate the results.

Investment resources, profit, financial performance, types of economic activity, depreciation of fixed assets, large-scale production.

Galina V. KOBYLINSKAYA
Ph.D. in Economics, Head of the Corporate Finance Sector, G.P. Luzin Institute of Economic Problems of Kola Scientific Centre of RAS
kobgal@iep.kolasc.net.ru

Implementation of the investment process in any type of economy assumes the presence of several conditions, the main of which are the following: resource potential necessary for the functioning of the investment sphere; the existence of economic entities, capable of ensuring the investment process at the scale needed; the mechanism of transforming investment resources into investment activity objects [2].

The characteristic feature of investment process is its dynamism, i.e. constant movement, which consists in the following transformations:

Investment resources → allocating investment resources → income from investing activities (social effect). It is the combination of these transformations that represents the essence of the investment process, distinguishing the stage of investment resources accumulation and allocation (realization of investment and innovation projects and programmes) [3].

In this case, accumulation for economic entities is directly related to their performance, i.e. to a profit. As for allocation, it is associated

[1] The region's investment activity in the given context is understood as the process of increasing volumes and pace of investment in the region's fixed capital [1].

directly with investments (investments in the real assets – fixed capital; financial investments).

As the author's research has shown [4], accumulation and investment processes in Russia have their own specifics. On the one hand, amid growing financial performance of economic entities (the 2000 – 2010 trend), the role of profits in investment processes has been significantly reduced (as well as in the total structure of fixed capital financing, and in the structure of its use); on the other hand, financial component (financial investments) dominates the investment flow. This trend is most pronounced in the regional context. In particular, it applies to the regions of the Northwestern Federal District (NWFD).

The need to identify the causes of the current situation generates interest for conducting a more detailed analysis of profit formation and use (as the main and most available source of extended reproduction) in terms of the types of economic activity (TEA).

Evaluating the profit structure in terms of the types of economic activity, one can see that across the Russian Federation, the main financial result is formed by such activities as mining, manufacturing, trade, transport and communications, real estate transactions, lease and delivery of services, while almost half of the profit is received from trade and manufacturing *(tab. 1)*.

Table 1. Share of activities in all-Russian structure, %

Types of economic activity	2004	2005	2006	2007	2008	2009	2010
Profit, billion rubles	*2778. 6*	*3673.6*	*6084.6*	*6411.6*	*5354.4*	*5851.7*	*7352.8*
Mining operations, %	21.31	22.52	20.51	15.40	18.2	16.8	18.6
including fuel and energy production, %	18.18	19.42	18.35	13.12	15.0	15.1	15.3
Manufacturing industries, %	25.05	28.46	25.78	30.05	32.7	27.2	27.2
including metallurgical industry, %	12.3	9.1	9.1	10.9	6.9	4.5	5.3
Transport and communications, %	9.77	9.69	7.26	10.64	11.6	10.4	10.1
Real estate transactions, lease and delivery of services, %	10.87	10.68	17.82	14.59	8.2	9.1	8.2
Trade, %	22.31	15.53	18.00	16.88	17.2	23.4	18.6
Total	89.3	86.9	89.4	87.6	88.0	87.0	82.7
Investments, billion rubles	*2 205.7*	*3611.1*	*4 730*	*6716.2*	*8781.6*	*7930*	*9151*
Volume index, %	113.7	110.9	116.7	122.7	109.9	84.3	106
Mining operations, %	16.8	13.9	14.6	15.2	14.1	14.0	15.1
including fuel and energy production, %	14	12.4	13.3	12.5	12.2	12.9	13.9
Manufacturing industries, %	17.4	16.4	15.6	15.4	15.7	14.4	14.2
including metallurgical industry, %	3.2	3.4	3.4	2.7	3.0	2.7	2.4
Transport and communications, %	25.0	24.5	23.6	21.9	24.8	26.8	26.7
Real estate transactions, lease and delivery of services, %	12.6	16.8	17	17.3	16.7	15.0	13.3
Trade, %	2.7	3.6	3.7	3.4	3.2	3.3	3.3
Total	74.5	75.2	74.5	73.2	74.4	73.6	72.5
Financial investments, billion rubles	4 867.6	920.9	14395	18779	26402	22745	41275
Mining operations, %	10.2	5.7	6.2	8.2	6.3	12.3	12.9
including fuel and energy production, %	8.15	3.5	4.0	6.0	4.4	11.0	12.1
Manufacturing industries, %	50.9	70.4	69.6	34.7	41.8	29.2	20.2
including metallurgical industry, %	30.5	34.4	30.4	20.4	20.9	6.5	2.8
Transport and communications, %	3.5	3.1	8.5	7.1	11.4	9.1	7.0
Real estate transactions, lease and delivery of services, %	7.5	3.5	3.0	7.6	5.6	5.9	5.5
Trade, %	19.0	11.9	9.6	38.3	31.1	35.3	41.7
Total	91.2	94.6	97.0	93.7	96.2	91.8	87.3

Source: author's estimates based on [7].

At the same time, the list of the main recipients of investment resources has been narrowed, with transport and communications, real estate transactions, mining operations being among the leaders.

The accumulation of financial investments comes to attention, 4.5 times exceeding the volume of investments by 2010.

In the regions of the Northwestern Federal District the types of economic activity, forming the key financial result, have been reduced mainly to 1 or 2 in various combinations. In the Northern regions the financial result is mainly formed by the resource based industries: oil and natural gas production, coal mining (extraction of minerals), production of coke and refined petroleum products (manufacturing), oil and gas piping (transport) in the Komi Republic; iron ore mining in the Republic of Karelia; pulp-and-paper production in the Arkhangelsk Oblast; oil and natural gas production in Nenets Autonomous Okrug; cast-iron and steel production (manufacturing) in the Vologda Oblast; metal ore mining (extraction of minerals), nonferrous industry (manufacturing) in the Murmansk Oblast *(tab. 2)*.

Table 2. Profit structure by types of economic activity

Type of economic activity	2004	2005	2006	2007	2008	2009	2010
Northwestern Federal District							
Amount of profit, billion rubles	214. 2	270.9	444.2	598.5	592.6	562.1	704.7
Mining, %	12.0	14.3	14.2	11.0	9.3	11.9	15.6
Manufacturing, %	*56.5*	*48.8*	*55.8*	*56.5*	*58.2*	*50.0*	*50.1*
Transport and communications, %	11.4	15.2	11.4	13.0	12.1	12.0	9.4
Real estate transactions, lease and delivery of services, %	4.0	6.6	6.1	5.3	4.8	7.0	6.8
Trade, %	5.0	4.4	4.7	5.9	6.5	8.4	1.7
Republic of Karelia							
Amount of profit, billion rubles	3.7	13.2	9.5	11.6	15.9	3.8	19.0
Mining, %	*44.0*	*75.8*	*55.7*	*65.6*	*84.9*	*1.3*	*85.2*
Manufacturing, %	16.3	9.9	31.6	16.0	4.4	7.5	3.3
Komi Republic							
Amount of profit, billion rubles	20.1	28.0	30.8	36.3	25.2	51.8	63.6
Mining, %	*45.0*	*39.2*	*49.8*	*43.7*	*13.2*	*60.0*	*64.3*
Manufacturing, %	*16.3*	*14.8*	*19.3*	*31.9*	*55.2*	*29.9*	*23.0*
Transport and communications, %	*26.4*	*25.4*	*20.0*	*12.7*	*16.3*	*4.2*	*4.6*
Arkhangelsk Oblast (without Nenets AO)							
Amount of profit, billion rubles	4.9	11.2	8.9	8.4	5.4	5.2	10.8
Manufacturing, %	*53.2*	*55.1*	*62.0*	*45.2*	*40.1*	*33.3*	*62.9*
including wood production , etc.	41.3	24.3	49.1	22.0	19.2	5.3	51.4
Transport and communications, %	8.4	5.6	8.6	11.4	12.2	4.7	3.8
Trade, %	12.0	16.5	11.4	14.5	11.2	18.0	10.2
Nenets Autonomous Okrug							
Amount of profit, billion rubles	6.8	6.3	4.6	5.4	3.6	22.5	28.2
Manufacturing, %	*97.3*	*83.2*	*69.3*	*66.6*	*71.4*	*85.6*	*86.7*
Vologda Oblast							
Amount of profit, billion rubles	62.4	55.3	62.7	76.7	93.7	17.4	17.2
Manufacturing, %	*92.4*	*93.5*	*86.6*	*92.2*	*94.9*	*89.6*	*89.7*
including fertilizer manufacturing	7.3	5.2	4.9	11.4	30.0	14.4	28.2
cast-iron, steel production	84.5	82.6	81.1	75.5	58.4	66.2	51.7

End of the table 2

Kaliningrad Oblast							
Amount of profit, billion rubles	7.1	13.2	12.7	15.6	13.1	18.6	30.9
Mining, %	*47.6*	*58.5*	*53.9*	*35.7*	*33.3*	*26.8*	*26.3*
Manufacturing, %	15.6	14.0	17.9	16.2	13.1	19.0	*26.0*
Real estate transactions, lease and delivery of services, %	5.4	5.2	4.5	*23.3*	*24.6*	*26.5*	*22.6*
Trade, %	3.5	3.0	8.2	5.8	12.9	5.6	6.5
Leningrad Oblast							
Amount of profit, billion rubles	23.1	45.6	47.8	67.6	74.3	64.6	76.4
Manufacturing, %	*83.0*	*44.3*	*55.0*	*51.6*	*56.5*	*51.9*	*60.7*
Transport and communications, %	3.4	*41.1*	*28.5*	*31.2*	*24.0*	*24.0*	*16.3*
Murmansk Oblast							
Amount of profit, billion rubles	18.6	17.9	28.9	43.6	39.0	37.7	44.8
Mining, %	*26.6*	*24.7*	*23.5*	*18.1*	*63.6*	*26.6*	*39.1*
Manufacturing, %	*44.6*	*53.1*	*63.4*	*69.6*	*11.4*	*57.4*	*41.0*
including nonferrous industry, %	*42.3*	*50.9*	*60.2*	*68.0*	*11.0*	*54.0*	*40.2*
Novgorod Oblast							
Amount of profit, billion rubles	5.6	9.1	21.6	29.7	8.7	32.8	18.2
Manufacturing, %	*80.8*	*85.3*	*52.9*	*72.8*	*60.9*	*75.3*	*65.2*
Real estate transactions, lease and delivery of services, %	2.0	1.0	*38.1*	15.9	1.0	16.5	15.6
Pskov Oblast							
Amount of profit, billion rubles	1.2	1.4	1.6	2.4	2.8	2.2	3.2
Manufacturing, %	*42.5*	*46.3*	*41.7*	*55.8*	*56.3*	*35.9*	*50.1*
Transport and communications, %	2.3	3.2	6.7	8.0	6.8	12.5	6.6
Trade, %	*21.1*	*18.8*	*21.8*	*15.2*	*14.2*	*28.9*	*23.1*
Saint-Petersburg							
Amount of profit, billion rubles	60.6	69.7	215.3	301.0	310.9	305.4	392.6
Manufacturing, %	*38.4*	*41.4*	*55.9*	*52.8*	*59.5*	*54.7*	*59.3*
Transport and communications, %	*25.5*	*16.4*	*13.0*	*15.9*	*14.7*	*14.4*	*11.2*
Real estate transactions, lease and delivery of services, %	9.9	11.5	5.3	5.8	6.5	7.5	8.2
Trade, %	10.0	10.4	5.1	8.1	8.9	12.6	11.0

Source: author's estimates based on [7].

The Republic of Komi, the Vologda and Murmansk oblasts are the most productive (by the profit share in gross regional product) among the regions of the North [4]. The profit in the above mentioned regions is received by the enterprises within the holdings: OJSC Apatit (CJSC PhosAgro), Olcon (Severstal), Kovdorsky GOK (EuroChem), Lovozersky GOK (extraction of minerals), Kola MMC (OJSC RAO Norilsk Nickel) in the Murmansk Oblast; Cherepovets Steel Mill (Severstal), OJSC Ammophos (CJSC PhosAgro AG) in the Vologda Oblast, LUKOIL-Komi LLC, LUKOIL-Ukhtaneftepererabotka (OJSC Lukoil), RN-Severnaya Neft LLC (OJSC OC Rosneft), Gazprom Pererabotka LLC (Gazprom JSC) in the Komi Republic.

Accordingly, management decisions, including those of investment nature, do not fall within the competence of the companies. Financial resources within a holding are redistributed exclusively by management companies. Therefore, formally having considerable reserves for its development, the largest enterprises of the region, being the structural units of the holdings, depend on superior organizations.

As a result, high financial performance does not always guarantee the increase of investment activity.

Thus, the high share of investments in transport and communications in the investment structure is characteristic for practically all subjects of the Northwestern Federal District, as well as throughout Russia.

The Komi Republic and Murmansk Oblast, being among the most efficient regions, have considerable share of investments in mining. The volume of investments in processing industries is inclined to fall in the Vologda Oblast (ferrous metallurgy) and the Murmansk Oblast (non-ferrous metallurgy) *(tab. 3)*.

The state of fixed assets may indicate the investable resources shortage or sufficiency. Globally accepted degrees of fixed capital consumption show that the threshold of pre-crisis situation is at 45 – 50%, while actual depreciation is observed at 20 – 25% [5, 6].

Table 3. Investments distribution in the regions of the Northwestern Federal District by types of economic activity

Type of economic activity	2004	2005	2006	2007	2008	2009	2010
Northwestern Federal District							
Investments volume, billion rubles	359.6	483.3	651.3	832.5	1 040.7	911.2	895.3
Volume index, %	112	115.3	122.3	113.2	106	84.5	105.8
Mining, %	11.0	10.7	12.6	13.1	14.1	9.8	9.0
Manufacturing, %	22.7	21.5	17.5	16.4	15.5	15.0	14.8
Transport and communications, %	*31.1*	*33.8*	*38.2*	*35.5*	*35.8*	*33.1*	*35.2*
Real estate transactions, lease and delivery of services, %	11.4	12.5	9.9	10.4	10.7	10.7	8.5
Republic of Karelia							
Investments volume, billion rubles	13.7	15.3	18.1	19.2	26.1	18.7	18.1
Volume index, %	123	100.6	112.7	93	122.6	68.1	114.8
Mining , %	14.7	18.6	16.1	16.4	11.1	12.4	14.3
Manufacturing , %	30.3	19.3	10.6	21.7	18.9	11.9	11.9
Transport and communications, %	*27.1*	*34.5*	*42.4*	*18.1*	*19.1*	*19.0*	*36.9*
Komi Republic							
Investments volume, billion rubles	34.5	50.4	74.2	63.0	83.7	108.4	103.9
Volume index, %	121.8	131.4	134.9	75.2	113.9	124.7	91.2
Mining , %	33.5	*26.8*	*25.4*	*38.6*	*34.9*	*20.4*	*20.5*
Manufacturing , %	11.1	5.9	5.3	10.8	12.9	14.6	9.7
Transport and communications, %	*37.5*	*50.1*	*52.2*	*28.7*	*31.1*	*49.8*	*57.7*
Arkhangelsk Oblast (without Nenets AO)							
Investments volume, billion rubles	13.2	21.9	32.8	29.4	47.4	28.4	34.9
Volume index, %	102.8	124.9	167.7	129.2	95.2	49.8	99.7
Manufacturing , %	26.6	16.7	13.8	18.7	11.6	16.5	10.8
Transport and communications, %	*29.6*	*46.2*	*63.7*	*39.7*	*54.0*	*33.8*	*34.8*
Nenets Autonomous Okrug							
Investments volume, billion rubles	16.4	22.5	50.1	91.2	87.1	34.4	38.9
Volume index, %	83.9	121	2.3 times	156.4	80.1	38.4	101.4
Mining , %	*88.9*	*83.5*	*76.8*	*58.6*	*87.8*	*85.2*	*86.8*
Vologda Oblast							
Investments volume, billion rubles	43.1	60.6	66.1	79.2	78.4	55.5	55.4
Volume index, %	2.1 times	131.5	100.5	103.8	85.9	71.5	96.9
Manufacturing, %	*45.7*	*39.6*	*29.0*	*25.4*	*30.0*	*29.1*	*28.3*
Transport and communications, %	*39.4*	*47.2*	*54.4*	*50.2*	*39.9*	*43.9*	*40.0*

End of the table 3

Kaliningrad Oblast							
Investments volume, billion rubles	19.7	30.0	32.6	46.2	70.8	53.6	39.7
Volume index, %	122.7	130.5	92.4	122.9	134.3	78.8	82.7
Manufacturing, %	*11.6*	*23.2*	*22.1*	*33.0*	*29.5*	*18.5*	*15.3*
Transport and communications, %	*18.4*	*21.0*	*23.6*	*19.1*	*23.4*	*26.1*	*29.3*
Real estate transactions, lease and delivery of services, %	3.4	4.3	5.2	7.1	16.8	18.9	10.2
Leningrad Oblast							
Investments volume, billion rubles	68.6	82.9	127.2	126.3	166.1	193.2	231.6
Volume index, %	121	102.4	134.9	86.6	111	107.7	132.4
Manufacturing , %	*30.2*	*32.0*	*22.0*	*27.0*	*22.9*	*18.4*	*17.7*
Transport and communications, %	*42.9*	*41.2*	*46.7*	*40.0*	*40.7*	*42.3*	*56.3*
Murmansk Oblast							
Investments volume, billion rubles	14.8	20.0	24.5	26.9	46.8	41.3	32.5
Volume index, %	104.6	120.8	112.4	98.3	153.3	81.6	78.2
Mining, %	*23.5*	*31.2*	*25.3*	*30.6*	*24.3*	*31.1*	*47.2*
Manufacturing, %	14.0	9.2	6.3	7.3	6.2	4.8	3.1
Transport and communications, %	*19.9*	*22.7*	*25.7*	*18.5*	*35.1*	*26.5*	*15.6*
Novgorod Oblast							
Investments volume, billion rubles	8.8	14.0	19.0	23.9	33.9	37.0	31.0
Volume index, %	87.5	147.3	126.3	110.2	122.9	97.9	100.5
Manufacturing, %	*46.9*	*40.2*	*41.3*	*30.6*	*32.1*	*17.9*	*15.9*
Transport and communications, %	*31.1*	*29.2*	*25.1*	*32.5*	*24.3*	*26.6*	*44.2*
Real estate transactions, lease and delivery of services, %	7.7	10.3	10.7	16.8	12.8	13.4	8.8
Pskov Oblast							
Investments volume, billion rubles	5.9	5.5	7.6	13.7	16.5	12.9	11.2
Volume index, %	93.3	83.4	125.8	155.6	102.6	74	93.7
Manufacturing, %	*16.5*	*21.7*	*20.7*	*21.7*	*21.8*	*27.3*	*18.6*
Transport and communications, %	*18.5*	*22.8*	*34.1*	*29.3*	*30.0*	*12.6*	*34.1*
Real estate transactions, lease and delivery of services, %	11.1	8.2	5.6	3.7	4.8	7.5	4.5
Saint Petersburg							
Investments volume, billion rubles	117.8	156.9	193.7	303.4	372.6	324.7	298.1
Volume index, %	93.6	107.1	113.7	141.9	101.5	83.3	106.4
Manufacturing, %	16.2	18.0	20.8	13.4	11.3	12.5	14.8
Transport and communications, %	*28.7*	*24.6*	*27.7*	*41.4*	*44.0*	*27.4*	*16.6*
Real estate transactions, lease and delivery of services, %	*24.5*	*28.5*	*23.3*	*18.7*	*17.5*	*20.2*	*16.7*

Source: author's estimates based on [7].

Among the regions of the Northwestern Federal District, the critical deterioration rate in 'Mining' activity is observed in the Republic of Karelia, the Komi Republic, the Vologda, Leningrad, Murmansk oblasts, despite relatively high share of investment flows *(tab. 4)*.

At the same time, in the Republic of Karelia, the Komi Republic and the Murmansk Oblast it is one of the main directions of the regions' specialization, ensuring the growth of gross regional product and population employment.

To reverse the described negative trends, a fundamental change of mining technologies in the long term, and corresponding significant investment expenses, might be required. However, judging from fixed assets condition, the owners (management companies) in other regions do not take interest in that.

Though to a smaller degree, but still the assets are deteriorating in manufacturing. This also concerns the regions, characterized by high financial performance, i.e. the Republic of Komi, the Vologda and Murmansk oblasts *(tab. 5)*.

Table 4. Degree of fixed capital consumption in 'Mining' type of economic activity, % [7]

Region	2005	2006	2007	2008	2009	2010
Russian Federation	**51.7**	**51**	**49.7**	**45.6**	**45.9**	**46.8**
Northwestern FD	**39.2**	**35.7**	**34.5**	**33.9**	**34.6**	**41.6**
Republic of Karelia	41.3	41.3	43.3	46.3	50	50.6
Komi Republic	39.8	32.2	31.4	46.1	46.8	56.4
Arkhangelsk Oblast	36.6	28.5	26.9	15	18.2	27.4
including Nenets Autonomous Okrug	38.6	29.1	27	14.7	17.8	27.2
Vologda Oblast	48.2	48.2	49	52.8	55.6	61.5
Kaliningrad Oblast	26.7	28.6	31.2	38.1	42.1	43.8
Leningrad Oblast	48.4	47.5	39.2	33.2	51.9	54.4
Murmansk Oblast	53.8	55.1	56.1	55.5	54.5	56.6
Novgorod Oblast	17.8	20	36.9	15	12.3	9.9
Pskov Oblast	33.1	6.8	19.7	22.9	38.1	30.4
Saint Petersburg	53.7	48.1	34.3	25.6	32.9	41.2

Table 5. Degree of fixed capital consumption in 'Manufacturing' type of economic activity, % [7]

Region	2005	2006	2007	2008	2009	2010
Russian Federation	**44.1**	**43.1**	**41.7**	**41**	**41.1**	**42.2**
Northwestern FD	**39.8**	**37.8**	**36.2**	**36.3**	**38**	**40.4**
Republic of Karelia	26.8	29.2	30.8	32.3	34	37.5
Komi Republic	35.1	37.7	38.8	36.9	40.4	39.6
Arkhangelsk Oblast	58.2	57	44.5	44.5	44.9	46.2
including Nenets Autonomous Okrug	38.8	28.5	19.8	22.9	21.5	25.4
Vologda Oblast	38.5	31.5	30.9	33.9	36.6	40.6
Kaliningrad Oblast	31.9	32.6	33.5	23.5	27.4	35
Leningrad Oblast	34	34.7	35.3	35.7	37.5	41.4
Murmansk Oblast	38.3	41	36.4	29.4	32.4	41.1
Novgorod Oblast	41.4	37	37.4	39.1	41.7	44.4
Pskov Oblast	40.1	38.4	38.3	37.2	33.5	36.5
Saint Petersburg	40.7	38.5	38.4	39.5	40.3	39.2

Thus, investment of regional structural units of holdings appears to be made on leftovers. When allocating the temporarily available financial resources, priority is given to financial investments.

In certain regions (the Vologda, Murmansk oblasts) financial investments, derived from the equity, considerably exceed not only the equity, invested in fixed assets, but also the total volume of investments [4].

Selective financing of investment activities in the Northern territories holds back arrangement of conditions for modernization and diversification of the economy, its reorientation from raw materials to innovation-based development *(tab. 6, 7)*.

High share of mining in GRP structure is maintained in oil-producing regions (the Komi Republic, Nenets Autonomous Okrug) throughout the period under review.

Metallurgical complex with a low level of processing continues to dominate in manufacturing of the Murmansk and Vologda oblasts.

Considering the survey results comprehensively, the following conclusions can be made:

On the one hand, the Northern regions have their own advantages, such as the presence of large-scale productions (natural monopolies mainly), ensuring the stability of the regions' economic development. Accordingly, these regions are *formally* able to obtain resources for self-development.

Table 6. The share of 'Mining' economic activity in GRP. % [7]

Region	2004	2005	2006	2007	2008	2009	2010
Russian Federation	**11.3**	**12.8**	**11.7**	**10.6**	**9.9**	**9.7**	**10.5**
Northwestern FD	**7.0**	**7.6**	**7.2**	**6.4**	**6.9**	**7.2**	**7.7**
Republic of Karelia	8.7	19.3	12.7	12.3	13.5	4.8	12.0
Komi Republic	28.6	34.3	32.3	26.5	31.9	29.5	33.5
Arkhangelsk Oblast	21.0	20.6	20.7	22.1	20.7	31.5	32.7
including Nenets Autonomous Okrug	74.9	74.3	65.4	59.6	66.3	77.4	78.6
Vologda Oblast	0.0	0	0	0	0	0.1	0.0
Kaliningrad Oblast	9.2	14.7	12.7	12.2	8.4	7.3	5.9
Leningrad Oblast	0.8	0.8	1.1	1.1	1.6	2.8	0.9
Murmansk Oblast	0.0	0	0.1	0.1	0.1	0.1	0.2
Novgorod Oblast	18.7	10.8	9.9	9.9	18.6	11.2	15.1
Pskov Oblast	0.1	0.1	0.1	0.2	0.2	0.2	0.2
Saint Petersburg	0.0	0.1	0.1	0.1	0	0.0	0.0

Table 7. The share of 'Manufacturing' economic activity in GRP, % [7]

Region	2004	2005	2006	2007	2008	2009	2010
Russian Federation	**20.4**	**18.5**	**18.7**	**19.7**	**19**	**16.7**	**17.7**
Northwestern FD	**23.3**	**24**	**23.2**	**22.8**	**22.1**	**21.5**	**21.6**
Republic of Karelia	17.3	17.6	15.8	16.2	15.6	14.1	16.4
Komi Republic	8.3	11.7	10	12.9	10.8	9.5	9.7
Arkhangelsk Oblast	19.6	18.9	15	14.6	16.4	12.1	12.6
including Nenets Autonomous Okrug	0.3	0.3	0.2	0.2	0.2	0.2	0.2
Vologda Oblast	45.4	46.6	46.1	46	50	36.6	39.4
Kaliningrad Oblast	22.1	17.3	14.1	17.2	17.8	16.5	16.9
Leningrad Oblast	**31.9**	29.1	28.5	27.6	26.4	29.7	23.8
Murmansk Oblast	21.8	25.5	25.3	27.9	15.6	16.6	17.4
Novgorod Oblast	33.2	34.6	34	32.6	34.3	32.2	30.0
Pskov Oblast	15.6	18	19.4	20.7	20.1	17.8	18.9
Saint Petersburg	19.2	20.9	22	20.6	19.9	22.4	24.1

But, on the other hand, large-scale productions are mainly resource-based, with their owners being in other regions, so that the resources, in fact, do not belong to the regions. In addition, the trend risks of global prices exist for export-oriented productions. The consequences of the current situation for the region may be the following: the preservation of structural distortions, the barrier to the development of diversified economy, limited competitive environment, the preservation of raw-material orientation, the reduction of possibilities to achieve economic growth stability.

In order to solve the existing problems, the relations between state authorities and business structures are to be improved. Amendments to the legislation, that are being adopted at the present stage (introducing the concept 'consolidated group of taxpayers' into the Tax Code), do not consider already existing consequences of relations 'region – business-structure' and are oriented at safeguarding the interests of a narrow circle of individuals, i.e. management companies.

At the same time, it is really possible to involve big business in problem-solving with regard to the region, on the territory of which it operates, at least through social responsibility before the region's population (it especially concerns the regions with raw material orientation). The capabilities of regional

authorities in the sphere are limited in the existing institutional environment. While formulating and adopting measures aimed at increasing investment activities, the authorities should focus on the internal reserves of investment resources increase.

References

1. Turmachev Ye.S. The peculiarities of investment development in Russia's regions. Audit and financial analysis. 2001. No. 2. Available at: http://www.cfin.ru/press/afa/2001-2/41_turm.shtml
2. Anshin V.M. Investment analysis. Moscow, 2000.
3. Bocharov V.V. Investments: a manual for higher schools. Saint Petersburg: Piter, 2008.
4. Kobylinskaya G.V. Financial provision of investment processes in the regions of the North-West Federal District. Economic and social changes: facts, trends, forecasts. 2011. No. 5. P. 88-100.
5. Glazyev S.Y., Lokosov V.V. Assessment of the critical threshold values of the indicators of the state of Russian society and their use in the socio-economic development management. Economic and social changes: facts, trends, forecasts. 2012. No. 4. P. 22-41.
6. Okeanova Z.K. Basic economic theory. Moscow: Forum: Infra-M, 2002.
7. Federal State Statistics Service. Available at: http://www.gks.ru/wps/wcm/connect/rosstat/rosstatsite/main/database/

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Opportunities and barriers to the agrarian sector modernization in the Northern and subarctic territories in the conditions of Russia's WTO membership *

The paper dwells on specific characteristics, factors, and conditions stimulating or hindering technical and socio-economic development of the agrarian sector in the Northern region in the case of the Komi Republic. It reveals conditions and threats to the Northern agricultural modernization upon Russia's entry into the WTO; analyzes risks caused by the reduction in the volume of direct state support that pose a serious threat to the sector modernization; suggests measures on improving budget support for the agrarian sector in accordance with the WTO requirements.

Modernization, agriculture, the Komi Republic, 'green, yellow and blue baskets', duties, tariff quotas, export subsidies.

Valentin A.
IVANOV
Doctor of Economics, Professor, Chief Scientific Associate at the Institute of Socio-Economic and Energy Problems of the North Komi Scientific Centre, the Ural RAS Department
ivanov@ iespn.komisc.ru

After 18 years of negotiations Russia has joined the World Trade Organization (WTO). Upon the country's entry into the WTO, the agriculture of the Northern territories, not having been able to overcome the 1990 – 2000 crisis, will face new problems concerning technological and socio-economic development of the sector. The risks and threats are the following: reduction in investment attractiveness and profitability of enterprises and households that makes modernization of the agrarian sector branches problematic; non-fulfillment of the Russian Food Security Doctrine's indicators; agro-industrial enterprises bankruptcy due to low competitiveness; job cuts and tax revenue decline in the agro-food sector; decrease in income and living standards of rural people. As a result, the adoption of measures to prevent worsening of the socio-economic situation in the agrarian sector becomes of special importance.

The aim of the research is to analyze probable consequences of Russia's entry to the WTO for the modernization of the Northern agrarian production. In terms of the research, the following tasks were being solved:

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1. To consider the specifics of modernization processes in the agrarian sector in the case of the Komi Republic.

2. To reveal risks and threats to the agricultural modernization owing to the reduction in the volume of direct state support.

3. To offer measures on adaptation of the agrarian sphere to the WTO conditions.

Specific characteristics, factors, and conditions of the agrarian sector modernization.

The relevance and importance of agricultural modernization of the Northern and subarctic territories is determined by the expanding of local environmentally-preferable food products, efficient use of productive potential, solving of the issue concerning the native population employment, increase in the living standard of the rural community. During the period of economic and agrarian transformations the degradation of land, logistics, and human resource potentials was observed in the area, with the reduction in the areas planted, the cattle population, the number of agricultural workers, all types of agricultural production. About two-thirds of agrarian enterprises in the remote rural areas of the Komi Republic are financially unsustainable. Agrarian economic entities have no access to financial markets. At present, the majority of remote agrarian enterprises and (peasant) farms have lost their economic and social sustainability. Actual tendencies taking place in the agrarian sector may lead to its liquidation and decrease in rural territories inhabitable for centuries. Agricultural modernization with the application of the latest technologies is the key direction to exit the crisis. At the moment, primitive methods and technologies are domineering in agricultural organizations, (peasant) farms and rural households; obsolete plant species and cattle strains, imperfect organization and management forms are used, as well.

In the narrow sense, modernization is understood as enhancement, improvement, renewal of an object, its adjustment to conform to the new requirements and norms, technical specifications, quality factors. Machinery, equipment, technological processes are primarily exposed to modernization [7, p. 198; 11, p. 439].

In the broader sense, modernization defines a political and economic strategy, aimed at a rapid change of technological, economic and socio-political conditions for the functioning of an economy in order to boost its technological and social dynamism and economic competitiveness [1, p. 3].

According to the classic modernization theory, modernization is the transition from a traditional society to the modern, fundamentally different innovation-oriented society [10, p. 192].

Innovation modernization of the agrarian sphere contemplates the use of technological, selective-genetic, business, social and environmental innovations. The purpose of modernization is to create long-term preconditions for sustainable rural development and to raise the living standards and quality of life of the rurals.

Let us consider specific characteristics and main factors contributing or hampering modernization processes in agriculture. The northern agrarian production incurs great expenses and entails a high degree of risk that makes private investors not interested in investing capital in its development. At this point, the invisible hand of the market, market mechanisms are not able to ensure the effective functioning and modernization of the agro-producing economy. Agriculture and traditional industries in the North, so as the social sphere, cannot develop without state support.

The argument against local product development policy, due to the high cost of agriculture in terms of government policy, can not be acknowledged sufficient enough. The Komi Republic has such possibilities favorable for agriculture as agro-environmental

(natural moistening, long daylight hours during vegetation period, large areas of natural forage lands) and economic potentials that allow efficient production of potato, range of locally grown vegetables, whole milk and sour-milk products, eggs. Rural areas have capacities for organic food production and the corresponding market segment formation. A sort of rental income can be received from the realization of environmentally friendly products. The products of traditional industries (reindeer herding, fishing, hunting, gathering of wild mushrooms and berries) are competitive not only in the regional, but also in the national and international markets.

Socio-economic factors and conditions, negatively affecting the modernization of agricultural production include:

1. Population decrease due to an outflow and natural loss. Over the last 20 years the rural population has decreased by more than a third; the mortality rate in rural areas exceeds the birth rate by 1.2 times.

2. Low incomes of the rural population, a significant wage gap between workers in agriculture, forest and other industries (employed rural population lives below the poverty line). In 2011, the average monthly wage in agriculture amounted to 56% of the Republic-averaged salary. Average annual income is particularly low in peripheral rural areas: agro-production salaries are below subsistence level of the working age population in Izhemsky, Koygorodsky, Troitsko-Pechorsky, Udorsky, Ust-Kulomsky, Ust-Udinsky districts.

3. High level of unemployment in rural areas (15%) and poor social protection of the rurals.

4. Shortage of skilled personnel, low level of management, particularly in peripheral regions. While in the 1980s, there was an average of 8 specialists with higher education and 40 specialists with secondary professional education per one sovkhoz (state farm), at present there is only one specialist with higher and 5 specialists with secondary professional education per one farm. 27% out of employees holding positions of managers and specialists were without higher or secondary professional education; 57% out of middle managers. At the beginning of 2012, the share of managers with higher education amounted to 32%. (Note that in Russia 68% of farm managers have higher education, and in the Republic of Belarus their number is 92% [3, p. 21]). In 2011, only five specialists graduated in the reporting year were hired by farms in peripheral areas; the share of farm managers and specialists under 30 years of age is only 2%. A similar situation is observed throughout the Republic (12%). In addition, the qualification and workers training level is low. Thus, according to the questionnaire survey conducted in 2012, out of 64 livestock farmers in Udorsky and Ust-Kulomsky districts only one was given the title 'First-rank Master in livestock', and only five were marked as Second-rank Masters. During the years of reforms, the number of employees in agrarian production decreased 8 times, with more than 10 thousand exiting farms.

5. A significant lag of social infrastructure development and provided service quality between rural areas and the city. The absence of sanitation facilities is characteristic of individual housing in the countryside. The share of failing and old housing stock makes 22% as compared to 9% in the city. The number of water-supplied rural houses is three times less than in the city, the quantity of houses supplied with central heating is three times, with gas – two times, hot water – nine times, bathrooms – eight times less in comparison to the city. The share of failing and old housing stock is particularly high in such remote areas as Troitsko-Pechorsky (41%), Koygorodsky (35%), Ust-Kulomsky districts (34%) [9, p. 145].

6. Low transport accessibility and low possibilities for receiving basic social benefits (health, education, culture, welfare services) of the rural population. Roads are extremely

poorly maintained in remote rural areas: out of six peripheral districts, only two (Koygorodsky and Ust-Kulomsky) are linked to the city of Syktyvkar by hard surface roads. Over the 20-year period, the number of pre-school institutions has decreased by 45%, of educational institutions – by 33%, of hospitals – by 50%, culture and leisure establishments – by 24%. Rural supply of doctors is three times less and of medical staff two times less than the urban one.

7. A significant decrease in the output of major agricultural products, particularly on collective farms. During the period of market reforms milk production on farms has dropped 5.3 times, beef – 13.5 times, pork – 4.5 times, potato – 14.5 times, vegetables – 4 times.

8. The territory of farmlands during the period has declined 1.8 times, of the areas planted – 2.5 times, the cattle population decreased 4.5 times, and the number of swine dropped 5.5 times. The tractor fleet decreased 5.6 times, the volume of generating capacities – 5.1 times. Livestock capital goods are 80% outworn. Due to unprofitability of potato, vegetables, and beef production, as well as low profitability of other product types there is the lack of own financial resources for the modernization of plant growing and cattle breeding sectors.

9. Existing volume of state support provided to the agrarian sphere in rural peripheral areas makes impossible not only its development on an innovation basis, but also restraining of production decline. In 2011, only 9.9 percent (123.5 million rubles) out of the total subsidies (1253.5 million rubles) were allocated to the agrarian sector of the Komi Republic, and agriculture in peripheral areas, whereas their share in the volume of gross agricultural production made 18.5%.

Upon Russia's entry into the WTO new problems regarding modernization of agriculture in the northern and subarctic territories will arise.

Conditions, risks and threats of Russia's accession to the WTO for the agrarian sector modernization.

Having joined the WTO, Russia undertook a number of commitments on state support provided to agricultural sector, as well as export and import duties, tariff quotas, export subsidies.

Threats related to the customs tariff regulation, above all, concern tariffs reduction on agricultural products and food from the current 15.6% to 11.3% by the end of the transition period (the year 2018). According to academic agricultural economists [3, 4, 6, 11], serious negative effects from tariff reductions are expected in the pork and beef market. Our country undertook to reduce customs tariffs on live swine from 40% to 5%. As for the pork imports within the quota, duty will fall from the current 15% to 0%. Further reduction in the quota amount is banned.

Growing prices for energy and other material support, reducing agricultural producers' income, pose a serious threat to agriculture, thus, limiting their possibility to carry out modernization and innovative development. Prior to joining the WTO, the state each year partially compensated through direct subsidies losses stemming from a price disparity between agricultural and industrial production.

State support is important in the development of the agrarian sector. Therefore, the support proportions are the main tradeable subject of agriculture agreements. Having become a WTO member, Russia with its regions should adhere to the restrictions concerning budget support of the branch and to changes in subsidized direction. The level of support, approved under the WTO, is divided into three types, defined as 'green, yellow (amber) and blue baskets', depending on the trade distorted impact degree.

The 'green basket' comprises the support measures, having no negative impact on trade: promoting the restructuring of agricultural

production and the development of the agroindustrial complex infrastructure; plants and animals disease prevention, pests control, veterinary measures; research activities and personnel training; information and consulting services for agricultural producers; marketing, direct payments to producers, income support, separated from production; income insurance and crop insurance programme; disaster recovery; regional aid programme; ecological and regional agricultural sector support programmes; income support, not related to production, etc. 'Green basket' measures can be used without restrictions.

The 'yellow basket' comprises measures distorting the market. Their initial and finite scale and reduction rates up to the level agreed during negotiations. Commitments under the 'yellow basket' measures are fixed on the list for each WTO member in the form of aggregate measures of support (AMS). 'Yellow basket' subsidies include product and non-product support measures. Product support measures include support for market prices of specific products; subsidies per production unit, per livestock unit, per unit area, etc.; partial compensation of expenses for material and technical resources purchase (combination fodder, mineral fertilizers, fuels and lubricants, etc). Non-product measures include subsidizing the repayment of bank credit interest rates, partial compensation of costs on material and technical resources, etc.

However there is an exception to these regulation rules. The country, which is a WTO member has the right not to undertake obligations to restrict the volume of support provided within the 'yellow basket', if the amount of such support does not exceed 5% of the value of agricultural production. This is the so-called de minimis rule [4, p. 7].

The 'blue basket' comprises budgetary payments to limit agricultural production. These payments are not subject to compulsory reduction, if based on fixed areas and yields, a fixed livestock number.

At the initial stage of the negotiations on the country's accession to the WTO, Russia determined the level of state support for agriculture as 89 billion dollars (corresponding to 1989 – 1991 annual average subsidies rate). Subsequently, Russian delegation has been gradually receding from original positions – first, up to 36 billion dollars, then to 16 billion dollars [14]. In compliance with the agreement, the level of direct state support in Russia is to be 9 billion dollars by 2013 with consequent equal parts reduction to 4.4 billion dollars by 2018. Such amount of subsidies for Russian agriculture is extremely low, as compared with developed countries, due to low bioclimatic potential, lack of proper technical equipment and obsolete technologies. The permitted level of support to agriculture in the EU is 98.8 billion dollars, in Japan – 39.6 billion dollars, in Switzerland – 3.9 billion dollars, in Norway – 2.0 billion dollars. Support provided per hectare of ploughland in Russia is 7.6 times lower than in the United States, 10.3 times lower than in China, 13 times lower than in the EU, 41.1times lower than in Norway, 55.7 times lower than in Japan [3, p. 4, 6]. Per capita budget support level in the EU is 6.9 times, in the United States – 7.7 times, in Japan – 8.3 times, in the Republic of Korea – 9.4 times, in Norway – 13.6 times, in Iceland – 14.9 times, in Switzerland – 15.5 times higher than in Russia. While in economically developed countries, the level of budget support of farmers relative to production costs makes 32%, in EU – 35%, in Russia it accounts for only 6.9% [12, p. 29]. Such low budget support restrains the modernization and innovation development of domestic agriculture, and makes it impossible to eliminate a significant gap in labour productivity level between Russia and highly developed countries.

Russia's entry into the WTO will oblige the country to follow the rules of agricultural subsidies, stipulated by the WTO agreements. Thereby, it is interesting to consider the volume

of budget allocations in Russia for implementation of the State Programme for Development of Agriculture and Regulation of Agricultural Commodities Markets in 2013 – 2020.

The forecast estimate of the federal budget expenditures, consolidated expenditures of the RF constituent entities for the State Programme implementation are given in *tables 1, 2.*

Table 1. The volume and structure of budget support for implementation of the State Programme on Agriculture Development and Agricultural Products, Raw Materials and Food Markets Regulation for 2013 – 2020, billion rubles

Years	Federal Budget	Consolidated budgets of the RF constituent entities	Total
Billion rubles			
2013	159.0	80.0	239.0
2014	161.9	74.9	236.8
2015	175.4	87.8	263.2
2016	186.1	94.1	280.2
2017	194.7	99.5	294.2
2018	203.6	106.9	310.5
2019	211.2	112.9	324.1
2020	217.9	120.7	338.6
%			
2013	66.5	33.5	100
2014	68.4	31.6	100
2015	66.6	33.4	100
2016	66.4	33.6	100
2017	66.2	33.8	100
2018	65.6	34.4	100
2019	65.2	34.8	100
2020	64.4	35.6	100

Table 2. Budget ensuring for implementation of the State Programme on Agriculture Development and Agricultural Products, Raw Materials and Food Markets Regulation for 2013 – 2020, billion rubles

Sub-programme, programme	2012	2013	2014	2015	2016	2017	2018	2019	2020
Total budget expenditures	228.7	239.0	236.8	263.2	280.2	294.2	310.5	324.1	338.6
Including, development of crops production, processing and marketing of plant products subindustry, total	57.7	65.1	61.8	70.3	79.2	88.2	98.2	104.9	110.8
Federal budget	40.2	45.9	43.4	47.3	53.7	60.2	67.3	72.7	76.1
Consolidated budgets of the RF subjects	17.5	19.2	18.4	23.0	25.5	28.0	30.9	32.2	34.7
Development of livestock-breeding, processing and marketing of livestock products	76.4	87.4	92.3	102.6	102.1	100.8	98.2	96.0	94.9
Federal budget	50.4	57.8	61.9	67.3	66.6	65.2	62.4	59.9	58.3
Consolidated budgets of the RF subjects	26.0	29.6	30.4	35.3	35.5	35.6	35.8	36.1	36.6
Development of beef cattle industry, total	-	10.9	11.3	12.6	13.2	13.8	14.4	15.0	15.7
Federal budget	-	6.8	7.1	7.7	8.0	8.4	8.7	9.1	9.5
Consolidated budgets of the RF subjects	-	4.1	4.2	4.9	5.2	5.4	5.7	5.9	6.2
Support of small forms of business, total	15.1	10.2	10.2	11.6	12.1	12.5	13.1	13.7	14.2
Federal budget	11.2	8.6	8.6	9.9	10.4	10.8	11.3	11.8	12.3
Consolidated budgets of the RF subjects	3.9	1.6	1.6	1.7	1.7	1.7	1.8	1.9	1.9
Technical and technological modernization and innovation development, total	16.0	2.0	2.0	4.3	5.3	5.4	5.6	5.7	5.9
Federal budget	12.0	2.0	2.0	3.3	3.2	3.2	3.3	3.3	3.4

End of table 2

Consolidated budgets of the RF subjects	4.0	-	-	1.0	2.1	2.2	2.3	2.4	2.5
Ensuring the State Programme implementation (federal budget)	21.2	21.7	22.7	22.1	25.2	26.2	27.1	28.3	29.1
Budget expenditures on sub-programmes,total	186.4	197.3	200.3	223.5	237.1	246.9	256.7	263.6	270.6
Federal budget	135.0	142.8	145.7	157.6	167.1	174.0	180.2	185.1	188.7
Consolidated budgets of the RF subjects	51.4	54.5	54.6	65.9	70.0	72.9	76.5	78.5	81.9
Programme 'Social Development of villages', total	20.6	22.0	-	-	-	-	-	-	-
Federal budget	8.7	9.0	-	-	-	-	-	-	-
Consolidated budgets of the RF subjects	11.9	13.0	-	-	-	-	-	-	-
Programme 'Sustainable Development of Rural Territories in 2014 – 2017 and up to 2020' (draft), total	-	-	22.1	22.1	26.3	29.7	35.4	41.3	48.0
Federal budget	-	-	9.0	9.0	10.6	11.9	14.2	16.5	19.2
Consolidated budgets of the RF subjects	-	-	13.1	13.1	15.7	17.8	21.2	24.8	28.8
Programme 'Preservation and Restoration of Soil Fertility of Agricultural Lands and Agro-landscapes as Russia's National Patrimony for 2006 – 2010 and up to 2013' , total	21.7	19.7	-	-	-	-	-	-	-
Federal budget	10.9	7.2	-	-	-	-	-	-	-
Consolidated budgets of the RF subjects	10.8	12.5	-	-	-	-	-	-	-
Programme 'Development of Agricultural Lands Reclamation in 2014-2020' (draft), total	-	-	14.4	17.6	16.8	17.6	18.4	19.2	20.0
Federal budget	-	-	7.2	8.8	8.4	8.8	9.2	9.6	10.0
Consolidated budgets of the RF subjects	-	-	7.2	8.8	8.4	8.8	9.2	9.6	10.0

Source: the State Programme for Agriculture Development and Agricultural Products, Raw Materials and Food Markets Regulation for 2013 – 2020.

As can be seen, during the first year of the Programme implementation (2013) the volume of budget allocations will make 239 billion rubles, i.e. 8 billion dollars; during the second year the volume will amount to 236.8 billion rubles and 7.2 billion dollars respectively. In 2018, 310.5 billion rubles are planned to be allocated for the State Programme implementation in 2018, and 338.6 billion rubles in 2020. The Programme envisages the total state budget allocations in 2013 – 2020 at 2286.6 billion rubles, including 1509.8 billion rubles (66% of all expenditures) out of the federal budget funds; 776.8 billion rubles (34%) out of the funds from the consolidated budgets of the RF constituent entities. The share of the consolidated budgets of the RF subjects will grow from 33.5% in 2013 up to 35.6% in 2020.

According to the calculations made on the basis of the volume of budget expenditures for the State Programme implementation, state support within 'the yellow basket' is set at 4.8 up to 5.3 billion dollars for the 2013 – 2016 period *(tab. 3)*, i.e. 1.2 – 1.9 times lower as compared to the obligations, provided under the conditions of the accession to the WTO. In 2017 'the yellow basket' financing will exceed the permitted level by 4%, in 2018 – by 30%, and in 2020 – by 34%.

This situation requires development of a new system of support for agriculture. To accelerate the rate of technical and technological upgrade, to boost investment opportunities of the industry in the 2013 – 2016 period of the programme implementation, it is expedient to enhance the growth of state support volume up to the level permitted by the WTO conditions. Starting from 2017, when it will be impossible to increase direct state support volume (i.e. so-called 'yellow basket'), budget allocations volume might be boosted through subsidies per one hectare of crops or per a head of cattle, in compliance with the WTO conditions.

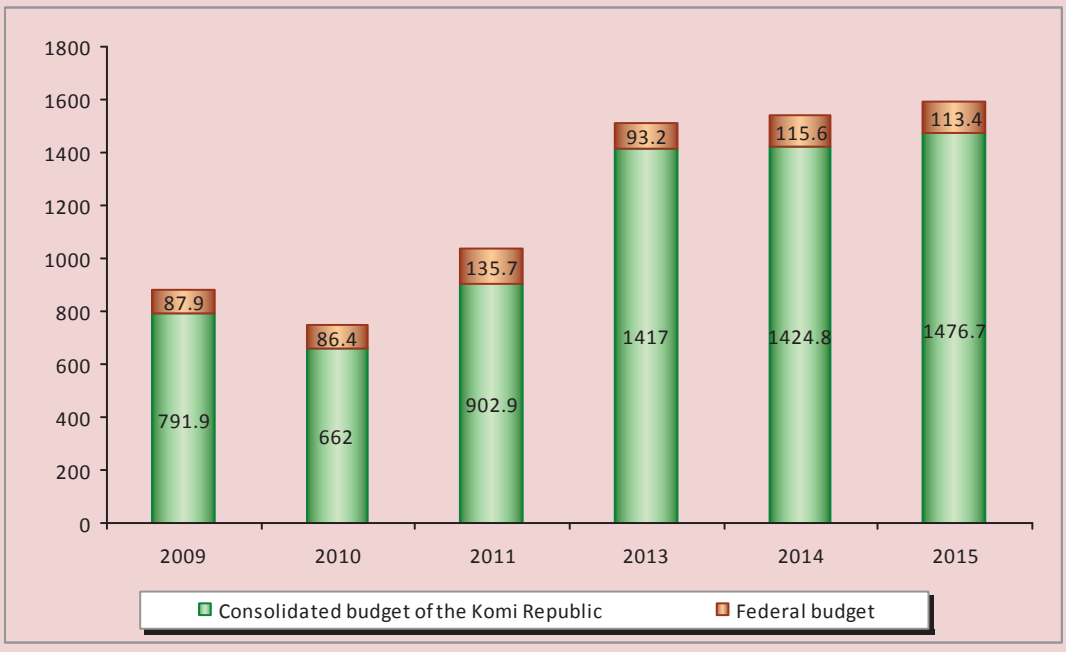
Table 3. State support for agriculture in Russia for 2012 – 2020, billion rubles

Indicator	2012	2013	2014	2015	2016	2017	2018	2019	2020
'Green basket'	3.1	3.2	3.2	3.7	4.0	4.2	4.7	5.0	5.4
'Yellow basket'	4.5	4.8	4.7	5.1	5.3	5.6	5.7	5.8	5.9
Total	7.6	8.0	7.9	8.8	9.3	9.8	10.4	10.8	11.3
Permitted level of support within 'Yellow basket'	-	9.0	8.1	7.2	6.3	5.4	4.4	4.4	4.4

Let us examine the current situation concerning state support for agriculture in the Northern zone and its impact on the profitability level in the case of the Komi Republic. The implementation of the priority national project 'Development of agro-industrial complex' contributed to a significant state support increase. State support for agriculture in the Komi Republic grew 1.8 times in 2011 as of 2006-level and made 1038.6 million rubles. The State Programme 'Agriculture Development and Agricultural Products, Raw Materials and Food Markets Regulation, Fishery Complex Development in the Komi Republic for 2013-2020' envisages the allocation of 1510.2 million rubles to agricultural complex in 2013, 1544.4 million rubles in 2014, 1590.1 million rubles in 2015. *(fig. 1)*.

State support is mainly provided out of the regional budget. In 2011, 83.5% of subsidies were allocated from the budget of the Komi Republic, 13.8% out of the federal budget, and 2.7% out of the local budget. The programme on the development of the agro-food complex in the Republic up to 2020 envisages the ratio increase in favor of the regional budget. Thus, in 2013 – 2015 the forecast estimate of the subsidies share out of the Komi Republic budget will make 91.4%, 8.2% out of the federal budget, and 0.4% out of local budgets.

Figure 1. State support volume for implementation of the State Programme on Agriculture Development and Agricultural Products, Raw Materials and Food Markets Regulation for 2013 – 2020, million rubles



Subsidies helped to avoid agricultural production loss. While in 2005 the loss ratio was 5.1% and in 2006 it fell to 0%, in 2011 its value was 6.6%. Since 2009 this indicator has a tendency towards decrease *(fig. 2)*.

In 2010 the profitability level of farms economic activity (subsidies not included) made only 0.7%, whereas the loss ratio in 2011 accounted for 0.8%.

Marketing of Plant Products remains unprofitable. Livestock profitability level (even including subsidies) is three times below the norm necessary for the expanded reproduction. Milk yield is insufficient, beef production is unprofitable. Only poultry meat profitability is close to the level, necessary for ensuring expanded reproduction. Venison is notable for high profitability rate *(tab. 4)*.

Livestock and swine-breeding modernization is constrained due to the lack of own financial sources for investment. Beef unprofitability, low yields of milk, pork and eggs do not allow the agrarian economic entities, producing these products to switch to the latest technologies without increasing the volume of state support.

Measures on agrarian economy adaptation to new conditions

The conditions of Russia's accession to the WTO are unfavourable for the northern agrarian sector, particularly for the leading branch of livestock-breeding. This fact certainly affects beef and milk production. While broilers and eggs producing poultry plants functioning on an industrial basis since the 1970s, have conducted or have been accomplishing modernization with the application of the latest technologies during the implementation of the priority national project 'Agro-Industrial Complex Development', the production intensification had not been accomplished and the switch to industrial technologies was not completed in dairy and meat cattle-breeding. During the reform years the technical equipment of cattle-breeding farms significantly worsened, the number of milking machines for the 1990 – 2011 period reduced 10 times; the number of implemented cattle premises dropped 7 times. The transition to innovation technologies was not completed in swine-breeding, as well. Agricultural organizations, specializing

Figure 2. Profitability, unrofitability (-) of the assets and production on farms in the Komi Republic, %

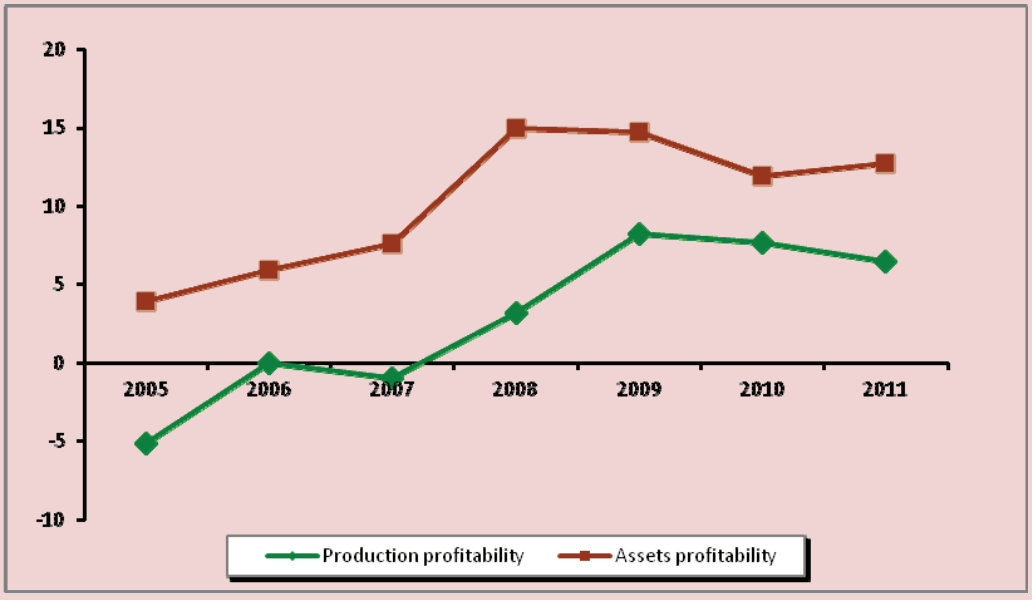


Table 4. Profitability, unrofitability (-) of products produced on farms in the Komi Republic, %

Indicator	Without subsidies		Including subsidies	
	2010	2011	2010	2011
Total profitability	5.3	4.1	12.5	13.3
Plant-growing	-13.7	- 15.2	-13.5	- 6.8
Livestock-breeding	7.3	5.9	15.3	15.2
Potato	8.5	- 9.3	11.2	-7.9
Outdoor vegetables	-8.7	- 56.3	-	-
Indoor vegetables	-21.7	- 15.1	-	- 4.0
Unprocessed livestock products Milk	-26.5	- 27.4	10.1	9.0
Beef	-28.8	- 21.4	-	-
Pork	1.2	10.8	15.4	-
Venison	51.7	62.8	-	-
Poultry	62.9	22.7	-	-
Eggs	5.5	7.7	10.3	16.0
Processed livestock products Dairy products	-28.2	-20.9	1.6	2.6
Cattle	-48.3	- 48.9	-	- 47.8
Swine	-6.2	- 8.2	6.3	9.6
Poultry	36.4	29.5	36.6	31.1
Deer	9.6	9.7	-	-

in production of cattle-breeding and swine-breeding products, will not be able to carry out modernization processes that require vast financial resources without the state assistance.

All this must be taken into account while improving the state agrarian policy with regard to the agriculture functioning of the northern and subarctic territories under the conditions of Russia's accession to the WTO. In order to boost profitability and investment opportunities of the northern farming, a significant increase in direct state support is required. In case the revenues of agricultural producers are not supported through price subsidies on production, investment efficiency will be extremely low, and may not even be paid back.

Economic evaluation of innovation and investment projects on the construction of dairy farms for 100 and 200 head of cattle in the peripheral rural areas of the Komi Republic applying the latest technologies and at achieving high cows productivity (5500 kg), as well as projects consistent with the principles of organic production, showed that under the existing volume of state support the given projects will be recouped in 12.49 and 11.25 years. Only the increase in direct state support through subsidizing cattle meat and milk prices, ensures an optimum level of profitability (42 – 48%), the payback period of projects (8 years) will be smaller than the loan period [2, p. 160-165]

So that not to limit the volume of direct support, i.e. the so-called 'yellow basket', adjustments to the WTO obligations on agriculture of the Far North regions and equated areas are needed. Under the WTO membership conditions the amount of direct support, which does not exceed 5% of agricultural production cost, is not taken into account.

Out of the total Russia's agricultural output 4.0% of potatoes, 2.8% of vegetables, 2.5% of milk, 2.0% of meat (slaughter weight) are produced in the Northern zone. It is necessary to make amendments to the Federal Law 'On Agricultural Development', stipulating that the funds aimed at the direct support of agriculture for the territories unfavourable for agricultural production are not subject to direct WTO norms and rules regulation.

The Ministry of Agriculture of the Russian Federation plans to make such amendment to the Law 'On Agricultural Development' to support the regions, which are in the conditions unfavourable for the agrarian production development [6, p. 8].

The prompt transfer of cattle-breeding on a new technological basis requires allocations from the federal budget subsidizing the growth of milk and beef volume, as well as subsidies for cattle and deer livestock expansion. Our country has four years (2013 – 2016) for increasing significantly direct state support for the development of agriculture. Agricultural producers of the Northern zone are to get partial compensations for purchasing modern technology and efficient equipment, mineral fertilizers, fuel, spare parts, mixed fodders; tariffs in the amount of 50% for railway and water transporting of material and technical resources; subsidies for interest rates on loans given after 1 January, 2013.

Since the State Programme 'On Agriculture Development and Agricultural Products, Raw Materials and Food Markets Regulation for 2013 – 2020' adopted in June, 2012 by the Government of the Russian Federation does not stipulate sub-programmes on the development of reindeer breeding and on poverty elimination among the rural population, the development of similar federal target programmes is required. Funding from the state budgets of the programme on the development of reindeer herding will enable to expand livestock, to store venison, to improve the production of valuable and profitable endocrine-enzyme raw materials, which are in great demand abroad. Implementation of the industry development programme will contribute to growth of employment among native population of the North. The state support provided to rural population that lives below poverty line, is included in the system of 'green basket' measures.

Under the WTO conditions, it is advisable to exempt the farmers from paying any taxes for 5 years, as it is done in a number of China's regions, as well as to enhance the role of long-term credits. Soft loan for the construction and modernization of cattle-breeding premises in the North should be given for 20 – 25 years, and for the purchase of machinery and equipment for 6 – 8 years.

The analysis of the possible negative consequences of Russia's accession to the WTO allows making several suggestions on the reduction of agricultural sector modernization risk in the northern regions.

1. Modernization of agriculture is necessary due to the suspension of agricultural production decline, the consolidation of agriculture positions ensuring the population food security, the rational use of natural and human capital, raising the living standards and quality of life of the rurals, the youth assignment to rural areas, the need to eliminate the substantial differentiation of the socio-economic development in peripheral and suburban areas.

2. There are certain preconditions of the technical, technological and socio-economic development of the agrarian sector in the Komi Republic: availability of labor resources, natural fodder base (large areas of floodplain meadows); the possibility of organic products production; the demand for fresh dairy and meat products.

3. The main factors hampering modernization and innovation development of the agrarian sector include low investment attractiveness of the sector, the lack of own financial resources of the economic entities, insufficient amounts of state support provided in the agrarian sphere, the shortage of qualified personnel, low level of management, weak development of the production, market and social infrastructure.

4. During the next four years it is necessary to raise the volume of the country's consolidated

budget financing of direct support measures on the State Programme on Agriculture Development and Agricultural Products, Raw Materials and Food Markets Regulation for 2013 – 2020 to the level settled under the WTO accession terms, paving the way for agricultural transition on a new technological basis.

5. The main risks of Russia's accession to the WTO posed to the agrarian sector of the Northern and Arctic territories arise from direct state support reduction. Subsidies to farmers enable them to receive incomes additional to sales proceeds, not affecting food prices growth. Rising income will allow increasing investment opportunities for modernization of agricultural production.

6. It is necessary to remove restrictions within the 'yellow basket' with regard to agriculture in extreme conditions of the Northern zone. In the nearest future the Ministry of Agriculture of the Russian Federation is expected to make amendments to the Law 'On Agricultural Development', with regard to the volume of direct state support for the agrarian sector of the Far North regions and equated areas, and which are not subject to the WTO norm and regulations.

7. It is necessary to work out federal targeted programmes for the development of reindeer breeding and on poverty elimination among the rural population, to enhance the role of long-term credits to facilitate modernization and innovation development of agricultural production and to exempt agricultural organizations and farms from taxes for the term of 5 years.

References

1. Glushkov A.S. Formation of the economic mechanism to solve the national economy modernization problem on the basis of market integration processes (oriented at metallurgical activity): Dr. of Economics Thesis synopsis. Moscow, 2012.
2. Ivanov V.A., Ponomareva A.S. Assessment of innovation and investment projects of municipality's development in the northern region. Economic and social changes: facts, trends, forecasts. 2012. No. 3(21). P. 155-166.
3. Kozlov A., Pankov B. Is agricultural personnel prepared to the WTO challenges? AIC: economics, management. 2012. No. 7. P. 18-23.
4. Ushachev I., Serkov A., Siptits S. Competitiveness of agricultural produces and food in Russia under conditions of Russia's entry into the WTO. AIC: economics, management. 2012. No. 6. P. 3-14.
5. Krylatykh E.N. Agrarian aspects of Russia's accession to WTO. Economics of Agricultural and Processing Enterprises. 2012. No. 5. P. 1-3.
6. Petrikov A.V. It's necessary to increase adaptation of Russian agrarian sector to WTO conditions. Economics of Agricultural and Processing Enterprises. 2012. No. 6. P. 6-8.
7. Raisberg B.A., Lozovsky L.Sh., Starodubtseva E.V. Modern economic dictionary. 2nd ed., corrected. Moscow: Infra, 1999.
8. Ushachev I. Competitive recovery measures for Russian agricultural produce in terms of accession to WTO. AIC: economics, management. 2012. No. 9. P. 9-13.
9. Ivanov V.A., Terentyev V.V., Maltseva I.S. et al. Factors and conditions of the sustainable development of the agri-food complex and rural territories of the North. Executive editor V.N. Lazhentsev. Syktyvkar: Komi science centre, Ural branch of RAS, 2011. Syktyvkar: Komi science centre, Ural branch of RAS, 2011.
10. Fedotova V.G. Globalization and modernization. Encyclopaedia. Moscow: CNPP Dialog: Raduga, 2003. P. 192.
11. Economic Encyclopaedia. Ed. by Abalkin L.I. Moscow: OJSC 'Publishing house "Economics"', 1999.
12. Eldieva T.M. Food world commerce liberalization: consequences for regional agrarian economies of Russia. Economics of Agricultural and Processing Enterprises. 2012. No 5. P. 27-32.
13. Epshtein D. What gives the WTO to domestic agriculture? Economics of agriculture of Russia. 2012. No. 3. P. 84-89.
14. OESD. Stat. Available at: http: // Stats. oecd. org.

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Methodological framework for establishing the tourism and recreation cluster 'Zaonezhye' (Republic of Kareila)

The article deals with the issues of territorial planning in tourism sphere. It characterizes the concept of 'cluster', identifies the purposes of its creation and its main elements. Besides, the article investigates the possibility of creating a tourism and recreation cluster on the territory of Zaonezhye in the Republic of Karelia. It also provides a simplified cluster model and identifies its main features. Moreover, the barriers impeding the creation of the cluster are defined, and measures for their elimination are proposed here.

Territorial planning, tourism sphere, cluster, socio-economic development, Republic of Karelia.

Anatoliy I.
SHISHKIN
Doctor of Technical Sciences, Professor, Director of the Institute of Economics of Karelian Scientific Centre of RAS
insteco@karelia.ru

Yekaterina D.
BIKTIMIROVA
Postgraduate Student at the Institute of Economics of Karelian Scientific Centre of RAS
kbiktimirova@rambler.ru

Globalization of the world economy is the main factor of its development in the 21st century. Globalization manifests itself mainly in the expansion of the world space, intensification and deepening of global interdependence, which takes place in all the spheres of life.

Adaptability of economy to modern processes is an important development condition. At that, the differences are significant in the rates of changes, the level of technology, the quality of organization and management of economic development processes in regional and national economies.

The highest development rates have been revealed in the services sphere. The level and dynamics of its development have a crucial impact on economic and social situation in the countries.

The mobility of society, continuing to rise exponentially, affects the sphere of tourism in

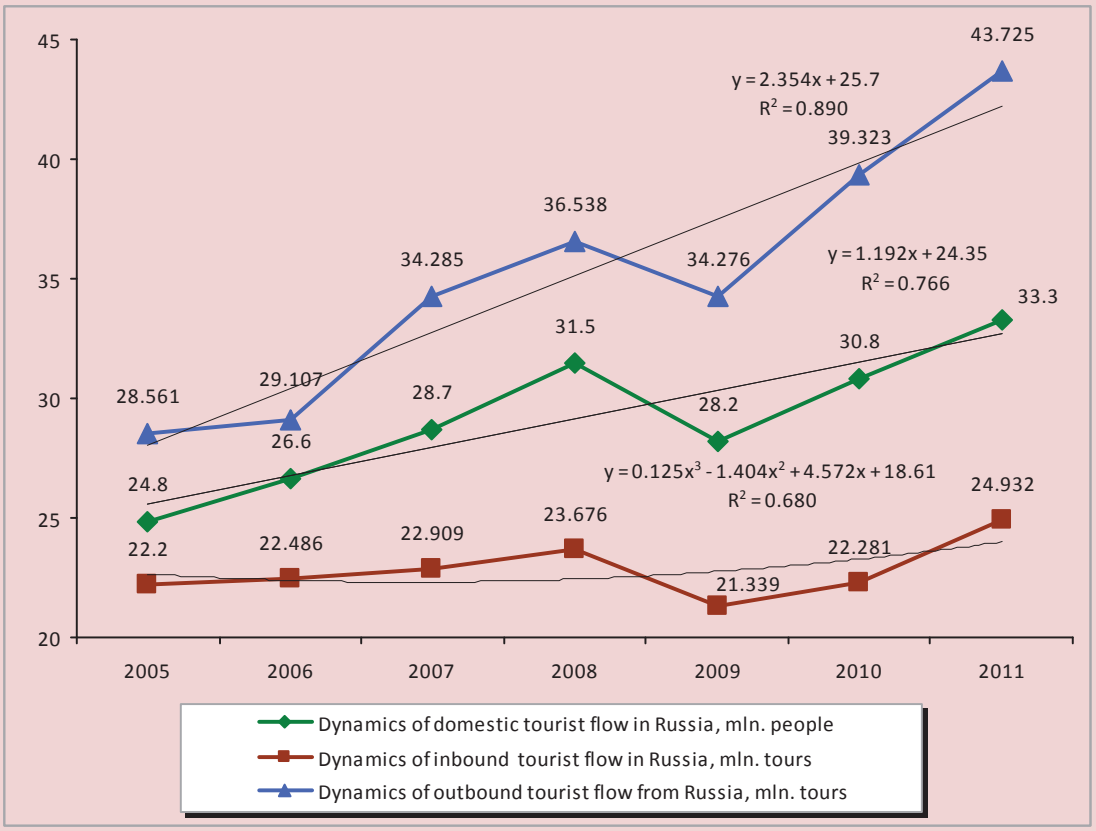
the first place. This is confirmed by the fact that tourism development has been recognized as an economic phenomenon of the 20th century. Moreover, according to forecasts, its development will continue in the 21st century at a more rapid pace.

The tourism industry in Russia as a most important mechanism for the recovery of its economy exerts a stimulating impact on the socio-economic development of society. The RF Government approved the federal target programme 'Development of domestic and inbound tourism in the Russian Federation (the years 2011 – 2018)'. It is an important tool and a legal framework of the state support to the sector.

The outbound tourist flow is characterized by the tendency of increase in the number of tourist trips of Russians, only during the crisis period of 2008 – 2009 there was an insignificant reduction in the demand *(fig. 1)*.

For the 2005 – 2008 period, the number of inbound tourism arrivals has been increasing annually. After that it reduced because of the global financial crisis. The number of foreign tourists amounted to 2.134 million people in 2010, and in 2011 it was 2.336 million people, which is 9% more. In 2011, the biggest number of tourists came from Germany (346627 people). The maximum increase of tourists in 2011 was from China – 48%, 158061 Chinese tourists visited Russia in 2010, while in 2011

Figure 1. Dynamics of domestic, inbound and outbound tourism in Russia



y = 2.354x+25.7, y – dynamics of outbound tourist flow in Russia, mln. tours; x – number of years (after 2005 = 1); R^2 = 0.890 – rate of the validity of approximation; y = 1.192x+24.35, y – dynamics of domestic tourist flow in Russia, mln. people; x – number of years (after 2005 = 1); R^2 = 0.766 – rate of the validity of approximation, y = $0.125x^3 - 1.404x^2 + 4.572x + 18.61$, y – dynamics of inbound tourist flow in Russia, mln. tours; x – number of years (after 2005 = 1); R^2 = 0.680 – rate of the validity of approximation.

their number amounted to 234127 people. Turkey ranks 2nd after China, with the increase of 43%, and Cuba ranks 3rd (42%). The top 10 countries, the citizens of which visited Russia, included Germany, China, the USA, Finland, Great Britain, Italy, Spain, France, Turkey and Israel.

The domestic tourist flow is characterized by low rates. They start to increase in 2010, and by 2011 the greatest indicator has been achieved – 24.932 million trips.

Tourism development is especially accelerated by the following factors: improvement of population's life quality, increase in the amount of spare time, economic and political stability, development of transport and information technologies.

The main development trends in the sphere of tourism are as follows: diversification of the tourist product, search for new tourism destinations, reduction of the average length of tourist trips, selection of alternative accommodation means, use of transport and information support of tourist products (the Internet).

The ongoing changes require new forms of cooperation for participants of tourist market in the regions. Clusterization[1] of space is a modern form of business cooperation.

The prerequisites for understanding the clustering process as a special phenomenon in economy emerged in the 19th century on the basis of A. Marshall's ideas of 'localized industry' as the concentration of specialized sectors in specific areas [6].

In 1990, M. Porter, exploring the development of 10 industrial countries, revealed that the emergence of clusters is a consequence of economic development and an integral part of industrialization.

According to M. Porter, a cluster is a group of interconnected companies, specialized suppliers, service providers, financial institutions, firms in related industries, concentrated according to geographical principle, and organizations associated with their activities [10].

The studies of approaches to the interpretation of the concept *(tab. 1)* defined 7 key elements characteristic of clusters:

1) geographical concentration;
2) wide range of participants and the presence of 'critical mass';
3) specialization;
4) innovation;
5) links and interaction between the participants of clusters;
6) competition and cooperation;
7) life cycle.

One of the first scientists, who attempted to apply the concept of industrial cluster in the sphere of tourism, was M. Monford. The concept of tourist cluster, in his opinion, which we support, includes 7 aspects:

1. Services provided by tourism enterprises or businesses (accommodation enterprises, restaurants, cafes, tourist agencies, aquaparks, theme parks, etc.).
2. Wealth (pleasure), obtained as a result of holidays and recreation.
3. Multi-aspect cooperation of interconnected companies and sectors.
4. Well-developed transport and communications infrastructure.
5. Complementary activities (commercial appropriations, recreation traditions).
6. Support services (information).
7. Natural resources and institutional policy.

This direction was explored in the works of M. Beni, A. Rodriguez, S. Nordin. For the first time in professional literature, the concept of tourism clusters was substantiated by S.I. Sokolenko and, further on, the concept of ecotourism clusters – by D.M. Stechenko and K.A. Andryushchenko.

[1] The term cluster in translation from the English language means a bunch, concentration, a group. In chemistry, a cluster is a group of molecules. In mathematics, a cluster is a group of objects with similar properties.

Table 1. Evolution of approaches to the interpretation of the concept "cluster"

Author, source	Interpretation of the concept "cluster"
Schmitz [13] 1992	Cluster is a group of enterprises belonging to one sector and acting in close cooperation with each other
Rosenfeld [12], 1997	A concentration of enterprises, receiving a synergetic effect due to their geographical proximity and interdependence; a geographically bounded concentration of similar, related or complementary commercial activities with active channels for business transactions, communications and dialogue, which determines the specialized infrastructure, labour markets and services and which is faced with common opportunities and threats
Egan [15], 2000	A cluster is a form of industrial organization, which depends on the networks of highly specialized, interconnected firms of private sector and institutions of public sector, the final products of which enter the markets outside the central region
Steiner and Hartmann [14], 2001	A cluster is a number of related and complementary firms of public, private and quasipublic research institutes and development institutes
OECD [16], 2001	Regional clusters are geographically limited concentrations of interconnected firms and can be used as a keyword for older concepts like industrial areas, specialized industrial agglomerations and local production systems
Yu.A. Arutyunov [1], 2008	A cluster as a set of "4 C's": 1) concentration 2) competition within the cluster in order to attract customers, 3) cooperation, 4) competitiveness
Guidelines for the implementation of cluster policy in the RF subjects [7], 2008	Territorial clusters are the associations of enterprises, suppliers of equipment, component parts, specialized production and maintenance services, scientific-research and educational organizations, that are bound by the relations of territorial proximity and functional interdependence in the sphere of production and selling of goods and services
G.B. Klainer [4], 2009	Clusters as a set of four types of systems: 1) objects, 2) processes, 3) environments, 4) projects
M.Voynarenko [2], 2011	The concept of "5 I's": Integration, Initiative, Interest, Innovations, Information

The role of technology in tourism clusters is performed by the route organization of processes. Tourism flows form the basis of the cluster.

Such cooperation can be created spontaneously or with the help of a coordinating body (the public and state authorities). The purposes of creating a tourism cluster are as follows:

- mutually beneficial cooperation with the maintenance of competition between the subjects of the cluster;
- enhancement of competitiveness of each of the enterprises;
- provision of entrepreneurs with new opportunities to use the authority of the cluster;
- the most efficient promotion of their initiatives through federal structures, including the drafting of laws;
- attraction of investors.

The most important components of a tourism and recreation cluster are:

1. The core of a tourism cluster, which may be represented by cultural and natural heritage sites or other objects of tourism interest (for example, a ski resort).
2. Tourism enterprises (tour operators).
3. Service providers, i.e. the enterprises providing accommodation, feeding, transportation of tourists.
4. Maintenance organizations – communal services; first responders; credit, insurance, legal, consulting companies; educational institutions; companies producing souvenirs, etc.

In Russia, the Government shows an increasing interest to clusters. In 2010 the strategy for innovation development of the Russian Federation for the period up to 2020 was worked out, a substantial part of which is devoted to the clusterization of regions [11].

The formation of a number of regional and local clusters began after the adoption of the Federal Law 'On the special economic zones in the Russian Federation'. A number of projects on the special economic zones of tourism and recreational type were developed: in Krasnodar and Stavropol krais, the Kaliningrad Oblast, the Republic of Buryatia, the Irkutsk Oblast, Altai Krai and the Altai Republic. The development was the most successful in the SEZ of the Altai.

The international practice recognizes the following clusters as successful ones: the coasts of the Mediterranean and the Adriatic seas, the Caribbean region; the United Arab Emirates; ski resorts of the Alps; entertainment industry in Las Vegas and Hollywood.

Russia has only recently started to develop the cluster approach to the organization of tourism. Its successful projects include Yasnaya Polyana (the core of this cluster is the state memorial and natural preserve "Museum-estate of Leo Tolstoy 'Yasnaya Polyana"), the tourism cluster of Krasnodar Krai, the regions of Western Siberia, etc.

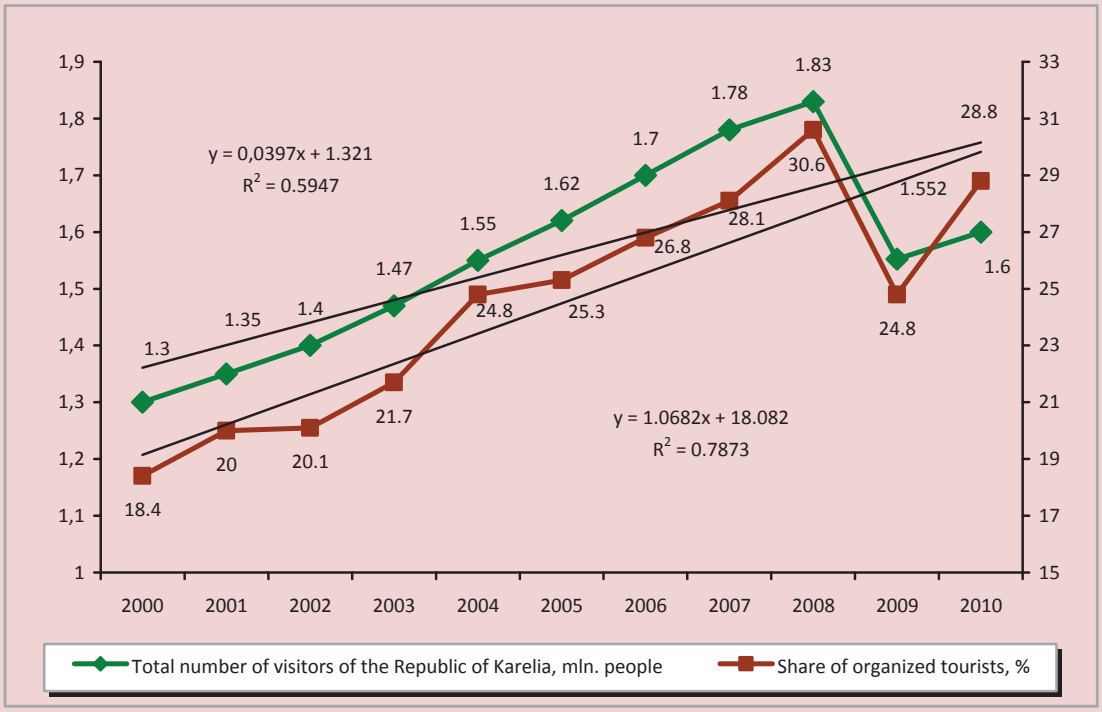
The Republic of Karelia is attractive for tourists due to its natural, cultural and health-improving sites ('Marcial Waters' resort, the open-air museum preserve of wooden architecture 'Kizhi', the Valaam archipelago).

At present, the total flow of tourists in the region is estimated by expert methods. In this case we mean all the tourists who visited the Republic, including individuals, arriving as guests. According to this assessment, the total number of visitors of Karelia has increased almost by a quarter for the last decade *(fig. 2)*.

At the same time, in the crisis period there has been a decline (the number of visitors in 2009 as compared to 2008 has decreased by 10%).

The linear trend makes it possible to carry out an assessment forecast. The dynamics of the number of visitors of the Karelia Republic is characterized by a rising tendency. The quality of approximation is low ($R^2 = 0.5947$), consequently, the long-term forecast is not provided. The largest number of intersections was in 2008 – 1.83 million people.

Figure 2. Dynamics of the total number of visitors, million people, the share of organized tourists in the Republic of Karelia, %

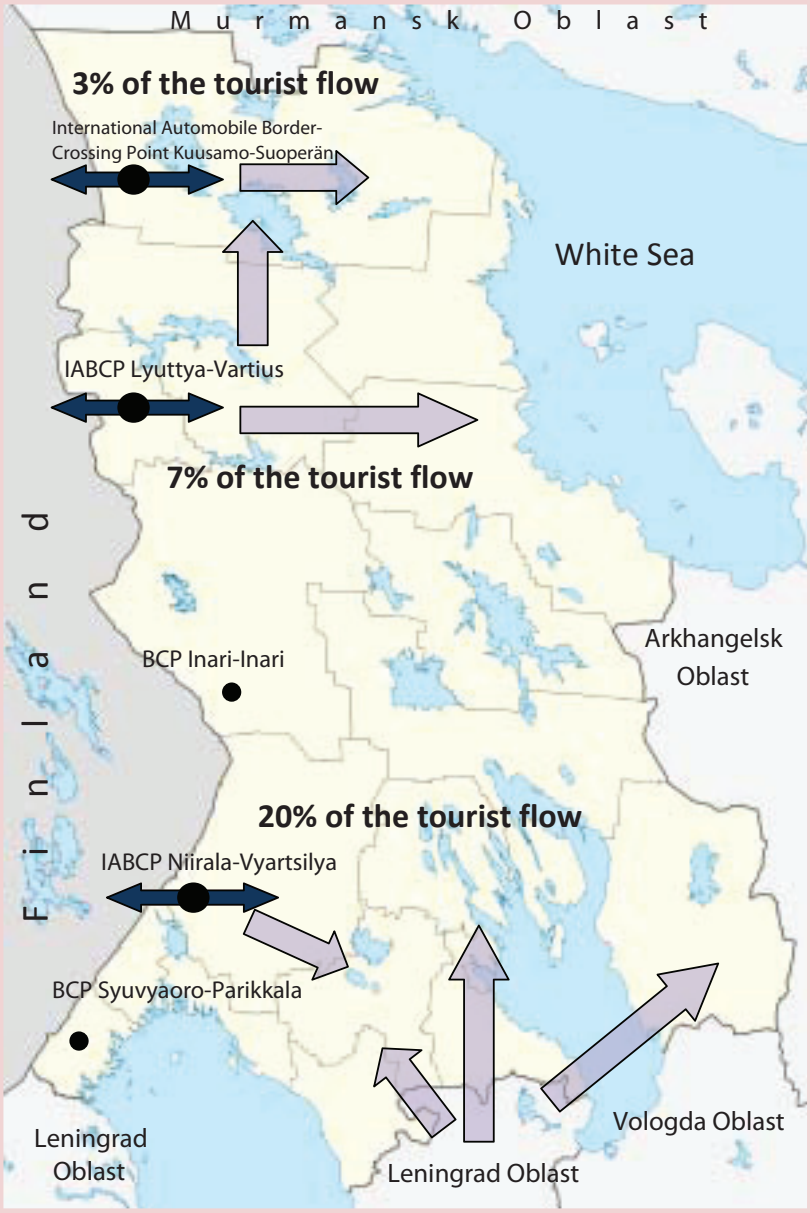


y = 0.0397x+1.321, y – total number of visitors of the Republic of Karelia, mln. people.; x – number of years (after 2000 = 1); R^2 = 0.5947 – rate of the validity of approximation; y = 1.0682x+18.082, y – share of organized tourists, %; x – number of years (after 2000 = 1); R^2= 0.7873 – rate of the validity of approximation.

The share of organized tourists is increasing, excluding the indicator of 2009. According to estimates, there is a possibility to balance the indicators by 2015. It is connected, in the first place, with the development of the infrastructure and integrated policy in the tourism sphere.

At present, tourists arrive in the Republic of Karelia from several directions. The main tourist flow consists of the residents from other Russian regions, first of all, Moscow and Saint Petersburg. They arrive mainly by rail (up to 95% of the total number of organized tourists), motor vehicles (including on their own), by cruise liners. The share of foreign tourists in certain kinds of tourism can reach 30% (cultural and cognitive tourism); some of them come from Moscow and Saint Petersburg, some cross the Russian-Finnish border through the border crossing points, located on the territory of the Republic. A small part of the tourists arrive from the Murmansk Oblast, including transit tourists *(fig. 3)*.

Figure 3. Distribution of the tourist flow in the Republic of Karelia



5 main tourism centres were singled out on the basis of the general plan of tourism infrastructure facilities:

- Spasskaya Guba – Marcial Waters – Kivach.
- Priladozhye (Lakhdenpokhsky District, Sortavala, Valaam).
- Kizhi Necklace (Zaonezhye).
- Obonezhye (Besov Nos (Devil's Nose), Muromsky Monastery, Vodlozersky National Park).
- Karelian Belomorye (Belomorsky and Kemsky districts, Solovki)

The Central area of the tourism zone is a most attractive one in terms of tourism and recreational potential development in the Republic of Karelia.

It is considered to be a promising tourism zone, located within Medvezhiegorsky and Kondopozhsky municipal districts, as well as the territory of Petrozavodsk. (Prionezhsky District; *fig. 4*).

The Patriarch of Moscow and All Russia Kirill and the President of the Republic of Karelia A.V. Nelidov proposed the idea of the megaproject 'Spiritual Transformation of the Russian North'. It is based on 3 main historical spiritual centres (Solovki, Valaam, Kizhi). The project's mission is to preserve and summon up the potential of spiritual and cultural heritage of the Russian North for the development of human capital as the basis of modernization and sustainable innovation development of the North-West of Russia *(fig. 5)* [5].

Figure 4. Map of the Central area

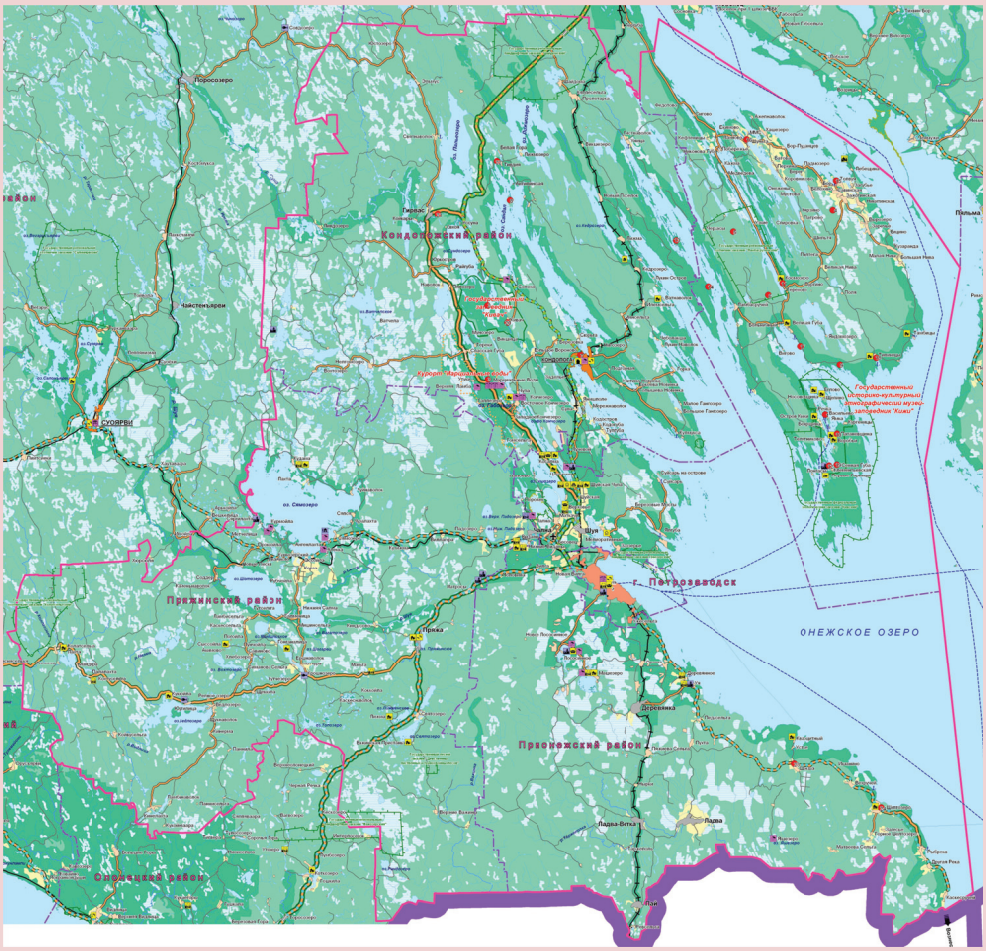
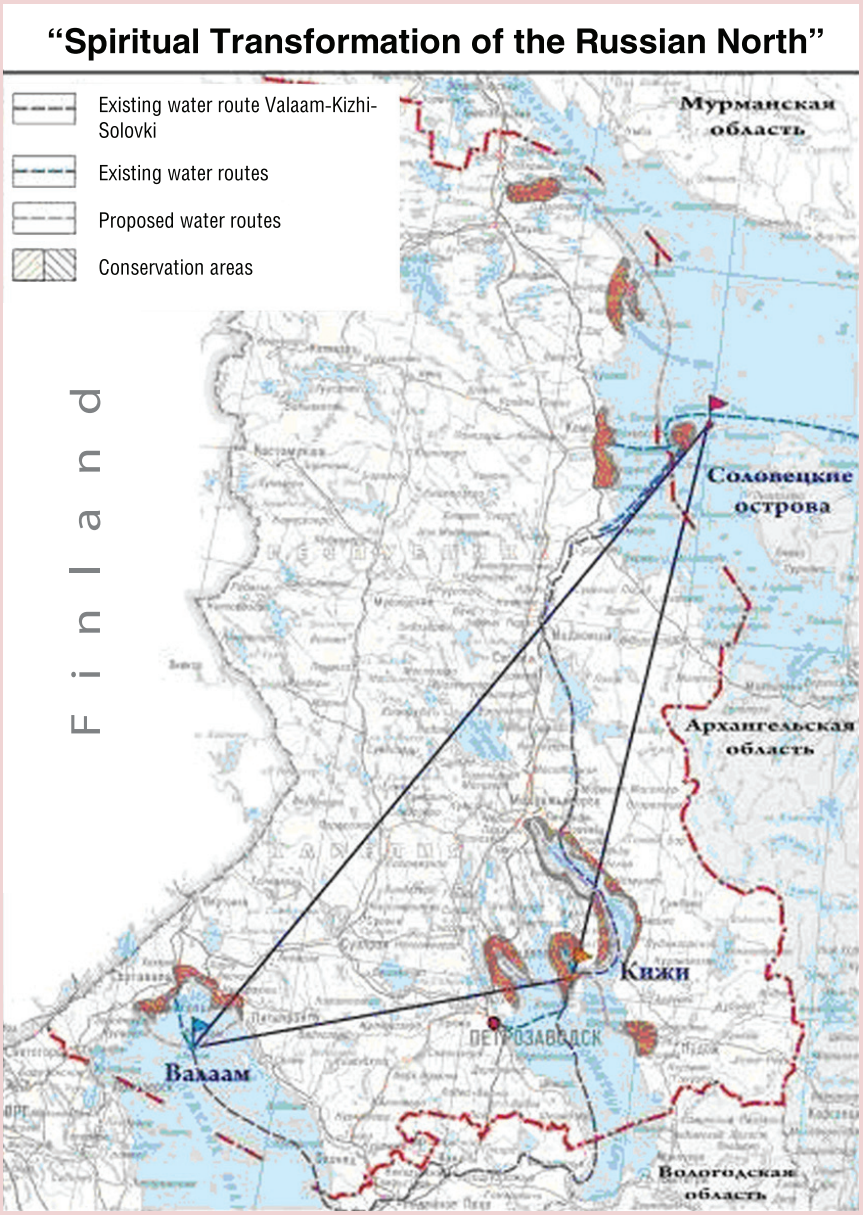


Figure 5. Map of the project 'Spiritual Transformation of the Russian North'

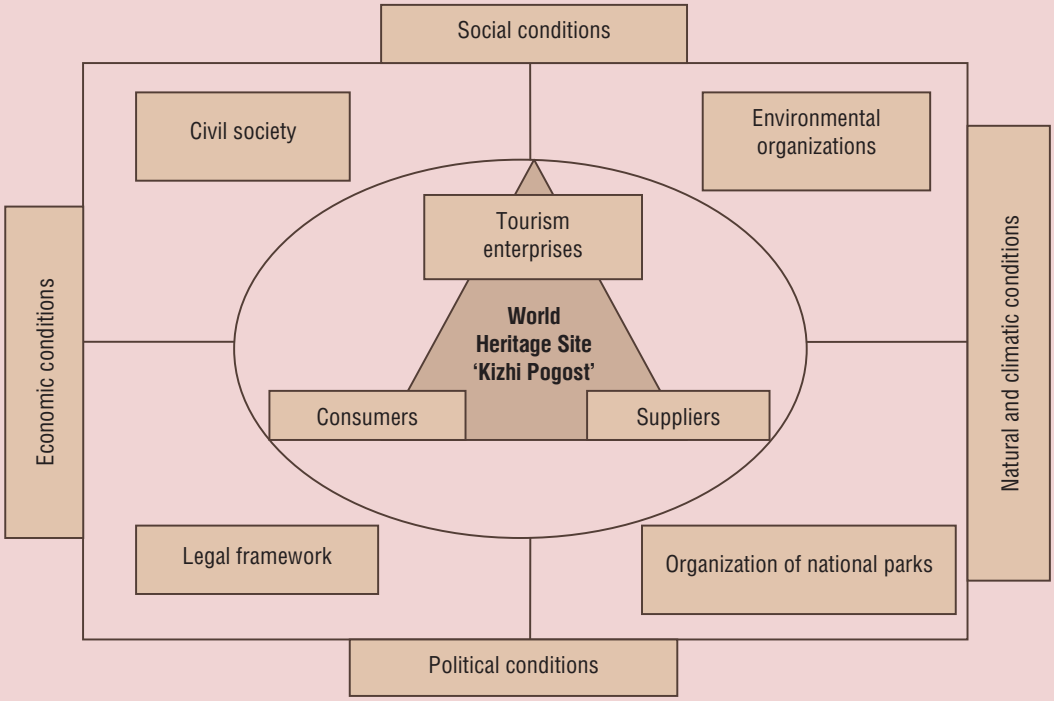


This fact proves the necessity of studying the opportunities for creating local tourism clusters in the Republic of Karelia.

The territory of Zaonezhye is suitable for creating a local cluster, the core of which consists of the world heritage site (WHS) 'Kizhi Pogost' and the relations established between the participants of tourism business.

In order to reflect these relations, a tourism cluster scheme has been developed. Its essential elements are defined through the identification of tourism resources *(fig.6)*. The unique character of tourist resources, the local traditions and recreation culture influence the choice of specific features of the tourism cluster, the process of its formation and determination of the main tourist products.

Figure 6. Model of the tourism and recreation cluster 'Zaonezhye'



The main components of the tourism and recreation cluster 'Zaonezhye' model are as follows.

1. World heritage site, the Kizhi Pogost ensemble, includes the unique monuments of wooden architecture: two churches and a bell-tower. These buildings, being of different height and shape, nevertheless constitute a single and a very picturesque ensemble, which fits perfectly into the austere landscape.

2. Tourism companies are divided into those belonging to small and large businesses, and the local and Russian ones. The local companies include LLC Tourism Company Russkiy Sever, LLC Tourism Company Kizhi Necklace, CJSC Intourist-Petrozavodsk, LLC Lukomorye, LLC Toutist Bureau KORELA; the Russian companies include Tourism Company Arina, LLC LADA, LLC Istoki-S, LLC Radonezh Pilgrimage Service, LLC GAMA, LLC Tourism Company MIR and others.

3. Services are provided by hotel enterprises (in the town of Medvezhyegorsk: hotel Onezhskaya, country club Malaya Medvezhka, mini-hotel Beliye Nochi; in Medvezhiegorsk District: country eco hotel Bolshaya Medveditsa in the rural settlement of Voyguba, guest house Zaonezhye in the rural settlement of Velikaya Guba, recreation facility Zaonego.Ru in the rural settlement of Shunga, etc.); transportation companies (LLC Vodokhod-Saint-Petersburg, LLC www.povolnam.ru; LLC Karelia Flot; LLC Russkiy Sever; airport Peski); souvenir manufacturers (Sole Proprietor Grischuk – retail sale of souvenirs and craftwork); public catering, etc.).

4. Consumers: the residents of the Republic of Karelia and other regions of the Russian Federation, foreign citizens.

5. Environmental organizations: the Ministry of Natural Resources and Ecology of the Republic of Karelia; the Federal State Institution White Sea and Lake Onega Waterways and Shipping Administration (FSI Belomorkanal); Karelian Regional Public Environmental Organization SPOK, etc.

6. Legal framework: legislation of the world heritage sites, rural settlements, municipal districts, federal legislation.

7. Civil society: the regional branch of public organization the Union of Architects of Russia; the World Heritage Conservation Fund; the Club of friends of the Museum-preserve 'Kizhi'; Karelian regional public organization of Russian culture 'Russian North'; the Guild of master craftsmen of decorative and applied arts of the Republic of Karelia; the ethno-cultural centre 'Tuomi'; the Vepsian Culture Society; the club 'Regional Ethnographer'; the fund 'Russian World' (Finland); Karelian regional public organization 'Young Karelia'; Karelian regional public organization 'Zaonezhye'.

8. Organization of national parks – the Federal State Budgetary Institution National Park 'Vodlozersky'.

The research revealed the characteristics necessary for assessing the tourism cluster 'Zaonezhye' *(tab. 2)*.

The study confirmed the possibility of creating the tourism and recreation cluster 'Zaonezhye'. It also identified the barriers preventing its establishment [8].

1. The lack of centralized infrastructure facilities to provide services for the tourists.

The road from the town of Medvezhyegorsk to the rural settlement of Velikaya Guba is in a satisfactory condition. The road from Velikaya Guba to the village of Oyatevshchina is currently under construction, it will promote the development of transport links with the island of Kizhi. The present condition of the roadbed limits the tourist flow and hampers the entrepreneurs' initiatives concerning the construction of tourism objects.

2. The lack of information support along the roads, as well as the marking of natural and cultural heritage sites (information stands).

Tourist attractions are owned by municipal authorities. The efforts and funds of local authorities alone are not enough to mark all the objects and provide them with security systems. This led to the fact that some of them disappear because of vandalism or natural phenomena.

3. The absence of interactive programmes.

4. The territorial plans do not contain measures on the development of tourism on the territory of Zaonezhye (including investment projects).

5. The image of the world heritage sites is not used to the fullest.

The development of the tourist route should include visiting the mainland sites and the world heritage sites of Zaonezhye and water excursions.

It has been recognized that all the identified barriers are possible to overcome. For this purpose, the following measures have been worked out:

1. Adjustment of territorial planning documents on the basis of an integrated approach to the development of the territory. The development of territorial planning documents should begin with the level of the object: object management plans, object marketing plans, business-plans, which are included in municipal plans, and these, in turn, are included in the regional programmes on the development of territories.

2. Appointment of executors and persons responsible for the creation of the cluster. It is the local authorities that should take the initiative in this matter. Successful functioning of tourism clusters will depend on the efficiency of actions on the part of state authorities. The experience of delegation of coordinating functions to specially created organizations (public organizations on the basis of public-private partnership) and marketing centres can be also used.

3. Carrying out an inventory of tourist resources. Making up a tourist map of the cluster.

4. Creation of a package of investment proposals for the development of Zaonezhye.

Table 2. Assessment characteristics of the tourism cluster 'Zaonezhye'

Characteristics	Details
Cluster borders	The Zaonezhsky peninsula in the northern part of Lake Onega, Medvezhyegorsky District of the Republic of Karelia
Tourist resources	• 126 architectural monuments,including the ensemble of the island of Kizhi, residential houses, churches, chapels in the rural settlement of Kosmozero, the villages of Tambitsy, Yandomozero, Ust-Yandoma, Vegoruksa • 71 archeological monuments (including petroglyphs, the neolythic settlement of Pegrem) • 46 settlements having the status of 'historical' • Springs believed to possess healing qualities: 'Three Ivans', 'Solyanaya Yama', 'Yeseninsky', 'Tsaritsyn stream' • Paleostrovsky monastery
Tourism types	• Cultural and educational • Ecological • Pilgrimage • Recreational • Sport (active)
Tourist products of the cluster	• Tourist route 'Silver ring of Zaonezhye' • Tourist route 'Ancient history of Zaonezhye' • Tourist route 'Kizhi necklace' • Tourist route 'Geological chronicle of Zaonezhye' • Excursion to the island of Kizhi • Health promotion tour 'Healing springs of Zaonezhye' • Fishing and hunting tours • Jeep safari • Network of stationary tourist products 'Rural life of Zaonezhye' • Other city breaks
Tourism infrastructure	Guest homes, catering enterprises
Tourists' expenses	Payment for entrance tickets, tourists buses; fuel (when travelling on one's own), meals, rent, transport, guides
Transport	Bus service, private car, water transport
Accommodation	Guest homes
Meals	Arranged in catering enterprises, on one's own
Supporting spheres	• Communal services, first responders • Credit, insurance companies • Legal, consulting, audit companies • Production of souvenirs • Educational establishments
Environmental conditions	Relatively mild winter; short, cool summer. Pronounced seasonality
Education, science	Museum and educational activity of the museum-preserve Kizhi; scientific and educational establishments of Petrozavodsk (Karelian Scientific Centre of RAS, Petrozavodsk State University, Karelian Institute of Tourism, etc.)
Local authorities	Velikogubskoye rural settlement Medvezhyegorsky Municipal District
Associations	Karelian regional public organization 'Zaonezhye' Karelian regional public organization of Russian culture 'Russian North'

5. Identification of funding sources, including on the basis of public-private partnership.

6. Creation of preferences for the development of small entrepreneurship on the territory of the cluster.

7. Creation of an association of guest homes' owners. This association will provide entrepreneurs with new opportunities for the systematization of emerging problems, the choice of the ways to overcome them. Using the influence and authority of the cluster, they can seek ways for the most effective promotion of their initiatives together.

8. Comprehensive information and advertising support of the territory. It is necessary

to include the event tourism activities of Zaonezhye into the implemented tourist products and also into the annual action plan of the Republic of Karelia.

Scientifically grounded formation of the cluster on the territory of Zaonezhye, subject to successful management, will result in the following:

– replenish the regional budget at the expense of increasing tax revenues;

– enhance the competitiveness of the territory on the tourism market;

– create prerequisites for the development of innovations;

– influence the formation of the positive image of the territory;

– enhance the work of the private sector in the organization of employment of local population;

– preserve the cultural and historical monuments of Zaonezhye under the conditions of the territory's infrastructure development.

Creation of the tourism cluster in Zaonezhye as a point of growth of tourism sphere in the Republic of Karelia will establish conditions for the formation of new businesses and will provide an opportunity for increasing the competitiveness of the economic entities and territory of Zaonezhye.

References

1. Arutyunov Yu. A. Formation of the regional innovation system on the basis of cluster model of the region's economy. Corporate management and innovation development of the economy in the North: Bulletin of the research centre of corporate law, management and venture investment of the Syktyvkar State University, 2008. Vol. 4.
2. Voynarenko M.P. Cluster in institutional economics: monograph. Khmelnitskiy: Khmelnitsky National University, 'Triada-M', 2011.
3. The general plan of tourism infrastructure facilities in the development of the Scheme of territorial planning of the Republic of Karelia. Saint Petersburg, 2007.
4. Klainer G.B. The first cluster. Tourism: practice, problems, prospects. 2009. No. 10. P. 17 – 19.
5. OJSC Corporation of Development of the Republic of Karelia. The Republic of Karelia, 2011.
6. Marshall A. The foundations of economics: in 3 vol. Moscow, 1993. Vol. 1.
7. Methodological recommendations on the implementation of cluster policy in the Northern regions of the Russian Federation. Available at: http://www.tpprf.ru.
8. Report on the implementation of the research on the 'Development of the Management Plan for the World Heritage Site 'Kizhi Pogost (Russia S 544)' from 2012 to 2022' (contract No. 34/11 dated June 30, 2011).
9. Shishkin A.A., Shishkin A.I. Organization, planning and management of construction production: education guidance. Petrozavodsk: Publishing house of Petrozavodsk State University, 2007.
10. Porter M. Competition. Moscow, 2005.
11. Strategy of innovation development of the Russian Federation for the period up to 2020. Available at: www.rg.ru/pril/63/14/41/ 2227_strategiia.doc
12. Rosenfeld S.A Bringing business clusters into the mainstream of economic development. European planning studies. 1997. No 5. P. 3-23.
13. Schmitz H. On the clustering of small firms. In: Flexible specialization: a new view on small industry. IDS Bulletin. No. 23(3). P. 64-69.
14. Steiner M., Hartmann C. Looking for the Invisible: material and immaterial dimensions of clusters. Paper presented at the Regional Studies Association Annual Conference on 'Regionalising the Knowledge Economy', November 21, London, 2001.
15. Toronto competes: an assessment of Toronto's global competitiveness. City of Toronto. Economic Development Office, 2000.
16. World Congress on local clusters: local networks of enterprises in the world economy. OECD: Paris, 23 – 24 January 2001.

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Health care modernization assessed by population and health workers

At present, the reduction in the quantity and quality of human resources poses a serious threat to society. In order to improve the quality and availability of health services and promote public health, the Healthcare Modernization Programme is being implemented. The paper highlights the main problems of the healthcare system and contains the assessments of the modernization programme by the Vologda Oblast population and healthcare workers.

Public health, healthcare modernization, satisfaction with health services, assessment of conducted reforms.

Aleksandra A.
SHABUNOVA
Doctor of Economics, Deputy Director, Head of ISEDT RAS Department
aas@vscc.ac.ru

Vladimir N.
ASTASHOV
Ph.D. in Philosophy, Dean of the Department of Humanities at the Vologda State Technical University
astashov-vn@rambler.ru

Nataliya A.
KONDAKOVA
ISEDT RAS Junior Scientific Associate
natali-kopeikina@mail.ru

Svetlana M.
SHKAREVSKAYA
Graduate student at the Vologda State Pedagogical University
siniayaZvezda@yandex.ru

The studies on the implementation of targeted health care programmes at the regional and federal levels are relevant due to the existence of consistent negative trends in demographic development of Russia's territories and the necessity to enhance the efficiency of spending the funds allocated to health sector.

The analysis of changes in public health and demographic trends helps to understand the necessity of reforms aimed at preserving the population size and its qualitative characteristics, primarily, its health.

The population of the Vologda Oblast has decreased by 11% for the last two decades (amounting to nearly 1.2 million people in 2011), that exceeds the rate of decline in Russia as a whole (3.3%). Having similar trends in **fertility** rates (which do not provide even the substitution of parental cohorts by new generations)[1], the natural decline of the Vologda Oblast population 3 times exceeds the national average due to higher mortality rates *(tab. 1)*.

Among mortality factors, 59% account for cardiovascular diseases, 14% – for neoplasms, 11% – for accidents, injuries and poisoning [1].

Analysis of sex and age ratios revealed the following patterns. Russia is characterized by high infant mortality. Although, recently, there have been some positive changes in the dynamics of **infant mortality** (reduction from 17.4 cases per 1000 live births in 1995 to 7 cases in 2011)[2] , the situation cannot be considered satisfactory, since the level of infant mortality is 1.5 times higher than in the developed countries of Europe[3] *(fig. 1)*.

High mortality of able-bodied population is another problem of the current demographic situation in Russia. According to the World Health Organization, in 2009 this indicator amounted to 269 people per 1000 population in Russia, while in Switzerland and Italy – 58 and 59 people, respectively, in Norway and Sweden – 61 and 67 people, in Germany, Austria, and Greece – 76 people, in France – 85 people [9].

At the same time, the state of health is deteriorating due to the increase in combined morbidity and the spread of chronic diseases. Thus, for the 1995–2011 period, the level of primary morbidity in the Vologda Oblast

Table 1. Natural population movement in the Vologda Oblast and the Russian Federation

Year	Population, thousand people		Crude birth rate, ‰		Crude death rate, ‰		Rate of natural decrease (increase), ‰	
	Russian Federation	Vologda Oblast	Russian Federation	Vologda Oblast	Russian Federation	Vologda Oblast	Russian Federation	Vologda Oblast
1995	148 514.7	1 349.7	9.3	8.7	15.0	16.4	-5.7	-7.7
2000	148 459.9	1 299.6	8.7	8.8	15.3	16.0	-6.6	-7.2
2005	143 474.2	1 245.5	10.2	10.5	16.1	18.8	-5.9	-8.3
2010	141 914.5	1 213.7	12.5	12.5	14.2	16.8	-1.7	-4.3
2011	142 865.4	1 201.2	12.6	13.0	13.5	15.7	-0.9	-2.7

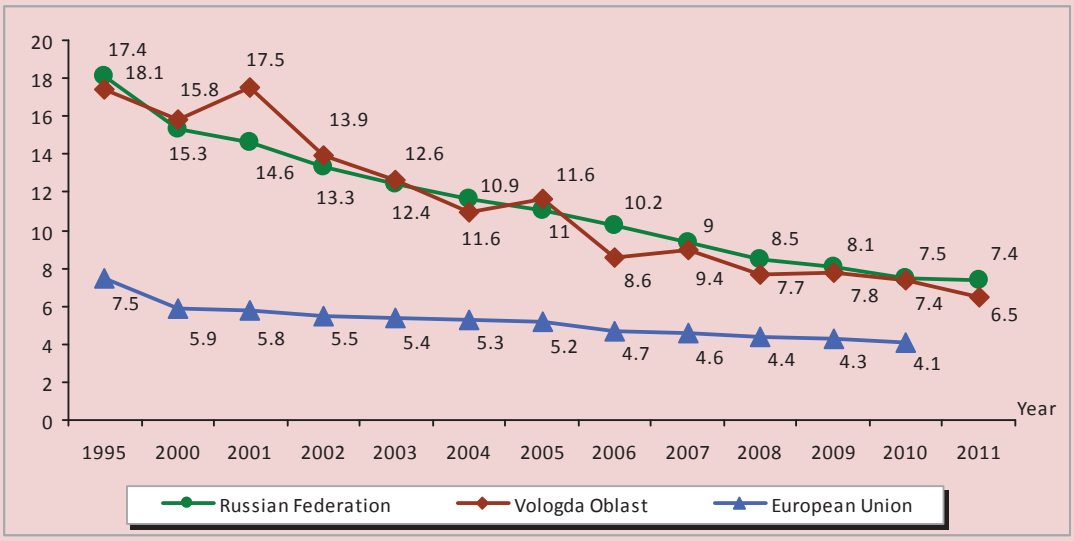
Sources: Federal State Statistics Service. Available at: http://www.gks.ru/ dbscripts/Cbsd/DBInet.cgi?pl=2415019; Demographic yearbook of the Vologda Oblast: statistical abstract. Vologda: Vologdastat, 2012; Russia in figures. 2012: statistical abstract. Moscow: Rosstat, 2012.

[1] The simple replacement of generations requires approximately 2.1 – 2.15 births per woman of childbearing age. In fact, in 2009, the total fertility rate in the Vologda Oblast and Russia was 1.5 (source: Dobrokhleb V.G. Dynamics and structure of Russia's population in the future. Economic and social changes: facts, trends, forecast. 2010. No. 4. P. 62-70).

[2] This indicator corresponds to the critical threshold value, set by the WHO Regional Office for Europe, namely, 10 cases per 1000 live births.

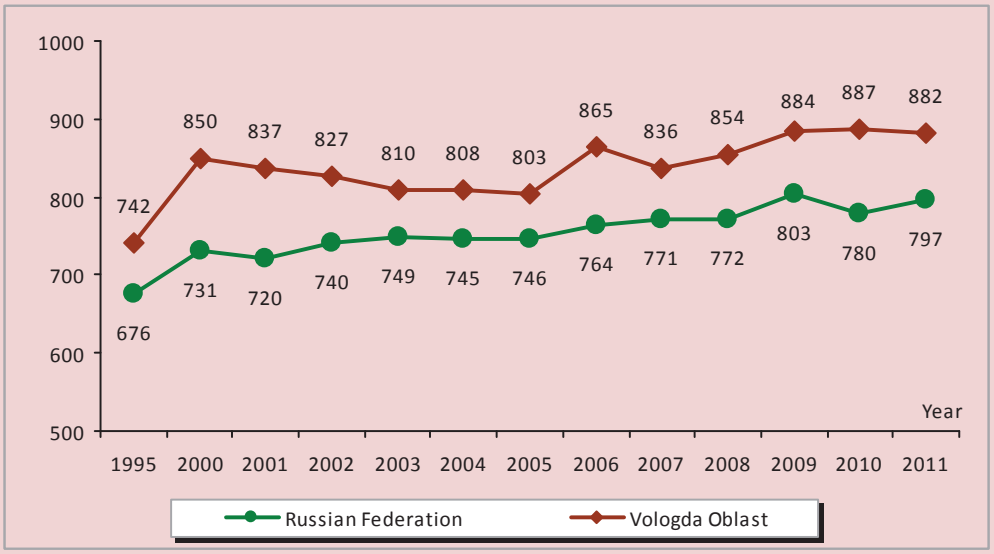
[3] In 2010, the minimum values of infant mortality were noted in Cyprus – 2.24 (per 1000 live births), in Finland – 2.26, Sweden – 2.54, Czech Republic – 2.67, Luxembourg – 2.72; the maximum values – in Lithuania (4.29), Poland (4.98), Latvia (5.72).

Figure 1. Infant mortality (per 1000 live births)



Sources: Demographic yearbook of Russia. 2001, 2009. Statistical abstract.Moscow: Rosstat, 2002, 2010, 2011.; European health for all database. World Health Organization. Available at: http://data.euro.who.int/hfadb/

Figure 2. Dynamics of primary morbidity in the Vologda Oblast and the Russian Federation (number of people whose illness was diagnosed for the first time; per 1000 population)



Source: Health care in Russia. 2009: statistical abstract.Moscow: Rosstat, 2010.; Morbidity rate of Russia's population in 2011. Part 1. Statistical abstract. Moscow: Roszdrav, 2012.

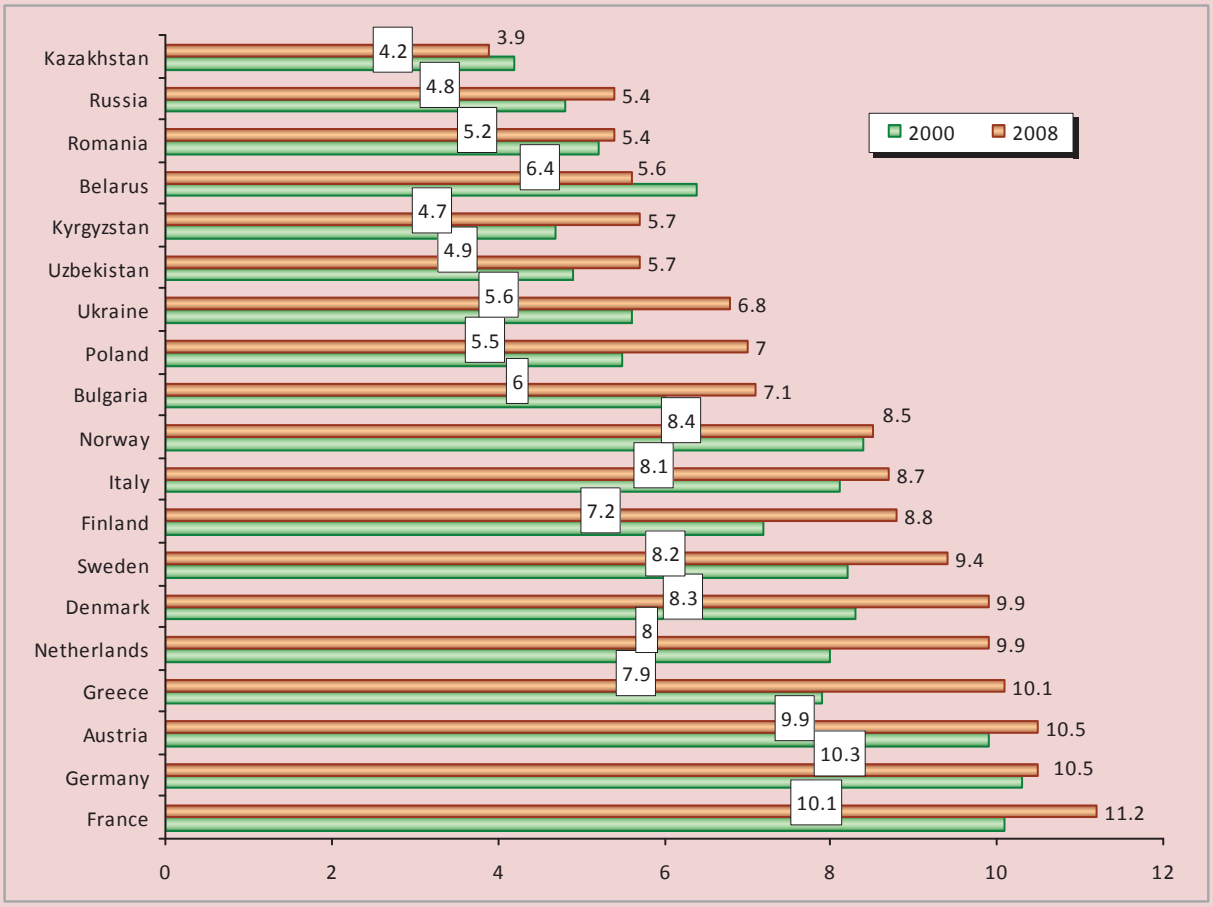
increased by 19% and amounted to 882 incidents per 1000 people. At the same time, there has been an excess of primary morbidity in relation to the national average (797 incidents; *fig. 2*). The constant growth of population's morbidity, can be explained, on the one hand, by a more efficient detectability of diseases, on the other hand – by the deterioration of population's health and the inefficiency of diseases prevention and treatment measures.

This situation poses an actual threat to the formation of high-quality labor resources in the short and long term, and makes high demands to the health care system as an institute of health promotion. Meanwhile, one should take into account the scarcity of financial resources allocated to the social sphere in the Russian Federation, including the health care system.

Russia lags behind the Western European countries rather significantly by the level of **health care financing**. Even in the period of the 2008 crisis, total expenditures on health in the Russian Federation amounted to 5.4% of GDP, while in the European countries this figure was 8 – 11% *(fig. 3)*. Public expenditures on the sphere are also substantially lower: for example, their share in Russia's GDP amounted to 3.7% in 2010. The shortage of health care funding is characteristic for the majority of Russia's regions.

According to the WHO guidelines, the rate of public spending on health care should be not less than 5% of the country's GDP. Despite the fact, that the general expenses for Russia's health care formally meet the established standard, the expert opinions on their estimations differ. Some believe that the allocated funds are not enough, because a significant part of the total expenses are formed by the expenses of the population, rather than the state; others emphasize that received public funds should be used more efficiently [2].

Figure 3. Total expenses on health care in different countries in 2000 and 2008, in % of GDP



Source: World health statistics. Geneva: WHO, 2011.

Limited financing caused a number of acute problems that have a direct impact on health care efficiency, as well as on the availability and quality of services provided to the population.

1. Shortage of qualified medical staff. In the Vologda Oblast for the 2000 – 2011 period, the provision of population with doctors of all specialties has increased by 2%, and the provision of population with paramedical personnel has decreased by 5%. However, the number of doctors in the region is considerably lower than in Russia as a whole *(tab. 2)*.

According to the Vologda Oblast Department of Health, at the beginning of 2012, health care institutions were staffed with doctors by 87.5%, with paramedical personnel by 93.2%. The absence of higher medical educational institutions in the Oblast is one of the reasons for the shortage of doctors. Therefore, to solve the human resources problem, the Oblast Department of Health cooperates with medical academies and universities of Yaroslavl, Saint Petersburg, Arkhangelsk, Ivanovo, Kirov and Tver. In addition, a draft project of the departmental target programme 'Personnel of the Vologda Oblast health care system for 2013 – 2015' has been developed.

2. Low level of remuneration in the health sector. Despite its significant growth, its level is 30% lower than for the economy as a whole *(tab. 3)*.

3. Significant depreciation of high-tech medical equipment and a shortage of premises for primary health care facilities. This problem is especially acute in the cities of Vologda and Cherepovets. So, in Vologda, adults and children's polyclinics occupy one and the same building (budgetary healthcare institution Vologda municipal polyclinic No. 3, budgetary healthcare institution Vologda municipal polyclinic No. 4), which hampers the provision of services to the ever growing population.

Table 2. Provision of population with doctors and paramedical personnel, people per 10000 population

Territory	Year						Rank in RF in 2011
	2000	2005	2008	2009	2010	2011	
Provision of population with doctors of all specialties, people per 10000 population							
Russian Federation	46.8	48.8	49.6	50.1	50.1	51.2	
Vologda Oblast	34.1	35.3	36.1	35.5	34.6	34.8	76
Provision of population with paramedical personnel, people per 10000 population							
Russian Federation	107.6	107.7	105.9	106.2	105.6	107.0	
Vologda Oblast	120.2	119.7	119.2	116.5	115.9	114.4	40

Sources: Demographic yearbook of the Vologda Oblast: statistical abstract. Vologda: Vologdastat, 2012; Russia in figures. 2012: stat. coll. Moscow: Rosstat, 2012; Socio-economic indicators of the Russian Federation in 1991 – 2011 (supplement to the statistical digest 'Statistical yearbook of Russia. 2012') Available at: http://www.gks.ru/wps/wcm/connect/ rosstat_main/rosstat/ru/statistics/publications/catalog/doc_1270707126016

Table 3.The average monthly nominal accrued wages of employees in the system of health care and social services

Territory	Year							
	2000	2005	2006	2007	2008	2009	2010	2011
Average monthly nominal accrued wages of employees in the system of health care and social services, rubles								
Russian Federation	1333.3	5905.6	8060	10037	13049	14820	15724	17545
Vologda Oblast	1842	6408	7612	9519	12627	12181	12934	14411
Ratio of nominal accrued wages in the health care system to that of the economy as a whole, %								
Russian Federation	60.0	69.0	75.8	73.8	75.5	79.5	75.0	75.1
Vologda Oblast	71.9	72.6	71.4	73.7	78.4	73.5	69.8	71.2

Sources: Federal State Statistics Service. Available at: http://www.gks.ru; Labour and employment in Russia. 2011: statistical abstract. Rosstat, 2012; Labour and employment in the Vologda Oblast: 2007 – 2011: statistical abstract.. Vologdastat, 2012.

In order to solve the existing health problems and improve the demographic situation, the Vologda Oblast Health Care Modernization Programme in 2011 – 2012 has been developed (hereinafter – the Modernization Programme) under the Federal Law 'On compulsory medical insurance in the Russian Federation' No. 326-FZ dated November 29, 2010 (Chapter 11, Article 50).

The Programme was aimed at improving the quality and availability of medical aid provided to the Vologda Oblast population. The Programme contains three main objectives: 1) upgrading and modernization of state and municipal health care facilities and infrastructure; 2) introduction of modern information systems; 3) introduction of the standards of medical care, enhancement of the availability of outpatient medical care, including that provided by medical specialists *(tab. 4)*.

The total volume of funding allocated to the Modernization Programme for 2011 – 2012 amounted to 5 billion rubles, including from the federal budget – 2.6 billion rubles (52%). The Vologda Oblast received an additional sum of 678.7 million rubles from the federal budget in 2011 for the successful implementation of the Programme *(tab. 5)*. The Modernization Programme was funded mainly by the Federal Compulsory Medical Insurance Fund (FCMIF): the expenses amounted to 84% of the total volume of expenses, and the budget funds accounted for only 12%.

Table 4. Objectives and a list of activities planned in the framework of the Vologda Oblast Health Care Modernization Programme for 2011 – 2012

No.	Objectives	Activities in the framework of the objectives
1.	Upgrading and modernization of state and municipal health care facilities and infrastructure	- reform of health infrastructure, bringing it in accordance with the oblast population structure, with the oblast structure of morbidity and mortality, reforms of the network and structure of health care institutions in accordance with the number of health institutions of the oblast in accordance with the adopted classification, including medical organizations of other forms of ownership and departmental identity; - provision of duty-dispatcher services with computers and provision of ambulances with equipment on the basis of GLONASS or GLONASS/GPS technology; - carrying out extensive and current repair; completion of the ongoing construction of the objects.
2.	introduction of modern information systems in health care	- patient-specific record-keeping of medical services, introduction of electronic medical cards; - booking an appointment with the doctor online; - exchange of telemedical data, introduction of electronic document flow; - introduction of the unified register of health care workers; - introduction of electronic passports of medical institutions; - introduction of passports of the Vologda Oblast health care system.
3.	Introduction of the standards of medical care, enhancement of the availability of outpatient medical care, including that provided by medical specialists	- gradual transition to the provision of health care services in accordance with the medical care standards, established by the Ministry of Health and Social Development of Russia; - gradual transition by 2013 to the inclusion of expenses on communication, transport, communal and maintenance services, etc. into the tariffs on medical services paid at the expense of compulsory medical insurance; - prophylactic medical examination of 14-year-old adolescnets; - staffing of organizations with medical specialists and paramedical personnel, providing outpatient medical care; - provision of outpatient medical care, including by medical specialists, in accordance with the standards, including provision with medicine and expendables necessary for carrying out diagnostics and treatment; - introduction of the result-oriented system of labour remuneration of medical specialists and paramedical personnel, providing outpatient medical care.

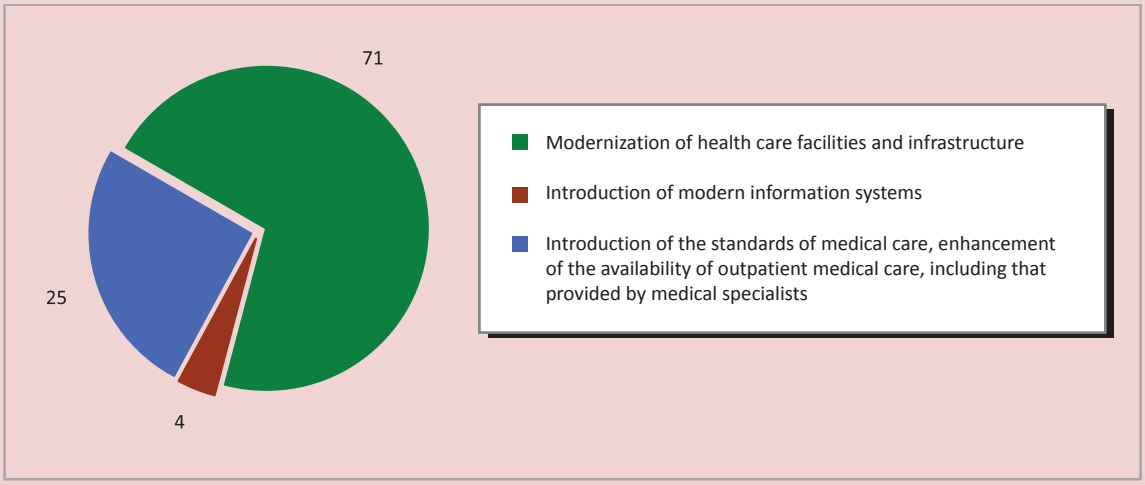
Source: 'On the Vologda Oblast Health Care Modernization Programme in 2011 – 2012': Decree of the Vologda Oblast Government No. 183 dated March 03, 2011.

Table 5. Financial support of the Vologda Oblast Health Care Modernization Programme in 2011 – 2012, million rubles

Section of the Programme	Total amount of funding including additional funding	Including the funds of		
		Federal CMIF	budget	Territorial CMIF
Upgrading and modernization of health care facilities and infrastructure	3520.7	2953.9	566.8	0
Informatization	189.6	174.7	14.9	0
Standardization and availability of medical services	1264.2	1044.8	6.5	212.9
Total	4794.5	4173.4	588.2	212.9

Source: Public report on the performance results of the Vologda Oblast Department of Health for 2012. Vologda, 2013.

Figure 4. Expenses on the implementation of the Vologda Oblast Health Care Modernization Programme in 2011 – 2012 by its sections (in % of the total expenses)



Source: Public report on the performance results of the Vologda Oblast Department of Health for 2012. Vologda, 2013.

In the framework of the Health Care Modernization Programme, most part of the funds was spent on the upgrading and modernization of health care facilities (71% of total expenditures), 25% was spent on the standardization and availability of medical services, 4% – on informatization *(fig. 4)*.

Population's estimates of the availability and quality of medical services can help to reveal the changes in the health care system. According to sociological studies, about 70% of the Vologda Oblast population request medical assistance annually, including over 20% - once in three months and more frequently. In 2012, 42% of the Oblast residents were fully and mostly satisfied with the availability of medical care, 35% were partially satisfied, 23% were not satisfied with it[4]. In general, this corresponds to the level of 2008.

[4] ISEDT RAS carries out the annual survey, beginning from 1999 in April – May in Vologda, Cherepovets and eight districts of the Vologda Oblast. The sample size is 1500 respondents. Representativeness of the purposeful and quota sample is provided by the following conditions: the proportion of the urban and rural population, the proportion of the residents of various types of settlements (rural settlements, small and medium-sized towns), the proportion of the age and gender structure of the oblast adult population. The sampling error does not exceed 3%. SPSS and Excel were used for the data processing.

Table 6. Negative aspects in the activities of the Vologda Oblast health care institutions (% of the number of citizens, who requested medical assistance in health care facilities and chose the answer option: 'partially satisfactory', 'mainly unsatisfactory', 'completely unsatisfactory')

Negative aspect	2002 – 2006	2008	2010	2012
Inability to get an appointment with a doctor at a convenient time, big queues	58.1	56.7	59.4	49.7
Absence of necessary specialists	-	24.9	34.8	34.3
Careless treatment on the part of medical personnel	-	18.0	24.2	23.5
Rudeness of medical personnel and disrespectful treatment of patients	15.2	11.5	12.5	18.3
Lack of information on the work of specialists	21.0	14.7	23.5	18.2
Necessity to pay for the medical services that are to be provided free of charge	16.9	9.9	14.5	17.2

According to the analysis of the time series, the reforms carried out in the health care sphere had a positive impact on the organization of work in health care institutions. However, almost half of the Oblast population point out such negative phenomena, as queues in medical institutions and the inability to get an appointment with a doctor at a convenient time *(tab. 6)*. The issue concerning the shortage of medical personnel also remains unsettled, as health care institutions need to be staffed with qualified specialists (34% in 2012). The problem of medical ethics, in particular, a careless and disrespectful treatment of patients is also quite urgent, according to people's estimates (18% of the population).

In addition, the population is dissatisfied with the remoteness of medical institutions from the place of their residence (10 – 13% in large cities and 22% in rural areas); the unsatisfactory level of the specialists' qualification (42%) and the poor quality of medical equipment (36%).

Assessing the changes in the health care system over the last 5 years *(tab. 7),* urban residents point out a marked improvement in the equipment of medical institutions (37%). In general, urban residents noted a certain improvement in the quality and availability of medical services; as for rural residents, the share of answers 'deteriorated' prevails over the share of answers 'improved' for the vast majority of points characterizing health care services. It should be emphasized that a significant part of the respondents (up to 20%) do not point out any changes in health care for the period under consideration.

Thus, in their answers concerning the quality and availability of medical services, the residents give different estimations of the Programme implementation results, which is explained by the short period of its realization.

The cooperation between software developers and medical professional community concerning objectives, tasks and implementation of activities stipulated by the programmes should become an important direction of social policy in the sphere of health care. The implementation efficiency of the current policy depends on the participants' noticing and understanding of the ongoing transformations. Therefore, in our opinion, it would be relevant and timely to analyze the medical employees' awareness of the objectives, tasks and implementation of the Vologda Oblast Health Care Modernization Programme in 2011 – 2012.

For this purpose, a questionnaire survey of the personnel of the oblast health care facilities[5] was conducted in the course of the research. The majority of respondents (82%) are doctors, 13% – heads of departments, 4% – administrative personnel, less than 1% – nurses and employees of support services (accounting, personnel department, etc.).

[5] The survey was conducted in July 2012 in Vologda, Cherepovets and district centres of the oblast. Sample size was 656 respondents working in the Vologda Oblast health care institutions. SPSS and Excel were used for the data processing.

Table 7. Distribution of answers to the question: 'How has the availability and quality of health services changed over the last 5 years?' (in % of number of respondents)

Answer option	Vologda	Cherepovets	Districts	**Oblast**
Technical equipment				
Improved	36.9	37.4	11.0	**22.9**
Not changed	32.5	32.9	42.8	**38.3**
Deteriorated	8.4	9.3	18.8	**14.3**
It's difficult to answer	22.2	20.4	27.3	**24.5**
Availability of medical services				
Improved	19.7	21.1	7.0	**13.2**
Not changed	55.2	56.0	52.1	**53.7**
Deteriorated	12.3	16.1	21.8	**18.6**
It's difficult to answer	12.8	6.8	19.1	**14.4**
Quality of services				
Improved	20.2	16.6	5.4	**11.0**
Not changed	44.8	47.7	46.1	**46.4**
Deteriorated	16.7	22.9	26.5	**23.9**
It's difficult to answer	18.2	12.8	22.0	**18.6**
Qualification of medical personnel				
Improved	17.2	15.3	5.8	**10.4**
Not changed	47.3	53.3	48.6	**49.8**
Deteriorated	19.2	16.6	22.5	**20.2**
It's difficult to answer	16.3	14.8	23.1	**19.5**
Staffing				
Improved	19.2	14.3	5.1	**10.0**
Not changed	32.5	40.5	41.0	**39.5**
Deteriorated	26.6	26.9	29.6	**28.3**
It's difficult to answer	21.7	18.3	24.3	**22.1**

The distribution of employees of health facilities in five-year groups of work experience (not more than 5 years, from 10 to 15 years from 15 to 20 years, etc.) is uniform (from 12 to 17%), 5% of respondents have working experience of over 35 years.

The majority (72%) of respondents are well informed about the implementation of the Health Care Modernization Programme in the Oblast, 26% only 'heard' about it, 2% proved to know nothing about it. 52% of employees evaluated the effects from the implementation of the Modernization Programme in their health care institution as 'positive', 40% stated that it had 'no significant impact'; 4% gave a negative assessment *(fig. 5)*.

An interesting relationship has been revealed between the degree of awareness of employees of medical institutions concerning the Programme implementation and their estimation of its influence on the development of the facility where they work. Thus, 64% of employees, who are well-informed about the realization of the Modernization Programme, claim that the situation in the hospitals has improved, and 28% hasn't noticed any significant improvement *(tab. 8)*. At the same time, 64% of the respondents among those who have not heard about the ongoing changes, consider, that the Programme has 'no significant impact on the situation in the health care institution where I work', and 14% pointed out that it 'negatively affects the existing state of affairs in the health care institution where I work'. This supports the hypothesis that the efficiency of reforms implementation depends on the extent, to which the participants of the process are aware of them and included in the implementation of innovations.

Figure 5. Distribution of answers to the question concerning the impact of the Vologda Oblast Health Care Modernization Programme on the development of health care facilities (% of the number of respondents)

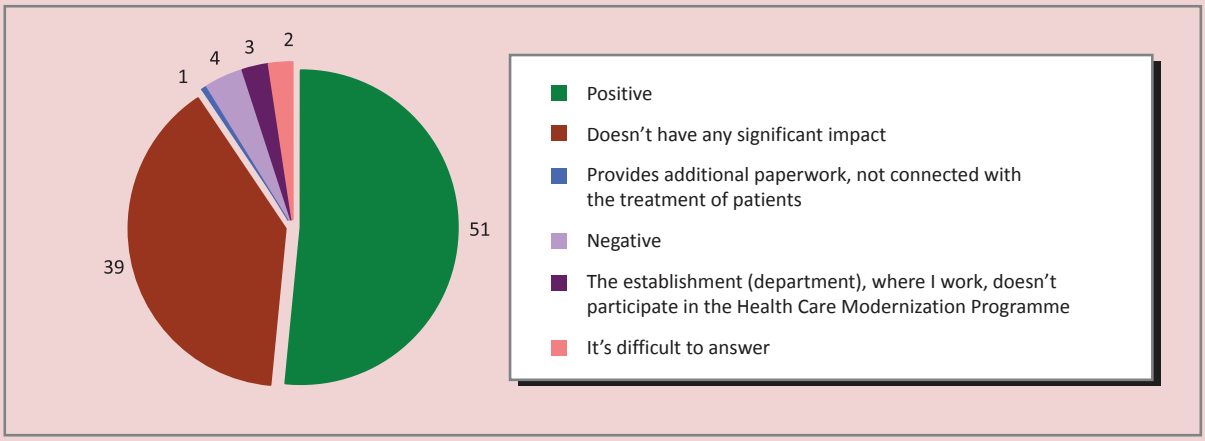


Table 8. Relationship between the degree of awareness of employees concerning the implementation of the Health Care Modernization Programme and their estimation of its influence on the development of the health care facility (in % of number of respondents)

Answers to the question: 'In your opinion, does the Health Care Modernization Programme have an impact on the institution where you work?'	Answers to the question: 'Do you know that the Health Care Modernization Programme is being implemented in the Vologda Oblast?'		
	Yes, I am well aware of it	I have heard about it	No, I am not aware of it
Has a positive impact on the situation in the health care institution where I work	64.3	20.3	7.1
Has no significant impact on the situation in the health care institution where I work	28.3	66.3	64.3
Negatively affects the existing state of affairs in the health care institution where I work	3.2	4.7	14.3
It's difficult to answer	1.9	3.5	7.1
The establishment (department), where I work, doesn't participate in the Health Care Modernization Programme	1.5	5.2	7.1
Provides additional paperwork, not connected with the treatment of patients	0.9	0.0	0.0
Source: survey of the employees of health care facilities on the Health Care Modernization Programme, 2012.			

The Modernization Programme is also aimed at **introducing the standards of medical care**, which stipulated the increase of remuneration in the health care system. According to the results of the survey, only 12% of respondents noted a significant increase in wages, almost a half of respondents (47%) pointed out a slight increase, one-third (31%) said it remained at the same level *(tab. 9)*. It is the employees of municipal rather than rural health care institutions who noted the increase of remuneration to a greater extent.

According to the personnel of health care institutions, wages increase in the framework of the Modernization Programme happened due to the increase of funding (as 40% of respondents noted) and also due to the increase in the workload of the staff (27%).

The next aspect of the Modernization Programme was **the upgrading of health care facilities and infrastructure.** During the implementation of the Programme in the Vologda Oblast, 210 facilities (departments, rooms in medical institutions) in 66 health

Table 9. Territorial distribution of the evaluation of the impact of the Modernization Programme on the changes in remuneration (in % of number of respondents)

Respondents' assessment of the impact of the Modernization Programme on the changes in remuneration	Settlement		
	City/town	District centre	Rural area
Wages increased considerably	11.4	16.9	0.0
Wages increased, but not significantly	45.9	50.3	50.0
Wages remained the same	31.3	28.2	50.0
Wages decreased	3.4	1.5	0.0
Depends on the position (doctor, nurse, medical attendants)	0.4	0.0	0.0
The institution, where I work, doesn't implement this direction	6.0	2.1	0.0
It's difficult to answer	1.6	1.0	0.0
Source: survey of the employees of health care facilities on the Health Care Modernization Programme, 2012.			

care facilities have been repaired, 662 units of medical equipment, including 66 transport vehicles have been purchased. All ambulances and duty-dispatcher services have been equipped with GLONASS navigation system for choosing the optimal route to the patient's location [5].

Despite the bulk of work done, not all the health care facilities had an opportunity to participate in the implementation of the Modernization Programme, in particular, the institutions providing specialized medical care (T.B. prophylactic centres, psychoneurological, narcological prophylactic centres), secondary medical schools, child care centres, etc.

In the course of the survey, the personnel of medical institutions answered the question: 'Have you noticed that the medical institution, in which you work, is receiving new equipment, and extensive repairs are being carried out there?'. The analysis of the survey results proved that almost a half (43%) of respondents answered in the affirmative, 26% haven't noticed any changes. As for rural areas, more respondents point out extensive repairs (71%) than the purchase of new equipment (7%; *tab. 10*). Over a half (63%) of respondents living in district centres noted the implementation of both directions of the Programme, whereas urban residents were more critical: 33% of respondents didn't notice any changes; 35% noted extensive repairs and the purchase of new equipment, 16% noted only extensive repairs.

The third direction, contained in the Modernization Programme, is **the introduction of modern information technologies in health care** (in particular, booking an appointment with a doctor online). According to the survey, more than a half (64%) of surveyed personnel of health care facilities stated that this direction of modernization has not been realized to the fullest.

Health care workers were encouraged to express their suggestions on the Health Care Modernization Programme implemented in the Vologda Oblast. The most popular (16%) proposal was to continue the implementation of the Programme in the health care facilities that are already participating in it and to launch the Programme in other ones *(tab. 11)*. Only 11% of respondents pointed out the necessity of wages increase, 3% suggested that the volume of reporting documentation should be reduced.

Despite the fact that only 30% of the health care personnel expressed their **suggestions concerning the Modernization Programme**, we consider that the Vologda Oblast Department of Health should take their opinion into account while developing further activities in the framework of the programmes implemented in the region. So the following proposals are viewed as important: 'a doctor's salary should not depend on the performance of the whole department', 'the needs of health care facilities should be taken into account in the implementation of the Programme directions',

Table 10. Distribution of answers to the question: 'Have you noticed that the medical institution in which you are working, is receiving new equipment, and extensive repairs are being carried out there?', territorial distribution (in % of number of respondents)

Answer option	Settlement		
	City/town	District centre	Rural area
New equipment is being purchased and installed, and extensive repairs are being carried out	34.7	63.1	7.1
Extensive repairs of facilities are being carried out	16.3	20.0	71.4
New equipment is being purchased and installed	9.6	6.2	7.1
Extensive repairs are being carried out, but their quality is not satisfactory and the timing is not observed	1.1	1.5	0.0
New equipment is being purchased and installed, but it doesn't comply with all the necessary requirements	0.7	0.5	0.0
I haven't noticed any changes (there are no such changes in the framework of the Programme)	33.3	9.7	14.3
The institution doesn't implement this direction	3.8	0.0	0.0
Current repairs are being carried out	1.8	0.5	0.0
Source: survey of the employees of health care facilities on the Health Care Modernization Programme, 2012.			

Table 11. Distribution of suggestions of health care workers concerning the Vologda Oblast Healthcare Modernization Programme (in % of number of respondents)

Answer option	Share of workers who proposed the activity, %
Suggestions concerning the current activities of the Programme (39.3%)	
Further implementation of the Programme directions (in the health facilities already participating in the Programme) and the launch of the Programme in other ones	16.3
Increase in wages and salaries	11.4
Reduction in the volume of documentation	3.4
Reduction of workload	2.4
Introduction of a greater number of standards	2.0
Extensive use of internet technologies (online consultations for patients, distance training of medical personnel)	1.5
Elimination of dependence of a doctor's salary on the fulfillment of the plan of his/her visits to the patients (replacement for its dependence on the quality of medical care, the number of recovered patients or the improvement in the patients' health condition)	1.5
Elimination of the dependence of a doctor's salary on the performance of the whole department	0.5
Enhancement of control (increase in the number of inspections by superior bodies)	0.3
Suggestions concerning new directions to be included into the Modernization Programme (16.4%)	
Development of measures aimed at the attraction and retaining of the staff (provision with housing, health resort treatment, enhancement of medical workers' prestige in the society, etc.)	7.3
Inclusion of other services and departments of medical institutions into the Modernization Programme	6.6
Consideration of the needs of health care institutions in the Programme implementation	0.9
Encouragement of patients to undergo preventive treatment	0.8
Modernization of inpatient care (e.g. bedspace shouldn't be reduced, therapeutic and protective regimen for patients should be introduced)	0.6
Elimination of services not related to the provision of medical care in health care facilities	0.2
The Programme is inefficient, useless	3.5
Share of those, who didn't put forward any suggestions	70.0
Note: the sum of answers doesn't make 100%, because several respondents could point out the same direction. Source: survey of the employees of health care facilities on the Health Care Modernization Programme, 2012.	

'in-patient treatment should be upgraded (for example, bedspace shouldn't be reduced, therapeutic and protective regimen for patients should be introduced).

Thus, the research has shown that for the Health Care Modernization Programme implementation period, population's assessments of the availability of medical services have not changed. Urban residents pointed out the improvement in the health services more often. For example, according to their estimates, the technical equipment of medical institutions has improved significantly (37%); positive changes have occurred in the organization of work of health care institutions (the share of population, who are tired of queues and the inability to get an appointment with a doctor at a convenient time, has reduced from 59% to 50%).

Medical workers, as an interested party, i.e. the executors of the project, are better informed about the essence of the reforms, but their assessments are ambiguous. 52% of employees stated that the changes in the activities of health facilities in the course of the Programme implementation were positive; 40% responded that it has 'no significant impact'.

In conclusion, we should note that positive trends in the activities of the Vologda Oblast health care institutions should be promoted and the modernization of the regional health care system should carry on. For enhancing the efficiency of implemented programmes, it is necessary to conduct the monitoring of statistical and financial indicators and the assessments of ongoing changes by the population and health care employees.

References

1. Demographic yearbook of the Vologda Oblast: statistical abstract.Vologda: Vologdastat, 2012.
2. Kalashnikov K.N., Shabunova A.A., Duganov M.D. Organizational and economic factors of the regional health system management: monograph. Vologda: ISEDT RAS, 2012.
3. On the Health Care Modernization Programme in the Vologda Oblast in 2011 – 2012: Decree of the Vologda Oblast Government No. 183 dated March 04, 2011.
4. Official website of the Federal State Statistics Service. Available at: http://www.gks.ru
5. Public report on the performance of the Vologda Oblast Department of Health for 2012. Vologda, 2013.
6. Shabunova A.A., Shakhotko L.P., Bobrova A.G., Malanicheva N.A. Able- bodied population mortality in Russia and Belarus as a threat to the demographic development of the territories. Economic and social changes: facts, trends, forecast. 2012. No. 2(20). P. 72-82.
7. Ulumbekova G.E. Health care in Russia. What is to be done: scientific substantiation of the Health Care Development Strategy of the Russian Federation up to 2020. Moscow: GEOTAR-Media, 2010.
8. Shabunova A.A. Public health in Russia: state and dynamics.Vologda: ISEDT RAS, 2010.
9. World health statistics. Geneva: WHO, 2011.

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Youth employment as a condition of the social-labour sphere modernization

The article reveals the role of youth in the modernization of the socio-labour sphere. It determines the main problems of the young people in the labor sphere, based on the analysis of statistical data and monitoring results of the socio-economic status of the Vologda Oblast youth, held by ISEDT RAS in 2012.

Youth, youth employment, modernization of the socio-labour sphere.

Galina V.
LEONIDOVA
Ph.D. in Economics, Head of ISEDT RAS laboratory
galinaleonidova@mail.ru

Ksenia A.
USTINOVA
ISEDT RAS Junior Scientific Associate
ustinova-kseniya@yandex.ru

Modernization of the country is accompanied by changing parameters of both economic and social development, with the labour market being the basic indicator, largely determining the level of the population well-being and quality of life [3]. The global financial and economic crisis, having affected Russia among other countries, demonstrated the need for changes in the labour market, actualized the transition from the low unemployment policy to the full employment policy, from 'low-cost and inefficient jobs' to high-skilled jobs with decent salary [6, p. 23]

Describing modernization processes in terms of history, the researchers (V.L. Inozemtsev, L.N. Ovcharova, T.M. Maleva, etc.) note that throughout the world, these processes have been proceeding for the last fifty years and consisted of two stages: the possibility of using the existing public institutions, norms and traditions of contemporary life was evaluated at the first stage (1960 – 1970s), while the second stage (since 1980s) was associated with economic deregulation, including the labour market [8, p. 10-12], and was accompanied by the decreasing role of trade unions, changing structure of the labour demand, increasing labour mobility and general employment flexibility, having both positive and negative features.

On the one hand, labour mobility contributes to a more efficient allocation of labour resources, more complete correspondence between the employee and the workplace, and enhances labour productivity and wages (Sabiriyanova, 2002; Lukiyanov, 2003). On the other hand, the termination of former employment relationships can result in the loss of accumulated specific human capital (Maltsev, 2007), particularly among the youth [7, p. 3-4].

The youth[1] is one of the most vulnerable groups in the labour market in every country, as well as in Russia. Key events in the life cycle of an individual occur in his/her youth: the completion of general education, occupational choice and professional training, career start, marriage, childbirth [1, p. 261-270]. The youth period ends when the individual acquires independent economic status. Young people are the country's future, the development of which depends on the initial conditions of their activities.

Therefore, there is a need to study the youth employment in the context of modernization reforms.

In the Russian Federation official youth age is between 14 and 30 years (15 – 29 years in Europe), but at the same time the researchers define youth age range differently. Thus, age limits are defined between the ages of 11 and 24 years, when studying consumption of psychotropic substances among youth; 15 – 26 years, when studying professional orientation; 18 – 30 years, while studying economic, political issues (considering voting rights of the population).

The problem of youth employment is not only typical of certain territories, but has a global reach, the fact confirmed by the results of the regulatory legal acts and empirical data of the International Labour Organization (ILO) analysis.

In the twentieth century, the ILO has developed a number of policy documents, regulating the issues concerning job placement, protection and well-being of the young. (the Night Work Of Young Persons (Industry) Convention, 1919; the Medical Examination of Young Persons (Industry) Convention, 1946, etc.). In the 1978 – 1998 period, five resolutions on issues relating to youth employment were adopted. The Global Jobs Pact, adopted in 2009 due to the financial crisis, defined youth as one of the groups, facing greater risks and whose needs are to be taken into account within the crisis response policy [2, p. 4].

The most significant youth employment issues include an increase in registered and hidden unemployment (*fig. 1*), its rising duration. Of greatest concern is the growing unemployment among young people with higher education that results in the dequalification of young specialists, as well as little return on the money invested in education and training.

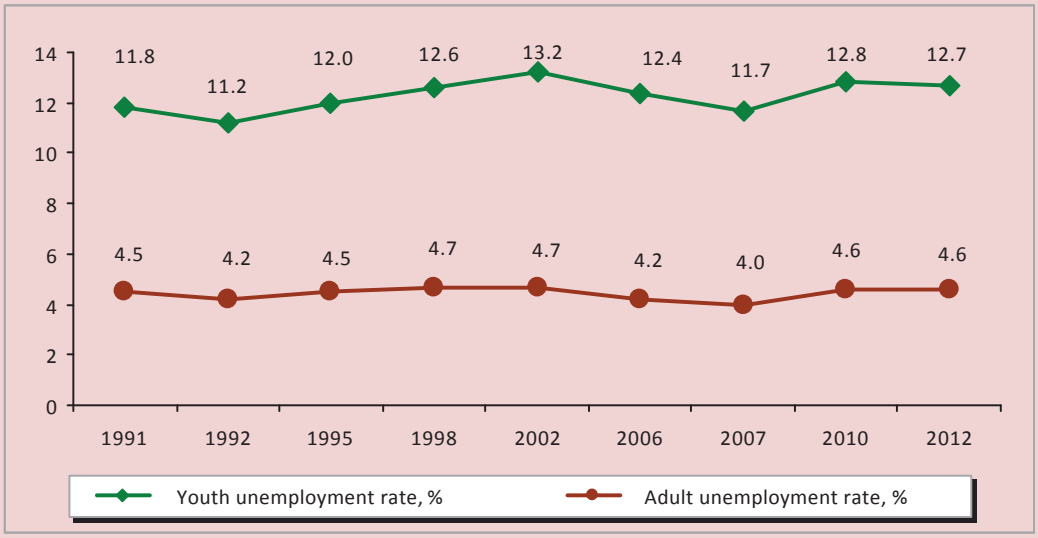
Increasing youth employment in the informal sector of the economy[2] is one of the negative trends, caused by unfavourable socio-economic situation in the territory (the crisis phenomena in the economy), declining rates of jobs creation, etc. [2, p. 3].

The analysis of statistical data indicated, that in some countries youth informal employment exceeded adult informal employment by more than 30% in 2009 (*fig. 2*).

[1] Youth is a special socio-demographic group in the 14 – 30 age range, with such degree of mobility, intellectual activity and health, that distinguishes it from other social groups and ensures quick adaptation to new living conditions due to socio-psychological, creative and physical characteristics. The group plays a significant role in the development of the innovation potential of the territory (the author's definition).

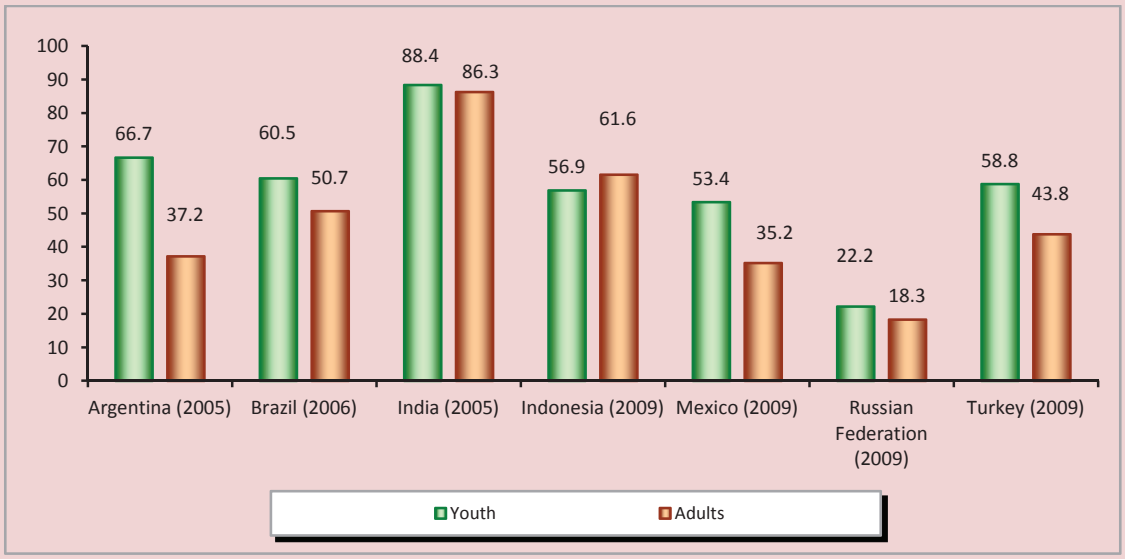
[2] According to the methodological recommendations of the Federal State Statistics Service, the enterprises of the informal sector are households or unincorporated enterprises owned by households that are engaged in the production of goods and services for sale in the market and that are non-legal entities. Of those employed in the informal sector of the economy include individual entrepreneurs (without forming a legal entity), the employees working for natural persons, working individuals (self-employed) and the employed producing home-made goods for sale.

Figure1. Global youth and adult unemployment rates, 1991 – 2012, %



Source: The youth employment crisis: Time for action. Report V. Geneva: ILO, 2012. P. 13.

Figure 2. The share of youth and adult employees in the informal economy by countries, %



Source: The youth employment crisis: Time for action. Report V. Geneva: ILO, 2012. P. 19.

In European countries the share of youth in the informal sector of the economy made up about 17%, as compared to 7% among the employees of other age groups (the ages of 25 – 54 years) [2, p. 18-19].

The phenomenon of the 'working poor' is one of the contemporary problems in the labour sphere. Data on the salary in certain countries of the EU and the USA shows that the probability to get a low-paying job is 2.5 – 5.8 times higher for young men and women than for other age groups. An exceedingly high level of young employees in low-paid jobs is confirmed by the data on the employees receiving minimum wages. For example, in the United States young workers account for almost half of all those, receiving the wages not exceeding the minimum ones [2, p. 18-19].

Summing up certain trends at the international level, the authors note that for the last twenty years the growth of both hidden and officially registered unemployment among the youth has become more obvious, the number of young people, engaged in the informal sector of the economy has increased, while rates of jobs creation have declined, the phenomenon of the 'working poor' has spread. These and some other phenomena demonstrate that the existing labour market institutions are not able to adjust flexibly to the changes of situation, characterized by weakening of employment security, some worsening of youth financial position. Such negative changes may demotivate young people to employment, to the display of proactive attitude, to creative and innovation activity that could ultimately affect the quality of modernization processes in the future.

These and many other negative trends concerning youth employment have spread across Russia and the Vologda Oblast. According to statistical data, in 2010, the youth amounted to a quarter of Russian and the Vologda Oblast population, with the share of young people in the total number of the employed in the region reaching 48% [11].

Russian researchers define the following key problems of the youth labour market:

– high level of unemployment among the youth, as compared to other population groups (according to the ILO, the level of unemployment among the Russian youth exceeds the average value for developed countries) [9, p. 36-37];

– unemployment duration (the average duration of a job search is 4.3 months, and the share of those searching for a job for longer than a year is more than 33%, according to some estimates);

– the need for additional retraining and professional development in the employment process (according to the results of surveys conducted by the Levada-centre, more than one third of the young people needs retraining and professional improvement).

It should be highlighted, that the urgency of the problems in the youth employment sphere is largely determined by such parameters as age, gender, educational level, income group, geographic group (living in urban or rural areas).

Thus, when characterizing certain parameters of the labour market depending on the age, it can be noted that a higher level of unemployment, low level of economic activity and material security are revealed during adolescence (15 – 19 years of age) when compared to other age groups of the young. This is understandable, as the key events in the life cycle of an individual occur during this period: the completion of general education, occupational choice and professional training, and career start for some people [1, p. 261-270].

The highest level of the economic activity of the Vologda Oblast youth falls at the age of 25 – 29 years (92% in 2010), the lowest level falls at the age of 15 – 19 years (15%; *table 1*). In the 2000 – 2010 period, the tendency was negative: the level of economic activity among 15 – 19 year-olds decreased almost twice (from 26% to 15%), while among 25 – 29 year-olds it increased from 88% to 92%.

The socio-economic situation in the country and in the region is one of the parameters, which may affect the state of affairs in the youth labour market. The threshold of 2008 economic crisis was marked by the decline in the youth employment rate, particularly among 15-19 year olds (*table 2*).

At the same time, the unemployment level increased in the 2008 – 2010 in comparison with the pre-crisis period (almost to the level of 2000; *table 3*). However, changes were more significant throughout the country than in the Vologda Oblast. Moreover, the fact that the population receives education between the ages of 19 to 24 is to be also considered.

The level of registered unemployment has also increased: the oblast population registered

Table1.Level of the youth economic activity, %

Age group	Year											2010 / 2000, p.p.
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	
Vologda Oblast												
15-19	25.7	28.0	22.6	20.5	19.1	17.0	20.0	15.5	19.3	20.9	14.8	– 10.9
20-24	80.4	78.6	76.7	74.7	68.4	80.4	74.3	75.8	76.7	70.9	70.1	– 10.3
25-29	87.8	89.6	90.4	89.3	91.3	91.7	92.2	89.6	90.9	90.9	92.2	+ 4.4
Russian Federation												
15-19	18.4	15.8	16.5	15.1	15.1	15.5	14.5	14.4	15.3	13.8	11.9	– 6.5
20-24	68.7	68.0	67.3	64.9	62.3	62.5	61.3	61.2	64.9	64.9	63.0	– 5.3
25-29	86.3	86.2	87.5	87.8	87.6	88.4	87.3	88.7	86.5	86.7	87.0	– 0.7
Source: Labour and the Vologda Oblast population employment in 2010: statistical digest. Vologdastat. Vologda, 2011.												

Table 2.Youth employment rate, %

Age group	Year											2010/ 2000, p.p.
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	
Vologda Oblast												
15-19	19.0	20.9	19.1	19.1	15.2	12.0	17.1	13.7	10.8	13.7	10.8	– 8.2
20-24	69.1	70.1	70.0	69.5	63.5	75.6	69.9	62.5	60.3	62.5	60.3	– 8.8
25-29	80.8	81.5	85.5	84.1	86.6	89.4	88.2	82.6	86.2	82.6	86.2	+ 5.4
Russian Federation												
15-19	13.3	11.2	12.0	10.6	10.2	11.0	10.4	10.9	10.6	9.5	8.1	– 5.2
20-24	57.6	57.7	57.6	55.6	53.7	54.8	52.6	54.4	58.5	54.1	53.5	– 4.1
25-29	77.2	78.6	79.6	80.9	81.0	82.1	81.0	84.3	80.9	78.8	79.9	+ 2.7
Source: Labour and the Vologda Oblast population employment in 2010: statistical book. Vologdastat. Vologda, 2011.												

Table 3. Youth employment rate, %

Age group	Year											2010/ 2000, p.p.
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	
Vologda Oblast												
15-19	26.0	25.5	15.3	6.9	20.4	29.3	14.7	17.8	26.5	34.5	26.6	+ 0.6
20-24	14.0	10.7	8.7	7.0	7.3	6.0	5.8	1.5	7.0	11.9	13.9	– 0.1
25-29	8.0	9.1	5.5	5.8	5.2	2.5	4.4	2.5	4.0	9.1	6.5	– 1.5
Russian Federation												
15-19	27.6	28.8	27.3	30.0	32.1	29.2	27.8	24.0	30.9	31.1	31.9	+ 4.3
20-24	16.2	15.2	14.4	14.4	13.8	12.3	14.2	11.2	12.9	16.6	15.1	– 1.1
25-29	10.6	8.8	9.0	7.8	7.6	7.1	7.2	5.0	6.5	9.1	8.2	– 2.4
Source: Labour and the Vologda Oblast population employment in 2010: statistical digest. Vologdastat. Vologda, 2011.												

in employment service offices increased by 27% among the 18 – 24 age group, and by 74% among the 25 – 29 age group in 2010, as compared to the level of 2000. The share of the employed students willing to work out of studies was more than 90%.

Statistical data is supplemented by the results of sociological surveys on the youth status[3], having facilitated the recognition of the key problems in the youth environment, related to the employment of the young in terms of municipal territories.

[3] Sociological survey of the youth socio-economic status in the Vologda Oblast was held in 2012 in all municipal entities. The sample comprised 2923 respondents, representing the youth of the oblast in the 14-29 age range, by the following three age groups: 15-19 years old, 20-24 y.o., 25-29 y.o.

According to the results of the sociological data analysis, one of the most acute problems is that a significant share of the young people (over 50%) does not work. The most difficult situation was observed in Mezhdurechensky, Tarnogsky, Chagodoshchensky districts of the oblast (with 60 – 80% of the young people being unemployed).

The prevalence of informal recruitment channels, which makes the state regulation of the youth employment difficult, and in a number of cases leads to the lack of social guarantees provided to the young.

However, in spite of these disadvantages, such way of employment is in demand among the youth, especially during the crisis. Thus, 20% of the interviewed young people of the Vologda Oblast resort to the help of friends and family.

Personal contact with the representatives of HR departments of enterprises and organizations is in the second place (13%; *table 4*).

The prevalence of these or that employment methods depends on the territory. Thus, informal channels is the most common method for a job search among the young people in Babayevsky and Nikolsky municipal units (20%), while the formal methods of employment are very popular among the youth of Vozhegodsky District (15% consult Government Employment Services).

When choosing a workplace, young people focus primarily on high wages (58%), interesting work (41%), convenient work schedule (36%) and the relationships in the team (22%; *table 5*).

The significance of the intangible incentives for an employee has been decreasing in favor of material, particularly, monetary forms of

Table 4. Answers to the question: ' Define the method you used when searching for a job' (% of the number of respondents)

Opiton	Vologda	Cherepovets	Regions	**Oblast**
Through friends, acquaintances	25.2	20.3	19.1	**20.0**
I come directly to the human resources department of the enterprise	17.7	10.9	12.4	**12.8**
Through relatives	8.1	8.1	8.5	**8.4**
By invitation of the company management or employees	4.1	5.2	5.7	**5.5**
Through Government Employment Services	4.1	5.7	5.0	**5.0**
Job placement	2.0	1.3	1.5	**1.5**
I do not work	38.0	48.2	47.2	**46.3**
Source: hereinafter the monitoring data of the Vologda Oblast youth status, ISEDT RAS, 2012				

Table 5. Answers to the question: 'What are you guided by when choosing a job?' (% of the working respondents)

Option	Vologda	Cherepovets	Districts	**Oblast**
High wages	55.6	72.9	55.2	**57.5**
Interesting work	46.3	40.7	40.1	**41.0**
Convenient work schedule	39.7	42.7	33.9	**35.8**
Relationships in the team	24.8	13.1	22.5	**21.6**
Opportunity for professional growth	23.8	14.6	18.5	**18.7**
Employment benefits	23.4	18.6	16.6	**17.8**
Prestigiousness of work	15.9	19.1	15.0	**15.7**
Home proximity	9.8	5.0	13.2	**11.7**
Opportunity of getting an accommodation	5.1	6.5	6.3	**6.2**
Long holiday	0.0	3.0	3.5	**2.9**
I do not work	0.5	0.0	0.3	**0.3**

compensation, may lead to declining work and innovation activities motivation of the employer, in case of discrepancy between the desired and actual levels of remuneration, which may negatively affect modernization processes in future.

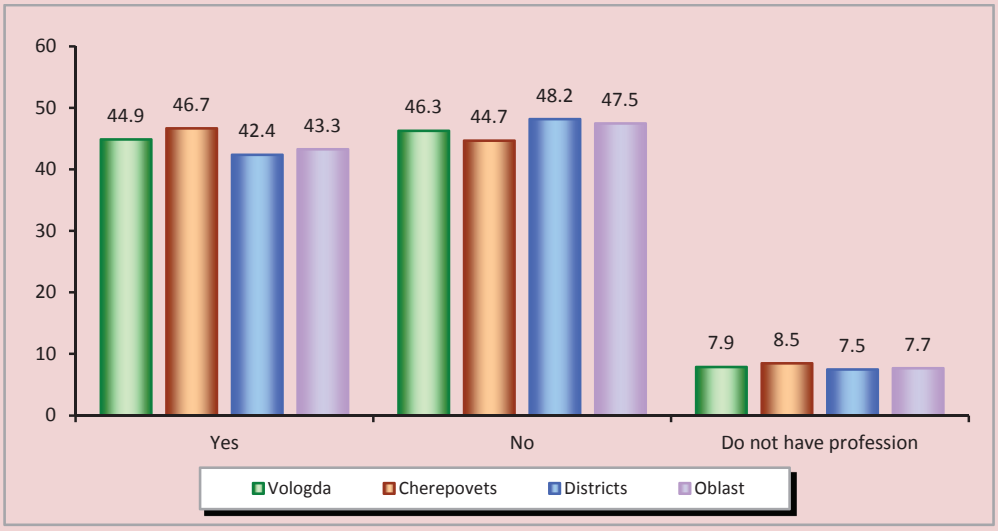
However, the situation is not the same in all districts of the oblast. Higher wages as an incentive to employment prevails in the responses of the young people in Tarnogsky, Nikolsky districts (80%), Cherepovetsky, Chagodoshchensky, Syamzhensky, Kirillovsky, Kaduysky, Vytegorsky, Vashkinsky, and Babayevsky districts (60%).

While the core employment criterion for the youth of Babayevsky District is prestigiousness of work (38%), for the young people of Mezhdurechensky District it is a high level of wages (77%), for the youth of Vytegorsky, Kichmengsko-Gorodetsky, Mezhdurechensky, Sokolsky, and Tarnogsky districts – an opportunity of getting an accommodation (from 7 to 14%), for the young people of Vashkinsky, Velikoustyugsky, Verkhovazhsky, Vologodsky, Gryazovetsky, Mezhdurechensky, Tarnogsky and Chagodoshchensky districts – home proximity (from 12% to 32%).

One of the most common problems among the young is the direction mismatch between educational training and further employment. It should be highlighted that the majority of young people do not work in the specialty (more than 47%; *fig. 3*), that may lead to the fact that the accumulated knowledge, abilities, skills are not implemented to the extent required in the labour activity, i.e. shaped potential is not used in practice. The process may be accompanied by dequalification of specialists and in general it devalues the importance of the educational attainment of the population.

In terms of the oblast's districts, the highest share of young people not working in the specialty is observed in Ustyuzhensky (68%), Nikolsky, Vytegorsky, Verkhovazhsky, Velikoustyugsky (over 60%) districts. The given indicator is more favourable in Mezhdurechensky, Tarnogsky, Vozhegodsky municipal districts with less than 20% of the young people not working in the specialty in each of the regions.

Figure 3. Answers to the question: 'Do you work within the specialty obtained in the educational institution (university, technical school, vocational school)?' (% of the number of respondents)



The young people note changing professional plans (20%) and the lack of demand in the labour market (20%; in the territorial context such situation is common for Kirillovsky district) as the main reasons of not working within the specialty obtained in the educational institution.

A considerable part of the youth state their qualification is corresponding to the requirements of the job. At the same time, specialized training is needed to perform higher skilled functions (49%; *table 6*). Among the respondents giving a similar answer, 70% of young people are from Babayevsky District, and 60% are from Totemsky, Nyuksensky, Gryazovetsky, and Vytegorsky districts each.

The degree of compliance with the qualification requirements of the job is determined primarily by the educational level of employees. Among young people with higher or incomplete higher education, the number of those, who consider their qualifications above job requirements, is 2 times higher. Young people in the high income population group asses their qualification the same way.

Higher education and high level of professional training create prerequisites for effective high-performing labour, and let an employee use the accumulated potential for the implementation of innovation development (*table 7*).

However, the original assumption has not been confirmed by the estimated results of the region's youth innovation activity. Thus, the analysis of the survey data has shown that the majority of the young people of the Vologda Oblast (over 50%) are not engaged in creative, innovatory and inventive activities. 18% of the oblast youth become more active creatively on the instructions from 'above'. In the context of territories, Vologda and Cherepovets residents demonstrate greater activity, while residents of the oblast districts are less active.

One of the parameters exerting motivating influence on the youth creative potential and the tendency to innovation creation is the accessibility of projects in different fields and the opportunity of self-fulfillment in them. According to the results of the study, young people are not mainly satisfied with the degree

Table 6. Answers to the question: 'To what degree your qualification corresponds with your work?' (% of the number of respondents)

Option	Vologda	Cherepovets	Districts	**Oblast**
My qualification (training) is higher than required for the job. I can undertake more qualified work.	28.0	20.6	16.1	**18.3**
My qualification (training) corresponds to the requirements of the job (in order to do the work, I need to study a little more)	51.4	56.8	47.3	**49.1**
My qualification (training) is lower than required for the job	4.2	6.0	7.0	**6.5**
I cannot say	13.1	15.6	25.1	**22.3**
I do not work	2.3	0.0	1.6	**1.5**

Table 7. Answers to the question: 'To what degree are you engaged in creative (innovatory, inventive, etc.) activities at present?' (% of the number of respondents)

Variant	Vologda	Cherepovets	Districts	**Oblast**
I constantly invent, write, compose, etc. – this is my lifestyle	10.7	7.0	10.5	**10.1**
I invent, contrive, etc, when there is a practical need to do something, but it is not known how to do that, there are no ready-made solutions	22.9	16.1	15.1	**16.3**
I invent, write, compose, etc, when such a task is given by my supervisors	21.5	23.6	16.0	**17.7**
I never undertake anything, just do what I had been taught to do, or what others advise, things I can read about in books, manuals, etc.	39.3	53.3	53.3	**51.4**

of projects accessibility in the field of scientific research (60%). About half of the young respondents considers projects in cultural and sport spheres inaccessible, that can impede the accumulation of creative potential of the young generation.

Hence, the authors conclude that the potential of the young generation is not properly used in modernization transformations, due to high unemployment level, decreasing level of economic activity of this population group, the prevalence of informal channels of employment and job placement, which makes it difficult for the state authorities to control the situation in the youth labour market and interferes with the provision of the required social guarantees to the young. One of the main obstacles for the youth participation in modernization is the low level of innovation activity, the prevalence of material motivators over nonmaterial ones in the incentive structure (search for an interesting job, career and professional growth, self-realization, etc.).

It should be underlined that the adaptation mechanism of socialization is not formed due to the low subjective involvement of the youth in social processes, which hampers innovation transformations signi-ficantly. In spite of the fact, that the measures to change the situation are being taken at the country and regional levels, they are not sufficient enough to solve the problems in the youth environment and frequently are not of systemic nature. In order to overcome the negative trends, well-coordinated state and public organizations efforts are required, ensuring the national youth policy, aimed at increasing the cohesion and social activity of young people, strengthening their professional and career orientation and responsibility, while choosing the direction of educational training and subsequent employment.

References

1. Goliusova Yu.V. Russian youth: attitude towards work and employment under the conditions of the transformation of the socio-economic structure of Russian society. Modernization of the social structure of Russian society. Editor in chief Z.T. Golenkova Moscow: RAS Institute of Sociology, 2008.
2. The youth employment crisis: time for action. Report V. Geneva: ILO, 2012.
3. Kudryayeva L.A. Modernization of the social sphere of the regional economy. Available at: http://sisupr.mrsu.ru/2010-4-APK/PDF/Chudaeva.pdf
4. Leonidova G.V. Generation of talented youth's knowledge for the benefit of intellectualization of human capital: methods and forms of implementation. Economic and social changes: facts, trends, forecast. 2011. No. 13. P. 90-100.
5. Leonidova G.V., Popov A.A. Social portrait of the creative population in the Vologda Oblast. Problems of development of territories. 2012. No. 2(58). P. 45-54.
6. Maleva T.M., Ovcharova L.N. Social modernization: objects and subjects. SPERO. 2010. No. 13.
7. Maltseva I.O. Labour mobility and stability: how high is the return on specific human capital in Russia? Preprint WP15/2007/01. Moscow: SU – HSE, 2007.
8. Modernization of Russia: terms, conditions, chances. Issue 2, ed. by V.L. Inozemtsev. Moscow: Centre for post-industrial studies, 2009.
9. Bolshakov I., Gnezdilov A., Ilyushin D. Russia's youth: what is ahead for our country? Analytical report. Moscow, 2011.
10. Ustinova K.A. Organizations and population innovation activity. Problems of development of territories. 2013. No. 2(64). P. 33-42.
11. Cherevko Yu.V. The youth self-employment in the regional context. Available at: http://www.teoria-practica.ru/-5-2011/sociology/cherevko.pdf

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Russian model of population ageing (in the case of the Northern regions)*

The article dwells on the characteristics of the Russian model of population ageing, conditioned by the demographic wave, migration and short life expectancy. It has been revealed that Russia is approaching the demographic ageing model, typical of developed countries. The article describes the specific features of demographic ageing in Russia's Northern regions. These features are conditioned by the 'younger' age structure of the population, low life expectancy, and large-scale migration outflows in the last two and a half decades. In addition, the article analyzes economic consequences of population ageing and defines the main social problems of old age.

Age structure of population, demographic ageing, factors of ageing, economic load, social problems of elderly people, Northern regions.

Larisa A. POPOVA
Doctor of Economics, Associate Professor, Deputy Director for Science at the Institute of Socio-Economic and Energy Problems of the North Komi Scientific Centre of the Ural RAS Department
popova@iespn.komisc.ru

Yelena N. ZORINA
Junior Scientific Associate at the Institute of Socio-Economic and Energy Problems of the North Komi Scientific Centre of the Ural RAS Department
zorina@iespn.komisc.ru

Population ageing, defined as an increase in the share of elderly and old people in the total number of population, caused by long-term changes in its reproduction, is an acute present-day issue. It is a global phenomenon, which takes place in almost all the countries of the world, it affects all population groups and has a great impact on every aspect of human life. In the sphere of economy it affects economic growth, savings, investments and consumption, labour markets, pensions, taxation and transfers between generations. In the social sphere it affects family structure and living conditions, housing demand, migration trends, epidemiologic situation and the need for health-care services.

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In the political sphere, population ageing can influence election results and a system of political representation [1].

In Russian studies on ageing, this issue is considered, in the first place, in the context of increasing economic burden on the working-age population. Recently, the rate of Russia's population ageing has accelerated significantly due to a number of reasons, therefore, this issue is becoming more and more acute, requiring extensive studies on the problems of population ageing, not limiting them to the issues of economic dependency only. At the same time, in the present study we will adhere to the 'economic threshold of old age' adopted in Russia as the borderline of old age, rather than the figure of 60 years, which is traditionally used in Russian research on old age. The 'economic threshold of old age' means the retirement age, which is 60 years for men and 55 years for women. On the one hand, both thresholds of old age used in the world practice (60 years according to the methodologies of J. Beaujeu-Garnier – E. Rosset and J. Sandberg, and 65 years by the UN methodology [2]) are linked to the upper limit of working age as well, since it is the number of persons of retirement age that mainly determines the economic aspects of population ageing. And as for Russia, the retirement age is gender-differentiated here. On the other hand, the borderlines of old age established at 60 and 65 years have been introduced into scientific practice in the 1950s – 1960s already, and, in our opinion, there are certain reasons to consider them somewhat outdated with regard to the social aspects of demographic ageing. In this respect, at present, it is more logical to study people aged 75 and older (*senile age* – in gerontology).

It is common practice to distinguish *ageing from the bottom*, caused by the gradual reduction in the number of children, due to the decline in birth rates; and *ageing from the top*, caused by the increasing number of old people due to the reduction of old age mortality along with a relatively slow increase in the number of children [3, p. 117]. The direction and intensity of migration processes can also have a significant impact on the changes in the age structure of population. Since territorial mobility rates are the highest among able-bodied people, the intensive migration outflow contributes to the ageing of the population's age structure due to the reduction in the share of working-age persons, while the positive balance of migration facilitates the rejuvenation of population. In addition, population ageing rates may be determined by the peculiarities of the territory's demographic history. When the people born in the periods of high fertility reach the old age threshold established in the country, the population ageing rates are, no doubt, increasing.

In the first half of the 20th century, in the period of intensive reduction of birth rate and the increase of average life expectancy due to child mortality reduction, the population in the developed countries was ageing mostly *from the bottom*. Recently, it has been ageing *from the bottom* due to the low birth rate, as well as *from the top* due to the increase in life expectancy caused by the further reduction of mortality from chronic diseases, cardiovascular diseases and neoplasms in the middle and older age.

In Russia, the situation is somewhat different. In general, over the last half a century, the share of the population over working age increased more than twice: from 10.2% in 1959 to 22.2% in 2010. *(tab. 1)*. This means, no matter what scale of the old age is used, Russia's population is still characterized as *old*. However, in Russia, intensive ageing *from the top* was characteristic mainly for two periods: for the intercensal period of 1959 – 1970, when the share of persons over working age increased in the RSFSR from 10.2% to 15.4% along with a less significant reduction in the number of children; and especially for the period of 1979 – 1989, when the share of

Table 1. Age structure of Russia's population according to the censuses [4, 5, 6, 7, 8]

Year	Share of population			Share of able-bodied population among the people aged 16 and older, %
	under working age, %	working age, %	over working age, %	
1959*	31.4	58.4	10.2	14.9
1970*	28.6	56.0	15.4	21.6
1979*	23.3	60.4	16.3	21.3
1989*	24.5	57.0	18.5	24.5
2002	18.1	61.3	20.5	25.1
2010	16.2	61.6	22.2	26.5

* RSFSR.

the retirement age population increased from 16.3% to 18.5% along with the increase in the number of children.

It is necessary to point out that both of these time periods are characterized by the achievement of maximum levels of life expectancy of Russia's population. In the mid-1960s, life expectancy in Russia reached 64.6 years for men (in 1964 – 1965) and 73.5 years for women (in 1967 – 1968); after that, the stagnation and decline in its value were observed for almost two decades. As for the indicators of life expectancy in 1986 – 1987, that amounted to 70.1 years for the whole population, 64.9% for men and 74.5% for women [9], they have until recently remained the highest in the entire Russian history. Only in 2011, after several years of sustained reduction of mortality, the life expectancy of 70.3 years for both sexes [10] exceeded the record level of 1986 – 1989 (maximum value for women was surpassed in 2009 already).

It should be noted that the period of 1979 – 1989 fully corresponds to the above definition of ageing *from the top*. The demographic processes *from the bottom* (we mean birth rate increase in the first half and the middle of the 1980s due to the Resolution of the Central Committee of the Communist Party of the Soviet Union and the USSR Council of Ministers dated January 22, 1981 'On the measures for enhancing state support to families with children' [11]) at that time, on the contrary, contributed to the rejuvenation of Russia's population.

However, in 1970 – 1979, the share of children declined much more considerably than the share of persons of retirement age increased. At that, the share of people over working age in the adult (16 years and older) population of the RSFSR in 1970 – 1979 even decreased (from 21.6% to 21.3%), i.e. it can be stated that in the 1970s Russia did not experience ageing *from the top* at all. The population was ageing mainly due to low fertility. However, it was influenced by migration outflow to other Soviet republics, typical for that period.

In 1989 – 2002, in the conditions of mortality crisis in Russia, the rates of increase in the share of retirement age people were also much lower than the rate of decrease in the share of children. And the growth of the share of persons over working age in the adult population was very slight, declining from 24.5% in 1989 to 25.1% in 2002. It is based on a very low life expectancy of Russia's population in this period. At the same time, in the conditions of migration inflow from the former Soviet republics, the Russian Federation witnessed a notable increase in the share of working age population (from 57.0% to 61.3%), as well as in its number (from 83.7 million people in 1989 to 88.9 million people in 2002). Therefore, migration helped to curb the pace of population ageing. In addition, by the end of the period under review, the number of generations, reaching the retirement age, all in all, declined.

Thus, in 2002, the men born in 1942 and women born in 1947 reached their retirement age. It also narrowed down the scale of demographic ageing in Russia.

Since 2000, there has been an increase of fertility levels in Russia. Consequently, the last intercensal period is characterized by the reduction in the rates of ageing *from the bottom*: from the decrease in the share of children from 26.1% in 1989 – 2002, to 10.5% for 2002 – 2010. Since 2004, positive trends have been also typical of the mortality level as well. Nevertheless, the increase in the rates of ageing *from the top* has not been registered yet. In 1989 – 2002, the share of the population over working age increased by 10.8%, and for the last intercensal period – by 8.3%. In other words, even under the conditions of a sustainable seven-year increase of life expectancy (in comparison with 2003, the growth was 5.5 years, to 68.8 years in 2010. [10]) and reduction in the pace of ageing *from the bottom,* Russia's population is still ageing to a greater extent due to low fertility.

External migration continues to curb the pace of ageing. However, at present, the most numerous generations of the Russians, i.e. the generations of the post-war period characterized by the compensatory recovery of fertility, are reaching retirement age. And the number of people born in the 1990s, who are now approaching working age, is declining. Therefore, the share of able-bodied people in the composition of Russia's population, despite the positive balance of migration, in the period of 2002 – 2010 remained virtually unchanged. At the same time, the share of retirement age people in the adult population increased more significantly than in the previous intercensal period. In the next few years, the pace of ageing *from the top* will only increase. Especially if the tasks of increasing the population's life expectancy will be still fulfilled successfully. In other words, Russia is approaching the model of demographic ageing, characteristic for developed countries.

A younger age structure has been formed in the Northern territories (the article considers the RF subjects that are located entirely in the Far North and the territories equated to them) by 1989 due to the significant role of migration in this area *(tab. 2)*. The share of children and able-bodied population in almost all the Northern regions exceeded the national average. Only in the Republic of Tyva, the share of working-age population was slightly below average regarding a very significant share of children.

Accordingly, the percentage of retirement age population in the Northern regions was significantly lower than the national average. The share of population over working age was comparable to the national average only in the Republic of Karelia and the Arkhangelsk Oblast: 16% and 15.4% vs. 18.5% in the RSFSR in general. The share of retirement age population in Chukotka and Yamalo-Nenets autonomous okrugs was almost 10 times lower than the national average, in Khanty-Mansi Autonomous Okrug and the Magadan Oblast – 5 times lower, in Taimyr (Dolgano-Nenets) and Evenk autonomous okrugs and Kamchatka Krai – 3.5 – 4 times lower, in the Republic of Sakha (Yakutia), Nenets Autonomous Okrug, the Republic of Tyva, the Murmansk Oblast, the Komi Republic and the Sakhalin Oblast – 1.8 – 2.8 times lower.

In addition, population ageing in Russia's Northern regions also has certain features conditioned by the peculiarities of demographic processes. Life expectancy indicators in virtually all the Northern RF subjects (except for Khanty-Mansi and Yamalo-Nenets autonomous okrugs) lag behind the national average [12], curbing the rate of ageing *from the top*. In this respect, the example of the Tyva Republic is of a particular interest, because here the state of affairs concerning population mortality is one of the most unfavorable in the country: in the 1990s life expectancy in the republic differed by more than 10 years

Table 2. Age structure of the population in the Northern regions of Russia according to the censuses* [6, 7, 8]

Region	Share of population			Share of able-bodied population among the people aged 16 and older, %
	under working age, %	working age, %	over working age, %	
1989				
RSFSR	**24.5**	**57.0**	**18.5**	**24.5**
Republic of Karelia	25.6	58.4	16.0	21.5
Arkhangelsk Oblast	26.6	58.0	15.4	21.0
including Nenets Autonomous Okrug (AO)	*30.9*	*61.4*	*7.7*	*11.1*
Sakhalin Oblast	27.2	62.7	10.1	13.9
Komi Republic	28.0	62.1	9.9	13.8
Murmansk Oblast	27.4	64.0	8.6	11.8
Tyva Republic	37.3	54.9	7.8	12.4
Republic of Sakha (Yakutia)	32.5	61.0	6.5	9.6
Evenk AO	33.0	61.7	5.3	7.9
Kamchatka Krai	28.2	66.5	5.3	7.4
Taymyr (Dolgano-Nenets) AO	34.0	61.5	4.5	6.8
Magadan Oblast	29.4	66.9	3.7	5.2
Khanty-Mansi AO	33.2	63.3	3.5	5.2
Yamalo-Nenets AO	32.8	65.2	2.0	3.0
Chukotka AO	30.6	67.5	1.9	2.7
2002				
Russian Federation	**18.1**	**61.3**	**20.5**	**25.1**
Republic of Karelia	18.0	62.9	19.1	23.3
Arkhangelsk Oblast	18.7	62.7	18.6	22.9
including Nenets AO	*25.4*	*63.0*	*11.6*	*15.5*
Sakhalin Oblast	18.6	66.5	14.9	18.3
Komi Republic	19.8	66.1	14.1	17.6
Murmansk Oblast	18.1	68.4	13.5	16.5
Kamchatka Krai	18.8	68.9	12.3	15.1
Magadan Oblast	19.1	69.8	11.1	13.7
Republic of Sakha (Yakutia)	26.5	63.5	10.0	13.6
Evenk AO	26.9	63.8	9.3	12.7
2010				
Russian Federation	**16.2**	**61.6**	**22.2**	**26.5**
Republic of Karelia	16.0	61.2	22.8	27.1
Arkhangelsk Oblast	16.7	61.6	21.7	26.1
including Nenets AO	*22.7*	*63.0*	*14.3*	*18.5*
Sakhalin Oblast	16.7	63.7	19.6	23.5
Murmansk Oblast	16.2	65.5	18.3	21.8
Komi Republic	17.7	64.7	17.6	21.4
Kamchatka Krai	17.1	65.6	17.3	20.9
Magadan Oblast	16.8	66.5	16.7	20.1
Republic of Sakha (Yakutia)	23.3	64.0	12.7	16.6
Khanty-Mansi AO	20.4	69.0	10.6	13.3
Chukotka AO	22.4	67.3	10.3	13.3
Tyva Republic	30.5	59.7	9.8	14.1
Yamalo-Nenets AO	22.0	70.2	7.8	10.0
Taymyr (Dolgano-Nenets) AO	…	…	…	…
Evenk AO	…	…	…	…

* ranked according to the decrease in the share of population over working age
… data not available

from the national average, there were periods when this figure for men did not reach 50 years [13]. Consequently, in 1989 – 2002, the Republic of Tyva experienced not the increase but, on the contrary, the decrease in the share of population over working age from 7.8% to 6.3%, and among adult population – from 12.4% to 9.5%.

Fertility rates in some regions of the Asian North and Nenets Autonomous Okrug exceed the national average [12]; this fact contributes to the reduction of ageing *from the bottom*. In the 1989 – 2002 period, the percentage of children decreased in Tyva and Yakutia, Nenets, Evenk, Yamalo-Nenets, Taimyr (Dolgano-Nenets) and Chukotka autonomous okrugs less significantly than in the Russian Federation on the whole *(tab. 3)*. At the same time, in 2002 – 2010, the rate of decline in the share of children in Yakutia, Nenets and Yamalo-Nenets autonomous okrugs was higher than in the country as a whole, which indicates the intensification of demographic transition among the indigenous peoples of the North. In other words, the demographic ageing *from the bottom* in almost all of the European North and in a number of regions of the Asian North has recently been more intensive, than the national average.

In addition, the ageing of population in the Northern regions is facilitated by migration outflow from the Northern territories, going on for 3 decades already. As a result, the rates of increase in the share of population over working age significantly exceed the national average indicators.

In the Northern territories, the scale of migration outflow, 70% of which is comprised by able-bodied population, has been growing up to the mid-1990s. As for Russia in general, this period was characterized by the largest scales of migration inflow from the Near Abroad. Therefore, the 1989 – 2002 intercensal period witnessed the most significant differences in the growth rates of the share of retirement age population. The share of population over working age has increased over this period by 10.8% in Russia in general, while in Chukotka Autonomous Okrug it has increased 3.5-fold, in the Magadan Oblast – 3-fold, in Kamchatka Krai and Yamalo-Nenets Autonomous Okrug – 2.3-fold.

The growth rates of retirement age people among adult population differed more substantially from the national average. At that, such an excess was observed along with the fact that life expectancy in the majority of the Northern territories was lagging behind the national average. A special situation, as it was mentioned earlier, was developed in the Tyva Republic, where the role of migration turned out to be less significant than the extremely unfavorable role of mortality. Premature mortality in Tyva in the 1990s was so significant that there was no population ageing in the period of 1989 – 2002. On the contrary, the share of population over working age decreased by almost 20%, and its percentage in the composition of the adult population – by 23%.

Population outflow from the Northern territories was significant virtually up to the end of the 1990s. Some researchers call 1999 the year of the second change in the dynamics of the Northern population, because after the 1998 default due to the slump of the ruble exchange rate the opportunities of exporting industries broadened and the attractiveness of the Northern regions began to rise once again. This reduced the differences between the ageing rates in the Northern regions and the national average. Nevertheless, in the inter-census period of 2002 – 2010, the growth rates of retirement age population in all the Northern regions were considerably higher than in Russia as a whole. In these years, the national average share of population over working age increased by 8.3%; at the same time, in Yamalo-Nenets Autonomous Okrug – by almost 70%, in the Republic of Tyva, Khanty-Mansi and

Table 3. Changes in the age structure of the population of Russia's Northern regions between the censuses of 1989 and 2002 and the censuses of 2002 and 2010*

Region	Rate of increase (decline) in the share of population			Rate of increase (decline) in the share of population over working age among the people aged 16 and older, %
	under working age, %	working age, %	over working age, %	
Between the censuses of 1989 and 2002				
Russian Federation	**-26.1**	**7.5**	**10.8**	**2.4**
Tyva Republic	-9.1	8.9	-19.2	-23.4
Republic of Karelia	-29.7	7.7	19.4	8.4
Arkhangelsk Oblast	-29.7	8.1	20.8	9.0
including Nenets AO	*-17.8*	*2.6*	*50.6*	*39.6*
Komi Republic	-29.3	6.4	42.4	27.5
Sakhalin Oblast	-31.6	6.1	47.5	31.7
Taymyr (Dolgano-Nenets) AO	-24.1	9.4	53.3	36.8
Republic of Sakha (Yakutia)	-18.5	4.1	53.8	41.7
Murmansk Oblast	-33.9	6.9	57.0	39.8
Evenk AO	-18.5	3.4	75.5	60.8
Khanty-Mansi AO	-31.3	11.2	94.3	69.2
Yamalo-Nenets AO	-24.1	8.1	130.0	103.3
Kamchatka Krai	-33.3	3.6	132.1	104.1
Magadan Oblast	-35.0	4.3	200.0	163.5
Chukotka AO	-24.2	3.9	252.6	222.2
Between the censuses of 2002 and 2010				
Russian Federation	**-10.5**	**0.5**	**8.3**	**5.6**
Arkhangelsk Oblast	-10.7	-1.8	16.7	14.0
including Nenets AO	*-10.6*	*0.0*	*23.3*	*19.4*
Republic of Karelia	-11.1	-2.7	19.4	16.3
Komi Republic	-10.6	-2.1	24.8	21.6
Republic of Sakha (Yakutia)	-12.1	0.8	27.0	22.1
Sakhalin Oblast	-10.2	-4.2	31.5	28.4
Murmansk Oblast	-10.5	-4.2	35.6	32.1
Kamchatka Krai	-9.0	-4.8	40.7	38.4
Magadan Oblast	-12.0	-4.7	50.5	46.7
Chukotka AO	-3.4	-4.0	53.7	52.9
Tyva Republic	-10.0	-0.2	55.6	48.4
Khanty-Mansi AO	-10.5	-2.0	55.9	51.1
Yamalo-Nenets AO	-11.6	-0.4	69.6	63.9
Taymyr (Dolgano-Nenets) AO	…	…	…	…
Evenk AO	…	…	…	…

* ranked according to the growth in the increase rates of the population over working age.
… data not available
Sources: calculated according to [6,7,8,].

Chukotka autonomous okrugs – by 54-55%, in the Magadan Oblast – by 50%, in Kamchatka Krai, the Murmansk and Sakhalin oblasts – by 30-40%, in the Republics of Yakutia and Komi and Nenets Autonomous Okrug – by 23-27%, in the Arkhangelsk Oblast in general and the Republic of Karelia – by 17-20%.

This resulted in the fact that the degree of demographic ageing in the Northern territories approached the national average. The maximum difference in the share of population over working age in 2010 did not exceed three times (Yamalo-Nenets Autonomous Okrug), while in 1989 it was almost 10 times (Chukotka

and Yamalo-Nenets autonomous okrugs). In Karelia the percentage of retirement age population is already higher than in the Russian Federation as a whole, in the Arkhangelsk Oblast it is very close to the national average.

The process of population ageing, which will intensify in the near future under the influence of Russia's demographic history, will affect the economic and social sphere in particular. The most significant consequence consists in the increase of economic (demographic) dependency on the able-bodied population. Dependency ratio is the number of people under and over working age per 1000 working age people. Depending on the purposes of the analysis, one can study the regularities of economic dependency in general and separately, considering people under working age and people of retirement age.

In the 1990s, when fertility rates were low and the level of premature mortality was extremely high, Russia witnessed a significant decline in dependency ratio *(tab. 4)*.

Moreover, the reduction of the general level of economic dependency in a number of the Northern regions was greater than in the country as a whole: in Khanty-Mansi, Taimyr (Dolgano-Nenets) and Yamalo-Nenets autonomous okrugs, in Tyva, Karelia, the Murmansk and Arkhangelsk oblasts *(tab. 5)*. At the same time, in Russia, economic dependency at the expense of people over working age has increased markedly, and in the Northern regions (except for the Republic of Tyva), that in this period were characterized by a significant excess of the national ageing rates, the degree of increase proved quite high.

As it was noted, the country has been experiencing birth rate increase since 2000, and there has been a sustainable increase in the life expectancy of its population since 2004. However, due to a considerable migration inflow from the Near Abroad, the dependency ratio of Russia's population went on declining in the last inter-census period as well.

Table 4. Economic dependency ratio according to population censuses, per 1000 able-bodied people*

Region	1989		2002		2010	
	Persons under and over working age	Persons over working age	Persons under and over working age	Persons over working age	Persons under and over working age	Persons over working age
Russian Federation	**754**	**325**	**630**	**334**	**623**	**360**
Tyva Republic	821	142	672	105	675	164
Republic of Karelia	712	274	590	304	634	373
Arkhangelsk Oblast	724	266	595	297	623	352
including Nenets AO	*629*	*125*	*587*	*184*	*587*	*227*
Sakhalin Oblast	595	161	504	224	570	308
Republic of Sakha (Yakutia)	639	107	575	157	563	198
Komi Republic	610	159	513	213	546	272
Murmansk Oblast	563	134	462	197	527	279
Kamchatka Krai	504	80	451	179	524	264
Magadan Oblast	495	55	433	159	504	251
Chukotka AO	481	28	427	96	486	153
Khanty-Mansi AO	580	55	420	97	449	154
Yamalo-Nenets AO	534	31	418	65	425	111
Taymyr (Dolgano-Nenets) AO	626	73	486	103	…	…
Evenk AO	621	86	567	146	…	…

* Ranked according to the decrease of economic dependency ratio in 2010.
… data not available
Sources: calculated according to [6,7,8,].

Table 5. Changes in economic (demographic) dependency ratio*

Region	In 1989 – 2002		In 2002 – 2010	
	Due to the persons under and over working age, %	Due to the Persons over working age, %	Due to the persons under and over working age, %	Due to the Persons over working age, %
Russian Federation	**-16.4**	**2.8**	**-1.1**	**7.8**
Republic of Sakha (Yakutia)	-10.0	46.7	-2.1	26.1
Tyva Republic	-18.1	-26.1	0.4	56.2
Yamalo-Nenets AO	-21.7	109.7	1.7	70.8
Arkhangelsk Oblast	-17.8	11.7	4.7	18.5
including Nenets AO	*-6.7*	*47.2*	*0.0*	*23.4*
Komi Republic	-15.9	34.0	6.4	27.7
Khanty-Mansi AO	-27.6	76.4	6.9	58.8
Republic of Karelia	-17.1	10.9	7.5	22.7
Sakhalin Oblast	-15.3	39.1	13.1	37.5
Chukotka AO	-11.2	242.9	13.8	59.4
Murmansk Oblast	-17.9	47.0	14.1	41.6
Kamchatka Krai	-10.5	123.8	16.2	47.5
Magadan Oblast	-12.5	189.1	16.4	57.9
Taymyr (Dolgano-Nenets) AO	-22.4	41.1	…	…
Evenk AO	-8.7	69.8	…	…

* Ranked according to the increase of the overall economic (demographic) dependency in 2010.
… data not available
Sources: calculated according to [6,7,8,].

At the same time, most of the Northern regions in 2002 – 2010 were characterized by the increase in the level of total demographic dependency. Only the Republic of Sakha (Yakutia), where a slight increase in the number of population was registered in the last intercensal period, is characterized by the decrease of demographic dependency that is even more significant, than in Russia as a whole. There has been a zero increase in economic dependency in Nenets Autonomous Okrug. According to the estimates of regional statistical offices, in the Northern regions demographic dependency started increasing in 2006 – 2007. [13]. In general, for 2002 – 2010, the degree of its increase ranges from 0.4% in Tyva to 16% in Kamchatka Krai and the Magadan Oblast.

During the last inter-census period, dependency ratio in Russia increased more significantly than in 1989 – 2002 at the expense of people over working age. At the same time, in the Northern regions, except for Tyva, Karelia and the Arkhangelsk Oblast as a whole, the rate of increase in economic dependency caused by the retirement age population has decreased. This, taking into account the fact that life expectancy in the Northern territories is approaching to that of the Russian average, can be regarded as the evidence of a more successful implementation of Northern pensioners' resettlement programmes in the 2000s.

As it has already been stated, Russia's population no doubt exceeded the threshold of old age in 2002. The population age structure in the Northern regions, except for Karelia and the Arkhangelsk Oblast cannot be considered 'old' yet. At least, not by all the known scales of old age: the share of retirement age population (men aged 60 and older, women aged 55 and older) does not exceed 20%. At the same time, the Russian North, experiencing population decline due to migration outflow from the second half of the 1980s, is characterized by the high rates of ageing. The sectoral system of economic management and inconvenient

living conditions make special requirements to the characteristics of population's health, and accordingly, to its age structure. In addition, it should be taken into account that the Northern regions have a reduced retirement age, which is an additional factor increasing the economic pressure on the working population.

However, let us take a look at the number and age structure of the population, putting aside unfavourable trends of their changing. According to the 2010 census, Russia's population comprises 142.9 million people. Is it much or little? In 2002, the population was 145.2 million people, in 1989 – 147.0 million people. Evidently, the population is decreasing more and more rapidly, because in recent years there has been a sharp decline in external migration that compensated for this loss. But as early as 1979, the population of the RSFSR was smaller than it is now, it amounted to 137.4 million people. In 1970 it was 130.0 million people, in 1959 – 117.5 million people, in 1926 – 92.7 million people. The share of Russia's working age population over the period under review was smaller than at present: in 1926 it amounted to 51.7%, in 1959 – 58.4%, in 1970 – 56.0%, in 1979 – 60.4%, in 1989 – 57.0%, in 2002 – 61.3%, in 2010 – 61.6%. Even considering the forecasted reduction in the share of working age population by 2020 – 2025 to 57.6 – 57.9% [14], it will remain higher than in 1989.

Thus, all the 'Great construction projects of communism' (and the results were very impressive indeed: during the 1920s – 1980s the agrarian state has turned into the mighty industrial power) were carried out using less human resources but exceedingly labour-consuming technologies. Today, given the objective necessity of transition to innovation economic development based on advanced labour-saving technologies, the increase in the population and the number of labour resources should not be considered as the priorities of demographic development, especially while the level of hidden and open unemployment remains high even in the conditions of economic growth. The overall unemployment level in Russia in 2000 amounts to 6 – 10% of the economically active population. In the transition to labour-saving innovation economy, it is very likely to increase significantly. Especially given the fact that the external migration from the Near Abroad, in spite of its recent reduction, will still provide Russia's labour market with human resources. And the better Russia's economy develops, the greater will be the inflow of immigrants.

One should not forget about a large number of working pensioners, who can give their young counterparts a good run for their money due to a high professionalism and more modest requirements to remuneration. According to experts, about 30% of pensioners have to work, because it is impossible to live on a pension alone. At the same time, the Pension Fund fails to cover up to 50% of the population's pension provision. And in the conditions of increase in ageing rates, the situation with pension provision will only worsen. Accordingly, the pension reform in Russia is inevitable. In the industrialized countries (with high labour productivity and significant pension contributions) the retirement age is much higher, and what is more, the reforms, aimed at its further increase, are being carried out. In our opinion, the pension reform in Russia will be implemented in the nearest decade already (and the society has to be prepared for this, and informed about the probable changes in the threshold of retirement age), which will help mitigate the negative economic consequences of population ageing.

The policy of economic modernization, announced in the country, is inextricably linked to the necessity of labour productivity enhancement. According to expert estimations, if Russia intends to become a full-fledged member of the G8 and maintain its position in the BRIC countries, then labour productivity in Russia's economy has to increase 3.6 – 4.1-fold by 2030 [15, p. 8].

It is emphasized that the reduction of opportunities for the growth of labour supply will not be compensated by the enhancement of labor productivity, induced by the growth of capital. However, the change in the country's labour potential is not always connected with the change in the number of working-age population. Even if the amount of labour resources is stable and declining, the labour potential can grow through the enhancement of qualitative characteristics: enhancement of educational and professional level, improvement of health, development of population's physical fitness, enhancement of cultural level, etc. In addition, the increased efficiency of the obsolete production facilities modernization, which will be carried out in the country in the near future within the framework of the governmental policy, can provide higher growth rates of Russia's economy [15, p. 9-10].

Thus, from the economic viewpoint, the increase in the pace of Russia's population ageing does not pose as serious a threat as it is traditionally believed. Perhaps, the social aspects of demographic ageing are more important, especially for Russia, where the standard of living is not very high. The world studies on demographic ageing are focused first of all on the ways of improving the lives of elderly people. So, the International Plan of Action on Ageing, developed in Madrid in 2002, focuses on three priority areas: 1) elderly people and the development of society; 2) enhancement of health and welfare of elderly people; 3) creation of convenient and favorable conditions for their living. The Plan contains recommendations in seven spheres: health and nutrition; protection of elderly people as consumers; housing and environment; family; social security; income security and employment; education [16]. In Russia, the studies on population ageing, public opinion and practice in relation to elderly people should also focus on these directions. In Russia, the acute issue of poverty alleviation is especially urgent with regard to elderly people: obviously, the current pensions do not ensure decent living standards. While the priority social task of the government is to provide the people, who worked for the benefit of the country, with comfortable and decent living. And the assertions, that the government lacks funds for establishing decent pensions, are simply ridiculous.

The increasing rates of population ageing make greater demands to the health care system. One of the most significant problems consists in the necessity to bring its structure in compliance with the population's age structure, as well as the availability of medical services for elderly people. Besides, the attitude toward elderly people in medical institutions should be changed. It is known that they are not 'priority' patients for an ambulance; that their complaints are often disregarded in polyclinics; and hospitals do not provide them with the same treatment that is prescribed for younger patients.

The issues of social well-being of elderly people are also very important. How to change one's life and attitude in old age? How to delay the 'onset' of old age and turn the whole life into a single continuous creative process? In the first place, it is necessary to provide job opportunities to all the pensioners, who are willing and able to work. Gerontologists note that the main task of an ageing society is to motivate and promote active longevity of population. On the one hand, it is necessary to eliminate age discrimination with regard to employment. It is well known that nowadays, it is virtually impossible for pensioners and even persons of pre-retirement age to find a job. Moreover, employers often dismiss elderly personnel under some pretext, disregarding the fact that their significant professional experience and desire to work can compensate for their physical ageing. Age should not be an obstacle either for employment or for further education, if there are no other restrictions.

On the other hand, elderly persons must be constantly reminded that the process of individual ageing is accelerated by a sharp decline in the physical activity, intellectual activity and workload. An occupation, an opportunity to do good to their relatives and society on the whole, the increase in the duration of active life contribute very much to the increase in the life expectancy of an individual.

It is necessary to provide the people of older age with an opportunity to realize their creative potential. Elderly people in the Western countries are very active: they attend universities, hobby groups, working teams; they draw, write verses and prose, sing. As for Russia, the active creative life of the elderly is very limited. At the same time, the experience of communicating with pensioners, who implement their creative potential, shows, how much it contributes to the strengthening of their physical health and longevity.

People of senile age should be provided with quality social services. This issue is very urgent, if we take into account the increase in the share of people over 75 years (in 2010 it was 5.4% of the total number of population [8] compared to 2.4% in 1970 [4]). At present, caring for infirm old people is predominantly an obligation of their relatives. Specialized old people's homes take in mainly elderly people who have no relatives. Moreover, society tends to form a very negative opinion about the people who 'sent their mother (fathers rarely live to a senile age) to a retirement home'; so, even if they have such an opportunity, the people, who do not belong to marginal groups, choose to take care of their old parents at home on their own. But let us take a look at the situation from another angle. An old person aged about 80 can rely mainly on the care of his/her daughter (less likely, daughter-in-law), who herself is at least 50 – 60 years old. Perhaps, she is still working or wants to carry on, as 50 – 60 years is, in fact, the age of artistic maturity of an individual. She has grown-up children aged about 30 – 35, who are still learning to stand on their own feet and require her support as well. In addition, her first grandchildren are now passing from childhood to adolescence, bringing a lot of problems that need to be addressed timely and very delicately, which also requires grandmother's attention. At the same time, her elderly mother, in addition to age and physical weakness, has a whole bunch of diseases that require specialized medical attention. And this situation is typical of a well-to-do multi-generational family.

In our opinion, in the first place, it is necessary to change the attitude of society to the issue of providing social services to elderly people in caregiving facilities. Elderly persons themselves as well as their grown-up children should not consider it shameful or embarrassing. Secondly, certain reforms should be introduced into the system of caregiving facilities itself so that, for instance, law abiding people would not live alongside ex-offenders. And at present, it is the rule rather than exception, because the residents of old people's homes are, for the most part, lonely old persons; and among them there are quite a few people who spent most of their lives in prison. Thirdly, it is necessary to build comfortable retirement homes for the elderly. There are more than enough financial mechanisms for providing the citizens with proper social care and specialized medical attention. Fourthly, caregiving facilities of various formats should be established. For example, old people's homes functioning only in winter are very convenient in rural areas, because in summer the old prefer to live at home and work in their gardens, which also increases the duration of their active life. This issue, no doubt, requires special consideration and solution.

Another problem of Russian society is connected with the change in the attitude toward people of older ages. A Soviet song went: 'The young are welcomed everywhere, the old are honoured everywhere'. And these

words were quite true. At present, *ageism*, i.e. the discrimination of the elderly, is manifested more and more frequently due to many reasons. In particular, according to some viewpoints, ageism is connected with the fact that Russia is, in its essence, a 'warrior' country that corresponds to the 'aggressive' average age of its population – 35-40-45 years, and all the other ages (both younger and older) are less valuable. Another viewpoint claims that in the society with an established cult of beauty and physical strength, old people are 'not glamorous', which means, they are 'second-rate'. But in any case, ageism indicates the spiritual degradation of society, and it is society itself that needs treatment.

Population ageing is, indeed, an objective and, all in all, a progressive process for a civilized country. It cannot be avoided under any circumstances. And in Russia, in favourable conditions, it will only increase due to the peculiarities of Russia's demographic history, as well as the progress in enhancing the life expectancy of its population. Russia is approaching the model of demographic ageing of developed countries. The same is true for its Northern territories. Therefore, the society should be prepared for the increase of demographic ageing. And the society should not see only negative sides in ageing. The future depends on the fact whether we will be able to revise our attitude toward old age.

References

1. World Population Ageing 2009 (United Nations publication ESA/P/WP/212. December 2009). Available at: http://www.un.org/esa/population/publications/WPA2009/WPA2009_WorkingPaper.pdf. (access date: March 02, 2013).
2. Dobrokhleb V.G. Demographic ageing and the emergence of new social norms in an ageing society. In: Demographic prospects of Russia. Moscow: Econ-Inform, 2008. P. 181-205.
3. Demographic encyclopedic dictionary. Moscow, 1985.
4. The results of the All-Union population census of 1970. Vol. 2: Sex, age and marital status of the population of the USSR, the union and autonomous republics, krais and oblasts. Moscow, 1972.
5. The results of the All-Union population census of 1979. T. 2: Vol. 2: Sex, age and marital status of the population of the USSR, the union and autonomous republics, krais and oblasts: statistical collection. Moscow, 1989. Part 1.
6. Age structure of the RSFSR population according to the data of the All-Union census of 1989. Moscow, 1990.
7. Age and sex composition and marital status (the results of the All-Russia population census of 2002: in 14 volumes. Federal State Statistics Service). Moscow, 2004. Vol. 2.
8. All-Russia population census of 2010. Available at: http://www.gks.ru/free_doc/new_site/perepis2010/croc/perepis_itogi1612.htm. (access date: March 02, 2013).
9. Demographic yearbook of the Russian Federation. 1993: statistical digest. Moscow, 1994.
10. Demoscope Weekly. 2012. No. 499 – 500. Issue of February 20 – March 4. Available at: http://demoscope.ru/weekly/2012/0499/index.php (access date: March 02, 2013).
11. On the measures for enhancing state support to families with children: the Decree of the CPSU Central Committee, the Council of Ministers of the USSR dated January 22, 1981 No. 235. Collection of Decrees of the USSR Government. 1981. No. 13. P. 75.
12. Popova L.A. Demographic policy in Northern Russia: peculiarities and priorities. Region: economics and sociology. 2010. No. 3. P. 136-153.
13. Demographic yearbook of the Republic of Komi. 2010: stat. collection. Komistat. Syktyvkar, 2010.
14. Rybakovskiy L.L. Features of the present demographic situation. In: Demographic prospects of Russia. Moscow, 2008. P. 94-104.
15. Suspitsyn S.A. Spatial transformations: forecasts and assessments made by using a complex of hierarchy calculations concerning the development of the multiregional structure of the Russian Federation. Region: economics and sociology. 2010. No. 3. P. 3-22.
16. Report of the Second World Assembly on ageing, Madrid, 8 – 12 April, 2002. Available at: http://social.un.org/ageing-working-group/documents/mipaa-ru.pdf. (access date: March 02, 2013).

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Inefficient VAT administration as a threat to Russia's economic security

Under the conditions of constant budget deficit and high debt burden, the search for funding sources of Russia's economic growth has become an acute issue. One of such sources is value-added tax (VAT), which forms over 50% of the federal budget tax revenues. At the same time, the current system of VAT administration does not meet the requirements of the country's economic development. The possibility of legal tax refund can lead to tax evasion, the extent of which is estimated at about two trillion rubles. At that, tax management measures concerning VAT, despite the high costs of their implementation, do not bring the desired effect.

By analyzing VAT administration practice, the author proposes a set of measures that will provide, through the introduction of amendments in tax legislation, a significant increase of budget revenues from value added tax.

VAT, tax administration, export VAT refund, optimization of privileges and exemptions.

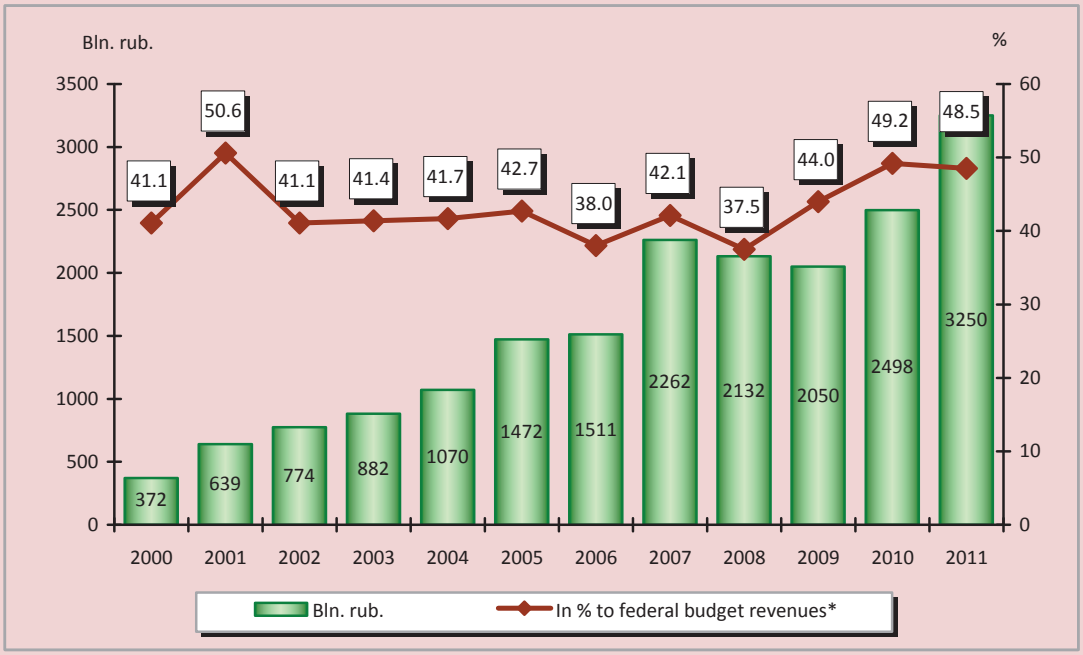
Anna I.
POVAROVA
ISEDT RAS Scientific Associate
aip150663@yandex.ru

Value added tax was introduced in 1992 to replace the then turnover tax.

VAT is a systematically important tax that provides 40 – 50% of the federal budget revenues. An important fiscal peculiarity of this tax consists in the fact that, due to a wide-scale tax base, it is less susceptible to market fluctuations of prices for raw materials and energy than other taxes, which is proved by a rather stable dynamics of VAT share in the federal budget revenues *(fig. 1)*. VAT collecting is based economically on the act of goods turnover rather than the financial result, the fact that distinguishes VAT from profit tax to the advantage of the former.

At the same time, VAT administration is connected with serious problems. Being an organizational and managerial system of implementing tax relations, tax administration comprises regulation and control methods, the use of which is intended to ensure planned tax revenues in the budget. However, the value added

Figure 1. Dynamics of VAT revenues to the federal budget of the Russian Federation in 2000 – 2011



* Excluding the revenues from foreign economic activity.
Sources: Treasury of Russia; author's calculations.

taxation methodology contains a contradiction, because tax base is determined by the amount of revenue or profit from the realization of the entire aggregated value[1], rather than the amount of value added, this was the essence of transition from turnover tax to VAT.

A well-known indicator of VAT administration quality is represented by the tax collection coefficient, which represents the ratio of the amount of actually received VAT to the amount of tax debt *(fig. 2)*. This coefficient can also indicate the efficiency of the fiscal function of VAT, because debt is an important budget reserve that remains unrealized.

In 2006 – 2012, the dynamics of VAT collection rate was similar to the dynamics of tax arrears. The obtained values of the coefficient indicate that there are certain reserves for increasing VAT collection rate to 20% due to the elimination of existing debt.

[1] See Item 2, Article 153 of the RF Tax Code.

The most significant parameter of VAT administration quality, applied in the world practice, is the efficiency ratio (Co-efficiency), which shows what percentage of the base (final consumption) is effectively taxed, and is calculated by the formula:

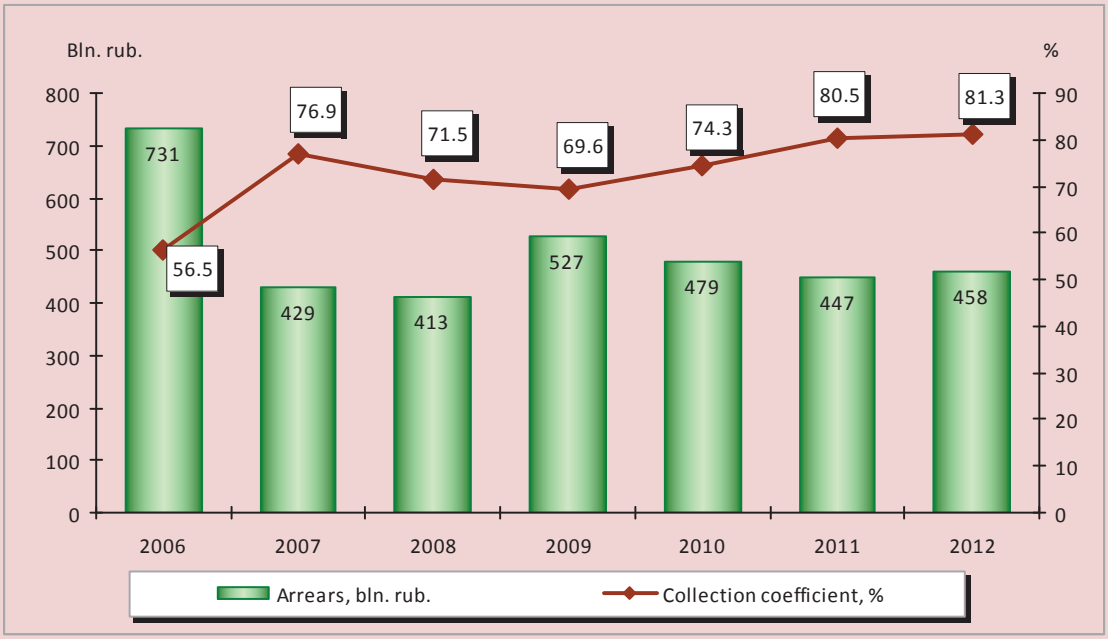
$$\text{Co-efficiency} = \frac{\text{VAT collections}}{\text{VAT standard rate} \times \text{final consumption}}$$

The increasing value of the coefficient (at a maximum, equal to 1) indicates a high quality of tax administration.

Using the data of the Treasury of Russia and Rosstat, the author makes an attempt to evaluate the efficiency of VAT administration in the Russian Federation *(tab. 1)*.

The assessment results showed a significant reduction of VAT efficiency ratio – from 0.52 in general for 2000 – 2007 to 0.43 for 2008 – 2011, which indicates the decline in VAT collection, and hence the low quality of the tax administration mechanism. It should be noted

Figure 2. Dynamics of the arrears of VAT payable to the budget and VAT collection rate in 2006 – 2012



Source: Federal Tax Service of Russia; author's calculations

Table 1. Assessment of VAT administration efficiency in 2000 – 2011

Indicators	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
VAT revenues, trillion rubles	0.46	0.64	0.75	0.88	1.07	1.47	1.51	2.26	2.13	2.05	2.50	3.25
Expenditures for final consumption, trillion rubles	4.48	5.89	7.48	9.06	11.48	14.44	17.81	21.97	27.54	29.27	32.51	37.44
Standard rate of VAT, %	20	20	20	20	18	18	18	18	18	18	18	18
Efficiency ratio	0.51	0.54	0.50	0.49	0.52	0.57	0.47	0.57	0.43	0.39	0.43	0.48

that Russia is characterized by one of the lowest levels of VAT administration. So, for example, the efficiency ratio of some countries in 2008 was as follows: 0.98 in New Zealand; 0.93 in Luxembourg; 0.78 in Canada; 0.70 in Korea; 0.50 in Australia [7].

What is the reason for such a low quality of VAT manageability in the Russian Federation?

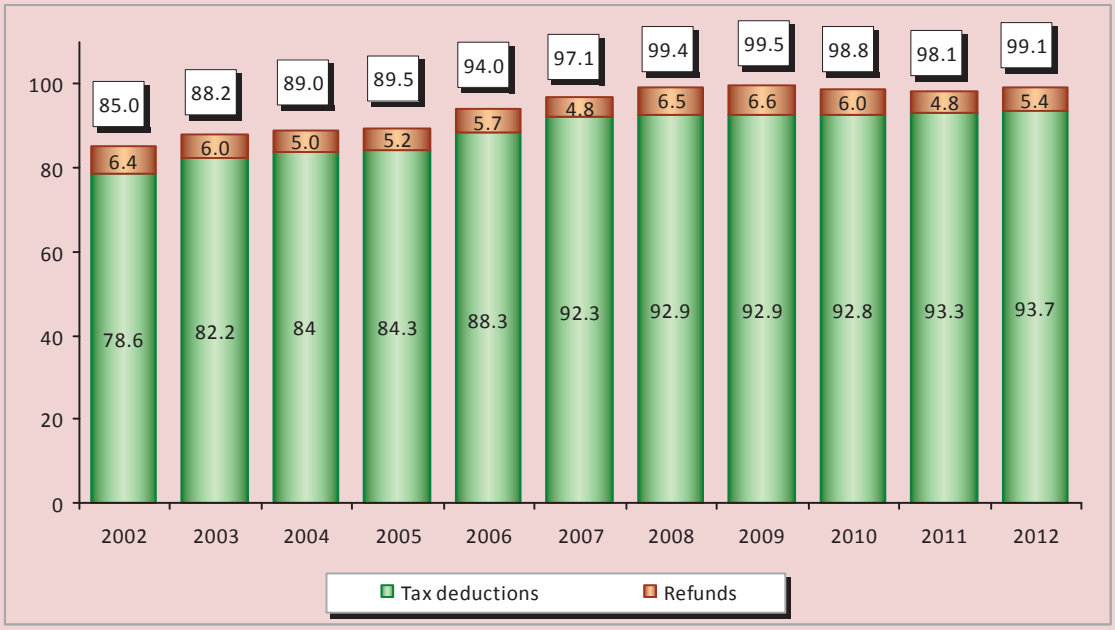
The fact is, that the tax structure that allows many of tax preferences[2] to be applied, leads to a significant reduction of budget funds. The share of tax deductions and refunds in the amount of VAT, calculated on the taxable objects, reached 99% in 2012 against 85% in 2002 *(fig. 3)*.

Moreover, with the overall increase in the added value, the growth rates of VAT deductions exceeded the growth rates of accrued tax *(fig. 4)*.

According to the forecast of the Russian Federation Finance Ministry, the share of tax deductions alone will amount to an average of 93% in 2013 – 2015. Therefore, while preserving the existing tendencies of increasing exemptions and refunds, the volume of tax deductions can, in the medium term, achieve the total volume of accrued VAT, which contradicts the essence of the tax and poses a threat to the country's economic security.

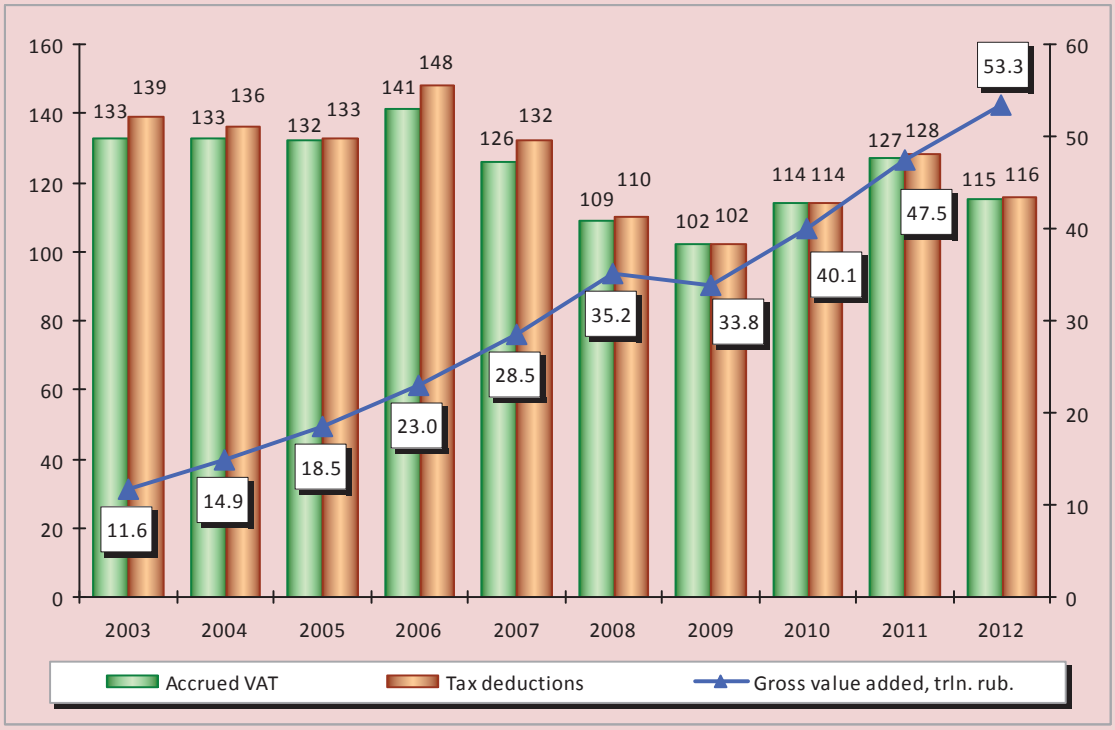
[2] The RF Tax Code stipulates over 100 types of VAT privileges and exemptions.

Figure 3. Share of tax deductions and refunds in the amount of calculated VAT in 2002 – 2012, %



Source: author's calculations based on the data by the Federal Tax Service of Russia.

Figure 4. Dynamics of growth rates of accrued VAT
and tax deductions in 2003 – 2012, % to the previous year



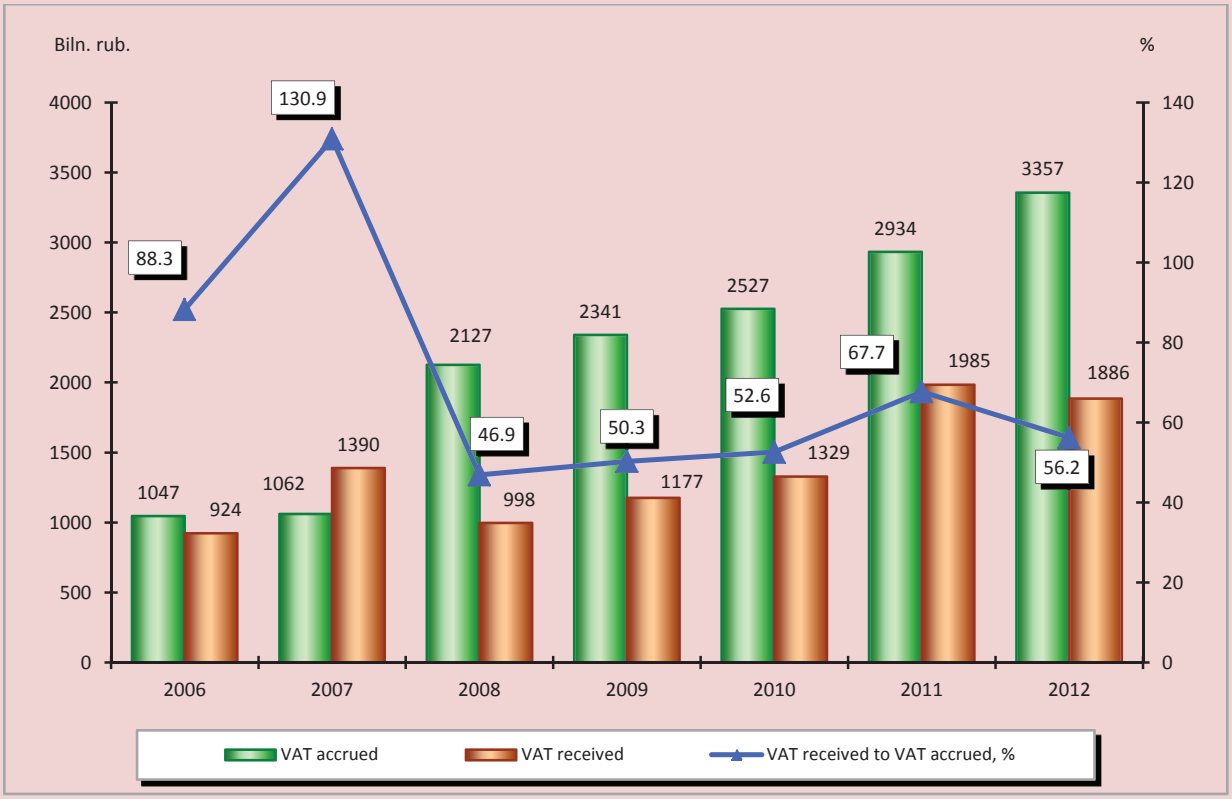
Sources: Rosstat; Federal Tax Service of Russia; author's calculations.

In addition, collected/accrued VAT volumes ratio indicates a negative tendency of increasing number of tax evasions. For instance, the tax revenues accounted for 88% of the planned amount in 2006 and for only 56% in 2012 *(fig. 5)*. This tendency has in many respects resulted from the new order of VAT payment by the accrual method, introduced in 2006, which formalized the taxpayers' rights to VAT refund if an invoice for the purchase of goods is available, even if the goods have not been paid for.

The refund of VAT on export operations arouses particular concern, as in 2006 – 2012 the volume of indemnifiable taxes amounts to approximately 80% of the amount of VAT received by the budget *(tab. 2)*.

Before the adoption of the Tax Code, VAT refund was not effected. The introduction of the code established a mechanism of tax calculation and payment, stipulating, at the zero rate of VAT on export sales, the full refund of the tax paid by exporters to their suppliers.

Figure 5. Dynamics of accrued and received VAT* in 2006 – 2012



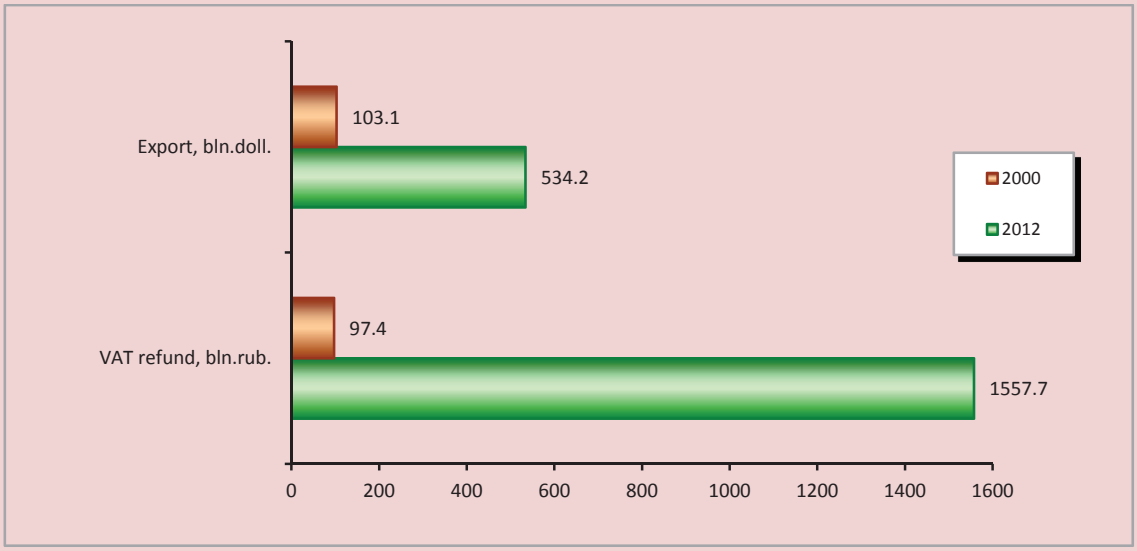
* VAT on the goods, work, and services, realized on the territory of the Russian Federation.
Sources: Federal Tax Service of Russia; author's calculations.

Table 2. Dynamics of VAT collection and refund in 2000 – 2012, billion rubles

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
VAT revenues*	270	477	532	619	749	1026	924	1390	998	1177	1329	1985	1886
VAT refund	97	212	239	299	331	455	707	749	1104	1149	1185	1202	1558
In % to revenues	*36.0*	*44.4*	*44.9*	*48.3*	*44.1*	*44.4*	*76.5*	*53.9*	*110.6*	*97.6*	*89.2*	*60.6*	*82.6*

* VAT on the goods, work, and services, realized on the territory of the Russian Federation
Sources: Federal Tax Service of Russia; Treasury of Russia; author's calculations.

Figure 6. Volume of exports and refund of VAT to exporters in 2000 and 2012



The general condition for applying the zero rate consists in the confirmation of the right by necessary documents.

In itself VAT refunds to exporters is a conventional world practice in foreign trade operations that stipulate VAT payment on the territory of the importing country. Originally, VAT refund was introduced for avoiding double taxation and ensuring the competitiveness of Russia's goods abroad. However, Russia started using the VAT refund mechanism to pump out huge budgetary funds, which is proved by the growing imbalances in the growth dynamics of refunded sums and export operations. According to the tax and customs statistics, the amount of VAT refund to exporters increased 16-fold in 2000 – 2012 given a 5.2-fold increase in the export of Russian goods *(fig. 6)*.

The largest exporters account for the major part of refunds. Unfortunately, the absence of appropriate tax reporting has not allowed the exact sum of these VAT refunds to be determined. Meanwhile, the statistics of Russia's Federal Customs Service (FCS) provides the opportunity for a quantitative evaluation of VAT refund to large exporters.

According to these statistics, the share of natural resources[3] and chemical industry products in 2006 – 2012 amounted to an average of 76% in the total volume of goods shipped for export. If we project this indicator onto the total amount of VAT refunds, it turns out that the tax refund to the largest exporters was equal to nearly 6 trillion rubles, or 0.8 trillion rubles annually *(tab. 3)*.

Judging by the data, about 60% of VAT allocations to the federal budget were reimbursed to several exporters of raw materials and primary processing products[3], which actually devalued their role in the formation of aggregated tax. The share of major exporters in the total volume of VAT revenues for the specified period on the average did not exceed 10%. At that, in 2008 – 2012, the arrears of VAT revenues to the federal budget were increasing. Of course, the promotion of commodity exporters that do not face such competition in the external markets, as exporters of finished products do, reduces the opportunities for diversification of export.

[3] According to statistics, the number of mining and oil-processing enterprises, as well as chemical and metallurgical plants at the beginning of 2011 was 3658 or 4% of the total number of large and medium-sized organizations.

Table 3. VAT refunds to large exporters in 2006 – 2012, billion rubles

Indicators	2006	2007	2008	2009	2010	2011	2012
Volume of export effected by large exporters*	228.6	263.9	363.8	221.3	298.9	401.6	364.8**
Share in the total volume of RF export, %	75.7	74.9	77.7	73.4	75.4	77.8	76.4
VAT refunded to large exporters	535.1	560.9	858.0	843.0	893.2	935.5	1190.1
In % to the total amount of VAT revenues	*57.9*	*40.3*	*85.9*	*71.6*	*67.2*	*47.1*	*63.1*
VAT revenues from large exporters	157.4	365.2	34.1	1.9	27.2	136.4	157.3
In % to the total amount of VAT revenues	*17.0*	*26.3*	*3.4*	*0.2*	*2.0*	*6.9*	*8.3*
Arrears of VAT revenues by large exporters	26.9	4.5	5.8	6.8	6.7	6.9	8.0

* Billion dollars.
** January – November 2012.
Sources: Federal Customs Service of Russia; Rosstat, Federal Tax Service of Russia; author's calculations.

The deterring role of VAT in technological development and the overcoming of structural imbalances in Russia's economy are proved by the branch-wise structure of VAT revenues, showing that the main burden of the tax payment weighs on the manufacturing industry, which, of course, limits the inflow of investments in production sphere. The most profitable economic sectors[4] have minimal debt load. So, for 2007 – 2012, the share of VAT revenues from manufacturing enterprises[5] increased from 13.6% to 20.2%, and from the enterprises of extraction industry, on the contrary, decreased from 28% to 10.4%. As for the subjects of financial activities, they accounted for slightly more than 2% of tax revenues *(tab. 4)*.

Chemical and metallurgical industries are the most troubled ones with regard to VAT reimbursement, due to the fact that in 2006 – 2012 VAT refund to these industries manifold exceeded its revenues. As a result, Russia's consolidated budget has lost 321 billion rubles, or a quarter of the total volume of tax payments received from metallurgical and chemical industries *(tab. 5)*.

For example, VAT refunds to Novolipetsk Steel (NLMK) alone caused the Lipetsk Oblast in 2008 to gain the status of 'red' region in its relations with the federal budget. This means that the amount of money, which the territory's budget returns, exceeds the amount of taxes this territory allocates to the budget *(fig. 7)*.

Similarly, along with the reduction of the overall tax burden and the increasing arrears in payments in the budget system[6], in 2006 – 2011 the volume of VAT submitted to the refund by the largest metallurgical holdings OAO Severstal (Vologda Oblast) and Magnitogorsk Iron and Steel Works (Chelyabinsk Oblast), was 35 and 42 billion rubles, respectively [5].

The scale of refunds to metallurgical and chemical companies indicates the emergence of a kind of business, based on gaining profit from the budget reimbursement of VAT.

Flaws in tax administration with regard to the application of zero rate on export operations are a favourable ground for unjustified claims concerning VAT refund. Meanwhile, the powers of tax authorities to control the legitimacy of VAT refund are reduced mainly to their control over the execution of tax obligations by the exporters' suppliers. However, such control is hampered by the fact that the supplier's obligation to direct the VAT received from the exporter to the budget is not even stipulated

[4] According to Rosstat, the share of financial activities in the total volume of revenues of economic entities in 2010 – 2011 amounted to 16%, extractive industries – 8%, food industry – 3.5%, mechanical engineering, production of electronic equipment and vehicles – 4.5%.

[5] Mechanical engineering, production of electronic equipment, motor cars and other transport vehicles account for 55% in the sectoral structure of VAT revenues from processing enterprises and food industry enterprises – for 35%.

[6] For 2006 – 2011 the debt load of OJSC Severstal has reduced from 9% to 3.4%, OJSC MMK – from 9.9% to 6.5% respectively. At that, tax arrears have increased 2-fold.

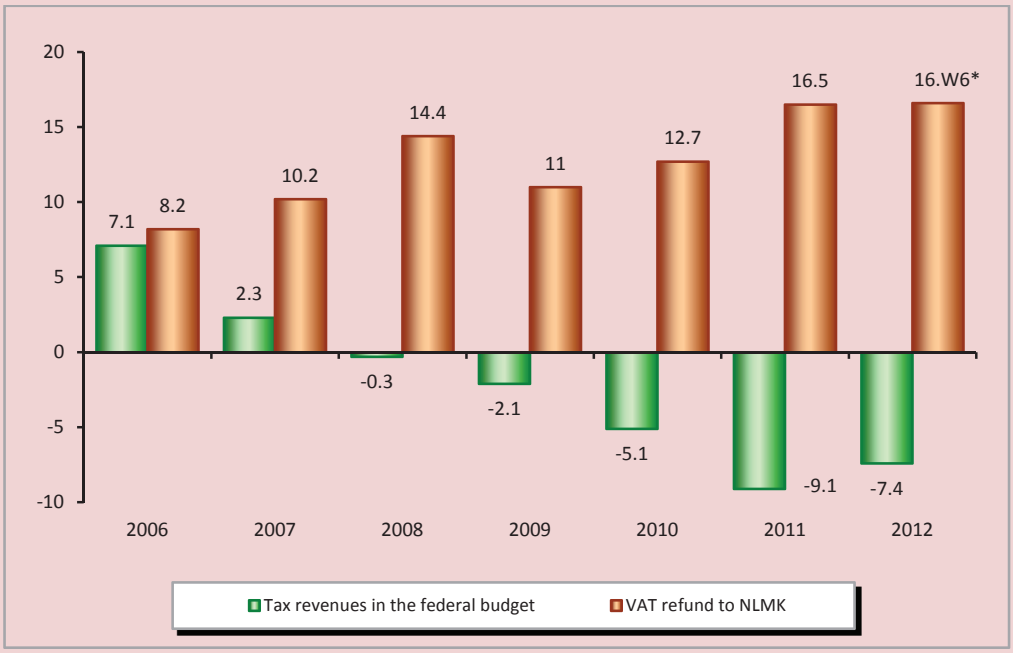
Table 4. Sectoral structure of VAT revenues in 2007 – 2012, %

Industry	2007	2008	2009	2010	2011	2012
Mining operations	27.9	11.9	5.8	7.4	9.8	10.4
Manufacturing	13.6	12.5	15.5	17.3	17.4	20.2
Building	11.8	17.8	15.2	13.3	13.3	14.7
Trade	6.5	9.0	11.8	13.2	16.5	12.5
Transport and communications	11.8	13.8	16.8	14.6	13.0	11.9
Financial activities	2.1	2.7	3.8	2.7	2.1	2.1
Real estate operations	6.3	8.2	11.9	14.4	14.1	15.6
Other	20.0	24.1	19.2	17.1	13.8	12.6
Total	100.0	100.0	100.0	100.0	100.0	100.0
Sources: Federal Tax Service of Russia; author's calculations.						

Table 5. Balance of VAT received from chemical and metallurgical production in 2006 – 2012, billion rubles

Production	2006	2007	2008	2009	2010	2011	2012	2006 – 2012
Chemical	-10.2	-10.5	-12.9	-12.2	-13.9	-14.7	-18.8	-93.2
Metallurgical	-26.3	-25.7	-47.4	-50.3	-39.3	-20.5	-18.4	-227.9
Total	-36.5	-36.2	-60.3	-62.5	-53.2	-35.2	-37.2	-321.1
In % to the amount of all the taxes received from these industries	*18.8*	*13.9*	*22.1*	*125.8*	*33.1*	*16.1*	*18.2*	*24.6*
Sources: Federal Tax Service of Russia; author's calculations.								

Figure 7. Tax revenues from the Lipetsk Oblast to the federal budget and VAT refund to NLMK from the federal budget in 2006 – 2012, billion rubles



* In January – September 2012.

Sources: Federal Tax Service of Russia; OJSC NLMK consolidated statements.

by the tax legislation. Besides, the variety and complexity of the structure of export chains can not always be controlled and it makes it difficult to trace the completeness of VAT payments. Inspections prove that the subjects of such chains often consist of fictitious counterparties (the so-called fly-by-night companies), to which the tax base is shifted through transfer pricing, after that the funds are cashed or transferred to other companies. Along with fly-by-night companies, unscrupulous taxpayers employ other schemes of tax minimization, for instance, the forgery of invoices and export documents, overpricing of purchased materials, etc. According to expert estimates, the annual losses of the federal budget caused by such offences amount to 1.5 – 2 billion rubles [9].

According to the Accounts Chamber of the Russian Federation, the unresolved issues concerning the state registration of legal entities greatly contribute to illegal VAT refund through the establishment of sham structures [4].

The materials of the Accounts Chamber inspections suggest that the schemes of illegal VAT refund through such structures are being widely used by taxpayers. For the 2000 – 2011 period, the number of organizations, which have not submitted reports, or presented 'zero accounting' reports to tax authorities increased 4.2 times and exceeded two million, i.e. 40% of the total number of organizations registered by tax authorities (*fig. 8*).

In addition, the present system of export VAT administration is not efficient enough as it causes significant expenses in tax compensation from the budget. In a way, this issue applies to all tax exemptions, but administrative costs are especially noticeable with regard to VAT.

Figure 8. Dynamics of the number of organizations, which have not submitted tax reports, or presented 'zero accounting' reports

In order to combat illegal VAT refund, tax authorities have to carry out labour-consuming control activities, which take about a year on average[7], thus delaying tax refunds to bona fide taxpayers. As a result of untimely VAT refund, the federal budget incurs interest payment losses, the volume of which totaled 10 billion rubles for the 2008 – 2012 period [14].

Value added tax is the most 'expensive' tax for fiscal regulations, due to numerous peculiarities and difficulties in determining tax base. According to experts, about 40% of collected VAT is spent on supplying tax inspections, and 60% of the work done by accounting departments of enterprises and organizations is related to tax servicing operations [3].

Without giving too many examples of VAT administration low efficiency, it should be acknowledged that the debate concerning VAT reform has intensified in recent years, which is mainly due to the search of sources of Russia's modernization.

According to I.A. Mayburov, Doctor of Economics, "at present VAT exhibits the greatest corruption capacity. Without the tax reform, it is impossible to stop the growing flow of budgetary compensation based on various schemes of ungrounded export VAT refund" [10].

Different variants for reforming are suggested, comprising such radical ones as the cancellation of VAT refunds on export goods. N.A. Krichevsky, Doctor of Economics, takes assertive position on the matter. In the article 'Corruption caused by refund', he writes the following: "The order to all the political parties: it is your duty to include in the programmes the issue concerning the cancellation of value-added tax (VAT) refund on export of natural resources! The current refund practice violates the Constitution, as well as makes a trillion hole in the federal budget" [8].

M. Abramov, the Vice-President of Expert Analytical Centre 'Modernization', holds a similar view point, denoting VAT as the evil root of Russia's tax system: "It is absurd to encourage exporters for depriving local producers of the opportunity to add their labor cost to the processing of national natural resources and for damaging national wealth".

According to the 'FinExpertiza' company experts, it is necessary to move from offset-refund tax calculation mechanism to a fundamentally different tax calculation methodology based on the balance method, in which added value, included in the cost of sold products is viewed as tax base. The experts claim that such approach will reduce about one-third of VAT administration costs and to some extent minimizing the risks related to tax evasion [14].

It should be noted that an initiated application of the new VAT calculation methodology provoked sharp disputes among financial services, entrepreneurs and the expert community, in particular. Many believe VAT calculation per direct scheme to be simpler, however, the Finance Ministry of the Russian Federation states that appropriate action will require the whole VAT system restructuring.

According to the author, with VAT levied directly from added value, tax administration procedure will become easier, on the one hand, as accounting records for tax calculation and tax inspections will be the same as for income tax. On the other hand, the direct method of calculation will hardly solve the 'tax evaders' issue. The amount of profit and salary budget, which are the major components of added value, is determined by internal (primary) accounting, often provoking negligent taxpayers to diminish this amount for tax calculation purposes.

Direct scheme suggests VAT transformation from indirect to direct taxes, and shadow profit and hidden wages are known to be formed precisely in the field of direct taxation.

[7] According to the data of the Centre for taxation research under the Government of the Russian Federation, 80% of desk tax audits and 90% of third-party audits concerns VAT payment

Anyway, the conception of additive VAT calculation methodology is to be substantiated by preliminary estimates of probable consequences of its application.

It may well be true that VAT administration issues exist not only in Russia. Mass tax evasion is typical even for the European countries with the most developed VAT system. Estimated annual losses caused by tax transgressions in the EU countries amounted to 4.5 billion euro [12].

In world practice, there are various methods to combat illegal VAT refund. In Bulgaria, for example, VAT bank account system has been in operation[8]. In the Philippines and Indonesia, special independent body on VAT refund has been established. In Great Britain, the unification of all VAT rates at 5% level with the maximum rate of 17.5% has been actively lobbied as the most effective solution to the problem. In the Czech Republic and Portugal, all participants of an export chain are deprived of the right to VAT refund once sham contractors are revealed. One has to admit, however, that by now neither Russian, nor foreign legislation have found universal solutions to the problem of illegal VAT refund from the budget. This sort of tax risks induces tax authorities of different countries to actively cooperate in the VAT regulatory sphere.

Based on results of the conducted analysis, the author makes several suggestions to improve the functioning mechanism of export VAT administration.

1. In order to stimulate increase in export of high value-added products, it is reasonable to preserve the former VAT refund order for the exporters supplying high value-added products. Such approach will correspond to the strategic objectives of creating modernization economy.

2. It is necessary to introduce the sliding scale of VAT refunds for the exporters shipping low value-added products (semi-finished products), and step-by-step abolition of VAT full compensation for raw materials exporters[9].

According to the author's estimates with key industries of Russian exports used as an example, potential additional revenue of the federal budget received due to introduction of differentiated VAT rates for the 2013 – 2015 period will amount to 4575 billion rubles, i.e. 1525 billion rubles annually[10] *(tab. 6)*.

3. In order to counteract the creation of 'grey schemes', a norm setting the right for the refund of only the real VAT amount paid to the budget should be introduced into the tax legislation. This, in its turn, includes the establishment of an inter-ministerial operational and statistical information sharing system. Increase in the requirements to the minimum level of authorized capital for the banks[11], which are an integral part to the tax-evasion schemes with the use of 'overnight' shell companies may be a major step forward in that direction.

[8] The Accounts Chamber of the Russian Federation attempted implementing an analogous system, having repeatedly suggested in annual reports on the federal budget performance to register tax payments in the form of separate payment orders throughout the entire goods movement chain and to put VAT amount to a special account in order to adjust VAT refund for exporters.

[9] The system of differentiated rates on export VAT refund depending on the degree of processing of goods shipped for export has been functioning in China: 17% of VAT is retuned to exporters of high-tech goods, and 5% of VAT to exporters of semi-finished products. VAT is not returned to companies exporting raw materials.

[10] Additional revenue is estimated on the following assumptions: the expected export volume in respective industries and the average US dollar rate are based on the forecast made by the Ministry of Economic Development of the Russian Federation; the settlement regarding metallurgical production is based on the estimated export of finished metal products, therefore the option of complete cancellation of VAT refunds has not been considered.

[11] In 2012 the minimum level of authorized capital for the banks amounted to 180 million rubles, in 2015 it is expected to increase up to 300 million rubles. The experts of Institute for the Economy in Transition suggest to gradually establish the minimum level of authorized capital for the banks up to 3 – 5 billion rub. by 2020.

Table 6. Forecast estimate of potential additional budget revenue due to introduction of differentiated rates on export VAT refund

Indicators	Oil, oil derivatives, gas						Non-ferrous metals, ferrous metals					
	2013		2014		2015		2013		2014		2015	
	VAT rates											
	18%	10%	18%	5%	18%	0%	18%	16%	18%	12%	18%	6%
Export, billion dollars	315.5		324.2		332.5		46.0		50.6		54.0	
VAT refund, billion dollars	56.8	31.6	58.4	16.2	59.9	0	8.3	7,4	9,1	6,1	9,7	3,2
Additional budget revenue												
billion dollars	25.2		42.2		59.9		0.9		3.0		6.5	
billion rubles	816.5		1392.6		2018.6		29.2		99.0		219.1	

4. Base interest rate cut and the setting of VAT flat rate (e.g.: in the 12 – 16% range) along with the abolition of all tax incentives can be considered as one of the VAT reformation variants. Transition to the flat rate will simplify tax administration, as several rates being in operation complicate tax calculations, increase errors possibility and create additional conditions for ungrounded tax refund realization. Probable VAT revenue decline once the flat rate is set, may be compensated by extending some types of excises and establishing luxury tax.

5. It is required to institute a VAT taxpayers registration system that would contribute to a partial solution to the problem of illegitimate tax refund. It might be worthwhile to fix a three-year term since the moment of registration during which the organization has no right to claim tax refund.

6. In order to develop efficient electronic workflow system for processing invoices, the norms regulating mandatory transition of all taxpayers to sharing electronic invoices are to be specified in the Tax Code of the Russian Federation. This will enable tax authorities to operatively keep track of invoices within the supply chain from the consumer to the first supplier and to resolve VAT refund issue.

Evidently, the matter concerning tax base broadening and VAT collection improvement goes beyond export VAT refund issues and requires adopting the package of measures to optimize a great number of internal VAT exemptions[12].

More than 90% out of the total tax exemptions fall at the financial sector of economy (banks, insurance organizations), the sum of which grew from 0.8 to 4.6 trillion rubles for the 2004 – 2012 period, i.e. almost six-fold *(fig. 9)*. In fact, acting legislation leaves the financial service sector tax-free, thereby violating the equity principle, one of tax system basic principles. According to the author's estimates, the abolition of VAT exemptions for subjects of financial activity will add 3 – 5 trillion rubles to federal coffers.

Taking into account VAT administration experience in OECD countries, the author considers it necessary to reduce all the exemptions to standard ones, such as public and quasi-public goods [6].

Enhancing the effectiveness of monitoring functions is to become the essential component of VAT reforming. This can be achieved through establishing the inter-ministerial control system that is to be based on cooperation between tax, law enforcement and customs authorities, and searching for methods assessing tax-evasion risks as the top operating priority.

[12] Non-Taxable (Tax-Exempt) operations are regulated by Article 149 of the Tax Code of Russia

Figure 9. Dynamics of VAT exemptions for financial activities in the 2004 – 2012 period

Sources: Tax Code of Russia; Federal Tax Service of Russia; author's estimates.

Thus, the issue concerning VAT administration improvement, primarily providing control over tax refund and exemption, becomes a strategic objective of Russia's economic safety. Legislative adjustment of the functioning VAT regulation system will be a substantial reserve for the federal budget, and will be able to increase annual tax revenues by 4.5 – 5.5 trillion rubles, as estimated by the author.

References

1. Bukina I. Experience of evaluation of efficiency of tax administration abroad. Federalizm. 2012. No. 4. P. 151.
2. Drobyshevsky S., Malinina T., Sinelnikov-Murylev S. Main directions of tax system reform in the medium term. Economic policy. 2012. No. 3. P. 20.
3. Zaikina O. Direct Counting. Expert. 2007. No. 43. P. 17.
4. Reports of the Accounts Chamber of the Russian Federation on the federal budget performance for the 2000 – 2011 period. The Accounts Chamber official website. Available at: http://www.ach.gov.ru/ru/expert/follow-up/
5. Ilyin V.A., Povarova A.I., Sychev M. F. The Influence of the interests of metallurgical enterprises owners on socio-economic development. Vologda: ISEDT RAS, 2012.
6. Kazakova M., Knobel A., Sokolov I. Quality of VAT administration in OECD countries and Russia. Reform of the Russian system of tax collection. Official website of Institute for the Economy in Transition. Available at: http://www.iep.ru/ru/publikacii.html
7. Kinzhabaeva Ye. B. The development of scenario-based approaches to VAT system changes in the Russian Federation. Russian agrofood policy. 2012. No. 5. P. 68.
8. Krichevsky N.A. Corruption caused by refund. Moskovskij Komsomolets. 2011. No. 25715. Available at: http://www.mk.ru/politics/russia/article/2011/08/09/613000

9. Meloyan V.S., Sattarova N.A. The issues concerning export VAT refund in Russia. Available at: http://www.lawmix.ru/bux/56304/
10. Tax planning and taxation optimization. Available at: http://www.pnalog.ru/material/
11. Tax Code of the Russian Federation. Computer-based legal research programme 'ConsultantPlus'.
12. Pakhatinsky E.V. The problem of documentary confirmation of exports related to the justification of 0% tax rate when refunding VAT to exporters Finance, money, investments. 2006. No. 5. P. 14.
13. VAT administration complexity raises questions. Russian Tax Portal. Available at: http://taxpravo.ru/
14. Experts: VAT reforming process is going to be tough for everyone. Available at: http://www.audit-it.ru/news/account/78246.html

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System-reflexive marketing in business management in the post-Soviet space

The article presents the study results of market failures and the success of the enterprises of different forms of ownership in Russia, Belarus and Ukraine. The main problems of marketing in the post-Soviet space are revealed. A new paradigm of systemic-reflexive marketing, generalizing the evolutionary development of marketing and strategic management is formed. The article demonstrates the advantages of the system-reflexive marketing implementation at the enterprise in order to solve many problems of modern business.

Strategic management, marketing, strategic marketing, stakeholder, reflexive management, system-reflexive marketing.

Andrey A.
DLIGACH
Ph.D. in Economics, Associate Professor of the International Economics Department, Taras Shevchenko National University of Kyiv
ad@advanter.ua

Introduction

Strategic marketing as the basis of market management is included in the activities of a considerable part of enterprises in Russia, Ukraine and Belarus. The strategic marketing approach to market activities becomes one of the main conditions for the formation of a strategic competitive business prospect in terms of globalization processes intensification, the enhancing of competition at the international level, the reduction in the life cycle of goods and services, development and rapid transfer of new technologies. It is effective strategic marketing that is one of the most important priorities at many enterprises.

The strategic management issue has been discussed by a significant number of scientists, such as A.D. Aaker, D. Abel, I. Ansoff, D. Grigsby, P. Drucker, J.-J. Lambin, P. Lorange, J. Miner, H. Mintzberg, M. Porter, C. Prahalad, M. Stal, A.J. Strickland, A.A. Thompson, E. Toffler, G. Hemel, A. Chandler, J. Steiner. In the post-Soviet space, the issues of strategic management and strategic marketing have been examined by G.L. Bagiev, O.S. Vihansky, E.P. Golubkov, V.V. Kevorkov, N.V. Kudenko, I.V. Lipsits, S.V. Nikiforov, A.P. Pankrukhin, D.V. Raiko, A.A. Starostina, R.A. Fatkhutdinov, V.D. Shkardun, etc. Most of the authors highlight that strategic marketing lays the foundation for the modern enterprise management.

At the same time, strategic management and strategic marketing are often regarded as separate management systems. The marketing concept is frequently implemented in the activities of enterprises through the application of certain marketing tools. At the moment, marketing as the technology of strategic business management has not yet become widespread.

Aim of the research

Marketing is often regarded as the function in a commercial or planned management paradigm, despite the significant progress in its implementing in the business activities in the post-Soviet space. The perception of marketing as the cost (not the profit) centre at the enterprise affects the small role of the marketing function in the formation of business strategy, business planning and the enterprise management. The causes of this phenomenon are the following:

1. The marketing function in most enterprises is not oriented to the financial result. Financiers and marketing experts of the enterprise can not find a common ground with regard to the balance between current income and, say, the brand capitalization (long-term yield). A senior business executive frequently proceeds from commercial, industrial or financial orientation of the business, and not from the position of market (marketing) management. It is necessary to implement internal and integrated marketing, to increase the knowledge level of managers in order to cope with this fact.

2. Marketing tools are intended to deal with certain market problems. At the same time, the system adjustment of tasks and applied instruments mostly takes place at the level of strategic marketing. However, strategic marketing decisions are frequently not the key decisions of the business, and are subject to industrial or financial decisions. Thus, the author comes to the problem of business, i.e. the difference in interests of business owners, the general manager, financial service, commercial, marketing, production services, etc.

3. The absence of an action strategy is a defining issue of the business management, negatively affecting not only the volume and uniformity of capacity utilization, but also the adaptive potential, resulting in the reduction of the enterprise viability. The problem can be solved through the system application of new progressive methods of strategic marketing management, which take into account the dynamism of the market conditions, the need for administrative decisions under the uncertainty, globalization of market environment.

Thus, the problem arises with regard to the formation of a new strategic management paradigm, based on the strategic marketing as an approach to the adjustment of economic interests of the control object (business) stakeholders.

Survey results and methodology

In the 2007 – 2012 period the author conducted a number of studies of the enterprises of different forms of ownership in Russia, Belarus and Ukraine. The main research issues were to identify the root problems of market failures and achievements (new businesses, the launch of new products and brands, the reinforcement of existing products and brands), and to define the role of marketing in business.

The main problems of marketing in the post-Soviet space (the percentage of the problems prevalence; the sample of 387 companies) can be defined as following:

- the perception of marketing as a separate function of the business or a set of business tools, but not as the paradigm of business administration (92%);
- non-involvement of the company's personnel in marketing, incomprehension of the essence of marketing, or marketing activities and functions of the marketing department by other experts (84%);
- low efficiency of marketing activities (77%);
- the financing of marketing activities according to the residual principle (58%);
- marketing regarded by top executives as the function of the marketing department; low priority of marketing in activities (81%);
- the lack of marketing research effects on managerial decision-making (49%);

- destructive functional conflicts 'marketing and sale' (73%);
- the primacy of the creative approach in marketing; the strategic approach disregard (59%);
- the low level of professionalism among marketing specialists; formation of marketing services on leftovers (64%);
- the domination of standardized strategies in the foreign companies' marketing activities in the post-Soviet space (the majority of the leading marketing specialists, working in the representative offices of foreign companies, have limited functions, do not take strategic decisions, are not responsible for the innovation and the formation of markets, but are respected in the marketing community due to the volume of advertising budgets allocated by these specialists) (60%; the sample of 48 companies);
- the orientation of the company's marketing specialists at the promotion of their own (personal) brand, and not at the business efficiency (36%).

The research of marketing concepts and strategic marketing, in particular, proves to be complicated, due to the fact that marketing is simultaneously considered by scientists and practitioners as an approach to the conduct of entrepreneurial activities, the paradigm of strategic business management, the method of market activities, the tool kit of business, social and political activities, etc.

The author suggests classification of the marketing concepts, and resolves, the contradiction between approaches to the understanding and application of marketing in practical activities, on the basis of the systemic-reflexive paradigm.

The proposed system-reflexive paradigm of the strategic marketing management represents the new stage of management systems development. The convergence of strategic management and strategic marketing, lately being present in the control theory, and in business practice, acquires a different content in the system-reflexive control. System-reflexive control is of subjective character, i.e. not the enterprise, but the entrepreneur or executive (manager) is regarded as the unit of market control. The control object of the reflexive marketing manager comprises a business (business activities), enterprise, market and stakeholders of the business, enterprise or market, respectively.

Reflexive control, being one of the most balanced management models with regard to the interests of stakeholders, is the basic task of the system-reflexive control. The author of the reflexion theory V.A. Lefebre defines reflexive control as a special impact on the enemy, specified by the controlling party, in order to sway the enemy's decision [4]. According to V.A. Lefebre, the point of reflexive control is to use the subject's ability to 'consciously construct images of the self and the others'.

The concept of system-reflexive control is introduced in the article as the forms of management with system reflexion, activities on managing the 'general object', with the involvement of counterparties (the subjects of confrontation management, partners in the relations), whose interests, intentions, actions are predictable predicted and manageable.

The system-reflexive control stipulates the following:

1. The subject of management becomes aware of its own interests.
2. The acknowledgement (objectification, actualization) of own interest with regard to the control object.
3. The identification of the control object, that corresponds to the interest of the system-reflexive control.
4. The identification of the counteragents in confrontational relations and of the co-operation within the control object.
5. The control over the counteragents' behavior through transferring the basis necessary for decision-making to the jurisdiction of the counteragents.

The system-reflexive control provides for cyclic processes (*fig. 1*). Thus, for example, the definition of the control object and the interest to it has been constantly transforming, since the promotion of knowledge about the control object affects the specification of the reflexive manager's interest, while the acknowledgement of the interest impacts the specification of the control object.

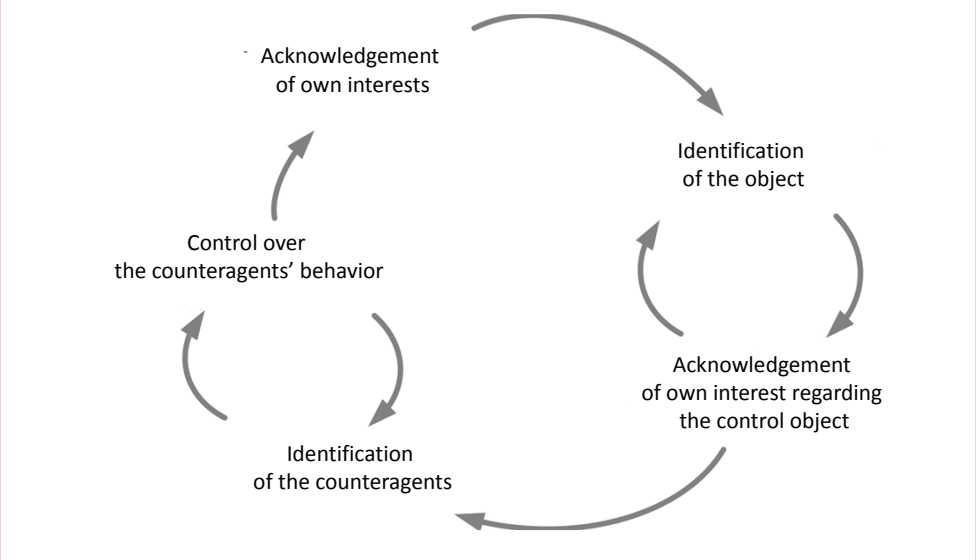
Let us apply system-reflexive and marketing approaches to management, proceeding from the fact that the marketing concept implies such form of management, in which the interest of the control subject is fulfilled through mutual implementation of the counteragent's interest by means of exchange (*fig. 2*).

Marketing provides the following (*fig.3*)*:*

The subject of management (managing director) is aware of the control object (business, client or target group, exchange, market, ...) and its own interest with regard to this object.

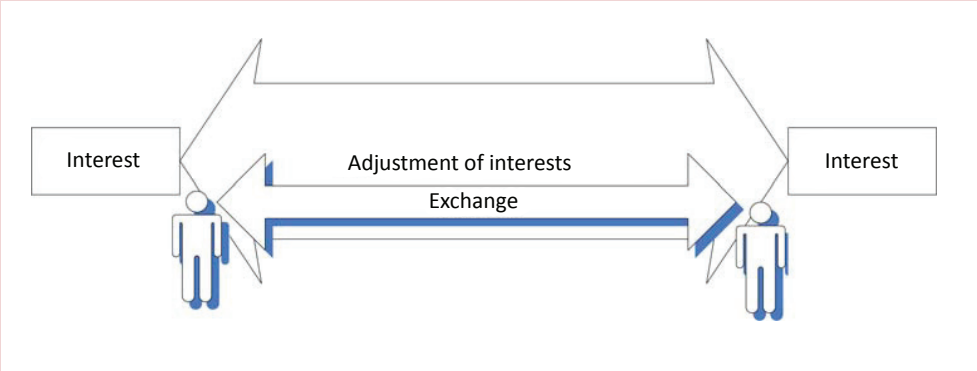
The subject of management understands the interests of counteragents in exchange operations or takes control of their interests.

Figure 1. System-reflexive management



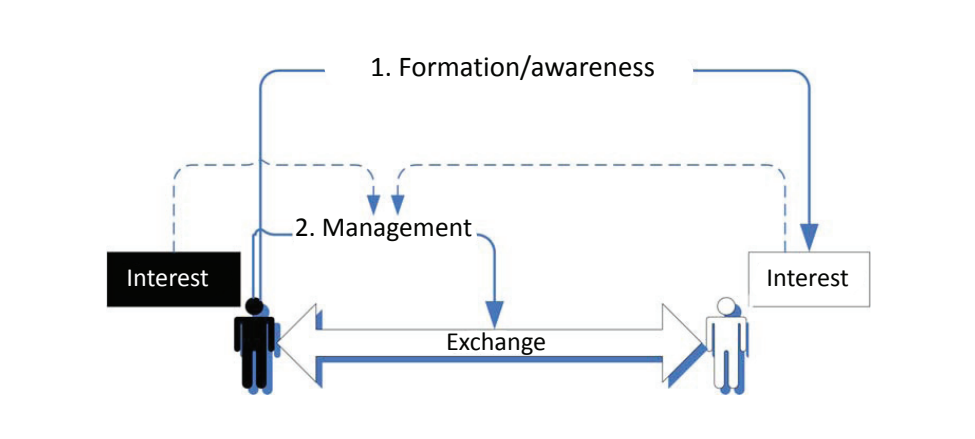
Source: the author's own developments.

Figure 2. Graphic representation of the marketing concept



Source: the author's own developments.

Figure 3. Market exchange management as a mechanism of interests adjustment



Source: the author's own developments.

The subject of management realizes its interest through creating the conditions for the fulfillment of the counteragents' interest.

Thus, marketing can be defined as an approach to management, providing for the fulfillment of the manager's interest through creating the conditions for the fulfillment of the counteragents' interest in the market (exchange) relations.

The definition accurately reflects the marketing substance amid attempts to define marketing through its tasks set (the market analysis, the development of trade policy, etc.), regardless of its scope (policy, economy, business, personal relationships)

The system-reflexive marketing as the new paradigm of strategic marketing management is obtained by combining the conceptions of marketing and system-reflexive control. Two more items, corresponding with the marketing concept are to be added to the five points of the system-reflexive control enumerated above:

6. The consideration and/or the formation of the counteragents' interests.

7. The arrangement of conditions for the fulfillment of the parties' interests through the exchange process.

Thus, the system-reflexive marketing is the marketing, in which the management is carried out through the systemic distribution of inte-rests of the subjects of market relations, while the adjustment of interests is carried out from the reflexive marketing manager's standpoint.

The rank of the system reflexion is the degree of awareness of the control object, the coverage in the process of situation analysis and the formation of management decisions, influential interests of the subjects of market relations. System-reflexive marketing comprises various levels of marketing decisions-making, determined by the rank of reflexion (*fig. 4*):

0. Sales process.

0. Relationship marketing. The tools of influence marketing.

1. The control over the client's behavior. FOPSTIZ.

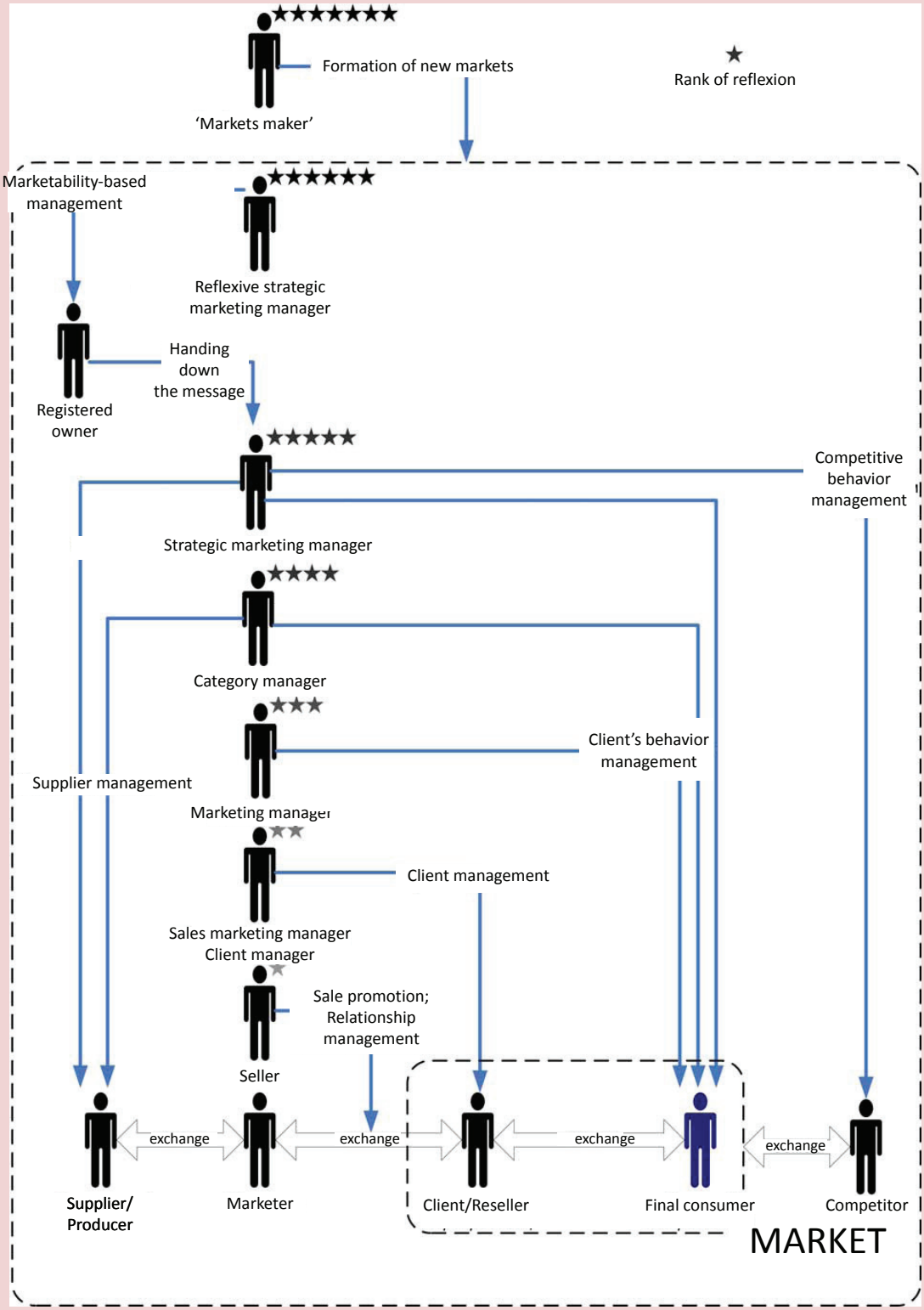
2. Classical marketing: marketing complex, positioning, functional marketing strategies.

3. Category management.

4. Strategic marketing. The adjustment of the internal stakeholders' interests through the formation of a strategic vision.

5. Strategic marketing management from the standpoint of the actual business owner.

Figure 4. Levels of marketing decisions-making



Source: the author's own developments.

6. The market as a whole is considered as the control object. The formation of new markets ('blue oceans').

At the zero rank of reflexion, commercial activity involves exchange operations, emerging spontaneously. When realizing own interest, a sales manager becomes to 'press' the client; the marketing approach can not be claimed in this case.

Marketing arises when the manager takes reflexive position to himself/herself and to the client.

1. Relationship marketing. The tools of influence marketing.

The first rank of reflexion contributes to the understanding that in order to ensure the system success (and not a single act of sale), it is necessary to form and maintain relationships with clients with regard to the exchange. The following ranks of reflexion broaden the manager's understanding about the situation, clarify the control object and allow forming the tools most effective for the fulfillment of own interests.

2. The control over the client's behavior.

At this level target customers become the object of control. The understanding and/or formation of the clients' interests is a key factor of success.

3. Classical marketing: marketing complex, positioning, functional marketing strategies.

At this level of marketing development in an organization (with the manager of the third rank of reflexion) a complex system of interests and procedures of decision-making on the purchase, involving sellers (retailers, in particular), buyers and consumers, is considered as the control object. The success is ensured by creating conditions for comprehensive realization of the interests.

4. Category management.

This rank of reflexion provides for transition to managing the category as a whole, as well as the entire chain (from the primary production to the consumption of the final product). Vertically-integrated circuits/holdings are formed, or one of the links takes control of the channel as a whole.

5. Strategic marketing.

On the one hand, the fifth rank of reflexion allows the marketing manager to take over the moderation of the adjustment of the internal stakeholders' interests through the formation of a strategic vision. On the other hand, and in terms of market relations the manager gets the opportunity to act consciously in the system with asymmetric information. The market as a whole becomes the control object.

6. Strategic business management from the standpoint of the actual business owner.

The sixth rank of reflexion brings manager to the position of the actual business owner due to the deep understanding of the market opportunities and the prospects formation for formal business owners. The control object is the business with the sum total of the stakeholders and the market, which become part of the business.

7. Market management and formation.

At the 7th rank of reflexion the manager becomes like a fantasy God. Such manager builds the new market through the formation of new needs and the creation of 'game rules' to satisfy them.

Application of the results

Modern stage of entrepreneurship development brought to the forefront a special type of marketing companies, that often having no own production, distribution, or retail resources, take over the new markets formation and management. This applies not only to the global Internet companies (like Facebook, for example), or technological companies (Apple), but also to the local companies from various spheres of business, opening their own 'blue oceans'.

Thus, system-reflexive marketing not only represents the new paradigm of marketing, but also generalizes the stages of evolutionary marketing development and makes possible

(proves the possibility, forms the base) the coexistence of marketing of various evolutionary stages in one market, depending on the reflexion level of the subject of market activities.

System-reflexive marketing (SRM) is defined as the theory and practice of management, comprising the system distribution of the interests of subjects of market relations and their adjustment from the standpoint of the reflexive marketing manager controlling entrepreneurial activities. SRM assumes the identification of the strategic vision of the control object and the activities concentration on the corresponding transformation of the control object through the management subject recognizing its own strategic interests, intentions and actions of the counteragents of market relations, the creation of conditions for the fulfillment of their own interests and the interests of the counteragents by means of market exchange.

The rank of the system reflexion of the control subject determines the role of marketing (from the instrument in the technology of control to the proper management technology), as shown in the *table*.

Each next reflexion rank assumes not only promoting the knowledge system concerning stakeholders and the forces that are to be included in the activities (i.e., in fact, the control object expansion), but also improving knowledge about stakeholders, which are already included in the control object.

Thus, system-reflexive strategic marketing management provides for the following: 1) a subject of entrepreneurial activities is the manager (an individual); 2) the basis of management decisions formation is the manager's system reflexion, the highest rank of which allows the manager getting the actual ownership of the control object; 3) the marketing concept (the manager satisfies his/her own interests by means of adjusting and satisfying the interests of other stakeholders of the control object) is regarded as the basis of management activities; 4) the flexible form of the organization's activities (business activities, in particular) as a joint activity of the subjects – stakeholders of the control object in total; 5) the extension of the control object, which includes counteragents (subjects of confrontational management and partners in relationships) whose interests, intentions, actions can be foreseen and managed.

System-reflexive management assumes the following: the manager is aware of his/her own interests; the awareness of own interest with regard to the control object, the identification of the control object, corresponding to the interest of the systemic-reflexive manager, the identification of counteragents in confrontational relations and interaction within the control object; system management of the counteragents' behavior concerning the reflexive position by transferring the necessary basis for decision-making to them.

Note, that the system-reflexive marketing not only generalizes the evolutionary stages of the marketing concept development, but also demonstrates the possibility of coexistence of different concepts with regard to the single object of control. In this case, the subject with the highest rank of the reflexion system (according to the table) becomes de-facto owner or manager of the control object.

Conclusions

The new paradigm of marketing and strategic management is the system-reflexive marketing, which unites the stages of their evolutionary development. The formation of the strategic vision within system-reflexive marketing is important for the success of a business. In this case, the strategic vision is a way to adjust the interests of business stakeholders, concerning the directions of the company development in a strategic perspective.

It can be claimed with certainty, that the manager of a successful company has no doubts that it is he/she, who controls the situation in

System-reflexive marketing depending on the reflexion rank

Rank of system reflexion	0	1	2	3	4	5	6
Marketing paradigm (fundamental theory	Sales	Relationship management	Control over the client's behavior	Classical marketing (marketing complex)	Category management	Strategic marketing	Strategic marketing management
Control object	Product sales	Relationship with the client concerning exchange	Clients' interests	Scope of relations and interests within the limits of sale and consumption of goods	Scope of relations and interests within the limits of production, sale and consumption of goods circuit	Scope of interests and market relations within the market	Business activities
Marketing functions at the enterprise	Sales (the absence of marketing function)	Sales promotion (in a commercial structure)	Trade marketing (in a commercial structure)	Marketing (separate function)	Marketing integrates commercial function	Marketing defines business strategy	Marketing is the technology of managing business
Domineering technology of influence on counteragents	Activation	Stimulation	Manipulation	Manipulation, confrontation (including 'marketing wars')	Adjustment of interests	Partnership	Reflexive management
Basic decisions of marketing strategy	-	The system of sales promotion	Solution to trade marketing (merchandising, etc.)	Market coverage strategy, positioning	Category policy	growth strategy, generic competitive strategy	Formation of the company's vision
Brands management	Commodity strategy	Trademarks management	trademarks management	Traditional brands management	Traditional brands management	Brand-leadership	Brand-management 360 degrees
Pricing policy	Cost-based pricing	Sales promotion (discount system)	Valued price formation	Valued price formation	Price formation oriented to demand and competitive strategies	Price formation oriented to demand and competitive strategies	Market pricing
Conformity of market environment globalization level in the process of objective market globalization analysis	Maximum (local base market and local market environment)	Maximum (local base market and local market environment)	Medium	Minimum (local base market and globalized market environment)	Minimum (local base market and globalized market environment)	Medium	Maximum (globalized base market and globalized market environment)
Role of internal marketing	The absence of internal marketing	Limited role	Secondary role	Internal brand positioning	Integrated marketing (integration of functions aroubd market goals)	Corporate culture management	Orientation to the key internal stakeholders
Proactivity towards external environment	Reactive policy	Reactive policy	Policy of restricted proactivity (within the control object)	Policy of restricted proactivity (within the control object)	Proactive policy	Proactive policy	Environment management policy
Years of prevalence	1930s– 1950s	1950s – 1960s	1960s – 1970s	1970s – 1990s	1980s – 2000s	1980s – 2000s	1990s – present

the business; at the same time the manager is clearly aware of the control object. The sign of the less successful companies is the presence of the participants in the business process, who can hardly comprehend the control object and prefer the reactive approach to management. System-reflexive marketing assists the management subject in realization of the control object and own interests, related to it. These conclusions are confirmed by the studies, described in the article.

Thus, the key factors of the company's success in modern conditions can be identified as following:

- transition from the reactive form of management to proactive one;
- recognition of the control object by the business managers.

Practical application of the system-reflexive marketing concept in business gives the company an opportunity to resolve effectively the whole range of internal and external conflicts; it increases the efficiency, facilitates the effective development of the corporate strategy and strategic vision. Hence, in the modern times, distinguished by constantly increasing degree of markets globalization, introduction of the system-reflexive marketing in the business management contributes to the development of entrepreneurship and the improvement of the enterprises competitiveness in the post-Soviet space.

References

1. Vesnin V.R. Strategic management: textbook. Moscow: TC Velby, 'Prospectus', 2006.
2. Dligach A.O. Strategic marketing management: monograph. Kyiv: Alerta, 2012.
3. Lepsky V.E. Formation of strategic subjects: outlining the problem. Reflexive processes and control. 2002. Volume 2. No. 1. P. 5-23.
4. Lefebre V.A. Elements of reflexive games logic. Problems of engineering psychology. 1966. Issue 4. P. 273-299.
5. Pankruhin A.P. Marketing: training manual. 3rd ed. Moscow: Omega-L, 2005.
6. Fatkhutdinov R.A. Strategic marketing: textbook for high schools. 2nd ed. Saint Petersburg: Piter, 2002.
7. Yuldasheva O.U. Cognitive marketing: fundamentals and terminological apparatus. Marketing. 2006. No. 1-2. P. 34-43.
8. Ansoff Igor H. Strategic management: classic edition. Hampshire, UK: Palgrave Macmillan, 2007.
9. Hamel G., Prahalad C. K. Competing for the future. Boston: Harvard Business School Press, 1996.
10. Kahneman D., Tversky A. Choices, values and frames. New York: Cambridge University Press, 2000.
11. Chan Kim W., Mauborgne R. Blue ocean strategy: how to create uncontested market space and make competition irrelevant. Boston: Harvard Business Review Press, 2005.
12. Mintzberg H., Ahlstrand B., Lampel J. B. Strategy safari: the complete guide through the wilds of strategic management. 2nd ed. London, UK: FT Prentice Hall, 2008.
13. Timothy Thomas L. Russia's reflexive control: theory and the military. Journal of Slavic Military Studies. 2004. Volume 17. No. 2. P. 237–256.

ENVIRONMENTAL ECONOMICS

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Current trends in the traditional nature management of indigenous peoples of Siberia (the case of the Republic of Khakassia)*

The article is based on the results of the author's empirical research exploring the characteristics of the traditional nature management of indigenous peoples of Siberia. The article proposes the mechanisms of implementing the potential of traditional nature management and provides recommendations for enhancing the efficiency of this type of economic activity in the case of the Republic of Khakassia.

Traditional nature management, regional development, indigenous peoples.

Svetlana V. PANIKAROVA
Associate Professor, Ph.D. in Economics, Scientific Associate at the Institute of Economics, Ural RAS Department
panikarova@pochta.ru

Maksim V. VLASOV
Associate Professor, Ph.D. in Economics, Senior Scientific Associate at the Institute of Economics, Ural RAS Department
mvlassov@mail.ru

The main scientific research programmes in the field of nature management in the USSR in the 1917 – 1990 period were aimed at revealing the resource and raw materials potential of its territories; as for the study of traditional nature management of indigenous peoples, it was carried out on a purely voluntary basis. At the same time, this issue was studied

* The research has been conducted in the framework of the state task of the RF Ministry of Education and Science 'Project planning of efficient market institutions in the region's harvesting sector'.

intensively in the U.S. and European science centres. In this respect, the unexplored issues concerning the traditional nature management of indigenous peoples are becoming especially significant.

The present work is aimed at the development of the mechanisms implementing the potential of traditional nature management of indigenous peoples of Southern Siberia on the basis of the empirical study devoted to modern trends of nature management of the Khakass people.

In the early 1990s, the Russian Federation officially recognized and provided a legislative framework for the concept "traditional nature management of indigenous small-numbered peoples and ethnic groups of the North", which is defined as a system of activities, formed throughout a centuries-old ethnic adaptation of ethnic groups to the natural and economic conditions of the territory; this system is oriented, in the first place, toward the maintenance of stability in the lifestyle and the type of nature management by an inexhaustible use and reproduction of natural resources for the benefit of the self-sufficient ethno-cultural existence of indigenous peoples [1]. The main functions of traditional nature management include food self-sufficiency, employment, increase in incomes, preservation of culture and the traditional way of life, preservation of biodiversity and productivity of the territory. In the future, this concept is reduced to "the traditional nature management of indigenous small-numbered peoples of the North, Siberia and the Far East".

The situation concerning indigenous small-numbered peoples has changed for the better after the formation of a legal framework, implementation of government programmes on socio-economic development, the emergence of the network of organizations of the indigenous small-numbered peoples of the North, Siberia and the Far East, financed by international funds [8].

The question arises, why the Russian legislation highlights only the traditional nature management of indigenous small-numbered peoples and ignores the problems of economic management of indigenous peoples of the North, Siberia and the Far East that do not have the status of small-numbered. According to the authors, the issues of social and economic disadvantages emerging on the territories of residence of indigenous peoples, including the 'titular' ethnic groups of the certain Russia's subjects, require special approaches to their solution, particularly, in the sphere of nature management.

The territory of Southern Siberia is an ancient centre where the traditional complexes of extractive sector were formed. The Khakasses, as well as other Turkic peoples living on this territory, were originally engaged in hunting, fishing and harvesting of taiga resources, and they adapted to the peculiarities of the environment very well. Traditional nature management was an important part of their economic and cultural complex, and the product obtained as a result of fishing activities contributed substantially to the welfare of cattle-breeders. By the end of the 19th century, the revenue from cattle breeding in the Khakassia government agencies amounted to 82.5%, from agriculture – to 15.9%, from traditional nature management – to 1.6% [13].

In the process of their centuries-old historical development, the Khakasses have created an original ethnic culture, related to their economic activities [7]. The notion of *yulyus* that was an important part of the Khakasses' world view formed the basis for their nature management, regulating the rules, ways and methods of their crafts and trades in the past [2]. *Yulyus* was seen as a sort of 'life's baggage' that man must use rationally and spend before passing away. The exploitation of available natural resources was also considered in the light of *yulyus*. Wasteful nature management caused the 'dispersion' of life force of an individual as well

as all of his clan. To avoid this, the Khakasses diversified nature management strategies and created many taboos that helped to maintain the balanced state of the territory's ecological system.

Up to the beginning of the 20th century, hunting occupied a significant place in the Khakasses' economy. Before joining the Russian Empire, the Khakasses who lived in taiga areas were regarded as hunting tribes and paid tribute in fur (*yasak*). N.N. Kozmin writes: "The hunting tribes were being constantly hunted themselves almost to the same extent as they hunted their prey. They were conquered by some strong tribe and after being laid under tribute (becoming the tribe's *kishtyms*), they received only one good in return, which is given by the consciousness: the tribute should be carried, to one place, and that ordinarily they would not be oppressed and robbed from every side" [6]. In the pre-revolutionary period, according to the registers of the Krasnoyarsk chancery, each person paid from 1 to 6 sables, except for the locality of Kachinskaya Zemlitsa, where the biggest fee amounted to 5 sables. The skins of foxes, lynxes, wolves, wolverines, bears, beavers, otters, squirrels, elks were also accepted, as well as payments in cash, namely 1 ruble per sable or as much, as other furs were evaluated, based on their price, established in relation to sable [12].

Other significant types of nature management in the economy of the Khakasses included gathering, wild-hive beekeeping, gathering pine nuts. During the 19th – 20th centuries, nut-gathering ways remained virtually the same. Pine nuts were gathered by a team *argys*, consisting of 2 to 6 people. From 150 to 700 kg of nuts were gathered per one household. The Khakasses also gathered honey. Wild-hive beekeepers looked for beehives with the help of solonets lure. At present, bee farming is widespread in the Khakassian *aals* (traditional Khakassian rural settlements). Along with wild-hive beekeeping, gathering has also changed significantly. The Khakasses don't dig out edible roots (yellow daylight, adder's-spear, etc.) anymore. But they still gather wild leek, wild berries, and, under the influence of Russian culture, they gather forest mushrooms (mostly for sale).

The most important elements of the traditional economy of the indigenous peoples in Siberia started deteriorating in the post-revolutionary 1920s already, with the changes in the self-government system of the indigenous peoples and also during collectivization, when the main institution of nomadic cattle-breeders, the institution of private ownership of the cattle, was transformed. The settlement system, as well as the ways of transferring traditional knowledge, practical skills and spiritual values remained mostly the same. Nevertheless, they faced profound transformation in the 1950s – 1960s, when the inhabitants of economically unviable villages were resettled to the farm centres of integrated collective farms and state farms, the Russian language became the overall medium of instruction, and school education for village children often implied education in boarding schools. The industrial development of Siberia led to the development of the traditional economic complex at a different cultural, organizational and economic basis. In the Soviet period and up to the 1990s, due to the socio-economic and socio-political processes in the country (collectivization, settlement and development of wild land ('the upturn of virgin soil'), establishment of collective farms and their conversion into state farms, development of heavy industry, etc.) the socio-economic development of Khakassian aals changed considerably. As a result, traditional nature management receded into the background and became a subsidiary occupation of many Khakasses.

At the end of the 1990s, due to the socio-economic crisis in the country (decline of agriculture, mass unemployment in rural areas), a significant part of Khakasses, living in

the pre-taiga zone of Khakassia, resumed their hunting, fishing and other traditional activities. The return to traditional nature management was facilitated partly by an increased market demand for forest products (pine nuts, furs, curatives, etc.), which contributed to the development of traditional economy of the Khakasses [7].

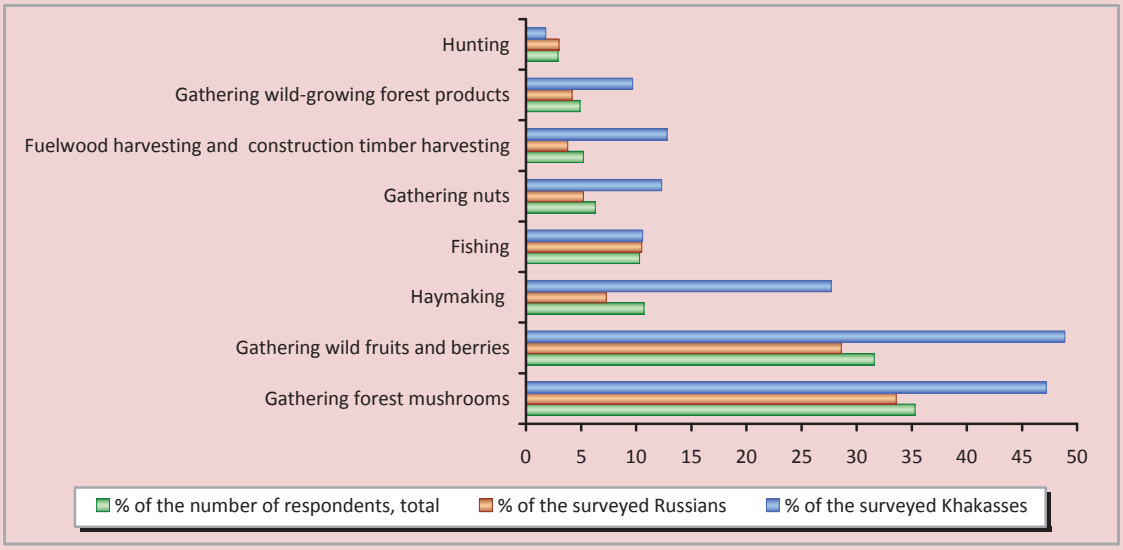
According to the results of empirical research (a survey of 1.500 households in 32 settlements of the region)[1], we can conclude that modern households of the Khakasses are involved in traditional nature management to a greater extent than the Russian ones *(fig. 1)*. It is evident that the Khakasses prefer almost all the kinds of activities on the use of forest resources (except for hunting and fishing).

Unfortunately, hunting that was once the field of specialization of Khakasses' traditional economy, is facing serious problems in the Republic of Khakassia and in the whole country as well. The reasons for this difficult situation are of a complex nature, but experts claim that the main reasons can be found in the wrong government decisions.

According to V.I. Kenikstul's assessment, all the various reorganizations of the state authorities of hunting sector management since 1990 have negative consequences, mostly. The ill-conceived 'reforms' undermined the hunting sector management and control system that had been developing for decades; they also damaged the system of state accounting, monitoring and regulation of the use of hunting animals. The elimination of the regional hunting administrations made it impossible to carry out federal target censuring of hunted animals. The activities of federal reserves have been terminated, their staff dismissed and their property lost. The officials of the state hunting inspectorate lost their independence and their right to keep and use arms, special equipment, etc. [5].

As a result, the planned quotas on the hunting of wild animals are not reached. For example, the percentage of achieving the

Figure 1. Traditional nature management in the Republic of Khakassia for the households' own use



[1] A household survey of the Khakassia population by the means of interviewing was used. The general population was represented by all the private households and their members, living in the Republic of Khakassia (158 thousand households). Multi-stage random sampling of 1500 households was used.

planned quota of hunting resources in Khakassia in 2011 – 2012 amounted to: 35.6% for maral, 7.7% for wild boar, 17.8% for brown bears, 56.2% for sable, 4.9% for badger. The low degree of development of the quota reduces the state budget revenues and poses a threat to the environment and animal husbandry. For example, wolf population in Khakassia has increased sharply, and it is one of the strongest factors of the negative impact on hoofed animals. In hunting areas, where these carnivores are not exterminated, they can destroy up to 10% a year and more resources of wild hoofed animals, which exceeds the established annual hunting limits. The total number of wolf population in the Republic of Khakassia, judging by the winter route censuses, increases 2-fold annually, and the number of wolf attacks on farm animals increases, respectively.

Economic efficiency of the hunting economy in the Siberian regions can be estimated by comparing the revenues from the hunting economy per 1 hectare of fixed hunting lands *(tab. 1)*.

In the Siberian Federal District there are several regions, where the annual revenues per 1 ha of hunting areas exceed the district average. These regions include Altai Krai, the Kemerovo Oblast, the Novosibirsk Oblast, the Omsk Oblast, Krasnoyarsk Krai. Several regions, such as the Republic of Buryatia, the Republic of Khakassia, the Republic of Tyva, Zabaykalsky Krai have relatively low revenues per ha of hunting areas. Significant differences in economic efficiency can be explained, besides objective factors, by the broad powers of the RF subjects in regulation of hunting sector. Consequently, the institutions of hunting economy and their efficiency vary considerably in different regions.

The total area of hunting lands in the Republic of Khakassia is 5589.7 thousand hectares, out of which 3875 thousand are accessible to public. According to the State Committee for wildlife and environment conservation of the Republic of Khakassia, there are over 9 thousand hunters and 22 wildlife managers (a legal entity or an individual entrepreneur carrying out hunting-related economic activities).

By all the types of traditional nature management, except for hunting and fishing, the potential marketability of traditional nature management products of Khakassia households is higher than that of the households on average: 16.3% of respondent Khakasses have opportunities to sell forest mushrooms (an average of 12.1% of households), 15.9% – wild fruit and berries (an average of 11.1% of households), and 4.9% – nuts (an average of 1.6% of households), etc. *(fig. 2)*.

Table 1. Revenues from the hunting economy (rubles per hectare)

Region	2005	2006	2007	2008	2009
Siberian Federal District	0.46	0.59	0.82	1.29	1.29
Altai Republic	Data not available	0.02	2.14	1.54	Data not available
Republic of Buryatia	0.12	0.15	0.19	0.30	0.29
Republic of Tyva	0.48	0.68	0.38	1.09	0.74
Republic of Khakassia	0.06	0.88	0.36	0.27	0.97
Altai Krai	1.45	0.92	1.02	1.51	1.97
Zabaykalsky Krai	0.50	0.49	0.49	0.76	1.08
Krasnoyarsk Krai	0.12	0.26	1.57	2.88	2.11
Irkutsk Oblast	0.67	0.88	0.85	0.96	1.07
Kemerovo Oblast	0.10	0.88	1.52	2.44	2.33
Novosibirsk Oblast	0.91	1.49	2.32	2.81	2.64
Omsk Oblast	0.98	1.51	2.53	2.86	3.30
Tomsk Oblast	0.11	0.30	0.17		Data not available

Figure 2. Traditional nature management in the Republic of Khakassia for sale

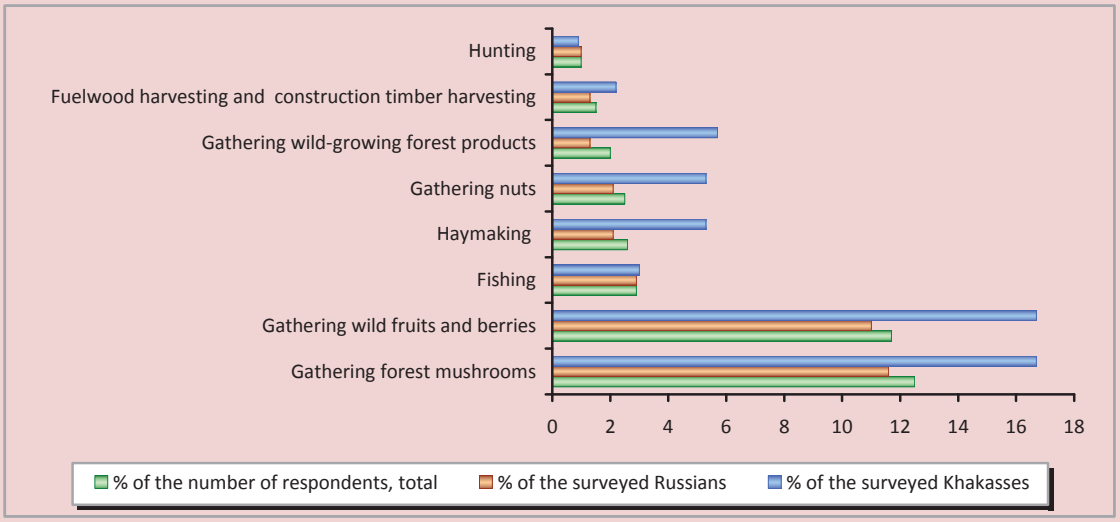


Table 2. Abandonment of traditional natural management of the households in the Republic of Khakassia

Activity	% of the number of respondents		
	Total	Russians	Khakasses
Fishing	8.70	8.09	10.90
Hunting	2.39	2.49	3.54
Gathering forest mushrooms	22.83	23.65	16.89
Gathering wild fruits and berries	22.39	23.24	16.89
Gathering wild-growing forest products	5.87	5.81	8.45
Gathering nuts	10.87	10.79	13.35
Haymaking	22.39	22.41	17.98
Fuelwood harvesting and construction timber harvesting	4.57	3.53	11.99
Total	100%	100%	100%

Table 2 shows the distribution of answers to the question: what type of traditional nature management the household was engaged in, though at present it quitted for a certain reason. Khakassia households are much less likely to abandon gathering wild mushrooms, wild fruits and berries and forest harvesting, than households on average, and they more often quit fuelwood harvesting and construction timber harvesting.

Besides, the respondents were asked what other activities, presented in the list, they would like to be engaged in (or take up, if they haven't been engaged in any activity stated in the list), in addition to the main work, for consumption within the household.

The distribution of answers is presented in *table 3*. The preferences of Khakassia houhesolds are higher for almost all the kinds of traditional nature management except for gathering forest mushrooms (historically Khakasses did not gather and process forest mushrooms).

The traditional knowledge of Khakassia households, which was formed through many generations, still plays a significant role in modern economic conditions. Work performance in Khakassian individual households is higher (in comparison to the average indicators for individual households) in such activities as gathering wild crop and pine nuts *(tab. 4)*.

Table 3. Potential of traditional nature management

Types of traditional nature management	% of the number of respondents		
	Total	% of Russians	% of Khakasses
Fishing	11.66%	11.96%	9.14%
Hunting	4.48%	4.31%	3.83%
Gathering forest mushrooms	28.25%	31.58%	19.47%
Gathering wild fruits and berries	28.25%	29.67%	24.78%
Gathering wild-growing forest products	4.48%	3.83%	6.49%
Gathering nuts	8.52%	8.13%	10.32%
Haymaking	9.42%	7.18%	16.81%
Fuelwood harvesting and construction timber harvesting	4.93%	3.35%	9.14%
Total	100%	100%	100%

Table 4. Work performance in household of Khakassia*

Activity	Private households of the region on average (rub./h per person)	Khakass households (rub./h per person)
Gathering forest mushrooms	47.6	47.6
Gathering wild fruits and berries	84.1	89.8
Gathering wild crop	186.9	246.8
Gathering pine nuts	182.4	194

* In purchase prices of 2011.

Thus, the system of traditional nature management of Khakasses comprises the peculiarities of the region's socio-economic development and the features of Khakasses' traditional culture. The indigenous population of Khakassia has preserved traditional forms of nature management, besides the people still widely use their traditional knowledge as well. The Khakassian households are involved in traditional nature management to a greater extent in virtually all the types of activities (except for hunting and fishing), and, just as important, the marketability of Khakasses' traditional nature management is considerably higher.

The enhancement of economic efficiency of traditional nature management depends in many respects on the institutional structure [3, 11] and development of the territory where indigenous peoples live [4, 9, 10]. Besides, in order to implement the potential of traditional nature management of indigenous peoples of Siberia, it is appropriate to apply the following measures:

– to expand the range of products with those having useful properties. This, in turn, requires special studies on the assessment of the region's resource base and useful properties of harvested resources (for example, on the content of vitamins, antioxidants, etc.).

– to carry out marketing studies of pilot batches of products for estimating the buyers' attitude toward them, to improve the quality and range of products.

In the study, the authors make the following conclusions.

First, the Russian law actually limits the right of the indigenous small-numbered peoples of the North, Siberia and the Far East to practice traditional economic activities. Thereby, no attention is paid to the issues of social and economic ill-being of the territories where the indigenous peoples, who do not have the status of 'small-numbered', live. Their rights to self-organization and self-government are ignored as well.

Secondly, the indigenous population of Khakassia has preserved traditional forms of nature management (except for hunting and fishing). The marketability of Khakasses'

traditional nature management is considerably higher in all the kinds of activities, which indicates that the territories, where the indigenous peoples live, possess significant development potential.

Thirdly, using the obtained empirical data, the authors propose the mechanisms for the efficient implementation of the potential of traditional nature management of indigenous peoples of Siberia.

References

1. Bocharnikov V.N., Bocharnikova T.B. Socio-economic aspects of development of the basins of the Samarga and Yedinka rivers. Sikhote-Alin: conservation and sustainable development of the unique ecosystem. Materials of the scientific and practical conference held September 4 – 8, 1997. Vladivostok, 1997. P. 28-30.
2. Burnakov V.A. Concept of yulyus and ecological traditions of the Khakasses. Traditional knowledge of indigenous peoples of the Altai-Sayan in the sphere of nature management: materials of the All-Russian scientific and practical conference, Barnaul, 11 – 13 May, 2009. Ed. by I.I. Nazarov. Barnaul: Publishing house 'ARTIKA', 2009.
3. Vlasov M.V. Strategy of production of new knowledge. Social sciences and modernity. 2007. No 3. P. 18-22.
4. Vlasov M.V., Veretennikova A.Yu. The content of a current economic institute. Journal of economic theory (the Ural Branch of RAS). 2011. No. 4. P. 33-45.
5. Kenikstul V.I., Yermakov A.A. On the improvement of hunting economy management system. APK: ekonomika, upravleniye. 2009. No. 10.
6. Kozmin N.N. The Khakasses. Historical-ethnographic and economic essay. Irkutsk, 1925. P. 6.
7. Kyrzhinakov A.A. Taiga occupations of the Khakasses in the 19th – 20th centuries. Ph.D. in History thesis summary. Abakan, 2005.
8. Maksimov A.A. About the revival of traditional economy forms in rural settlements of the Komi Republic. Ekonomika regiona. 2008. No. 1. P. 30-38
9. Panikarova S.V., Vlasov M.V. Assessment of economic potential of region farms (on example of the Republic of Khakassia). National interests: priorities and security. 2012. No. 25. P. 25-32.
10. Panikarova S.V., Vlasov M.V. Business in the sphere of national crafts as the most important component of ethno-economy (on the example of the Republic of Khakassia). Regional economy: theory and practice. 2012. No. 15. P. 40-48.
11. Panikarova S.V., Vlasov M.V., Chebodayev V.P. Institutes of development in ethno-economics. Problems of modern economy. 2011. No. 4. P. 54-58.
12. Pokrovskiy N.N. History of Siberia. Primary sources. Vol. 6. Siberia of the 18th century in the journeys of G.F. Miller. Novosibirsk, 1996. P. 69.
13. Yarilova A.A. Manuscript Fund of Khakassian Research Institute of Language, Literature and History. No. 712.

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The evolution of forest exploitation and restoration in Russia: myths and realities

The article analyzes the trends of forest exploitation and restoration in Russia embracing a period of over a century. It highlights the key issues of the forest industry. The article evaluates the effectiveness of institutional changes concerning forestry solutions. It suggests a package of measures on managing the evolution of the forest sector aimed at stable, non-depletable forest exploitation while maximizing forest revenue.

Forest, forest resources, sustainable forest exploitation, reforestation, forest revenue, deep wood processing, the Forest Code, forestry, innovation development.

Vitaliy V. Pechatkin
Ph.D. in Economics, Head of Sector of Economic Security at the Institute of Socio-Economic Research of Ufa Scientific Centre, RAS
Pechatkin08@rambler.ru

Forest is one of the planet's key resources, that apart from its economic value is essential (along with fresh water supplies) for maintaining acceptable living conditions on the Earth, carrying out an extensive range of environmental and social functions, that prioritizes solutions to the exploitation and restoration of forest potential in the world, countries, regions, settlements.

For over 20 years the forest sector of the Russian economy has been in a state of prolonged recession, which is proved by the negative dynamics of the key indicators of forest exploitation and restoration. It would seem that Russia, being one of the most forest-rich countries, must and is able to be one of the world leaders in the wood market, provided that its forest potential is used rationally, in order to supplement the budget by revenues ten times exceeding the current level of tax receipts from the use of forest resources. However, the situation is not the way we would like it to be. Moreover, when it comes to the forest sector, the country, in fact, has slid 20 years back and lags way behind the world's countries leading in this sphere. So what are the key issues concerning the forest sector of the Russian economy? How can we wisely use the forest potential for the good of the country's population? What has already been done in this direction and what are the consequences of the latest institutional reforms? What should be done and what should be changed about our consciousness to improve the situation, using the experience of previous generations and the world's advanced countries? The author addresses these issues most urgent in Russia and its regions.

Based on the analysis of numerous publications on the use of Russia's forest potential, international reports on the state of forests, statements made by forestry specialists, and having summarized the materials of round tables and own practical work experience in the timber industry, the author distinguishes at least four myths typical of the Russian consciousness at large, and which draw the vector of evolution of the forest sector away from the progressive direction.

Myth 1. Russia is the most forest-rich country in the world.

At first glance, this is really so. According to the data of the Food and Agriculture Organization of the United Nations (FAO), Russia accounts for 21.4% of the world's total forest resources. The total area of forest land is 809.09 million ha, corresponding to the first place in the world and takes the second place (after Canada) by the forested area per 1000 people of the population *(table)*.

However, according to the map of Russian forests prepared in 2004 by the Space Research Institute of RAS, the Centre for forest ecology and productivity of RAS [1], which considerably differs from the official map, and the results of which provided the basis for the conclusions that one third of Russia's forest fund is formed by the deciduous and degraded secondary forests of low-quality, regrown instead of former high-grade primary forests in the result of intensive lumbering. These forests are hardly usable in the forest industry. Huge land areas previously covered by forests, has turned into unforested territories. The undeveloped areas in the European part of Russia have mainly remained in swamps, mountain areas, or far from roads, which significantly increases logging costs, making them unprofitable.

These conclusions are more trustworthy than the official statistics recorded in the forest plans of the RF constituent entities, since forest management activities in the European part of Russia and the Urals, with few exceptions, were held more than 20 years ago, and in Siberia and in the Far East – more than 30 years ago (taking into account large-scale illegal logging since 1991, the increase in the area burned by wildfires, and destroyed by forest diseases and pests). Therefore, the estimates of forest yields in Russia are rather rough and overrated. These conclusions are confirmed by the fact that the leaseholders of the forest fund in the process of documentation and re-estimation of forest stands faced mismatch of the official and the real data. As a rule, the documents regulating allocation of the leased forest areas may contain inaccurate data on industrial wood resources and the forest fund structure, overrating the volume of industrial fine coniferous wood.

The world's forest area and area by countries and continents

Continent, country	Forest area, 2010			Change rate for 2000 – 2010	
	Forest area, thousand ha	% of land area	Area per 1000 people, ha	Thousand ha	%
South America	864351	49	2246	-3997	-0.5
including Brazil	519522	62	2706	-2642	-0.5
Russia	**809090**	**49**	**5722**	**-18**	**0**
North and Central America	705393	33	1315	-10	0
including the USA	304022	33	975	383	0.1
Canada	310134	34	9325	0	0
Africa	674419	23	683	-3414	-0.5
Asia	592512	19	145	2235	0.4
including China	206861	22	154	2986	1.6
Oceania	191384	23	5478	-700	-0.4
Total world	4033060	31	597	-5211	-0.1

Source: State of the world's forests. FAO. 2011.

It should be noted that forest reserves are distributed very unevenly on the territory of Russia: two thirds of forests are located in heavily forested areas of Siberia (33.5 billion m^3), of the Far East (20.8 billion m^3), of the European North -West (10.4 billion m^3), which are significantly distant from sales markets and which experience severe lack of logging roads and workforce. Thus, while an average transportation distance of timber made 560 kilometres in 1912, and 1019 kilometres in 1940, in 1970 it amounted to 1700 kilometres. By 1960 timber transportation costs had reached total investments volume in all branches of timber industry [2].

Moreover, Russian forests, being one of the most Northern forests in the world, are less productive due to harsh climatic conditions in comparison with the forests of Europe, the USA, and Canada, let alone tropical and subtropical countries. Consequently, Russia possesses very few highly-productive and available for exploitation forests, that have significant value to the forest industry in its current state. Therefore, it is necessary to realize that the country's timber resources are not so vast and limitless, and they need to be protected, used efficiently and comprehensively, carefully guarded from illegal felling, fires and provided with timely care. It is necessary to change approaches towards forest management, orienting not only on quantitative indicators of profit, but also on quality parameters of the biological productivity of forests, and advancing the interests of future generations.

Myth 2. Due to continued under-exploitation of forest resources (20-25% of the estimated wood-cutting area), forest potential increases naturally, with minimum artificial reforestation required. There is no need to spend money on forestry planting and the assisted forest regeneration.

Indeed, the rated wood-cutting in recent years is applied by no more than 25%. It was not completely applied in the Soviet years, either (less than 55%). According to the FAO, for the 2000 – 2010 period in Russia, the area covered by forests decreased insignificantly, by 18 thousand hectares (see table).

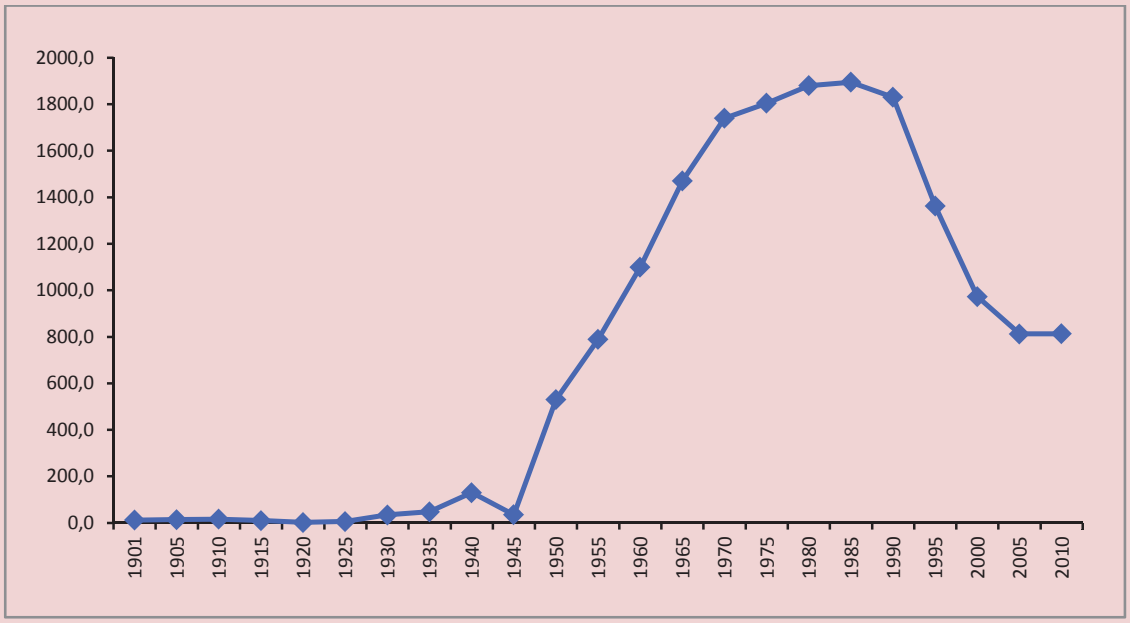
However, considering the experience of forest management and reforestation in the country that existed 100 years ago (exploitability age of a Pinus sylvestris), the current situation is not so optimistic.

In Tsarist Russia and during the first Soviet years, the Central-European territory had been heavily deforested, above felling rates. According to different estimates, overcutting of forests ranged from 60% in the Volga Region and Central Black Earth zone to 3.5 times in the South-East regions [3]. Practically, forests had not been restored *(fig. 1)*.

Forests were considered a free good. As a result, the percentage of forest-land in a number of regions reduced: from 39.6 to 26.3% in the Moscow Oblast, from 38.6% to 24.4% in the Smolensk Oblast, from 22 up to 16.3% in the Penza Oblast, from 21.2 to 17.2% in the Oryol Oblast, from 9.9% to 6% in the Kursk Oblast. At the same time, intensive forest quality degradation had been observed: only 5% of the forests of Russia's European part consisted of lumber, 32% of timber, and 63% of thicket. As a consequence of Russian forests depredation of the time, farmland soils degraded, ravines were overgrowing, rivers and lakes were becoming shallow, periods of dry winds and drought were increasing [4].

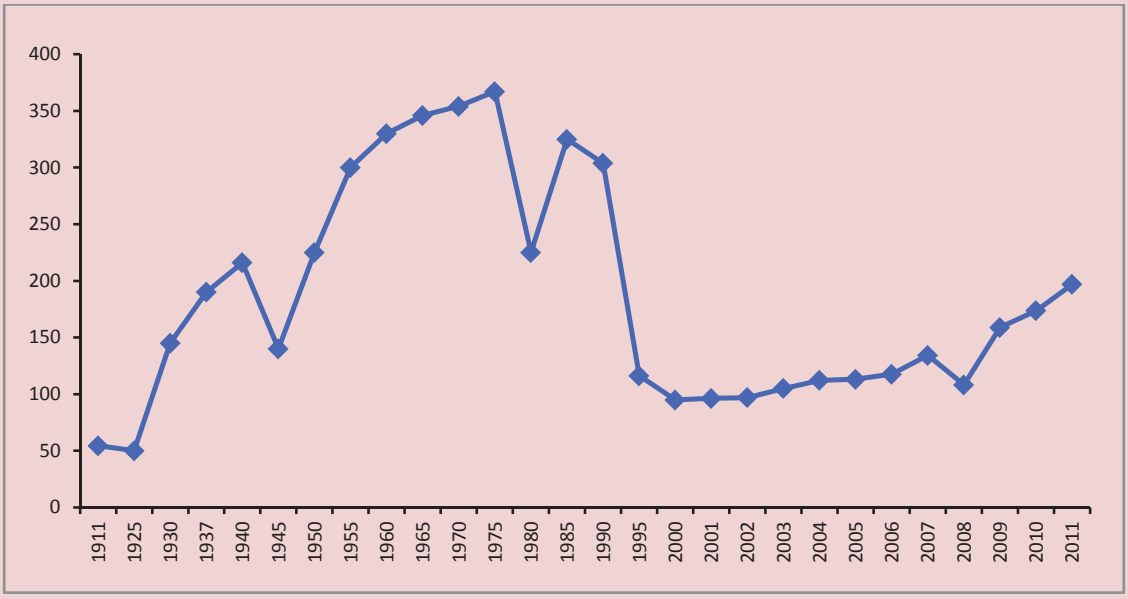
As N.A. Moiseyev notes, "due to unfavourable location of depleted and degraded private and farm forests in the central and southern regions, it was resolved right before the Revolution to protect and restore these forests and to focus logging in heavily forested regions" [2]. However, the process was hindered by the Revolution and the Civil War that resulted in numerous fires and illegal felling, leading to an increase in forest clearance. As a rule, forests were cut down in accessible locations, i.e. along railroads and near settlements. The dynamics of log hauling is presented in *figure 2*.

Figure 1. Forest restoration in Russia in 1901 – 2010, thousand hectares



Sources: National economy of the RSFSR for 60 years: statistical yearbook. Moscow: Statistics, 1977; Statistical Yearbook of Russia: statistical compilation. State Statistics Committee of the Russian Federation. Moscow, 2000; Statistical Yearbook of Russia: statistical compilation. Rosstat. Moscow, 2011.

Figure 2. Volume of logs hauled in Russia in 1911 – 2011, million m^3



Sources: National economy of the RSFSR for 60 years: statistical yearbook. Moscow: Statistics, 1977; Statistical Yearbook of Russia: statistical compilation. State Statistics Committee of the Russian Federation. Moscow, 2000; Statistical Yearbook of Russia: statistical compilation. Rosstat. Moscow, 2011.

The country's industrialization, the Great Patriotic war, the post-war recovery of the national economy, with forests being regarded as a free good, contributed to further degradation of the country's forest potential. The clear felling of the Siberian, Ural, and Far East forests; lack of timely reforestation and sufficient carding of plantations, as well as selective cutting of mainly quality forests, leaving cutting-areas covered with illiquid forest thinners resulted in the replacement of conifers by soft-wooded stands of low quality and in the decrease of forest biological productivity.

Only since 1948, a stronger focus was made on reforestation. The 1948 – 1980 period may be considered flourishing for Russia's forestry (see fig.1). The regulatory legal acts, forest management of the time is regarded as a model for conducting forestry, with constantly increasing volumes of logs hauled and processed.

Thus, for example, the Decree of the USSR Government 'On the plan for planting of shelterbelts, introduction of grassland crop rotation and construction of ponds and reservoirs to ensure high crop yields' helped to ensure food security of the country and achieve success in shelterbelt and conservation afforestation. Unfortunately, this golden age of the forestry was historically short and suspended the degradation of the country's forest potential only for a while. Since the mid 1980-ies and up to now degradation and destruction of Russian forests has continued at rates, compared to those of the industrialization period in the 1930-ies, with reforestation volumes at the 1955-level. Moreover, the quality of reforestation works has dropped dramatically in the absence of proper carding of plantations. Forest revenue loss from round wood export and the import of final products could have been justified, if accompanied by a technological mode change. However, deindustrialization prevailed in Russia at this difficult period.

Consequently, contemporary problems existing in Russia's forestry and wood industry are partly caused by the fact that previous generations, wasting the resources, 'borrowed' a part of forest riches from the current generation. The present situation is similar, although the under-exploitation of the forest potential has been observed. Overmature and mature forests are being destroyed by fires, pests, diseases, illegal loggers.

In fact, our generation also has been borrowing the resources from the future one, the only difference being that now we live in peacetime. If we want to leave the future generations a favourable living environment, qualitative forest potential, it is necessary to revive the forestry sector, to increase the volumes and the quality of the artificial reforestation of high-productive valuable wood species, to provide forests with qualitative care, to establish order in the sphere of forests protection from illegal felling and fires.

Myth 3. The private property on forests and wooded lands is a panacea for the problems of the Russian forest sector.

While developing the new Forest Code No. 200-FL, adopted on December 04, 2006, it was initially planned to introduce private property on forests, except for privatizing only a part of lands (less than 10%). This is, indeed, a revolutionary undertaking, that had no precedence in any other country of the world. The bill aroused violent disapproval among public organizations, environmentalists and the majority of the population. So who is wrong: the majority of the population or the reformers? The following arguments in favor of private property on Russian forests were and are still being presented mostly by large companies and oligarchic structures, lobbying its interests in the State Duma and in the Government:

- in the advanced countries with efficient forestry and wood industry, e.g.: in Finland, Latvia, the USA private forests occupy a substantial part of the territory, i.e. the fact

that enabled the countries to achieve high level of development in the forest sector of the economy;

- in Tsarist Russia, the forestry, with part of the forests being in private property, brought considerable revenues to the state coffers;
- introduction of private property on forest plots in Russia will enable companies to invest in the development of forest roads, to reduce the distance of raw materials delivery to the place of processing and to increase the investment attractiveness of the forest industry in general;
- the state will not have to force the leaseholders of the forest fund to engage in reforestation, as having become the owners, they will actively begin to restore forests themselves;
- from the social and economic point of view, privatization of forests by natural persons will increase employment of the population in rural areas, strengthen the financial position of the farms, create conditions that instill in the young generation a love of forests; and, finally, will allow geographically dispersed forest plantations, located mainly on the territory of former rural forests, etc.to be drawn into economic circulation.

Nevertheless, the social and environmental risks of introducing the private property institution with regard to forest lands in Russia are extremely high. Moreover, it is unlikely to fundamentally change (if not worsen) the situation in the economy. In addition, the privatization of the Russian forests is another institutional 'trap', which may intensify the degradation of the country's forest potential in future. The arguments in favour of state property on forests are the following:

1. The experience of Finland, where 70% of the forests are in private and corporate property, shows that private ownership of forests, even in such a small country, is associated with many risks, primarily with regard to the preservation of forest biodiversity. Although Finland is under the strict Forest Code, important habitats of rare and valuable animals and birds can not be efficiently preserved, if cause financial losses for the forest owners. And this is Finland, with highly conscious forest owners, who consider forests as family property, passing from generation to generation that they love and are proud of; law-abiding citizens and high level of entrepreneurship [5].

2. The experience of private forest ownership in pre-revolutionary Russia affected negatively the state of the forest potential and can not be accepted as a standard.

3. The introduction of private property will not activate forest restoration, as the mentality of Russian entrepreneurs is such that no one believes in the effectiveness of long-term investments. After all, a time lag between investments in reforestation and the payback period is at least 50 times larger in the forest industry than, for example, in agriculture.

4. As forests were regarded for a long time a 'free good', and the culture of entrepreneurship in Russia was low, upon introducing private property the 'cherries of the cake', previously included in the category of forest shelterbelts, will go under the 'axe'. Speculative transactions regarding the sale of various forest areas will take place, a fertile ground for corruption will be prepared, forest lands will be purchased not for conducting forestry, but for momentary gain and other purposes not related to forestry. Ultimately, the oligarchic structure will get the greater part of forest lands, while the interests of the population and the state will be infringed.

The past experience is also to be considered. As a rule, the reforms initiated by the 'top' and not supported by the 'bottom', are doomed to failure. But the question is who will be responsible for the results of these reforms, the answer to which is much more difficult to define in Russia in comparison with developed European countries.

Myth 4. The forest sector of the Russian economy may be saved by foreign investments and the purchase of the advanced foreign technologies and equipment.

Indeed, in technical development Russia's forest sector lags behind the world's advanced countries, the fact confirmed by lower labour productivity indicators in comparison with foreign competitors, the low level of production automation and computerization, the underdevelopment of forest management technologies. The Soviet equipment and technology, which is both obsolete and outdated, still has been frequently used. As a result of systematic errors in the country management after the collapse of the USSR, forest sector science and education had been deprived of proper state support, and are not capable of offering in short terms any 'breakthrough technologies', required for modernization. It is much easier to borrow advanced foreign technology for 'stratospheric prices', without developing science and education of the home country and without organizing the innovation system. What's the use in hundreds of students at forestry faculties of agricultural universities in Russian regions at the moment, if the number of jobs in the forestry sector had been reduced 4 times after the introduction of the 2007 Forest Code?

Moreover, the majority of regional agricultural universities are registered by the Ministry of Education and Science of the Russian Federation as inefficient, only because rural students have low Unified State Exam results upon admission and teachers are not able to earn sufficient amount of extra-budgetary revenues through contracts with poor agricultural enterprises.

Past mistakes, connected with the sale of strategically important enterprises to foreign competitors are, nevertheless, to be considered. For example, miscalculation regarding the transfer of a number of successful pulp and paper enterprises strategically important for the forest sector of the country's economy to foreign owners at underestimated market prices.

Among them is, for example OJSC Volga (formely the Balakhna Pulp and Paper mill), purchased by the German company HIT. The enterprise satisfied Russia's significant need of newsprint. Svyatogorsk pulp-and-paper mill was sold to the Swedish company Tetra Laval that closed the country's only acetate pulp production at the plant, forcing the country to import soluble cellulose from Sweden at higher market prices. JSC Segezha Pulp and Paper Mill at the insistence of the Swedish firm Assi Doman that had bought the controlling stock of the enterprise, rolled up the bag paper production, forcing the import of the same paper bags from Sweden [2]. The list of the strategic miscalculations may be continued.

But will the foreigners sell us their advanced technologies and equipment? Of course, not. The equipment offered in the Russian market is mostly obsolete, of 10 years ago at best, not meeting the modern requirements of environmental standards. It is certain that our country fell so behind technologically, that the proposals of foreign transnational companies on the construction of timber-processing plants and factories generate lots of buzz. The regions of Russia compete fiercely to implement the projects, offering various tax incentives, government guarantees, co-financing, a five-year moratorium on the reproduction of forest resources, etc. It is a double-edged sword, however. Sure, this will, indeed, solve the problem of deep wood processing and fuller exploitation of the estimated wood-cutting area in the short- and, perhaps, in the mid-term perspective. But as soon as these enterprises 'skim the cream off' the attractive raw material resources areas of Russia, they will be successfully looking for others, until such areas disappear at all, as foreigners consider the forest business in Russia only as temporary. And what will remain for the people living on this territory and considering it their homeland?

In this connection, it is necessary to develop native forest science and education, to set higher hopes upon ourselves, to rebuild our own innovation system, not upon words, like in multiple programmes and strategies, but upon deeds.

Institutional, economic-organizing changes and their consequences for the evolution of Russia's forest potential.

Energy-sapping reforms in the forest sector of the Russian economy, accompanied by the adoption of the new forest codes, numerous reorganizations and the transfer of powers and responsibilities on forest management from one ministry and agency to another in recent decades did not improve the situation, but, on the contrary, considerably worsened it.

Thus, the Forest Code adopted in December 2006 destroyed the old system of forest management, but, had not offered a new one instead. The main innovation of the Forest Code is the decentralization of management and the transfer of powers on managing the forest potential to the regional level. The functions for control and regulation in this sphere, as well as the right of ownership had been reserved to the federal center. The decentralization itself might be a good step for improving the sector management system, since problems are easier to be determined and solved at the local level. This decision, however, was not prepared and sufficiently financed. Management mechanisms and the corresponding regulatory-legal base have not been worked out.

As a result of the liquidation of forestry enterprises, the elimination of the 'Forester' post and Avialesookhrana (Air forest protection service), Russian forests were left for a time abandoned and not protected from natural disasters, and illegal actions of citizens. Small-numbered personnel of foresters was not able to suspend negative trends in the forestry sector, being more occupied with bureaucratic problems.

Therefore, the economic damage from numerous wildfires, aggravated by abnormally dry weather in the 2010 – 2011 period, increasing volumes of illegal logging and exported round timber (as a rule, in China) in the past years largely exceeded the financing of forestry, which was self-sufficient, but started consuming the budget funds. Thus, the consolidated budget expenditures of the Russian Federation and its constituent entities for forestry amounted to 44.57 billion rubles in 2011. Consolidated budget revenues from the use of the forest made only 21.21 billion rubles.

Today one may say that since the adoption of the Forest Code 5 years ago, the system of forest management in the regions has been finally formed, but still it is far from perfection due to the Code imperfection, as well as lack of funding and of highly-qualified personnel.

So what can we do to change the vector of evolution of the country's forest sector, and to orient it to stable, sustainable forest management?

The man has not been valued in our country throughout the country's history, as well as now. Engineering tools, equipment, technologies are more preferable and, as a consequence, too little is invested in human capital. Thus, for example, the share of scientific research financing under the Forestry Development Programme in the Russian Federation for the 2012 – 2020 period will amount to 0.5% only. The salary level of foresters, i.e. 12 thousand rubles, is over 1.5 times lower than the average salaries in the economy. A similar situation is in the Republic of Bashkortostan. Three million rubles are to be allocated for scientific research under the Forestry development program of the Republic (0.49% of the Programme total financing). For comparison: in Finland, the annual cost for scientific research in the forest cluster is more than 400 million euro. The key challenge facing Russia is the personnel problem and innovation development. In this

connection, it is necessary to increase financing of scientific research in priority directions of forestry development at least up to the costs level of the former USSR, i.e. 4% of the total funding.

Forests in our country ('a free good') are not treasured at all. Standing timber cost is 20 times lower than in Europe or America. The term 'forest' is not even defined in the Forest Code. Through mass media it is necessary to make people, in particular, forest users aware that there is not much forest left, and that it should be protected.

Providing technical equipment to the forest fire services in regions is only half the business. The main cause of fire is human factor, therefore, more active work on educating population about rules of visiting forests is needed, the burning of fires in forests is to be completely banned during fire season (e.g., in Finland, lighting of a fire in this period is classified as arson and incurs substantial fines and criminal liability), a complete ban on agricultural burning near forestlands is to be introduced.

Moreover, it is necessary to tighten forest, administrative, and tariff legislation with regard to illegal logging by raising fines 50 times, at the least. In order to restore order in forests it is advisable to enlist the defense and law enforcement agencies, to introduce automated systems for forest resources registration.

In this respect, the Republic of Bashkortostan has a positive experience, having implemented the information system of control over forest resources management, used not only by forestry authorities, but also by the Ministry of Internal Affairs, customs, law-enforcement agencies. As a result of such control over the efficiency and quality of the republic forests management, the volume of illegal timber felling decreased 6 times already in 2012.

Finally, foresters, without whom the country's forests are still not adequately protected from illegal loggers, are to be returned to the forests.

References

1. Map of forests of the Russian Federation. Available at: http://www.vydel.ru/karta_lesov.pdf
2. Moiseyev N.A. Russia's forestry for 100 years. Russia in the surrounding world: 2001: Analytical yearbook. Moscow: MNEP, 2001. P. 80-99.
3. Forest resources of the USSR. Under the general editorship of S.G. Strumilin. Moscow: Publishing house 'Planned economy', Gosplan of the USSR, 1925.
4. Forestry department bicentennial 1798 – 1998 (1898 – 1998). Moscow: GORENJSKI, Slovenia, 1998. Volume 2.
5. Private ownership of forests: good or evil? Finland's experience. Available at: http://www.forest.ru/rus/news/index.php?id=1358

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Social security of Russia's population: an overview of the past years studies *

The aim of the article is to evaluate the level of social protection and to define the most acute problems and risks (threats), undermining the feeling of social security in the people of Russian regions. It is determined, that the population feels less protected due to the onset of poverty, crime and environmental threat. According to the analysis results, the type of society existing in the regions can be defined as unsatisfactory for the social activity of an individual, since the population is poorly protected from external objective risks and threats.

Feeling of social security, social danger, threat, region.

Mariya A.
LASTOCHKINA
Ph.D. in Economics, ISEDT RAS Senior Scientific Associate
mashkop@mail.ru

Social security is a multidimensional concept. In juridical sciences, the social security of an individual, is understood as legal, as well as political, economic and institutional activities aimed at protection of human rights. In economics this concept is closely related to social protection, i.e. the state or society concern over citizens seeking help due to their social position, health status, age, insufficient means of subsistence [1]. Accounting of the objective and subjective indicators is the key approach in sociological surveys. The objective aspect of social security is defined as economic integrity of the state, the level of citizens' rights protection, the quality of life, social guarantees, etc. Subjectively, social security is the feeling, determined by the psychological state of an individual while assessing the degree of social vulnerability.

A significant number of works by Russian scientists is dedicated to the research on social protection of population. Psychological safety factors of an individual and issues on psychological security are discussed in the works of A.V. Koteneva [6], G.V. Grachev [3].

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The sources of psychological threats, extensively damaging the mental health of an individual, compromising his integrity, thus causing its deformation, interfering with the normal activity of an individual are distinguished in the works of Ye.N. Ruskina [13]. L.S. Gutkin evaluates material security indicators and social protection of population on the basis of statistical data on average monthly income, scale of pensions and unemployment rate [4].

O.B. Sheveleva, V.V. Mikhailov disclose methodological and theoretical basics of social protection, and elaborate the lines of social security system improvement in the region on the basis of a system approach [16]. O.A. Polyushkevitch highlights objective and subjective security indicators., ascribing security against crime, economic viability, quality of life, social guarantees to the first group, while sense of safety at home, in a city, or country, the degree of confidence in family members, neighbors, governance, politicians, to the patriotism and tolerance formation [11]. Studying the population self-assesment on social security in some regions of Siberia, V.G. Nemirovsky and A.V. Nemirovskaya, have identified two types of societies: one endangering social activity and the other possessing a threat to the social identity of an individual [10].

According to the data of the all-Russian monitoring, N.I. Lapin, L.A. Belyaeva worked out the social security ratio, which is one of the three components of the social health index (i.e. index calculated as the arithmetic average of the social security, life satisfaction, and social optimism ratios) [12].

The article provides the results of the research, carried out within the project 'Socio-cultural portraits of Russia's regions'. The data of the public opinion poll of the Vologda Oblast population was used as the information base for studying the feeling of social security. The poll was conducted in 2008, 2010, 2012 by the Institute of Socio-Economic Development of Territories of Russian Academy of Sciences. The sample comprised Vologda, Cherepovets, as well as 8 districts of the Oblast. Each sample group amounted to 1500 people. The conditions ensuring the sample representativeness were the following: the maintenance of the proportion between the urban and the rural population; the proportion between the residents of different types of settlements (rural communities, small and medium towns); age and sex structure of the Oblast adult population (sampling error did not exceed 3%).

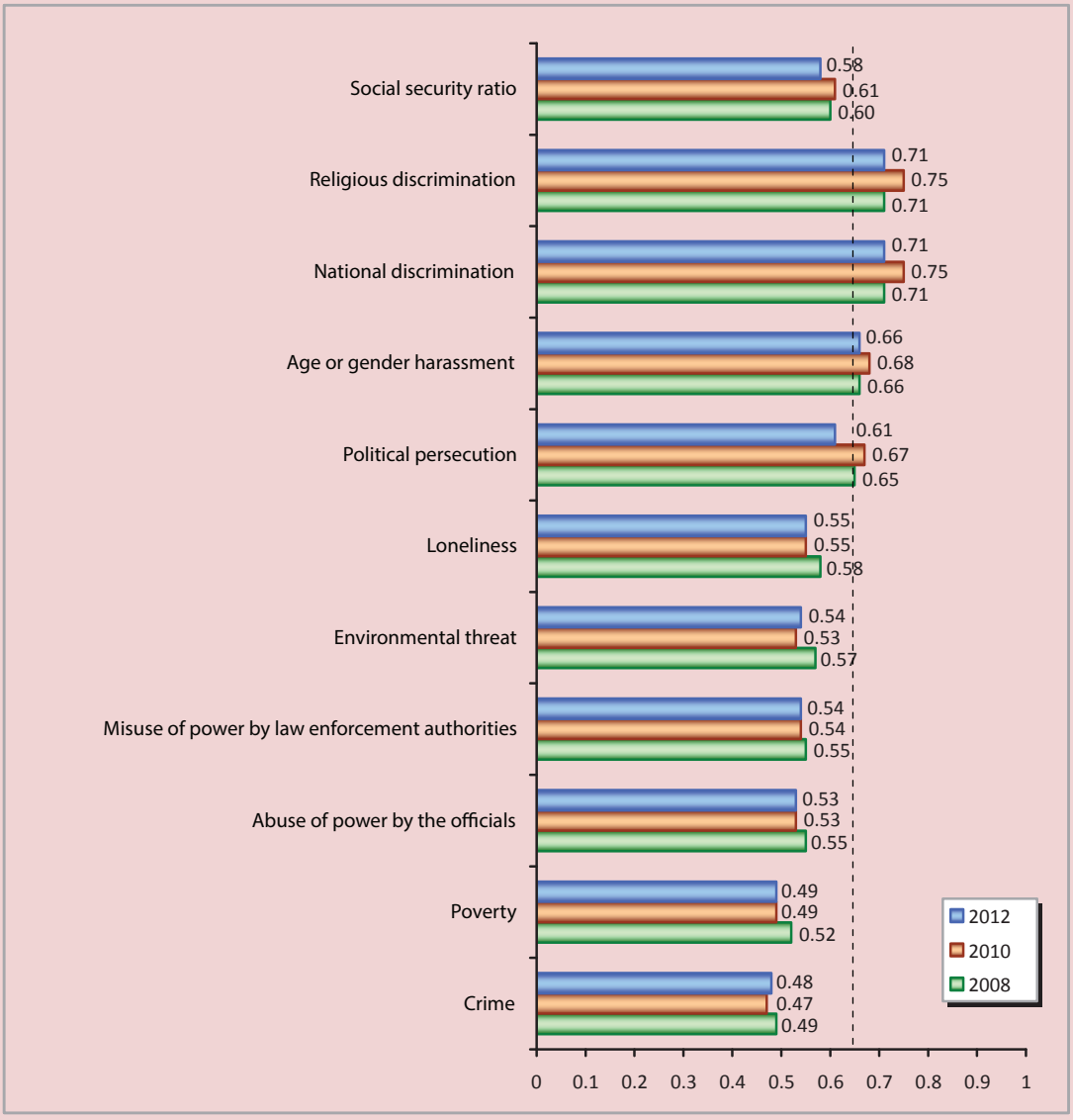
The responses to the question: 'How safe do you feel from multiple dangers?' by 10 hazards (crime, poverty, abuse of power by officials, misuse of power by law enforcement authorities, environmental threat, loneliness and abandonment, political persecution, national origin discrimination, age or gender harassment, religious discrimination) served as the indicator for identifying the self-assessment on social security level. Social security ratio (as weighted arithmetic mean) was computed for each hazard-issue. The total ratio of social security is calculated as the arithmetic average of the given ratios and indicates the degree of community sustainability (0 – 1 measurement range). Values above 0.71 indicate high level of security, 0.51 – 0.7 values evidence of sufficient security level, while values less than 0.5 indicate insufficient security level (the ratio combines certain stability and the ability to differentiate regions, but disclaims the complete comparability of the territories, which might differ in dangers of topical interest).

The most urgent problems for the Vologda Oblast are crime and poverty (only 13% and 17% of the population, respectively, consider themselves fully or rather protected).

The issue concerning the interaction between the authorities and the population is also acute, having become more negative in the 2008 – 2012 period: 45% of residents in 2012 considered themselves unprotected (or rather unprotected) facing the officials' abuse of

power, as compared to only 39% of 2008. This may be explained by the aftereffects of the crisis period, which was characterized by production decline, dismissals, wage violations, etc. Much in the situation depended on the attitude of the officials of different levels, whose decisions often did not satisfy the oblast residents. The environmental threat and misuse of power by law enforcement authorities are also included in the list of the most acute problems (*fig. 1*). National and religious discrimination concern Vologda residents to a lesser extent, with only 16% feeling unprotected, which is related primarily to the fact that Russian-speaking population prevails in the Vologda Oblast. On the whole, the ratio of social security in the oblast amounted to 0.58 in 2012, that is slightly below 0.61 ratio of 2010, and 0.60 ratio of 2008. These trends did not have a negative impact on the social situation in the oblast, so the level of social protection has been remaining adequate throughout the period under review.

Figure 1. Social security ratio of the Vologda Oblast population



Source: Results of the survey 'Socio-cultural portrait of the region' (ISEDT RAS).

Men feel insecure mostly due to the power abuse by law enforcement authorities and officials, whereas women do not feel protected from poverty and crime. Pensioners (over 50%) are more vulnerable than the other age groups. Thus, the misuse of power by law enforcement agencies is much more urgent for the people in the 45 – 49 age group, crime is of topical interest among 50 – 54 age group. The citizens over the age of 55 are greatly concerned by the poverty issue [15]. The needy population group of the oblast considers itself unprotected against poverty and abuse of power by the officials, above all [14]. Those who are financially wealthy and are used to indulging in every pleasure, feel themselves mostly unprotected against the misuse of power by law enforcement authorities (frequently, as a result of illegal cash income received by many representatives of the category). The divorced and the residents of towns (with the population below 100 thousand people) suffer from social insecurity concerning all of the problems studied to a greater degree, than other population categories.

The technique applied for studying social security ('Values and interests of the Russians', 'Socio-cultural portrait of the region') [7] makes its analysis possible, not only in the Vologda Oblast. Thus, on the basis of the survey data obtained by researchers from other regions of Russia, seven more territories have been considered: the Chuvash Republic (2006), the Perm Oblast (2006), the Kursk Oblast (2007), the Smolensk Oblast (2007), the Tula Oblast (2009), the Tyumen Oblast (2009), Krasnoyarsk Krai (2012) and the country as a whole (2010) [12].

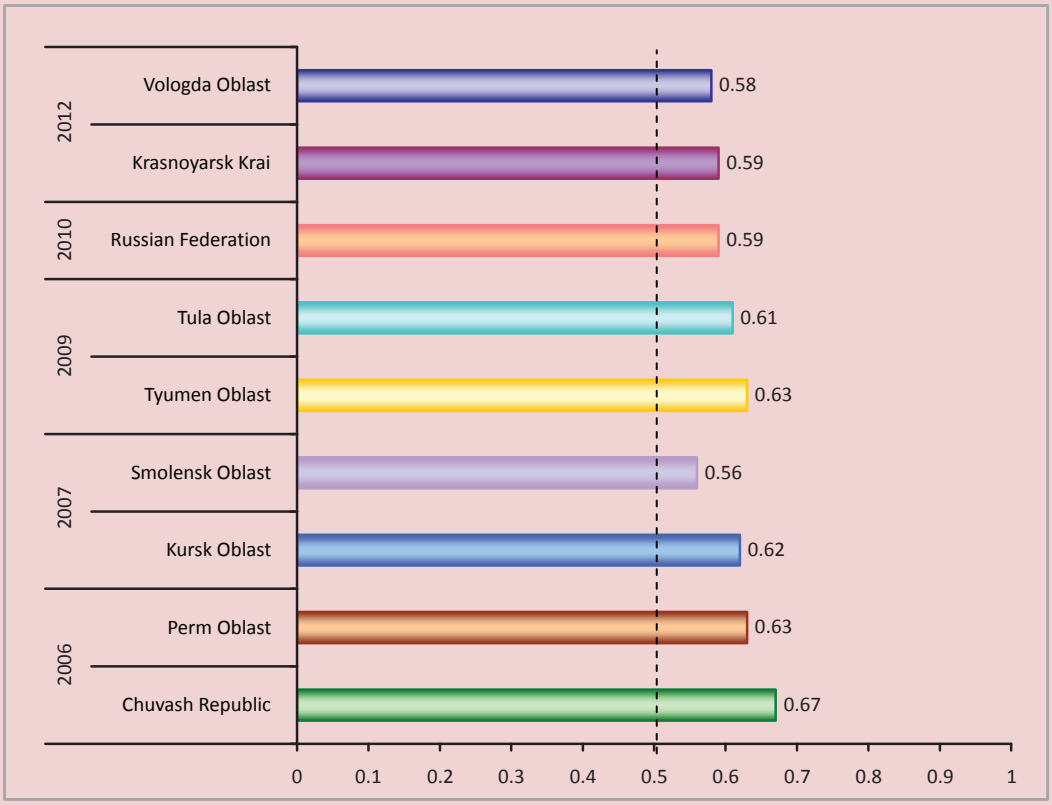
In the period under review, social security ratios in different regions of the country were rather distant from each other, being in the 0.56–0.67 range *(fig. 2)*. The maximum value was registered in the Chuvash Republic, while the minimum value was observed in the Smolensk Oblast, with all the values being in the range of the sufficient security level, so the situation has been homogeneous.

Comparative analysis of hazard issues in the enumerated regions showed, that crime is the most accute problem for the Smolensk Oblast: 62% of the residents consider themselves unprotected (or rather unprotected), while only 6% feel completely, or rather protected. The list is supplemented with poverty (59%) and environmental threat (55%). Smolensk residents are the least concerned by national and religious discrimination (11 and 13%, respectively). Residents of the Chuvash Republic, as well as of the Smolensk Oblast expressed the greatest anxiety about the crime, however to a significantly smaller degree (51% of respondents consider themselves unprotected). Similarly, discriminatory harassment worries only 4 – 6% of the Chuvash Republic population. The situation in the Smolensk Oblast is somewhat more acute than in Russia on average, being a result of the greatest concern expressed by the oblast residents with regard to all range of the problems considered, not of the sharp contrast in vulnerability to certain dangers.

Most acute social dangers include crime, poverty, abuse of power by the officials, environmental threat and misuse of power by law enforcement authorities. As shown in the *table*, the lowest protection level against crime (the first place among the considered dangers) has been observed in 8 of the examined regions, with sufficient security level (0.53) being registered only in the Chuvash Republic. These data indicate that the population of the Russian Federation does not feel safe from criminal offences; the hope of protection by law enforcement authorities is also faint. So, social isolation and uncertainty about future and relationships with people is characteristic of Russian citizens.

The second place is taken by the fear of poverty, deeply felt by the residents of the Smolensk Oblast (0.46), the Tula Oblast (0.48), and Krasnoyarsk Krai (0.47). After three years (2006–2009) residents of Tyumen became less

Figure 2. Security ratio in Russia's regions
(territories involved in the project 'Socio-cultural portrait of the region')



Source: The results of the fifth wave of All-Russian Monitoring 'Values and Interests of the Russian population' obtained by the Centre for the Study of Social and Cultural Change of the IPhRAS in 2006; Regional survey results 'Socio-cultural portrait of the region'[12].

concerned by poverty, so their security level has increased. The tendency is opposite in the Vologda Oblast, where the post-crisis period is characterized by reduction in the level of security against economic problems, that is undoubtedly interconnected with worsening socio-economic situation in the region, falling income, and decreasing living standard.

The third place is occupied by the problem of misuse of power by the officials, security level against which is insufficient in most regions. The low value of the ratio indicates the lack of hope in government officials, and mistrust of the administrative structures, particularly with regard to the police, and regional offices of political parties, as well as mass media.

Environmental threat is in the fourth place, being of special concern to the residents of the Smolensk Oblast (0.46), the Kursk Oblast (0.49), and Krasnoyarsk Krai (0.47).

A threat to security and human comfortable existence arises from an adverse economic impact on the environment. Pollution and the degradation of natural resources has been increasing, negatively affecting the public health, ecological safety and economic stability. Therefore this problem will become more relevant in the foreseeable future, the solution to which depends both on the steps taken to reduce human pressure on the environment, as well as on enhancing the level of environmental culture, ecological education and upbringing of an individual.

Security level of the population against dangers in eight regions of Russia

Dangers (threats)	Insufficient (0.5 and less)	Sufficient (0.51–0.7)	High (0.71 and over)
Most acute social dangers			
1. Crime	Smolensk Oblast Kursk Oblast Perm Oblast Tula Oblast Krasnoyarsk Krai Tyumen Oblast Vologda Oblast	Chuvash Republic	
2. Poverty	Smolensk Oblast Krasnoyarsk Krai Tula Oblast Kursk Oblast Perm Oblast Vologda Oblast	Chuvash Republic Tyumen Oblast	
3. Abuse of power by the officials	Kursk Oblast Smolensk Oblast Perm Oblast Krasnoyarsk Krai Tula Oblast	Chuvash Republic Tyumen Oblast Vologda Oblast	
4. Environmental threat	Kursk Oblast Smolensk Oblast Krasnoyarsk Krai	Chuvash Republic Perm Oblast Tyumen Oblast Tula Oblast Vologda Oblast	
5. Misuse of power by law enforcement authorities	Smolensk Oblast	Chuvash Republic Kursk Oblast Perm Oblast Krasnoyarsk Krai Tula Oblast Tyumen Oblast Vologda Oblast	
Least acute social dangers			
6. Loneliness and abandonment		8 regions, total	
7. Political persecution		Smolensk Oblast Krasnoyarsk Krai Tyumen Oblast Vologda Oblast	Chuvash Republic Kursk Oblast Perm Oblast Tula Oblast
8. Age or gender harassment		Smolensk Oblast Krasnoyarsk Krai Vologda Oblast	Chuvash Republic Kursk Oblast Perm Oblast Tula Oblast Tyumen Oblast
9. National discrimination			8 regions, total
10. Religious discrimination			8 regions, total

Source: Data of the public opinion polls in the regions of Russia: Chuvash Republic (2006), Perm Oblast (2006), Kursk Oblast (2007), Smolensk Oblast (2007), Tula Oblast (2009), Tyumen Oblast (2006, 2009), Krasnoyarsk Krai (2012), Vologda Oblast (2008, 2010, 2012) [12].

The analysis has shown that the least acute social dangers include loneliness and abandonment, political persecution, age or gender harassment, national discrimination, religious discrimination.

The problem of loneliness and abandonment occupies the sixth place among the ten threats. However, among the analyzed regions there is not a single one with a high security level. The issue is multifaceted, since it involves both

moral and social aspects. The issue is acute mostly due to the crisis not only in traditional family relationships, but in the institution of the family, as well. An individual feels lonely when he/she realizes how inferior the relations between him/her and the people important to him/her are, when he/she lacks communication. Thus, it can be concluded that a certain 'stratum of isolated people' (not in the physical sense) exists in the Russian society. Social loneliness increases society fragmentation, leads to the indistinctness of traditional social boundaries and to the loss of social position.

Political persecution takes the seventh place. The feeling of insecurity from political persecutions is extremely strong among the residents of the Vologda Oblast; the estimated protection level has declined over the last two years from 38% in 2010 to 31% in 2012 (as compared to 47% in 2010 throughout Russia). At the same time, there are no reasons to claim that any active or passive protest moods have been observed in the Vologda Oblast [5]. 61% of the Chuvash Republic population feels protected.

Age and gender harassment is in the eighth position. It should be noted that the residents of the Tyumen Oblast began to feel themselves more protected: a positive trend has been revealed in the oblast during the three-year period (individual security increased by 5 p.p.). This conclusion can not be applied to the Vologda Oblast, where the security ratio, on the contrary, decreased by 2 percentage points. [8].

A detailed analysis of the hazard-issues revealed that the regions' residents are the least concerned by national and religious discrimination (the ninth and tenth places). It is connected, first of all, with the fact that the population of these territories is not characterized by significant ethno-cultural or ethno-religious diversity, and the Russian-speaking population constitutes an overwhelming majority.

However, analyzing the dynamics of the ratios (in the Tyumen and Vologda oblasts), the author notes a certain decrease in the security level. The emergence of the tendency is related to an annual increase in the number of labor migrants mainly from the CIS countries (Uzbekistan, Tajikistan, Kyrgyzstan) in Russia, as the ethnic and cultural identity of migrants is weaker than that of the indigenous people.

The examined subjects of the Russian Federation differ in the level of the residents' security from various dangers, so, each region is characterized by its own socio-cultural and psychological specifics, but similar in that the population of all the examined territories feels most vulnerable to external objective conditions (crime, poverty, environmental threat, abuse of power by the officials and misuse of power by law enforcement authorities), and that the people would like to change these conditions for the better, so that the danger from them would diminish. The social security level of the population of Russia's regions is not high, so there is every reason to characterize the existing type of society as unsatisfactory for the social activity of an individual. Moreover, the population is poorly protected from external objective risks and threats. Internal subjective characteristics of an individual refer to the least acute social risks (the feeling of loneliness and abandonment, political and religious beliefs, nationality, age, gender). Man is not able to change many of these characteristics, but if they were rejected, it could destroy his socio-cultural self-identification and self-consciousness.

To sum up, it should be noted that social security is a generalized efficiency characteristic of the system of social security measures, activities of the state authorities on social policy implementation, as well as the effectiveness and feasibility of statutory social guarantees [2]. Due to the dynamics of socio-economic development, current changes and challenges of modernization, the problem of social protection is impossible to be resolved completely.

At the same time, regional comparisons indicate that the positive trends are achievable, and effective measures on social security (socio-economic, legal, political) contribute to social tension reduction in the society.

The social security of the citizens not only consists in advancing their political, socio-economic rights, but also comprises the psychological component of an individual. The sources of insecurity, which at the moment cause decline in the quality of life and living standards of the population, are to be neutralized by creating high-paying jobs, improving social security and social assistance, effectively combating corruption and crime, solving environmental problems, improving socio-economic stability.

References

1. Azriliyan A.N. Economic dictionary. 2011.
2. Blagodatin A., Raizberg B., Lozovsky L. Financial Dictionary. Infra-M, 2009.
3. Grachev G.V. Information-psychological security of a person: the state and possibilities of psychological protection. Moscow: RAGS, 2008.
4. Gutkin L.S. Humanity at the turn of centuries. Indicators of socio-economic development. Moscow: Logos, 2003.
5. Dementyeva I.N. Protest potential of the region population and emergence of social capital. Problems of development of territories. 2012. No. 6 (62). P. 104-114.
6. Koteneva A.V. Spiritual values as a factor of personality's psychological defense. The bulletin of KSU named by N.A. Nekrasov. 2008. No. 4. P. 38-44.
7. Lapin N.I., Belyaeva L.A. Programme and model 'Socio-cultural portrait of Russia's region' (Modification – 2010); Russian Academy of Sciences, Institute of Philosophy. Moscow: INPHRAS, 2010.
8. Shabunova A.A., Gulin K.A., Lastochkina M.A., Solovyova T.S. The modernization of the region's economy: socio-cultural aspects: monograph. Vologda: ISEDT RAS, 2012.
9. Morozova Ye.A. Social security: the essence and research methods. Social policy and sociology. 2006. No. 1. P. 143-156.
10. Nemirovsky V.G., Nemirovskaya A.V. Sense of insecurity from social threats as a basis for typology of regions (based on sociological research data in Eastern and Western Siberia). The monitoring of public opinion. 2012. No. 1(107). P. 113-127.
11. Polyushkevitch O.A. Russian and Portugal citizens' idea of social security. Sociological Studies. 2012. No. 12. P. 66-71.
12. Lapin N.I. Regions of Russia: socio-cultural portraits of regions in nationwide context. Preparation and general wording of N.I. Lapin, L.A. Belyaeva. Moscow: Academia, 2009.
13. Ruskina Ye. N. Psychological safety of an individual: formation theory and technology. Russian scientific journal. 2011. No. 23. P. 230-235.
14. Shabunova A.A., Gulin K.A., Okulova N.A., Solovyova T.S. Social and cultural aspects of the development area. Vologda: ISEDT RAS, 2009.
15. Shabunova A.A., Okulova N.A., Russians assess social and cultural regional milieu. Sociological Studies. 2011. No. 6. P. 36-43.
16. Shevelyova O.B., Mikhailov V.V. The directions of system improvement of the social security in the region. Kemerovo: KuzSTU, 2004.

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Factors of social investment dynamics at the enterprise

Corporate social responsibility is the best form of interaction between business and society. Based on the materials of the Mordovia's state unitary enterprise "Teplichnoye", the article deals with the factors that influence the dynamics of social investment in the company, their impact on the production level and its efficiency.

Business, wages, social investment, labour productivity, economic efficiency.

Marina V.
BIKEYEVA
Ph.D. in Economics, Associate Professor of N.P. Ogarev's
Mordovian State University
mbikeeva@yandex.ru

Under present-day conditions, the requirements for the social side of business assume ever greater importance. This applies equally to businesses and organizations of all the types, sizes and forms of ownership, regardless of their geographical location, activities, cultural and national traditions. Public and authority attention to the social area of business is caused by the need to solve such problems as lessening of social inequality and meeting the growing needs of population at the time when the resources of the state social security system are decreasing.

The aim of the study is to analyze the implementation of corporate social responsibility in the enterprise, and to identify the factors that influence the social investment in the company. The object of research is the Mordovia's state unitary enterprise 'Teplichnoye' (SUE MR Teplichnoye). Today, it is the main supplier of fresh and canned vegetables in the republic. The share of fresh vegetables (cucumbers, tomatoes, peppers, eggplants, marrows, etc.), canned vegetables, root vegetables (carrots, beets), potato and crops is the largest in the total volume of Teplichnoye's products. The technology of growing flowers (roses, tulips) has been implemented recently.

The method of integrated economic, comparative, correlation and regression analysis were used in the study. The information base for the study compiled the annual reports on the economic activity of SUE MR Teplichnoye.

The issues of corporate social responsibility (CSR) are discussed during the most reputable debates that consolidate the representatives of business, government, non-profit organizations and academic institutions. The proposition that companies can focus on the various elements of socially responsible activity and differ in the coverage of its levels prevails in these discussions [6, p. 104].

It is obvious that the differences are based on a variety of relevant practices. Such areas of responsible business as social programmes

and dialogues with the stakeholders, corporate social reports and codes of ethics are widespread.

On the whole, socially responsible behavior in Russia's business is developed within the frameworks of global trends, although, there is no effective solution of many acute problems. On the one hand, companies declare their adherence to the principles of corporate social responsibility, they recognize their strategic potential. On the other hand, often there is no clear logic behind a variety of social programmes, and performance targets do not necessarily lead to the expected results [7, p. 91].

The value of company's social investment was selected to characterize the socially responsible activity of the enterprise [1, p. 43]. The emphasis on this indicator allows us to create a set of characteristics of socially responsible business.

Business social investments include material, technological, managerial, financial and other resources of the company, which are allocated to implement corporate social programmes developed according to the interests of the major internal and external stakeholders [2, p. 165; 4, p. 4].

The economic efficiency of the company determines its social activity. The growth in demand for the products of the enterprise under the analysis leads to the improvement of its financial position. The dynamics analysis of the financial indicators of SUE MR Teplichnoye shows a trend in growing profits *(tab. 1)*.

SUE MR Teplichnoye demonstrates responsibility for its staff, increasing wages that are higher than the republican average. Thus, the average wages of employees increased from 12.99 thousand rubles in 2009 to 21.48 thousand rubles in 2011. Cutting down on staff for the period under analysis can be explained by the modernization of production led to the 13%-release of payroll *(tab. 2)*.

The increase in social benefits resulted in employees' health promotion and the growth of their working hours by 3.5% – up to 210 thousand man-days *(tab. 3)*.

The loss of working hours due to occupational traumatism decreased to 116 man-days (by 52.7%) in 2011. SUE MR Teplichnoye pays remunerations to their injured workers.

Table 1. Dynamics of the financial indicators of SUE MR Teplichnoye for the period from 2009 to 2011, thousand rubles

Indicator	2009	2010	2011	Changes, %	
				in comparison with 2010	in comparison with 2011
Sales revenue	498782	615769	698282	123.45	113.40
Gross margin	109773	190333	153081	173.39	80.43
Before-tax profit (loss)	39289	99242	82649	252.59	83.28
Net profit	39096	96396	80151	246.56	83.15

Table 2. Dynamics of the number and wage rates of SUE MR Teplichnoye's employees for the period from 2009 to 2011

Indicator	2009	2010	2011	Changes, %	
				in comparison with 2010	in comparison with 2011
Average number of employees, persons	854	768	744	89.93	96.88
Average monthly wages of employees, thousand rubles	12.99	19.89	21.48	153.12	107.99
Labour productivity, thousand rubles	624.7	738.9	967.7	118.28	130.96

Table 3. Dynamics of social benefits in SUE MR Teplichnoye for the period from 2009 to 2011, thousand rubles

Indicator	2009	2010	2011	Changes, %	
				in comparison with 2010	in comparison with 2011
Social benefits	1650.0	2183.0	2678.0	132.30	122.68
Including sanatorium-resort therapy costs	987.8	1579.8	1474.2	159.9	93.3
Worked by employees in all the sectors of the economy, thousand man-days	198	207	219	104.55	105.78

Table 4. Dynamics of social investment for maintaining service departments and enterprises of SUE MR Teplichnoye for the period from 2009 to 2011, rubles per one employee

Indicator	2009	2010	2011	Changes, %	
				in comparison with 2010	in comparison with 2011
Investment for maintaining service departments and enterprises – total, thousand rubles	5076.83	4869.61	5158.38	95.92	105.93
Including: - canteen	3834.68	3927.38	4229.87	102.42	107.70
- polyclinic	1242.15	942.23	928.51	75.85	98.54
Maintenance cost of service departments and enterprises, rubles per an employee	5944.77	6340.64	6933.31	106.66	109.35

Table 5. Dynamics and structure of SUE MR Teplichnoye's accounts payable for the period from 2009 to 2011, thousand rubles

Indicator	2009	2010	2011	Changes, %	
				in comparison with 2010	in comparison with 2011
Accounts payable – total	71067	53819	153575	75.73	285.35
Including: arrears in budget payments	39880	30683	2947	76.93	9.60
including: – to the federal budget	23	–	11	–	–
– to the budgets of federal subjects	20522	16992	2936	82.80	17.28
Arrears in payments to state non-budgetary funds	19335	13691	269	70.81	1.96
Arrears in payments to suppliers and contractors for their goods and services	11852	9445	9212	79.69	97.53
Credit and loan debts	–	–	141147	–	–

There is a canteen and a polyclinic for the staff, and their maintenance cost tend to rise: they accounted for 6933.31 rubles per a registered employee in 2011 *(tab. 4)*.

The increase in social investments of SUE MR Teplichnoye in meeting the expectations of internal stakeholders (staff) leads to the rise in labour productivity and decrease in working hours loss due to temporary disability.

The analysis of relationships with external stakeholders revealed the credit debts in this company and its 2.85-fold increase in 2011. This tendency is explained by short-term credit indebtedness *(tab. 5)*. According to the analysis of the structure of SUE MR Teplichnoye's credit debts, short-term credit indebtedness is the largest one – 92% of the total accounts payable.

The share of company's arrears in payments to suppliers and contractors for their goods and services amounts to 6%; the share of arrears in budget payments is 2%. Moreover, there is an annual reduction in accounts payable for the period under the analysis.

The analysis revealed such expenses as the cost of environmental protection measures. There has been a significant annual growth for the period from 2009 to 2011. Thus, these expenses increased by 50.5% in 2010 as compared with 2009 and by 55.5% in 2011 as compared with 2010.

The study results show that SUE MR Teplichnoye has been involved in charities since 2007. The range of social objects that are included in this activity is rather wide. They are preschools and educational institutions, churches and monasteries of the city, health care facilities.

The correlation and regression analysis was conducted at the next stage of the research in order to identify the factors that affect the value of social investment of the company under analysis [3, p. 367; 5, p. 37]. Their volume (Y) was used as a resultative variable. Six factors, which have the greatest influence on the result, play the role of regressors:

X_1 – enterprise's net profit, thousand rubles;

X_2 – average number of enterprise's personnel, persons;

X_3 – labour productivity, thousand rubles;

X_4 – accounts payable, thousand rubles;

X_5 – staff turnover, %;

X_6 – amount of compensations for work-related injuries, thousand rubles.

As for the amount of accounts payable (X_4), during the correlation and regression analysis, short-term credit indebtedness, which couldn't be considered as constant for the company under the analysis, was excluded from it.

As a result, the following regression equation was obtained:

$$Yt = 57507 + 16981\,X_1 + 7883\,X_2$$
$$(t_{fact})(2,73)\quad (3,62)\quad (3,21)$$

In this model, all the factors are statistically significant at the 5%-level of significance, since the calculated value of Student's test of the given factors in modulus is higher than the table one ($t_{table} = 2.028$). With a probability of 0.95 the regression equation can be considered statistically significant:

$$F\,(3.36) > F_{test}\,(10.556 > 2.867)$$

Multiple correlation coefficient of 0.684 indicates a moderate interrelation between the resultant indicator and the factors included in the regression equation. Multiple coefficient of determination indicates that the final regression model allows for 46.8% of the variation in the dependent variable. This means that not all the factors affecting the amount of social investments of the enterprise were included in the model. The level of residual variation explained by the impact of random factor, not considered in the model makes up 53.2%.

The coefficients values in the regression equation demonstrate that a rise in the net profit by 1% (X_1) will result in social investments increase by 16.9 thousand rubles. The increase in the average number of company personnel (X_2) by 1% will lead to the rise in social investments by 7.9 thousand rubles.

The results of the regression analysis suggest that social investments are directly related to the financial results of the enterprise, as well as the average number of its employees.

Thus, studies have shown that social investments of the enterprise, fulfilled through internal and external social programmes, are an important component of the corporate strategy and have become a part of the daily management practices of the analyzed company. SUE MR Teplichnoye fulfills their social obligations through the processes of socio-economic development of the enterprise, providing decent conditions for workers, on the one hand, and through meeting the requirements specified by the state and the public in general, in the form of tax, the development of the social infrastructure of the territory, charities and other programmes, on the other hand.

References

1. Anikina I.D. Social investments as the factor of companies' competitiveness. Finance and credit. 2010. No. 13 (397). P. 42-46.
2. Report on social investments in Russia - 2008. Society and economics. 2008. No. 10-11. P. 161-208.
3. Bikeyeva M.V. The analysis of intercommunication between business social responsibility and investment attractiveness of the company under the conditions of globalization. Economy and entrepreneurship. 2012. No. 5 (28). P. 367-371.
4. Blagov Y.E., Ivanova E.A. Corporate social responsibility in Russia: lessons of the national report on social investments. Russian management journal. 2009. No. 1 (V. 7). P. 3-24.
5. Sazhin Ju.V., Katyn A.V., Basova V.A. Multidimentional statistical methods of economic processes analysis. Saransk: Mordovian University Publishing House, 2000.
6. Sovetov P. M., Fedorkov A.I., Kabichkin S.Ye. Methodological aspects for the assessment of the state and use of human capital. Economic and social changes: facts, trends, forecast. 2012. No. 2 (20). P. 104-114.

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Participation of Vologda residents in All-Russian Schoolchildren Olympiad: performance results and ways of development

The article presents the results of the study on the performance of the region's schoolchildren of the final stage of the All-Russian Olympiad over the past 10 years, based on the open data of the Ministry of Education and Science of the Russian Federation and the Vologda Oblast Department of Education. The article reveals the Oblast to be the country's leader in the Olympiads training efficiency. The groups of disciplines are distinguished by the results achieved (high, average, low). The article provides information on educational institutions that trained the largest number of winners. The article outlines key problems on the Olympiads training and proposals for improving the region's performance results in the All-Russian Olympiad.

General education, All-Russian Schoolchildren Olympiad, work with gifted children, Vologda Oblast.

Aleksandr V.
CHEGODAYEV
Ph.D. in Physical and Mathematical Sciences, ISEDT RAS Scientific Associate
Cheg_al@mail.ru

At present, the issue of systemic work with gifted children is being addressed at the national level, due to changes related to modernization processes in the economy, in the course of which the importance of intellectual and creative potential increases considerably. As a result, the problem concerning talented youth selection and support in modern education comes to the fore. The relevance of the given direction is emphasized in such documents of the federal level, as 'The Concept of Long-Term Socio-Economic Development of the Russian Federation' for the period up to the year 2020 (approved by the Governmental Decree of 17 November 2008, No. 1662-p), and the National Educational Initiative 'Our New School', 'The Concept of a National System for Identifying and Developing Young Talents' [1].

Holding school subject Olympiads is one of the most effective methods of identifying gifted youth. Chairman of the Russian Council for Schoolchildren Olympiads, Academician V.A. Sadovnichiy notes high significance of the Olympiads in promoting Russia's intellectual competitiveness [4].

The All-Russian Schoolchildren Olympiad [8, p. 84], administered by the Ministry of Education and Science, has been leading in significance and the number of contestants. It is held in four stages: school, municipal, regional, and final.

The All-Russian Schoolchildren Olympiad performs the information and indicator function, being a valuable information source on the status of the work with gifted schoolchildren, demonstrating the level of training, breadth of vision and thinking of the best

students from various regions of the country, which represent common education space [10, p. 240].

In this connection it is interesting to consider the performance results of the schoolchildren from the Vologda Oblast at the final stage of the All-Russian Olympiad as compared to other regions of the country. The author analyzed the oblast schools' efficiency on the basis of the open information (orders, reports) of the Oblast Department of Education for the last 5 years, since the official data of an earlier period had not been found.

Olympiad schoolchildren training efficiency and effectiveness in various regions. The largest number of winners of the final stage of the All-Russian Olympiad has been observed in the most densely populated subjects of the Russian Federation, such as the cities of Moscow and Saint Petersburg, the Moscow Oblast, the Republic of Tatarstan, the Chelyabinsk Oblast, Perm Krai *(tab. 1)*. Throughout all regions in general, the correlation between the number of the Olympiad winners and the population size was rather high (correlation coefficient value by multiple data series made 0.86).

The level of education quality and efficiency of schoolchildren training in Russian regions is more objectively reflected in the population size data. When calculating the number of Olympiad winners per 100 thousand people of each region, the Kirov Oblast, Saint Petersburg, the Vologda Oblast, the Republic of Kalmykia, the Republic of Tatarstan and Moscow are among the leaders *(tab. 2)*.

Table 1. Regions leading in the number of All-Russian Olympiad winners and prize-holders

Place	Region	Total number of winners for 2003 – 2010
1	Moscow	1127
2	Saint Petersburg	593
3	Moscow Oblast	414
4	Republic of Tatarstan	411
5	Chelyabinsk Oblast	315
6	Perm Krai	260
7	Nizhny Novgorod Oblast	208
8	Kirov Oblast	205
9	Krasnodar Krai	203
10	Sverdlovsk Oblast	196
13	Vologda Oblast	143
Source: The number of All-Russian Olympiad winners for 2003 – 2010. Available at: http://begingroup.com/ru/top/research/988		

Table 2. Regions leading in the number of All-Russian Olympiad winners and prize-holders in relative figures

Region	Total number of winners for 2003 – 2010	Coefficient (the number of winners per 100 thousand people)
Kirov Oblast	205	14.51
Saint Petersburg	593	12.98
Vologda Oblast	143	11.69
Republic of Kalmykia	33	11.54
Republic of Tatarstan	411	10.92
Moscow	1127	10.76
Perm Krai	260	9.57
Yamalo-Nenets Autonomous Okrug	50	9.21
Chelyabinsk Oblast	315	8.97
Mari El Republic	63	8.96
Source: The number of All-Russian Olympiad winners for 2003 – 2010. Available at: http://begingroup.com/ru/top/research/988		

It is noteworthy, that on the territory of practically all regions leading in the number of Olympiad winners, specialized secondary educational institutions for gifted schoolchildren, that trained more than 50 All-Russian Olympiad winners and prize-holders have been functioning (Saint Petersburg Lyceum No. 239; Advanced Educational Scientific Centre of Moscow State University – A.N. Kolmogorov School, Moscow; Moscow Lyceum No. 1303; Moscow Lyceum 'The Second School'; Chelyabinsk Lyceum No. 31; Kirov Physics and Mathematics Lyceum; Yekaterinburg Gymnasium No. 9; Vologda Multidiscipline Lyceum; etc.). In many regions effective schoolchildren training has been also conducted in supplementary education centres (Kirov supplementary education centre for gifted schoolchildren; Saint Petersburg mathematics education centre; Moscow centre for continuous mathematical education, etc.)

The total number of schools, that have trained one and more All-Russian Olympiad winners made up 2202, with 100 best schools of Russia (0.2% of the total number of schools) training 38.3% of the Olympiad winners (2976 people).

According to the analysis of dynamics of the number of All-Russian Olympiad winners in each region for the 2003 – 2010 period per the region's population, the Kirov Oblast, Saint Petersburg, the Vologda Oblast, Moscow have been leading in the Olympiad winners training, based on the results obtained throughout the period under review. At the same time, the top 10 list of regions varies depending on the year of the Olympiad. Besides, considerable variability and distribution of the regions within the top 10 list indicates that the quality of schoolchildren training is a rather dynamic category.

Performance results of the Vologda Oblast schoolchildren in certain subjects. By absolute figures, the oblast is among 10 leading regions in such subjects as Chemistry (5th place), History (9th place), Geography (8th place), English (9th place).

When calculating the number of winners per 100 thousand people, the oblast falls within the top 10 list of the regions in the following subjects *(tab. 3)*: Chemistry (1st place), History (1st place), Geography (3 place), Biology (4th place), Literature (4th place), Physics (4th place), Russian (7th place), English (8th place), Computer Science (10th place).

Table 3. The number of times the region was in the top 10 list in relative figures

Region	The number of subjects, in which the region's representatives fell within the top 10 (in relative figures)	List of subjects in which the region's representatives fell within the top 10
Vologda Oblast	9	English, Biology, Geography, Computer Science, History, Literature, Russian, Physics, Chemistry
Republic of Tatarstan	9	Astronomy, Computer Science, History, Biology, Literature, German, Russian, Physics, French
Saint Petersburg	8	English, Computer Science, Astronomy, Mathematics, Physics, German, Russian, French
Perm Krai	8	Computer Science, History, Literature, German, Law, Russian, French, Economics
Moscow	8	English, Astronomy, Computer Science, Mathematics, German, French, Chemistry, Economics
Kirov Oblast	7	Biology, Literature, Mathematics, Civics, Law, Physics, Economics
Republic of Kalmykia	7	English, Geography, History, Civics, Law, Chemistry, Ecology
Source: The number of All-Russian Olympiad winners for 2003 – 2010. Available at: http://begingroup.com/ru/top/research/988		

Two schools of the Vologda Oblast were among the best at Olympiad winners training in certain subjects *(tab. 4)*.

Analyzing the dynamics of the number of winners representing the Vologda Oblast at the final stage of the All-Russian Schoolchildren Olympiad, the author notes, that since 2005 and up to now the number of subjects in which Vologda schoolchildren competed at the final stage has increased from 11 to 18 *(tab. 5)*, and starting with 2007, the number of All-Russian Olympiad winners and prize-holders has been stable (yearly not less than 20). At the same time, competition results in Humanities have been increasing, while the results in the Mathematical and Natural Sciences have been decreasing. Thus, in 2012 the oblast's schoolchildren received 16 out of 24 diplomas (67% out of the total number of awards) in History, Law, Social Studies and Literature (in 2007 and 2008 – 42% and 33%, respectively). However, while in 2007 and 2008 the oblast's schoolchildren have received 11 and 14 diplomas in Mathematics and Natural Sciences respectively (55% and 60% out of the total number of awards), in 2011 and 2012 the number of diplomas made 9 and 7 (41% and 33%).

Table 4. The position of the region's educational institutions in the rating on schools leading in certain subjects

Subject	Educational institutions	Number of winners	Place
English	Municipal Educational Institution 'Secondary Comprehensive School No. 1 With Intensified English Studies'	4	4
History	Vologda Oblast Budget Educational Institution ' Vologda Multi-discipline Lyceum'	5	2
Source: The number of All-Russian Olympiad winners for 2003 – 2010. Available at: http://begingroup.com/ru/top/research/988			

Table 5. The number of diploma winners and prize-holders among Vologda Oblast schoolchildren by subjects of the final stage of the All-Russian Olympiad

Subject	Year								Total
	2005	2006	2007	2008	2009	2010	2011	2012	
Chemistry	3	2	4	5	4	4	7	4	32
Law	0	2	4	2	3	1	6	5	23
History	0	1	2	2	3	3	5	5	21
Physics	1	2	0	5	2	2	2	1	15
Literature	1	1	0	0	3	2	3	4	14
Geography	0	0	1	2	4	2	1	0	10
Computer Science	2	3	3	0	0	0	1	0	9
Biology	2	1	1	2	2	0	0	1	9
Russian	0	1	3	2	0	2	1	0	9
Обществознание	-	-	0	0	1	3	2	2	8
English	-	2	1	2	1	1	0	0	7
Mathematics	0	0	1	2	0	1	0	1	5
Ecology	-	-	-	1	1	1	0	1	4
German	-	0	0	0	1	0	1	0	2
Economics	0	0	0	0	0	0	0	0	0
French	-	-	0	0	0	0	0	0	0
Astronomy	-	-	-	-	-	-	0	0	0
Physical Training	-	-	-	-	-	-	-	0	0
Total number of awards	**9**	**15**	**20**	**25**	**25**	**22**	**29**	**24**	**167**
Source (hereinafter): The Orders of Vologda Oblast Department of Education. Available at: http://www.edu35.ru/index.php/archive-news									

The best results were achieved by Vologda schoolchildren in the following subjects:

- Chemistry, Law, History (more than 20 diplomas)
- Physics, Literature, Geography, Computer Science, Biology, Russian, Social Studies, English (7 – 15 diplomas)
- Mathematics, Ecology, German (2 – 5 diplomas).

There have been no winners or prize-holders in such subjects as Economics, French, Astronomy, Physical Training. Regional stage of the All-Russian Olympiad in Technology, Art (Global Art Culture) and Fundamentals of Health and Safety is not held in the Vologda Oblast.

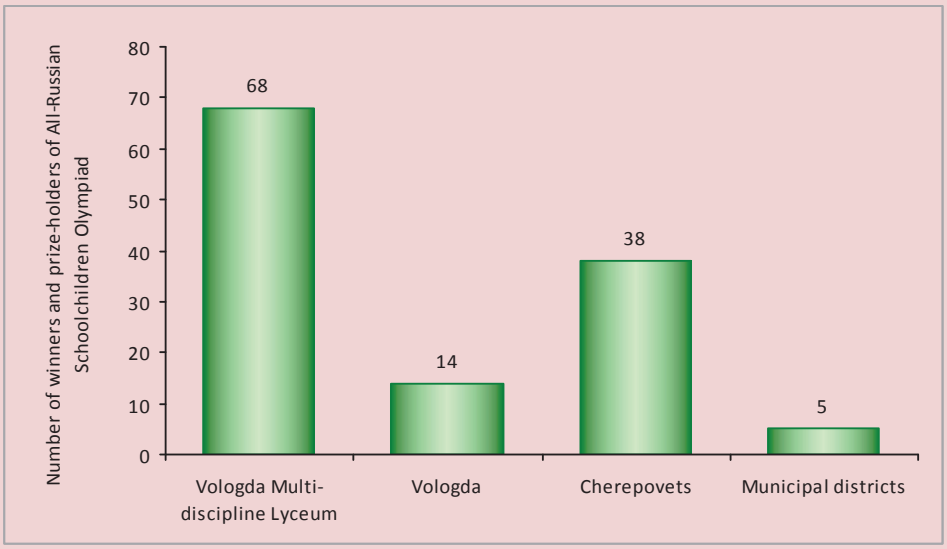
After the principle for selecting participants at the final stage of the Olympiad was changed in 2010, the number of the Vologda Oblast participants has risen *(tab. 6)*, while performance results have declined (the ratio of winners to the total number of participants). Since regions have no fixed quota for participation at the final stage, and the list of participants is determined according to the overall rating of regional stage winners and prize-holders throughout the country, the regions have been given the opportunity to propose more participants in subjects with highest results. For example, the Vologda Oblast was presented at the 2010 Olympiad by 12 contestants in Law and 7 competitors in Social Studies, while at the 2011 Olympiad – by 12 and 9 contestants in History and Chemistry, respectively.

Analyzing Olympiad performance results of the oblast's educational institutions for the last 5 years [5, 6], Vologda Multi-discipline Lyceum is revealed to be the leader with 54% of all awards received by the region *(figure)*.

Table 6. Vologda Oblast performance results at the final stage of the All-Russian Schoolchildren Olympiad

Indicator	2009	2010	2011	2012
Number of participants	58	66	76	69
Number of awards	25	22	29	24
Performance results, %	43	38	36	35

Territorial distribution of All-Russian Olympiad winners



Cherepovets obviously excels Vologda according to the results of the region's two largest cities. First of all, this can be explained by the fact that part of the most talented schoolchildren of Vologda study in the Multi-discipline Lyceum, geographically located in Vologda, but having the status of a regional educational institution. Therefore, the Multi-discipline Lyceum results are not taken to the account of Vologda. Stable results in Humanities have been achieved by Cherepovets Girls' Humanities Gymnazium and Vologda 'Secondary Comprehensive School No. 1 with Intensified English Studies' *(tab. 7)*. Only four educational institutions of the region have trained 5 and more Olympiad winners, indicating insufficient number of schools specializing in Schoolchildren Olympiad training. Winners and prize-holders of the final stage of the Olympiad have been trained in Veliky Ustyug, Gryazovets and Cherepovetsky Municipal District. Many representatives of the municipal districts have been among the winners and prize-holders of the Vologda Multi-discipline Lyceum.

Thus, a total of 25 educational institutions of the oblast (including 10 lyceums, gymnasiums, schools with intensified studies of subjects, 15 secondary schools) have trained All-Russian Olympiad winners and prize-holders. As for the performance results of these educational institutions, only 13 of them have an Olympiad winner. A far greater number of municipal districts' representatives among the final stage contestants indicates gifted children distribution uniformity across the Oblast's territory [2, p. 82].

Geographical distribution of educational institutions with final stage winners in Humanities is significantly wider than of the institutions that trained winners in Mathematical and Natural sciences *(tab. 8)*. This is explained by the fact that high level of training required for at present to victories in the final stage of the Olympiad in many subjects (Mathematical and Natural Sciences in particular), can be ensured only by well-qualified teachers and coaches, the number of which is extremely small in the oblast. In addition, training in practical subjects (Physics, Chemistry, Biology) can be successful only if conducted in well-equipped laboratories.

Problems and prospects of Schoolchildren Olympiad training in the region. To sum up, the Vologda Oblast has been among the leaders in the performance results of the final stage of the All-Russian Schoolchildren Olympiad for the last 10 years. The number of subjects, in which the region's schoolchildren achieve high results, has been increasing. Vologda Multi-discipline Lyceum is among the best educational institutions of the country with regard to schoolchildren training for the Olympiad. However, the region's results in a number of subjects are, as a rule, low. There has been a trend of decreasing results in Mathematical and Natural Sciences. So, the problems of Vologda schoolchildren Olympiad training are the following:

- personnel: lack of qualified personnel for training schoolchildren for regional and final stages of the Olympiad;
- organizational: non-existent regional stage of the All-Russian Olympiad in certain subjects of the list, approved by the Ministry of Education and Science of the Russian Federation; lack of the oblast command centralized training for the final stage; lack of consistency in work with gifted children at all educational levels;
- scientific-methodological: insufficient attention to the Olympiad training in the programmes of professional education and teachers professional development; poor cooperation between educational institutions relating to the issues of Olympiad training experience distribution;
- socio-economic: insufficient number of educational institutions, specializing in work

Table 7. Vologda Oblast educational institutions that trained winners and prize-holders of the final stage of the All-Russian Olympiad in 2008 – 2012

Educational Institution	2008	2009	2010	2011	2012	2008 – 2012
Vologda Oblast Budget Educational Institution ' Vologda Multi-discipline Lyceum'	15	13	11	15	15	68
Municipal Educational Institution 'Girls' Humanities Gymnasium', Cherepovets	2	3	2	5	1	13
Municipal Educational Institution 'Secondary Comprehensive School No. 33', Cherepovets			1	1	2	4
Municipal Educational Institution 'Secondary Comprehensive School No. 9 With Intensified Studies of Specified Subjects ', Cherepovets	1				1	2
Municipal Educational Institution 'Secondary Comprehensive School No. 31', Cherepovets				1	1	2
Municipal Educational Institution ' Comprehensive AMTEK Lyceum' (Secondary Comprehensive School No. 37), Cherepovets	2	3	1	2		8
Municipal Educational Institution 'Secondary Comprehensive School No. 4', Cherepovets	1					1
Municipal Educational Institution 'Secondary Comprehensive School No. 11', Cherepovets				1		1
Municipal Educational Institution 'Secondary Comprehensive School No. 21 With Intensified Studies of Specified Subjects ', Cherepovets	1	1				2
Municipal Educational Institution 'Secondary Comprehensive School No. 26 With Intensified Studies of Specified Subjects ', Cherepovets		1				1
Municipal Educational Institution 'Secondary Comprehensive School No. 34', Cherepovets		1				1
Municipal Educational Institution 'Secondary Comprehensive School No. 21 With Intensified Studies of Specified Subjects ', Cherepovets			1			1
Municipal Educational Institution 'Secondary Comprehensive School No. 32', Cherepovets			1			1
Municipal Educational Institution 'Secondary Comprehensive School No. 12', Cherepovets			1			1
Municipal Educational Institution 'Gymnasium No. 2', Vologda			1			1
Municipal Educational Institution 'Secondary Comprehensive School No. 18', Vologda					1	1
Municipal Educational Institution 'Secondary Comprehensive School No. 8 With Intensified Studies of Specified Subjects', Vologda	1				1	2
Municipal Educational Institution 'Secondary Comprehensive School No. 26', Vologda	1					1
Municipal Educational Institution 'Secondary Comprehensive School No. 1 With Intensified English Studies', Vologda	1	1	1	1	1	5
Municipal Educational Institution 'Secondary Comprehensive School No. 5', Vologda			1	1	1	3
Municipal Educational Institution 'Secondary Comprehensive School No. 13', Vologda		1				1
Municipal Educational Institution 'Secondary Comprehensive School No. 2', Veliky Ustyug				1		1
Municipal Educational Institution 'Malechinskaya Secondary Comprehensive School', Cherepovetsky Municipal District		1	1	1		3
Municipal Educational Institution 'Secondary Comprehensive School No. 1', Gryazovets		1				1
Total	25	25	22	29	24	125

Table 8. Oblast's educational institutions, that trained winners and prize-holders of the final stage of the All-Russian Schoolchildren Olympiad in 2010 – 2012 (results by subjects)

Subject	Educational institution
Chemistry	Vologda Oblast Budget Educational Institution ' Vologda Multi-discipline Lyceum' Municipal Educational Institution 'Secondary Comprehensive School No. 8 With Intensified Studies of Specified Subjects ', Vologda
Law	Vologda Oblast Budget Educational Institution ' Vologda Multi-discipline Lyceum' Municipal Educational Institution 'Girls' Humanities Gymnasium', Cherepovets Municipal Educational Institution 'Secondary Comprehensive School No. 2', Veliky Ustyug Municipal Educational Institution 'Secondary Comprehensive School No. 18', Vologda Municipal Educational Institution 'Secondary Comprehensive School No. 26', Vologda
History	Vologda Oblast Budget Educational Institution ' Vologda Multi-discipline Lyceum' Municipal Educational Institution 'Secondary Comprehensive School No. 33', Cherepovets Municipal Educational Institution 'Secondary Comprehensive School No. 1 With Intensified English Studies', Vologda Municipal Educational Institution 'Secondary Comprehensive School No. 11', Cherepovets
Physics	Vologda Oblast Budget Educational Institution ' Vologda Multi-discipline Lyceum' Municipal Educational Institution ' Comprehensive AMTEK Lyceum'
Literature	Vologda Oblast Budget Educational Institution ' Vologda Multi-discipline Lyceum' Municipal Educational Institution 'Girls' Humanities Gymnasium', Cherepovets Municipal Educational Institution 'Secondary Comprehensive School No. 31', Cherepovets Municipal Educational Institution 'Secondary Comprehensive School No. 12', Cherepovets
Geography	Municipal Educational Institution 'Malechinskaya Secondary Comprehensive School', Cherepovetsky Municipal District Municipal Educational Institution 'Secondary Comprehensive School No. 13', Vologda Municipal Educational Institution 'Secondary Comprehensive School No. 21 With Intensified Studies of Specified Subjects ', Cherepovets Municipal Educational Institution 'Secondary Comprehensive School No. 37', Cherepovets
Computer Science	Municipal Educational Institution ' Comprehensive AMTEK Lyceum', Cherepovets Vologda Oblast Budget Educational Institution ' Vologda Multi-discipline Lyceum'
Biology	Municipal Educational Institution 'Secondary Comprehensive School No. 9 With Intensified Studies of Specified Subjects ', Cherepovets Municipal Educational Institution 'Secondary Comprehensive School No. 37', Cherepovets
Russian	Municipal Educational Institution 'Girls' Humanities Gymnasium', Cherepovets Municipal Educational Institution ' Comprehensive AMTEK Lyceum' , Cherepovets
Social Studies	Vologda Oblast Budget Educational Institution ' Vologda Multi-discipline Lyceum' Municipal Educational Institution 'Secondary Comprehensive School No. 5', Vologda Municipal Educational Institution 'Secondary Comprehensive School No. 1', Gryazovets Municipal Educational Institution 'Gymnasium No. 2', Vologda
Mathematics	Vologda Oblast Budget Educational Institution ' Vologda Multi-discipline Lyceum' Municipal Educational Institution 'Secondary Comprehensive School No. 8 With Intensified Studies of Specified Subjects ', Vologda
Ecology	Vologda Oblast Budget Educational Institution ' Vologda Multi-discipline Lyceum' Municipal Educational Institution 'Secondary Comprehensive School No. 32', Cherepovets
German	Municipal Educational Institution 'Girls' Humanities Gymnasium', Cherepovets Municipal Educational Institution 'Secondary Comprehensive School No. 26 With Intensified Studies of Specified Subjects ', Cherepovets
English	Municipal Educational Institution 'Secondary Comprehensive School No. 1 With Intensified English Studies', Vologda

with intellectually gifted children; lack of measures on financial support to educational institutions and incentives to the teachers, who have trained the Olympiad winners.

In September of 2012 the working group, established under the Vologda Oblast Department of Education upon instruction from the Governor, worked out a system model for identifying and developing gifted children[1]. The Olympiad movement is considered in the model draft as the system basis to identify and seek gifted children.

Based on the developed model and the author's personal experience in schoolchildren training for the Olympiad, the following measures might be suggested in order to enhance the region's performance results in the final stage of the All-Russian Olympiad:

- training sessions for Olympiad contestants;
- expanded list of subjects at the regional level of the All-Russian Olympiad;
- professional development of teachers and methodologists, specializing in work with gifted children, as well as theoretical and practical conferences on the issues of identifying and supporting gifted children in order to expand experience in the sphere and to promote advanced technologies;
- the establishment of the oblast centre, including a boarding school for gifted schoolchildren from the oblast's districts.

References

1. The concept of the national system for identifying and developing young talents in education. Available at: http://www.edu53.ru/np-includes/upload/2012/09/10/2837.pdf
2. Koroleva I.A. The teaching quality assessment in the educational institution in the case of the Scientific and Educational Centre. Problems of development of territories. 2012. No 2(58). P. 82-101.
3. Leonidova G.V. Some approaches to establishing system of education quality assessment in the case of the Scientific and Educational Centre. Problems of development of territories. 2006. No 3(34). P. 61-64.
4. Address of the Chairman of the Russian Council for Schoolchildren Olympiads, Academician Sadovnichiy V.A. to sponsors of Schoolchildren Olympiads. Available at: http://rsr-olymp.ru/news/33
5. Vologda Institute of Advanced Education official web-site. Available at: http://viro.edu.ru/?page_id=1662
6. Vologda Oblast Department of Education official web-site. Orders. Available at: http://www.edu35.ru/index.php/archive-news
7. Regulations on the All-Russian Schoolchildren Olympiad. Available at: http://www.edu.ru/db-mon/mo/Data/d_09/prm695-1.htm
8. Popova V.I., Kelsina A.S. Olympiads in the system of search and development of gifted children. Problems of development of territories. 2011. No 3(55). P. 84-93.
9. The results of the survey 'All-Russian Olympiad winners for 2003 – 2010. Available at: http://begingroup.com/ru/top/research/988
10. Shepelev M.V. The work with gifted children at the propaedeutic stage of studying chemistry: a model of preparing for Olympiads in chemistry. Izvestiya Vysshikh Uchebnykh Zavedenii. 2012. V. 3. No 3. P. 240-244.

[1] The author of the article is a member of the group.

TOPICAL ISSUE

At the end of February of the current year the following edition was published: 'The problems of government management efficiency. Budget crisis in the regions: monograph. Ilyin V.A., Povarova A.I. Vologda: ISEDT RAS, 2013. 128 p.'

As it goes, the book manuscript has been subjected to review by national economic scientists S.D. Valentey, V.S. Selin and A.P. Dorogovtsev, well-known in the scientific community. Recognizing the importance of their estimates, the editorial board of the journal decided to publish the basic content of the reviews.

S.D. Valentey
Doctor of Economics, Professor, Head of the Federative Relations Research Centre of the Institute of Economics RAS

The present study ranks among the works rare in the Russian scientific literature, in which the authors professionally analyze the situation in one of the strategic sectors of the Russian economy.

Poor interest in the metallurgy situation stems from several reasons. One of them, perhaps, is that the problems related to this segment of the Russian economy are 'overshadowed' by the achievements (failures) in extractive industries. As a result, the scientific community has a vague idea about the processes taking place in the field, therefore, about the factors limiting innovation modernization and caused by the processes.

The analysis of the regional profile of metallurgical development is one more notable positive aspect of the research, which is of a special interest, as the work demonstrates that the possibility of reducing deductions from metallurgical companies' profits to the budgets of constituent entities of the Russian Federation indicates their factual role of colonial institutions, exploiting the resources of the whole group of Russian regions.

Among other things, the current situation leads to the fact that '...the current income tax in 2008 – 2011 is to be estimated at 38.8 billion rubles, i.e. 13.6 billion rubles more than the current income tax, reported in the financial statements'. As a result, for example, '30% – 80% of the CherMK net profit were allocated to the payment of dividends in 2006 – 2011'. And although 'at the end of 2010 – 2011 the net financial result of the mill was negative ... this did not prevent the Board of Directors from initiating dividend payments in the amount of 22 billion rubles at the expense of retained earnings'.

The transfer of cultural and sports sphere of budget-forming enterprises with own funding sources to regional and municipal budgets negatively affects the development of the regions' economy, as well.

Hence, the logical conclusion can be the following: the threat is posed not by the expansion of the western capital, but by native entrepreneurs, as 'in the country... the state policy in the sphere of capital outflow, or even... the concept of this policy is not formed'.

I conclude my description by noting one more obvious advantage of the research, i.e. the authors are not limited to statements. They attempt to determine the causes of the 'decease', to make specific proposals aimed at overcoming the current situation in the industry. It is important that the researchers do not confine to purely economic aspect of the issue. They

deal with its statutory and regulatory 'section', noting, for example, that 'the discrepancy between the legal conception of income tax base and the economic content of the base in practice leads to various forms of tax evasion and increasing costs incurred by tax authorities, associated with profit tax administration.

Such methodology is crucial, as the development level of the legal framework is either ignored, or assessed amateurishly in an absolute majority of the developments of native economists.

To sum up, this work is extremely urgent, that is reasonable to be widely discussed.

V.S. Selin
Doctor of Economics, Professor, Chief Scientific Associate of Institute of Economic Problems, Kola Scientific Centre, RAS

Budgetary instruments in the Russian state policy are applied not systematically enough, and reflect, in general, the status of elites in this or that time period.

Rather frank attempts of the Centre to consolidate all large budget resources in the federal budget, on the one hand, and to pass all expenditure powers on the budgetary entities of the Russian Federation and municipal entities, on the other hand, are characteristic features of the current phase (2005 – 2015). The policy of oligarchy's capital, conditioned by an active foreign financial expansion among other reasons constitutes a separate problem. In these respect, the direction of the research presented in the monograph should be recognized as sufficiently important.

According to the publication, falling profit tax that caused the deficit of the territorial budgets is the main reason of growing debt ratio of the overwhelming majority of the Russian Federation constituent entities. In this situation, the unconditional implementation of the adopted social obligations lacks external sources of finance in the form of commercial bank loans and loans allocated from the federal budget. As early as at the end of 2008, the borrowings of the Russian Federation constituent entities increased almost two times in comparison with the 2007 level, and 4.5 times as compared to the 2011 level.

According to the forecasts of the Ministry of Finance of the Russian Federation, the consolidated regional budgets are to be balanced by the beginning of 2016. In reality, the establishment of deficit-free budget is rather doubtful. Thus, according to estimates, the repayment of loans, received in 2008 – 2011 from the federal budget alone, will require the diversion of own regional sources of revenue in the sum of about 400 billion rubles.

As a result, the real deficit of sub-federal budgets in 2015 will amount to 152 billion rubles, indicating once again that the implementation of the social initiatives of the President of the Russian Federation in full measure is impossible. Meanwhile the federal budget stipulates reduction of inter-budgetary transfers by nearly 200 billion rubles in 2013 – 2015, that is comparable to the real amount of budget deficit of the regions.

One can agree with the authors that the provision of social guarantees has become a serious concern for the Russian society. The difficulties, arising while resolving social issues, are usually attributable to the limited revenues of the state budget. The responsibility for the execution and financing of social obligations is being increasingly shifted to the regional level, without adequate redistribution of revenue sources.

The monograph presents rather detailed analysis of the policies and activities of large metallurgical companies. The results of the analysis for 2011 confirmed the conclusion of ISEDT RAS that the decreasing profitability of the leading Russian ferrous metals corporations, and, consequently, the reduction of their role as the main territorial budgets mobilizators should not be attributed only to the cyclical nature of metallurgical production. In many ways it was the consequence of high level of production costs, as well as of the use of offshore financial schemes by major corporation owners with the purpose of tax mitigation. The Russian government has not made serious practical steps towards the tightening of anti-offshore policy.

Meanwhile, it is the employment of offshore traders, that causes huge tax arrears and through which a significant part of the Russian export is carried out. According to the data of the Bank of Russia, for the first half of 2012 alone, net capital outflow grew 1.6 times in comparison with the corresponding period of 2011 and amounted to 43.4 billion rubles. According to the estimates of economists, tracking illegal cross-border capital flow, the real net capital outflow 1.5 times exceeds the statistical one.

In general the work comes as a serious study in the given direction. One of the noted disadvantages of the monograph is that the issues concerning changes in tax legislation and inter-budgetary relations, aimed at stabilization of the financial system of the RF constituent entities, are practically omitted. Nevertheless, it may serve the purpose of an independent research direction, not reducing overall good level of the work.

All in all, the monograph is characterized by solid evidence base, is perfectly logical and can be recommended to publication.

A.P. Dorogovtsev
Doctor of Economics, Professor, Honored Scientist of the Russian Federation,
Corresponding Member of the Russian Academy of Agricultural Sciences,
Head of Economics and Management Chair, Vologda State Technical University

The work under review is devoted to the methodology improvement of the development strategy and tactics of the federal and regional authorities in the sphere of regulation of distribution relations, to the enhancement of the social responsibility of the largest owners and to budgets income growth at all levels. These problems are the result of the reduction in the federal budget expenditures and the increase in the expenditure budgets of the constituent entities in the main directions of the social sphere financing.

The problems of sub-federal budgets have been worsened by the high debt ratio of regions, resulting from profit tax reduction. In this situation, external financing in the form of commercial bank loans and loans from the federal budget has been required. As early as by the end of 2008, the borrowings of the RF constituent entities increased almost twofold, as compared to 2007, and 4.5 times in comparison with the level of 2011. According to forecasts of the Ministry of Economic Development of the Russian Federation, the deficit of territorial budgets will grow sevenfold in 2015, as compared to 2012.

Thus, providing social guarantees to the population has become a serious concern for the Russian society. Thereby, the denoted in the reviewed publication topic concerning the budget crisis of the regions in the 2013 – 2015 period and the directions of the crisis abatement is topical both at present and in the near future.

The monograph under review comprises 7 chapters along with introduction and conclusion.

The expected 2013 – 2015 crisis as a threat to Russia's security is examined in the first chapter. The dangerous directions for the country's economy include withdrawal of capital by large exporters using offshore schemes to minimize taxes. The authors summarized the most common schemes, setting forth economic consequences.

The second chapter is devoted to the study of tendencies of the world market in the case of metallurgical companies, reflecting Russia's positions on steel production and consumption and steel prices in comparison with other countries.

The results of the statistical analysis of industrial-financial activities of the metallurgical companies and their parent companies in the 2007 – 2011 period are presented in chapters 3 – 5. It was discovered, that the tendency of decreasing profitability of the leading steel production capacities, primarily due to the activation of the consolidation and acquisition policy in the world markets, which requires significant diversion of the financial resources of the parent companies, has become general for all major Russian ferrous metals holdings in the course of three years (2009 – 2011).

The chapters contain the statistics of metallurgical enterprises on steel and rolled steel production, sales volumes and structure, including export prices. The economic analysis of parent companies' activities is carried out by the following indicators: cost of sales, growth dynamics of prices for raw materials and rolled steel, ore, coal, gross profit and sales profit, selling and administrative expenses, credit indebtedness, financial results, etc.

Of special interest are the materials concerning remuneration payments to the governing bodies, as they are usually left without comment. In 2000 – 2008, the remuneration payments to the governing bodies of OAO Severstal reduced tax base by 12.7 billion rubles in profit tax.

Chapters 6 and 7 explore the tendencies concerning the relations between metallurgical enterprises and the budget, and the directions of net profit use. The scientifically relevant data on the debt of plants to the Russian Federation budget settlements and the availability of considerable funds for timely budget settlements has been obtained. The amount of funds for capitalization of the enterprises and the fortune of the enterprises' owners, their share in % to GDP and budget revenue have been compared, proclaiming the 'degeneracy' of the country's economic management.

The monograph is concluded with the statement that the decreasing profitability of the leading Russian ferrous metals corporations and their impact on the territorial budgets is not only the result of the high level of production costs, but is largely caused by the application of offshore financial schemes by the owners of the corporations in order to mitigate taxes. The decisions of the enterprises concerning investments in financial assets of mostly low-margin foreign business (CherMK losses made up 8 billion rubles in 2010 – 2011) are doubtful. The monograph substantiates the proposals on VAT payment, dividend payments, the outflow of capital from the country, etc. Based on the conclusions of the work, the authors substantiate suggestions made to the authorities with regard to enhancing contribution of the metallurgical companies to the socio-economic development of Russian regions and Russia as a whole.

When considering the reviewed publication as the results of scientific research, some of the features and characteristics, emphasizing high scientific level of the work are to be highlighted. The monograph is distinguished by high degree of argumentativeness. The theoretical principles, examined in the work, are confirmed by experimental data obtained by the authors.

The techniques used and the conceptual framework are consistent with the works conducted by the RAS, statistical information and electronic resources.

The information base of the study is reliable. Sources of information include the annual reports of the metallurgical plants OAO Severstal, OJSC MMK, OJSC NLMK; consolidated financial statements of metallurgical companies, accounting statements. The authors used data of the Federal Tax Service, Federal State Statistics Service, and Federal Treasury. Thus, the study is based on a significant amount of factual material. Time base for the economic analysis covers the period of 2000 – 2011.

The work is notable for scientific novelty, as the issues concerning the budget crisis of regions have not yet been studied as a result of the conflict of interests between major owners and the majority of the population living in the regions. The results of the studies, presented in the work are of practical importance, as they are concluded with specific recommendations to the government of the country and the regions with regard to the management of the real sector of economy.

Information about authors

Astashov Vladimir Nikolayevich	
Academic degree	Ph.D. in Philosophy
Academic rank	Associate Professor
Full name of the organization – the place of employment	Vologda State Technical University
Work status	Dean of the Department of Humanities, Head of the Social Sciences and Humanities Sub-department
Off. Tel. / Fax	8(8172) 72-16-70
E-mail	astashov-vn@rambler.ru
Mailing address	15, Lenin Street, Vologda, 160000, Russia
Bikeyeva Marina Viktorovna	
Academic degree	Ph.D. in Economics
Academic rank	
Full name of the organization – the place of employment	N.P. Ogarev's Mordovian State University
Work status	Associate Professor of Statistics Sub-department
Off. Tel. / Fax	
E-mail	mbikeeva@yandex.ru
Mailing address	
Biktimirova Yekaterina Dmitriyevna	
Academic degree	Postgraduate Student
Academic rank	
Full name of the organization – the place of employment	Institute of Economics of Karelian Scientific Centre of RAS
Work status	
Off. Tel. / Fax	(8142) 56-31-43, 56-30-61,57-22-10, 57-20-90, 57-15-25, 57-07-27
E-mail	kbiktimirova@rambler.ru
Mailing address	50, Alexander Nevsky Avenue, Petrozavodsk, Republic of Karelia,185030, Russia
Chegodayev Aleksandr Vyacheslavovich	
Academic degree	Ph.D. in Physical and Mathematical Sciences
Academic rank	
Full name of the organization – the place of employment	Institute of Socio-Economic Development of Territories of Russian Academy of Sciences
Work status	Scientific Associate of the Department of Intellectual, Information and Publishing Technologies
Off. Tel. / Fax	(8172) 59-78-10
E-mail	Cheg_al@mail.ru
Mailing address	56A Gorky Street, Vologda, 160014, Russia
Dligach Andrey Aleksandrovich	
Academic degree	Ph.D. in Economics
Academic rank	
Full name of the organization – the place of employment	Taras Shevchenko National University of Kyiv
Work status	Associate Professor of the International Economics Department
Off. Tel. / Fax	+38 (044) 239-33-58
E-mail	ad@advanter.ua
Mailing address	62A, Vladimirskaya Street, Kyiv, 01601, Ukraine
Dyadik Vladimir Vladimirovich	
Academic degree	Ph.D. in Economics
Academic rank	
Full name of the organization – the place of employment	G.P. Luzin Institute of Economic Problems of Kola Scientific Centre of RAS
Work status	Senior Scientific Associate
Off. Tel. / Fax	(81555) 5-47-96
E-mail	vdyadik2006@rambler.ru
Mailing address	24A, Fersman Street, Apatity, Murmansk Oblast, 184209, Russia

Ilyin Vladimir Aleksandrovich	
Academic degree	Doctor of Economics
Academic rank	Professor, Honoured Scientist of the Russian Federation
Full name of the organization – the place of employment	Institute of Socio-Economic Development of Territories of Russian Academy of Sciences
Work status	Director, Chairman of the Public Chamber of the Vologda Oblast
Off. Tel. / Fax	(8172) 59-78-01
E-mail	ilin@vscc.ac.ru, opvologda@mail.ru
Mailing address	56A Gorky Street, Vologda, 160014, Russia
Ivanov Valentin Aleksandrovich	
Academic degree	Doctor of Economics
Academic rank	Professor
Full name of the organization – the place of employment	Institute of Socio-Economic and Energy Problems of the North Komi Scientific Centre, Ural RAS Department
Work status	Chief Scientific Associate
Off. Tel. / Fax	(8212) 24-52-45 / 24-42-67
E-mail	v_ivanov@iespn.Komisc.ru
Mailing address	26, Kommunisticheskaya Street, Syktyvkar, Komi Republic, 167982, Russia
Kobylinskaya Galina Vladimirovna	
Academic degree	Ph.D. in Economics
Academic rank	
Full name of the organization – the place of employment	G.P. Luzin Institute of Economic Problems of Kola Scientific Centre of RAS
Work status	Head of the Corporate Finance Sector
Off. Tel. / Fax	(81555) 7-92-56
E-mail	kobgal@iep.kolasc.net.ru
Mailing address	24A, Fersman Street, Apatity, Murmansk Oblast, 184209, Russia
Kondakova Nataliya Aleksandrovna	
Academic degree	
Academic rank	
Full name of the organization – the place of employment	Institute of Socio-Economic Development of Territories of Russian Academy of Sciences
Work status	Junior Scientific Associate of the Department of Living Standard and Lifestyle Studies
Off. Tel. / Fax	(8172) 59-78-10
E-mail	natali-kopeikina@mail.ru
Mailing address	56A Gorky Street, Vologda, 160014, Russia
Lastochkina Mariya Aleksandrovna	
Academic degree	Ph.D. in Economics
Academic rank	
Full name of the organization – the place of employment	Institute of Socio-Economic Development of Territories of Russian Academy of Sciences
Work status	Senior Scientific Associate of the Department of Living Standard and Lifestyle Studies
Off. Tel. / Fax	(8172) 59-78-10
E-mail	mashkop@mail.ru
Mailing address	56A Gorky Street, Vologda, 160014, Russia
Leonidova Galina Valentinovna	
Academic degree	Ph.D. in Economics
Academic rank	Associate Professor
Full name of the organization – the place of employment	Institute of Socio-Economic Development of Territories of Russian Academy of Sciences
Work status	Head of the Laboratory of the Studies of Labour Potential Development Problems
Off. Tel. / Fax	(8172) 59-78-19
E-mail	galinaleonidova@mail.ru
Mailing address	56A Gorky Street, Vologda, 160014, Russia

Myakota Yekaterina Aleksandrovna	
Academic degree	
Academic rank	
Full name of the organization – the place of employment	National Research Nuclear University 'MEPhI'
Work status	Senior Lecturer of the Economics Department
Off. Tel. / Fax	
E-mail	kaf51@mephi.ru
Mailing address	31, Kashirskoye Highway, Moscow, 115409, Russia
Panikarova Svetlana Viktorovna	
Academic degree	Ph.D. in Economics
Academic rank	Associate Professor
Full name of the organization – the place of employment	Institute of Economics, Ural RAS Department
Work status	Scientific Associate
Off. Tel. / Fax	
E-mail	panikarova@pochta.ru
Mailing address	29, Moskovskaya Street, Yekaterinburg, 620014, Russia
Pechatkin Vitaliy Valentinovich	
Academic degree	Ph.D. in Economics
Academic rank	Associate Professor
Full name of the organization – the place of employment	Institute of Socio-Economic Research of Ufa Scientific Centre, RAS
Work status	Head of the Sector of Economic Security
Off. Tel. / Fax	(347) 235-55-33 / 235-55-44
E-mail	Pechatkin08@rambler.ru
Mailing address	71, Prospekt Oktyabrya, Ufa, Republic of Bashkortostan, 450054, Russia
Popova Larisa Alekseyevna	
Academic degree	Doctor of Economics
Academic rank	Associate Professor
Full name of the organization – the place of employment	Institute of Socio-Economic and Energy Problems of the North Komi Scientific Centre, Ural RAS Department
Work status	Deputy Director for Science
Off. Tel. / Fax	
E-mail	popova@iespn.komisc.ru
Mailing address	26, Kommunisticheskaya Street, Syktyvkar, Komi Republic, 167982, Russia
Povarova Anna Ivanovna	
Academic degree	
Academic rank	
Full name of the organization – the place of employment	Institute of Socio-Economic Development of Territories of Russian Academy of Sciences
Work status	Scientific Associate of the Department of the Problems of Socio-Economic Development and Management in Territorial Systems
Off. Tel. / Fax	(8172) 59-78-10
E-mail	aip150663@yandex.ru
Mailing address	56A Gorky Street, Vologda, 160014, Russia
Putilov Aleksandr Valentinovich	
Academic degree	Doctor of Technical Sciences
Academic rank	Professor
Full name of the organization – the place of employment	National Research Nuclear University 'MEPhI'
Work status	Dean of the Faculty of Management and Economics of High Technologies
Off. Tel. / Fax	
E-mail	AVPutilov@mephi.ru
Mailing address	31, Kashirskoye Highway, Moscow, 115409, Russia

Selimenkov Roman Yuryevich	
Academic degree	Ph.D. in Economics
Academic rank	
Full name of the organization – the place of employment	Institute of Socio-Economic Development of Territories of Russian Academy of Sciences
Work status	Deputy Head of the Department of the Problems of Socio-Economic Development and Management in Territorial Systems
Off. Tel. / Fax	(8172) 59-78-24
E-mail	rus_vscc@mail.ru
Mailing address	56A Gorky Street, Vologda, 160014, Russia
Shabunova Aleksandra Anatolyevna	
Academic degree	Doctor of Economics
Academic rank	Associate Professor
Full name of the organization – the place of employment	Institute of Socio-Economic Development of Territories of Russian Academy of Sciences
Work status	Deputy Director, Head of the Department of Living Standard and Lifestyle Studies
Off. Tel. / Fax	(8172) 59-78-20
E-mail	aas@vscc.ac.ru
Mailing address	56A Gorky Street, Vologda, 160014, Russia
Shishkin Anatoliy Ivanovich	
Academic degree	Doctor of Technical Sciences
Academic rank	Professor
Full name of the organization – the place of employment	Director of the Institute of Economics of Karelian Scientific Centre of RAS
Work status	Director
Off. Tel. / Fax	(8142) 56-31-43, 56-30-61, 57-22-10, 57-20-90, 57-15-25, 57-07-27
E-mail	insteco@karelia.ru
Mailing address	50, Alexander Nevsky Avenue, Petrozavodsk, Republic of Karelia,185030, Russia
Shkarevskaya Svetlana Mikhailovna	
Academic degree	
Academic rank	
Full name of the organization – the place of employment	Vologda State Technical University
Work status	Graduate student
Off. Tel. / Fax	
E-mail	siniayaZvezda@yandex.ru
Mailing address	15, Lenin Street, Vologda, 160000, Russia
Snegov Viktor Vladimirovich	
Academic degree	
Academic rank	
Full name of the organization – the place of employment	Kola Scientific Centre of RAS
Work status	Deputy Chairman
Off. Tel. / Fax	
E-mail	snegov@admksc.apatity.ru
Mailing address	14A, Fersman Street, Apatity, Murmansk Oblast, 184209, Russia
Uskova Tamara Vitalyevna	
Academic degree	Doctor of Economics
Academic rank	Associate Professor
Full name of the organization – the place of employment	Institute of Socio-Economic Development of Territories of Russian Academy of Sciences
Work status	Deputy Director for Science, Head of the Department of the Problems of Socio-Economic Development and Management in Territorial Systems
Off. Tel. / Fax	(8172) 59-78-06
E-mail	tvu@vscc.ac.ru
Mailing address	56A Gorky Street, Vologda, 160014, Russia

Ustinova Kseniya Aleksandrovna	
Academic degree	
Academic rank	
Full name of the organization – the place of employment	Institute of Socio-Economic Development of Territories of Russian Academy of Sciences
Work status	Junior Scientific Associate of the Department of Living Standard and Lifestyle Studies
Off. Tel. / Fax	(8172) 59-78-10
E-mail	ustinova-kseniya@yandex.ru
Mailing address	56A Gorky Street, Vologda, 160014, Russia
Vlasov Maksim Vladislavovich	
Academic degree	Ph.D. in Economics
Academic rank	Associate Professor
Full name of the organization – the place of employment	Institute of Economics, Ural RAS Department
Work status	Senior Scientific Associate
Off. Tel. / Fax	
E-mail	mvlassov@mail.ru
Mailing address	29, Moskovskaya Street, Yekaterinburg, 620014, Russia
Vorobiev Aleksandr Grigoryevich	
Academic degree	Doctor of Economics
Academic rank	Professor
Full name of the organization – the place of employment	National Research Nuclear University 'MEPhI'
Work status	Head of the Economics Department
Off. Tel. / Fax	
E-mail	AGVorobyev@mephi.ru
Mailing address	31, Kashirskoye Highway, Moscow, 115409, Russia
Zorina Yelena Nikolayevna	
Academic degree	
Academic rank	
Full name of the organization – the place of employment	Institute of Socio-Economic and Energy Problems of the North Komi Scientific Centre, Ural RAS Department
Work status	Junior Scientific Associate
Off. Tel. / Fax	
E-mail	zorina@iespn.komisc.ru
Mailing address	26, Kommunisticheskaya Street, Syktyvkar, Komi Republic, 167982, Russia

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Editor	O.V. Tretyakova
Make-up page	T.V. Popova, E.S. Nefedova
Proof-readers	A.A. Sokolova
Translators	A.A. Sokolova, M.A. Glebova

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of Territories of RAS (ISEDT RAS)

Address of the Publisher and Editorial office:
56A, Gorky St., Vologda, 160014, Russia
phone (8172) 59-78-03, fax (8172) 59-78-02, e-mail: common@vscc.ac.ru