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

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# CONTENT

## FROM THE CHIEF EDITOR

*Ilyin V.A.* On the difficult way to strong civil society ..... 5

## DEVELOPMENT STRATEGY

*Ilyin V.A., Povarova A.I.* Budget crisis of the regions in 2013 – 2015:  
a threat to Russia's security ..... 25

*Tatarkin A.I.* Forming of the regional institutions of spatial development  
of the Russian Federation ..... 36

*Moleva S.V.* Development of trade relations and economic cooperation between  
Belarus and Russia – an important component of successful functioning  
of the Union State ..... 51

## BRANCH-WISE ECONOMY

*Romanova O.A., Lavrikova Yu.G.* Industrial policy as a tool of neo-industrialization  
of regional industrial systems ..... 58

*Ivanova M.N.* Economic risks of agricultural organizations' activity in the Vologda Oblast  
in the context of Russia's membership in WTO ..... 68

*Nikolayev A.Ye.* Russia's defense industry modernization: learning from history ..... 76

## SOCIAL DEVELOPMENT

*Afanasyev D.V.* The role and place of the Public Chambers in the context of civil society  
and social capital ..... 88

*Fauzer V.V.* Monitoring of economic and social processes  
(the case of inter-ethnic relations) ..... 97

*Leonidova G.V., Ustinova K.A.* Lifelong learning as a condition for human capital  
formation ..... 110

*Shabunova A.A., Korchagina P.S.* System of values and behavioral practices  
as the significant factors of young people's self-preservation behavior ..... 123

<i>Popova L.A., Terentyeva M.A.</i> Topical issues of labour potential development in the Republic of Komi .....	131
<i>Solntsev I.V.</i> The role of the sport industry in the development of today's economy .....	139
<i>Yang Shenghai.</i> Researches on poverty alleviation of Wuling Mountain area .....	151

## PUBLIC FINANCE

<i>Pechenskaya M.A.</i> Issues of improving inter-budget relations between the region and the federal centre .....	156
<i>Barasheva T.I.</i> Creation of the conditions for self-development of the Northern territories: budget aspect .....	166

## MODELLING AND INFORMATICS

<i>Sadov S.L.</i> Extended forecast of economic results: instrumental potential of the fuzzy sets theory .....	174
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## YOUNG RESEARCHERS

<i>Chekavinskiy A.N.</i> Development of Russia's agriculture as a factor promoting the solution of the world food problem .....	179
<i>Lukin Ye.V.</i> Inter-regional cooperation: current state and problems of development (the case of the Vologda Oblast) .....	186
<i>Gutnikova Ye.A.</i> Inter-municipal cooperation as a factor promoting the economic and social development .....	198
<i>Filatova O.B.</i> Essence and main components of innovation environment in higher education institutions .....	209
Information about authors .....	218
Index of articles published in 2012 .....	223
Requirements to manuscripts .....	226
Subscription information .....	228

# FROM THE CHIEF EDITOR

## On the difficult way to strong civil society



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The modern efficient economy is formed under the influence of not only economic but also governmental regulators. Civil society is an essential element of highly-developed economic, social, political and legal relations.

Modern civil society is a society that has partnered with the government and business, which is also able to control the state and country's wealth. Civil rights and obligations are supplemented, in this case, with the efforts of the state to ensure the economic and social security of the whole country and its citizens. The President of the Russian Federation Vladimir V. Putin spoke about the close links between these problems in his annual Presidential Address to the Federal Assembly of the Russian Federation made on December 12, 2012: **"A sense of responsibility for one's country cannot be instilled with slogans or appeals; people must see that the authorities are transparent, accessible, that they work hard for the benefit of the country, city, region, village and every citizen, and respond to public opinion. The authorities must not be an isolated caste. This is the only way to build a strong moral foundation for creative work, an affirmation of order and freedom, morality and civic solidarity, justice and truth, and nationally oriented consciousness"**<sup>1</sup>.

The level of population's trust in the Government is the most important characteristic of civil society. In this regard, there are two relatively independent periods in Russia's recent history from the 1990s to early 2000s.

The first period, or Yeltsin's ten-year plan, is presented in mass estimates and judgments as a chain of unreasoned radical measures, which have led to unprecedented robbing the state, impoverishment of a great heap of the Russians and which have thrown the country back for many years ago.

According to ISEDT RAS monitoring of the Vologda Oblast's population, the level of population's trust in the President accounted for 27.1% of respondents in November 1996 and only 8.6% of respondents in December 1999.

<sup>1</sup> Transcript of V. Putin's Address to the Federal Assembly of the Russian Federation. Rossiyskaya Gazeta. Available at: <http://www.g.ru/2012/12/12stenogra mmapoln.html>

The second period associated primarily with Vladimir V. Putin is estimated by the people as a practical public policy turn towards society, establishing a constitutional order in the country and promoting the positive development of the country. In 2006 – 2007, the level of population's trust in the President exceeded 60% in the Vologda Oblast.

However, in recent years, despite a slight improvement of financial standing, public opinion polls have fixed the social and psychological deterioration of most Russians and increasing public dissatisfaction with their lifestyle due to the sharp social differentiation and social inequality growth. According to many economic and social indicators and the quality parameters of economic management, the country has fallen below the marginal critical points that are required for the normal functioning of the national society system (*tab. 1*).

The figures (*see pp. 14–21*) show the extended dynamic ranges of the indicators of trust in various levels of authority, as well as in economic structures and social groups, which are the results of public opinion monitoring that has been carried out in the Vologda Oblast since 1996.

These data show that trust in the President, which increased sharply during the first and second cycles of Vladimir V. Putin's presidency, decreased during the presidency of Dmitriy A. Medvedev. Trust in the Government rose again when the third Vladimir V. Putin's presidential cycle began, but it is still a long way off the 2006 – 2007 level (*tab. 2*).

According to a sociological analysis "Edelman Trust Barometer – 2012" covering 23 countries<sup>2</sup>, Russia has the lowest level of trust in the Government in this group – 32 percentage

<sup>2</sup> The survey was conducted from October 10 – November 30, 2011 and consisted of 30-minute interviews for 5600 respondents from the following countries: China, UAE, Singapore, India, Indonesia, Mexico, the Netherlands, Canada, Italy, Argentina, Austria, Brazil, Sweden, USA, South Korea, Poland, Great Britain, Ireland, France, Germany, Spain, Japan, Russia.

Table 1. Indicators of quality assessment of Russia's economy management

Indicator	Critical threshold value	Virtual state, 2010	The ratio of virtual value to critical threshold value
The share of shadow economy, % to GDP	25	45	1.8 times higher
The share of illegal salary, % to official salary	25	39.6	1.58 times higher
Differentiation of federal subjects: - according to GRP per capita, times - according to cash income, times	5	21.1	4.22 times higher 1.3 times higher
The share of corruption and shadow economy, % to GDP	5	40	8 times higher
Total economic losses coefficient, % to GDP	7	50	1.7 times higher
Level of satisfaction with the executive authorities of the federal subjects of Russia	40	30	1.3 times lower
The level of trust in the central government authority, %	40	30	1.28 times lower

Source: Glazyev S.Yu., 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. Bulletin of the Russian Academy of Sciences. 2012. Vol. 82. No. 7.

points. It is comparable with 49 p.p. in the USA and Sweden, 41 p.p. in Great Britain, 40 p.p. in France and 39 p.p. in Germany.

It is possible to insure the establishment of efficient civil society if its elements are vertically and horizontally structured and its state and civil bases are strong. The number of civil society organizations is continuously increasing in almost all the modern states, particularly in the Western democracies. Thus, there are five thousand non-governmental organizations per one million people in the USA<sup>3</sup>.

<sup>3</sup> Golovenko V., Sereda Yu. Civil society organizations as potential of political culture formation and social mobility realizing. The world of transformations. 2012. No. 1. P. 136.

Table 2. The Vologda Oblast's population level of trust in governmental and public institutions\*

Government and public institutions	1996	2000	2005	2010	2nd half year 2012
<i>Level of trust &gt; 40%</i>					
President of the Russian Federation	26.5	57.1	57.7	56.8	45.7
Church	37.9	42.3	46.5	47.0	41.4
<i>Level of trust &gt; 35%</i>					
Government of the Russian Federation	18.5	42.7	38.0	52.4	39.6
Court	19.8	31.6	36.9	37.4	36.1
<i>Level of trust &gt; 30%</i>					
Government of the Vologda Oblast	14.2	31.3	32.8	41.0	34.6
Procuracy	18.2	30.9	34.3	36.1	33.9
Federal Security Service	12.6	34.2	35.6	36.0	33.2
Federation Council of Russia	13.4	28.3	30.4	38.1	32.3
Army	34.2	37.0	25.9	34.5	31.3
State Duma	14.8	23.0	27.1	33.5	30.5
<i>Level of trust &gt; 25%</i>					
Mass media	15.4	33.4	30.4	29.2	29.5
Local self-government	-	-	-	35.6	29.3
Police	14.1	27.2	27.1	32.7	29.3
Public organizations	-	-	-	26.7	26.5
Trade unions	20.2	28.4	27.9	29.9	25.6
CEOs	5.2	19.6	23.6	22.8	25.1
<i>Level of trust &lt; 25%</i>					
Banks and entrepreneurs	8.5	12.4	20.6	21.5	21.3
Political parties movements	6.8	10.7	16.0	22.8	20.9

\* Ranking has been achieved by the values of the indicators for the 2nd half of 2012.

Today, the number of such organizations is also growing in Russia. According the Federal State Statistics Service, if there were 275 thousand non-profit organizations in Russia in 2000, then there were about 342 thousand of them in 2011. According to the RF Ministry of Justice, there were 219.8 thousand organizations as of October 1, 2011, including 85.1 thousand non-govern-

mental organizations, 110.3 thousand public associations and 24.4 thousand religious organizations<sup>4</sup>.

The establishment of the Public Chamber of the Russian Federation, according to the Federal law No. 32FL as of April 4, 2005, was a logical step in the development of civil society. The Chamber cooperates with the authorities based on the needs and interests of citizens; it protects their rights and freedoms in the development and implementation of public policies and organizes public control over the activities of state government bodies. The annual Report on the status of the civil society in the Russian Federation is heard and approved by the Chamber. It also promotes the development of regional public chambers, which have been established in 71 regions of Russia over the recent seven years.

However, it should be noted that the establishment of regional public chambers is significantly delayed. It was formed in the Vologda Oblast 4 years later than at the federal level. The Public Chamber of the Arkhangelsk Oblast started working in October 2012.

The author of this article has been the Chairman of the Public Chamber in the Vologda Oblast since its establishment in April 2009.

The Chamber comprises on a voluntary basis 45 members from among the permanent residents of the oblast who are delegated in equal proportions by the Governor, the Legislative Assembly of the Vologda Oblast and public organizations that are located in the municipalities. The members of the Public Chamber are reputable and respectable citizens known for their public activity.

Since the first days of establishing the Chamber, its special attention has been focused on organizing systematic activity: working

<sup>4</sup> Report on the status of the civil society in the Russian Federation in 2012. Moscow: Public Chamber of RF, 2011. P. 17.

bodies, specialized commissions and normative base were created in a very short time. Nowadays, a systematic approach is developed by the Chamber's members of the second convocation.

The continuing body of the Chamber is the Council that is composed of 9 members. 81 Council meetings and 27 visiting sessions in the districts have been held over three and a half years. The plenary sessions and meetings of the Council dealt with the main issues related to the implementation of civic initiatives and the Chamber's functions in monitoring the activities of the executive government and local self-government. The implementation of the Programme for the development of housing and utilities sector and legal requirements for the budget tariff policy in the Russian Federation and the Vologda Oblast, as well as the measures to develop scientific and technical potential of the region and its infrastructure adopted by the regional authorities were discussed at the enlarged meetings last year. These discussions resulted in the guidance for the administrating authorities on the use of organizational and economic tools and financial resources to solve the current problems.

Over the working period of the Public Chamber, 33 opinion letters for the regional draft laws and programmes have been prepared due to the assistance of qualified experts, including those related to the regional budget approval.

Having discussed the initial draft budget for 2013 and the planned period from 2014 to 2015 submitted by the Government to the Legislative Assembly, the Public Chamber has given a negative opinion letter and made its proposals aimed at the better use of opportunities to increase the revenue side of the budget and rationalize budget expenditures (*the full text of the opinion letter is given on pp. 11-13*).

This opinion letter was quickly examined by the first Deputy Governor who was in charge of economic affairs. On his behalf, the meetings

of the Public Chamber representatives with the heads of the economy and finance departments were arranged; the mediation committee, which included the deputies of the Legislative Assembly, head policy makers and members of the Chamber Council, was formed. As a result, a number of significant amendments were introduced into the draft budget, in particular, guaranteeing the raise in teachers' salaries in 2013 up to the average regional wage. The budget was enacted on December 12, 2012.

Regional civil forums are one of the forms of intensifying the activity of the regional public organizations. The First Civil Forum attended by over 500 people was organized by the regional Public Chamber in November 2010. Most of the proposals made at the Forum have been put into practice. The Coordinating Council of non-profit organizations has been established; it is efficiently functioning now. There have been more social councils under the federal and regional state administration bodies and the practice of their activity has been expanded. Nowadays, there are social councils in the half of municipalities.

Working contacts between the representative and executive branches of the regional authorities were intensified after the election of deputies of the Legislative Assembly in December 2011 and subsequent vesting Oleg A. Kuvshinnikov with the Governor's power. Some people took part meaningfully in decision-making at the Chamber's sessions in 2012: they were the Governor (February), his deputies A.I. Sherlygin (April), A.A. Travnikov (July) and the deputy of the RF State Duma V.E. Pozgalyov (June).

The Second Civil Forum of the Vologda Oblast was held by the Public Chamber together with the Government of the oblast in November. Within the frameworks of the preparation for the Forum, there were eight zonal meetings of the Chamber in the period from February to October, which were attended by about 600 local and regional voluntary group activists.

The Forum had nine sections, which focused on the role and tasks of the regional public organizations in solving the most urgent problems of the region. The proposals made in the sections were developed at the plenary meeting, which was attended by over 300 people. The Governor of the Vologda Oblast Oleg A. Kuvshinnikov spoke there and noted the importance of not only the quantitative growth of non-governmental organizations, but also improving the quality of their working in order to overcome the barriers hindering the region's economic and social development.

However, it is not easy to do this: the development of civil society institutions is hampered by a number of unsolved juridical problems (imperfection of regulatory field), organizational and economic problems (weak resource security of a non-profit sector) and social problems (lack of the population's civil activity). Low civic culture, a lack of civic engagement technologies, underdeveloped mechanisms for the interaction between the population and authorities and public engagement in discussing and making important decisions are resulted in continuous social apathy and paternalistic sentiments.

According to the results of ISEDT RAS opinion polls, personal influence of most people on one or another sphere of life is bounded by family; about half of respondents extend their influence over their jobs, but the influence has decreased sharply at the city, district and regional levels. Less than 10% of respondents find their influence over the country conceivable (*tab. 3*).

It is noted that the population is tired of permanent waiting for the real steps of power elite towards solving the problems of industrial and social spheres, decline in inflation, increasing the standard and quality of living, reducing the excess population differentiation according to income and consumption of life amenities. Russian society is more sensitive

to two major problems – low government efficiency and overgrown corruption.

The discussions at the Second Civil Forum resulted in preparing and adopting the recommendations to the President, the Government, the Federal Assembly, the Public Chamber of the Russian Federation and regional authorities to make the conditions for increasing the efficiency of public and non-governmental organizations.

It has been noted that it is necessary to expedite the consideration of draft federal laws "On public control in the Russian Federation and its objects" and "On the basic principles of organizing the public chambers in the subjects of the Russian Federation". Based on the practice of the Public Chamber in the Vologda Oblast, it is necessary to provide for the following issues in these laws:

- ✓ increasing the term of regional chambers' office up to three years;
- ✓ establishing a government institution "The Administration of the Public Chamber" acting as a legal entities in every region;
- ✓ appropriation of funds to support the activity of regional public chambers (up to 4% of the total maintenance expenditures for the region's Legislative Assembly).

The meeting of the Public Council of the North-West Federal District, held under the chairmanship of the Presidential Envoy to the North-West Federal District N.A. Vinnichenko in November 2012 in Arkhangelsk, dealt with the key issues of increasing the efficiency of regional public chambers of the District and expanding the constructive mechanisms and forms of their working.

It was decided to hold the next meeting of the Public Council of the North-West Federal District in the second half of April 2013 in the Vologda Oblast with the involvement of the chairmen of the regional public chambers and the chief executive officers of the regions that are the parts of the district. It was recommended to arrange an extensive public debate on the

Table 3. Distribution of responses to the questions that deal with the personal responsibility for the situation and the opportunity to influence this situation (December 2011, in % of the number of respondents, without the people who were undecided)

Responses	Spheres of influence					
	In the family	At work	At home/ in the yard	In the city/ district	In the oblast	In the country
Question: «Do you find yourself responsible for the situation...?»						
Yes	77.9	52.7	38.0	15.6	9.2	9.8
No	13.3	27.8	40.7	57.1	63.5	62.9
Question: «Do you think you can personally influence the situation...?»						
Yes	77.1	50.7	35.6	12.1	7.7	6.6
No	12.7	29.6	42.7	62.1	66.1	67.4

most important local legislative acts in 2013, including draft budgets of the subjects and the reports on their implementation, as well as involve public associations in creating a system of public monitoring of corruption and conflict of interest in the territorial bodies of federal executive authorities, government authorities of the federal subjects of Russia and local self-government.

The experience increasingly convinces that it is impossible to implement modernization in Russia without practical interaction in the system “society – authority – business”. For the present, there are a lot of inconsistencies in this system. The authorities’ response to public opinion is always late.

It took the central authorities a few years to hear the population and experts’ opinion on the required deoffshorization of Russia’s capitals and introduction of luxury tax. Russian society notes the inadmissibility of excessive population’s income differentiation. However, this gap is constantly growing in the recent years. Low-income groups have been

recruited with the army of school teachers, university professors and research institutions employees – in short, the people who provide for the intellectual potential of the country and the employees that meet the requirements of innovation development.

Such persons as M. Yu. Zurabov, T.A. Golikova, A.A. Fursenko, A.Ye. Serdyukov were evaluated negatively as the heads of ministries in public opinion. But there was no timely provided response to the public sentiments. Incidentally, this was one of the reasons for the loss of 12 million votes by the party “United Russia” in December 2011. People are dissatisfied with the fact that many urgent problems are only declared but their solution is not attended with the specific system actions of the authorities understandable to most people.

This journal contains an article “Budget crisis of the regions in 2013 – 2015: a threat to Russia’s security” (*see pp. 25-35*) that shows that the long-standing reluctance of the federal government to limit the outflow of Russian capital abroad in offshore areas does not allow them to increase the revenue bases of national and regional budgets. This is the main reason of the fact that a lot of indicators approved in the budget of the Russian Federation for 2013 and the planning period from 2014 to 2015 do not meet the targets set by the RF President Vladimir V. Putin in his decrees No. 594-606.

Government’s ignoring of traditional moral and ethical values, as well as the breach of the principles of social justice do not promote the development of civil society. The regions and, therefore, Russia in general, do not use the potential of civil society that is an important tool for increasing the efficiency of state management, ensuring sustainable economic growth with the continuous improvement of living standards of most people in the country.

**Opinion letter of the Public Chamber of the Vologda Oblast on the draft budget  
“On the oblast’s budget for 2013 and the planning period from 2014 to 2015”  
as of November 11, 2012<sup>1</sup>**

The analysis of the draft budget for the period from 2013 to 2015 allows making the following conclusions.

1. Projected budgetary framework indicates that **the pre-crisis showings of own revenue sources in real terms will not succeed** in the period from 2013 to 2015. Russia’s lag in the indicators that show providing the population of the Vologda Oblast with budget revenues will increase (from 12 thousand rubles in 2012 up to 16.5 thousand rubles in 2013, up to 19 thousand rubles in 2014 and up to 24 thousand rubles in 2015).

2. It is necessary to pay attention to **the negative dynamics of budget expenditures in all the financing areas of social sphere**: educational expenditures will have been reduced by 12% over three years, culture expenditures – by 30%, social policy expenditures – by 23%, physical education and sports expenditures – by 52%. The deficit of budget resources will not allow the government to ensure all the social safeguards and solve the current social problems.

3. **Extremely high debt burden** will remain one of the key factors restraining the social and economic development of the oblast. The public debt will account for 28 billion rubles, which corresponds to 87% of own budget revenues. Servicing costs of debts will increase 2-fold, and they will be 2 times higher than most regional budget expenditures in terms of absolute amount in 2013 – 2014 years (2.5 billion rubles).

4. The crisis profit slump of organizations will not be restored in the forecast period (the return of profitable companies will account for 92% in 2015 as compared with the profit in 2012 and 29% as compared with 2008). As a result, **profit tax will cease to be the main income source of the regional budget** in 2013. Profit tax revenues are expected to decrease by 1.6 billion rubles or 15% as compared with the level of 2012. Moreover, even in 2015, profit tax revenues will be lower than not only the level of 2008 but also the level of 2010 – 2012.

5. Income tax revenues will grow moderately (15% per year as compared with 20 – 26% in the pre-crisis period), and it will increase by 5 billion rubles over three years. **Average wage will be lower than the national average** (by 4.4 thousand rubles in 2012, by 4.5 thousand rubles in 2013, by 5 thousand rubles in 2014, by 5.9 thousand rubles in 2015).

6. **Reserves to achieve a balanced regional budget due to investment expenses will be exhausted.** Capital investment will be reduced 4.3-fold, and it will account for 2.8 billion rubles in 2012, 1.7 billion rubles in 2013, 1.1 billion rubles in 2014 and only 0.6 billion rubles in 2015.

7. **Limited own budgetary resources threaten the enforcement of the RF President’s decrees** that deal with the raise in salaries of public sector employees.

The expenses necessary for the implementation of presidential decrees have been left out of account at this stage of budgeting.

Having regard to the fact that the Vologda Oblast should return 16.2 billion rubles of credits in 2013 – 2015, and the raise in salaries of public sector employees will demand almost 18 billion rubles, we can conclude that the oblast has no funds to implement the task set by the RF President without the support from the federal budget. Meanwhile, the transfers, which are provided for this purpose in the federal budget for the Vologda Oblast in 2013, will not compensate even for 25% of funding needs.

<sup>1</sup> The opinion letter was prepared by virtue of the authority of the Vologda Oblast’s Public Chamber. It was sent to the first Deputy Governor of the Vologda Oblast A.A. Travnikov and the Chairman of the Legislative Assembly of the Vologda Oblast G.E. Shevtsov.

**8. The centralized system of intergovernmental fiscal relations will be one of the main risks in functioning of the budgets of the Russia's federal subjects.** State authorities are increasingly shifted to the regional and local government without adequate financial reinforcement. The federal budget provides a consecutive in intergovernmental transfers to the federal subjects of Russia: from 1.4 trillion rubles in 2012 down to 1.3 trillion rubles in 2013 and 1.2 trillion rubles in 2015.

Only the subsidies and subventions for the Vologda Oblast's budget will have been reduced by 1.1 billion rubles for the period from 2013 to 2015, which will be equivalent to the regional budget losses due to the changes in the federal law on excise tax.

However, the current tax policy, especially with regard to big business, does not increase the budget revenues, but it purposefully makes the conditions for expatriation of companies' profits and personal incomes abroad. As a result, the major budget revenue generating enterprises reduce their participation in forming of budget revenues. Thus, over the period from 2000 to 2011, the tax revenues to the federal budget from the Cherepovets Metallurgical Plant have decreased from 14% to 3.4%, NLMK – from 20% to 6%, MMK – from 12% to 6.5% (*tab. 1*).

Due to reducing the tax burden, the share of tax revenues from the steel production in the total amount of regional budgets' own revenues have declined from 76% to 20% in the Vologda Oblast, from 81% to 32% in the Lipetsk Oblast, from 40% to 15% in the Chelyabinsk Oblast (*tab. 2*).

Meanwhile, many experts point out that there are reserves to fill the federal and territorial budgets. They include the introduction of a progressive scale of personal income tax; the cancellation of VAT refund for the large exporters; the introduction of a diversified property tax; the increase in a dividend tax rate from 9% up to 13-15%; the taxation of exported Russian capital, dividends and other excess profits. According to experts, the involvement of these reserves could potentially increase Russia's federal budget revenues by 4.6 trillion rubles, which would solve a lot of problems of the regional budgets.

Table 1. Tax payments of metallurgical plants to the federal budget of Russia in 2000 – 2011, mln. rub.

Indicators	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
<b>ChMK</b>												
Taxes, total	8219	5582	4860	9081	17498	16747	14450	23633	26999	3990	9186	8733
In % to the profit	13.9	10.7	8.0	11.1	13.4	11.7	9.0	12.2	11.1	2.8	4.4	3.4
<b>NLMK</b>												
Taxes, total	7694	4237	5827	9117	16451	13987	19295	15557	20703	6809	11529	12820
In % to the profit	19.9	11.4	10.9	12.2	13.0	11.7	13.8	10.0	10.2	5.3	6.4	5.8
<b>MMK</b>												
Taxes, total	7272	3897	4487	9565	12071	14367	16043	15315	17400	5082	10243	15988
In % to the profit	12.1	7.4	7.4	10.8	9.0	9.8	9.9	8.0	7.7	3.7	5.1	6.5

Source: Annual reports of JSC Severstal, NLMK, MMK.

Table 2. The share of steel production tax revenues per capita in the total amount of budgets' own revenues in the federal subjects of Russia for 2000 – 2011, %

Subject	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Vologda Oblast	75.7	37.3	38.6	36.0	48.0	43.3	38.2	37.8	34.3	14.8	22.1	19.9
Lipetsk Oblast	80.7	43.1	47.3	51.4	61.5	54.3	54.8	50.2	48.5	19.5	30.7	31.5
Chelyabinsk Oblast	40.0	23.7	21.7	31.4	29.2	28.4	22.5	16.8	14.1	6.9	11.2	15.4

9. The oblast's draft budget does not take into account the current reserves to increase revenues.

The Public Chamber considers the following measures are reasonable:

– when forming the revenue side of the regional budget, it is necessary to consider the current debts for taxes, fees, fines and tax penalties as a potential source of revenues, which, according to tax accounts, amounted to 2.4 billion rubles as of November 1, 2012, that corresponded to the amount of funds necessary to increase the wages of public sector employees in 2013;

– a range of administrative measures should be implemented in order to regulate non-tax revenues and strengthen their function; in particular, it is necessary: to make an inventory of all the standard acts that deal with the state property management; to develop objective methods for calculating rental rates; to exclude the disposal of regional property for the free use by the federal entities;

– under the conditions of the regional budget deficit, it is necessary to discuss the opportunity to suspend the Law of the Vologda Oblast "On the long service pensions for the persons who hold public posts and civil service posts in the Vologda Oblast" as of July 5, 1996 No. 87- OZ;

– taking into account that the implementation of the Vologda Oblast's budget becomes more dependent on the financial support from the federal budget, it is necessary to continue the discussion of the issues with the Government of the Russian Federation:

- the repeal of federal property tax relief for the organizations, which allow the government to increase the tax revenues of the regional budget by 3.5 billion rubles and significantly reduce budget deficit and debt burden;

- considering the opportunity to extend the credit payment period for the regional budget up to January 1, 2014 and the replacement of commercial loans planned to be received in 2013 by federal budget loans;

- increasing free financial support for the enforcement of the RF President's decrees as of May 7, 2012.

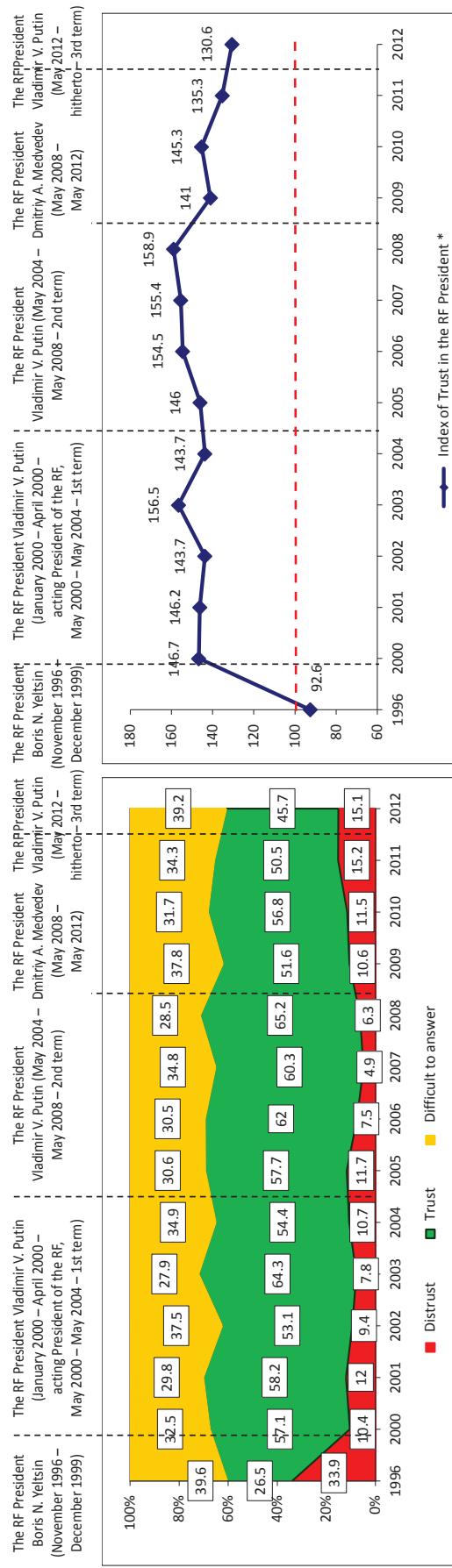
**Based on the above, the Public Chamber of the Vologda Oblast finds it impossible to support the oblast's draft law "On the regional budget for 2013 and the planning period from 2014 to 2015" because it does not meet the objectives of social and economic development of the country and regions that were stated by the President of the Russian Federation Vladimir V. Putin in his pre-election policy articles and decrees as of May 7, 2012 aimed at improving the living standards of the population in the regions due to the development of economy, increasing government efficiency, reducing excessive social inequality and ensuring social justice.**

The Chairman of the Public Chamber  
of the Vologda Oblast

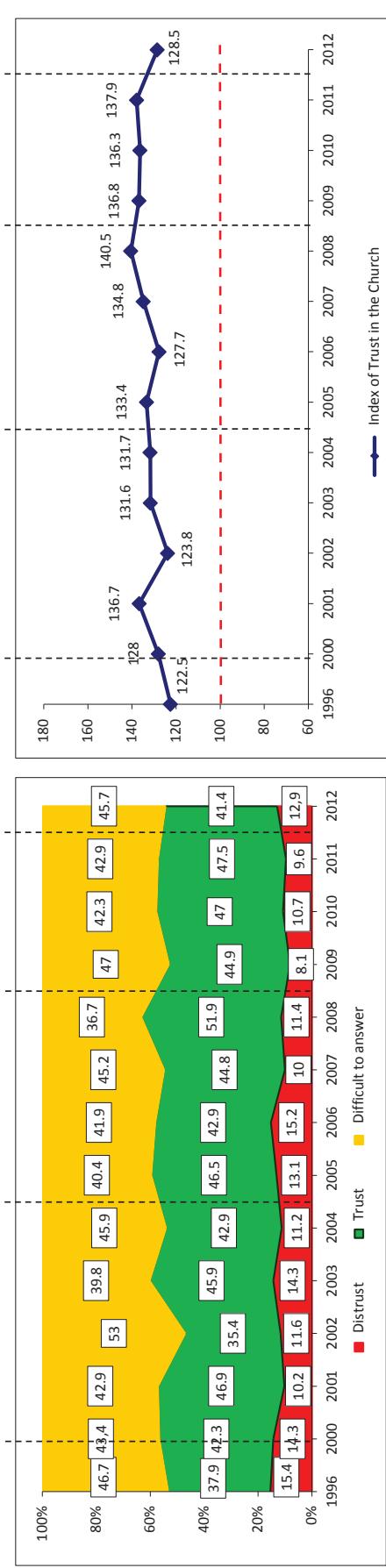
V.A. Ilyin

## Trust of the Vologda Oblast's population in government and non-governmental organizations, 1996 – 2012 (in % to the number of respondents)

### Attitude toward the President of the Russian Federation

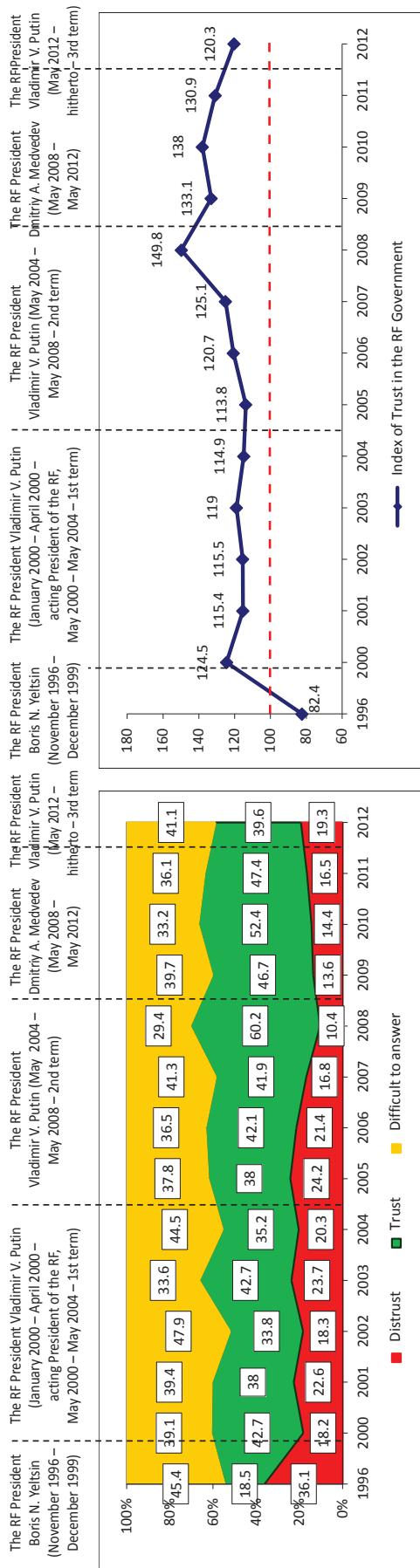


### Attitude toward the Church

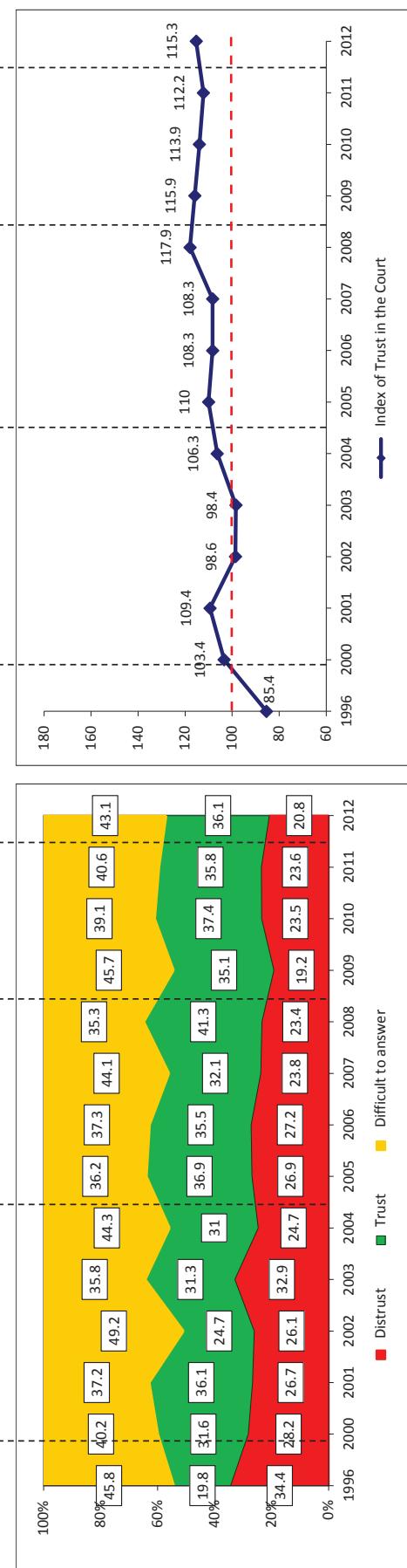


\* Index of Trust has been calculated by subtracting the negative responses from the number of positive ones, and then adding 100 to the obtained value in order to avoid a negative value. The balance of positive and negative responses has been marked by a red dotted line (index is equal to 100 points) Index above 100 points indicates the predominance of positive responses over negative ones, index below 100 points – the opposite situation.

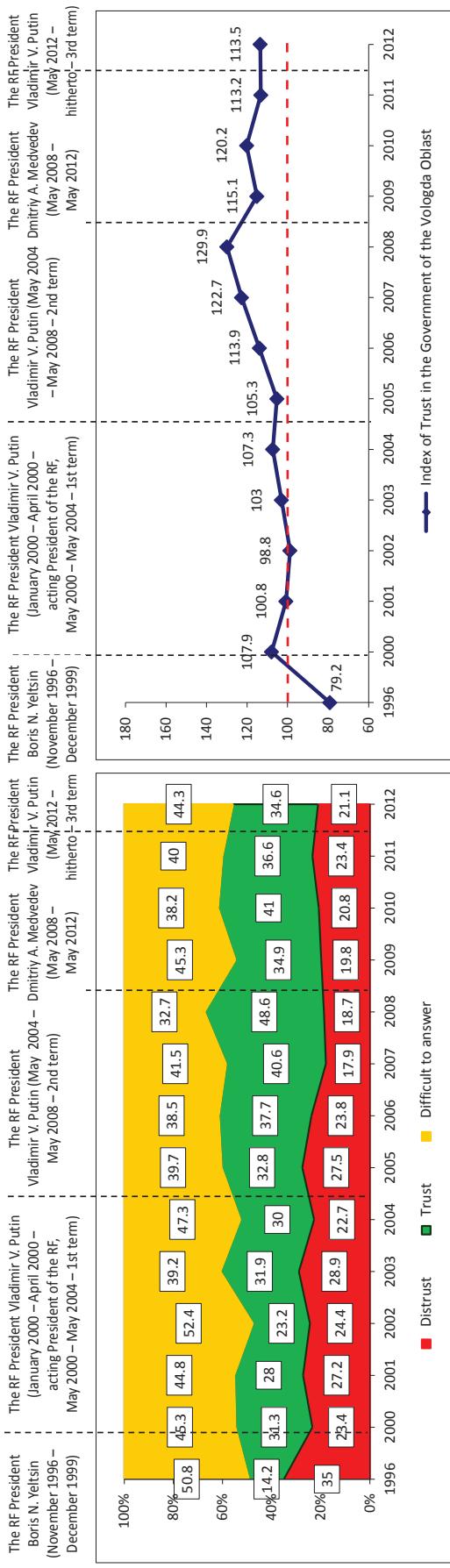
### Attitude toward the Government of the Russian Federation



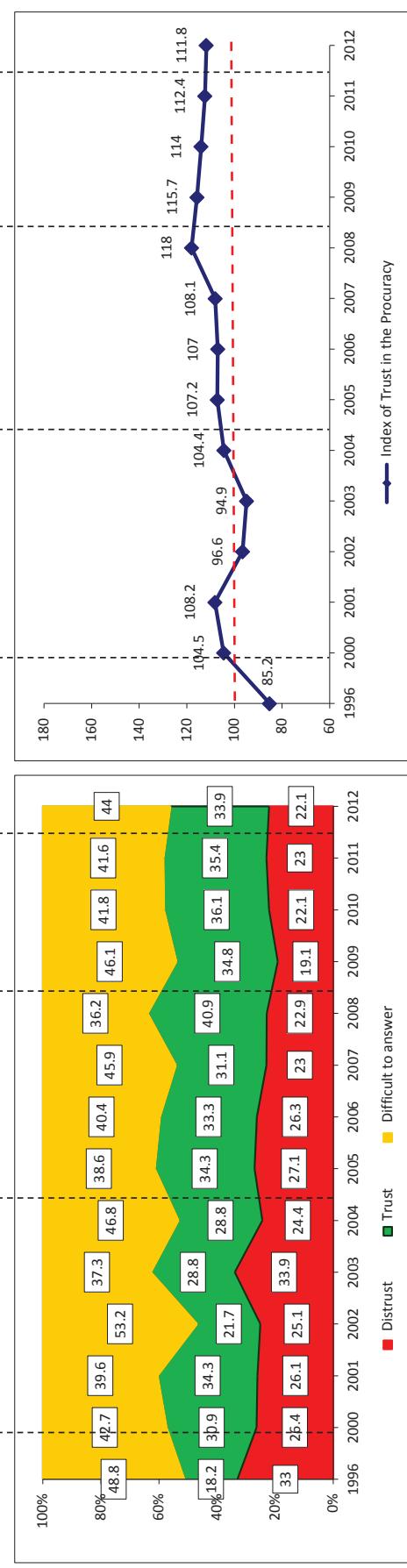
### Attitude toward the Court

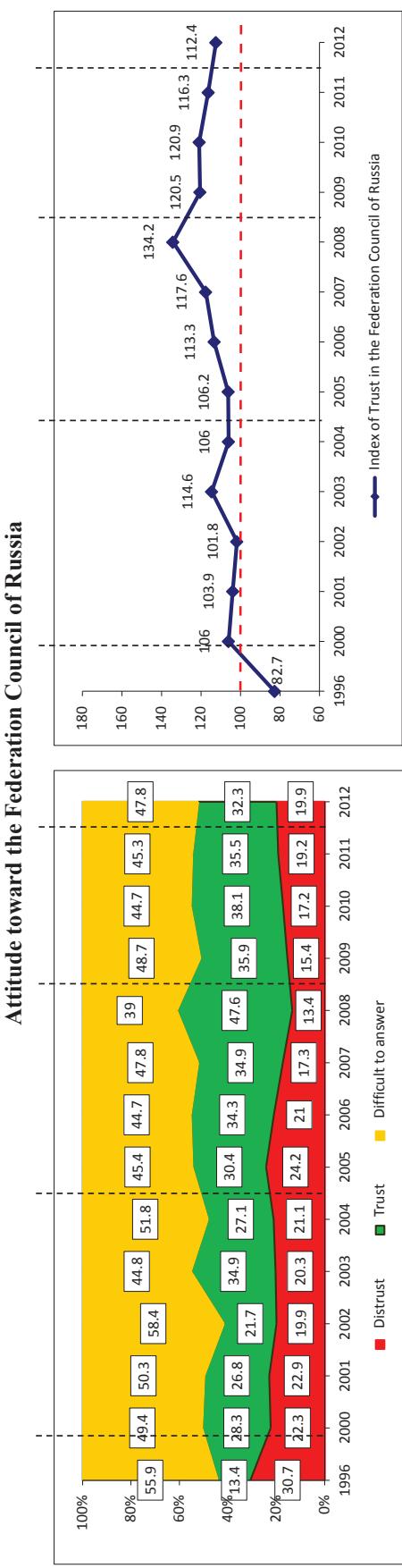
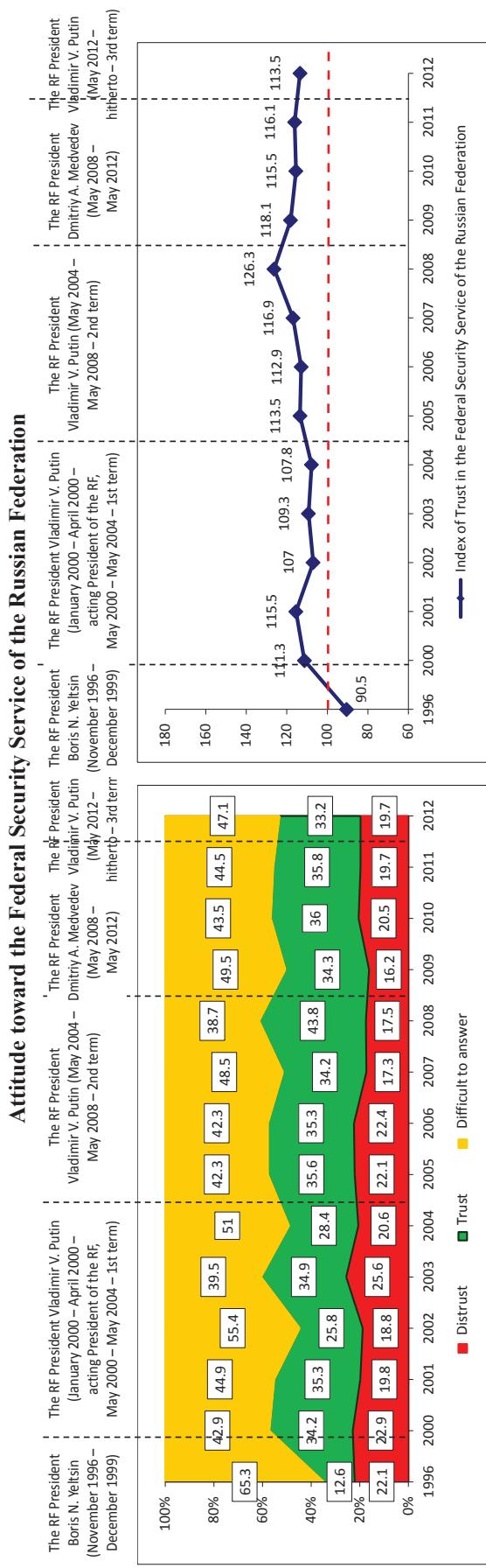


### Attitude toward the Government of the Vologda Oblast

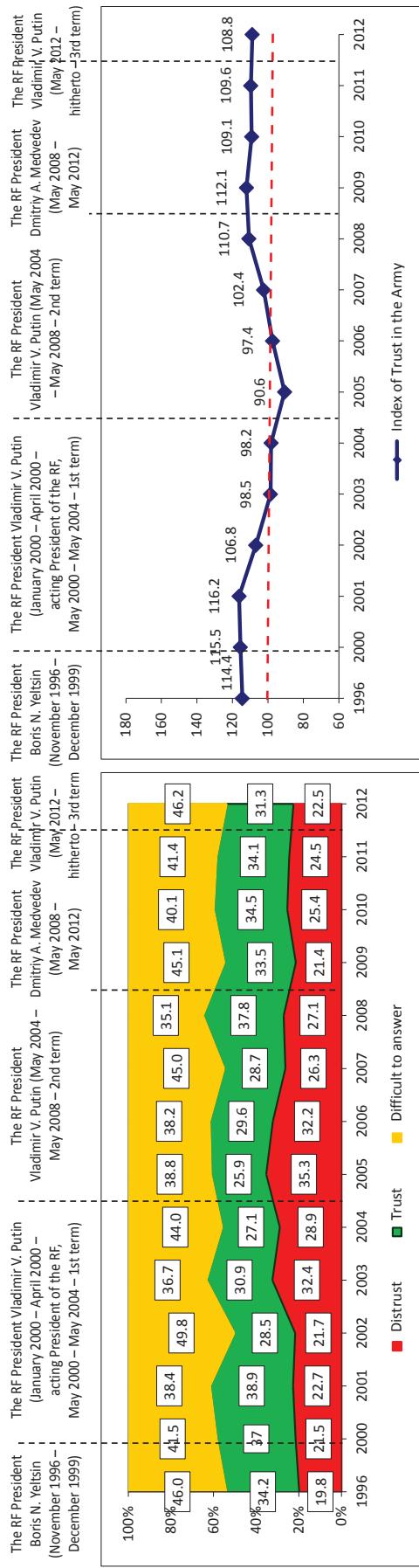


### Attitude toward the Procuracy

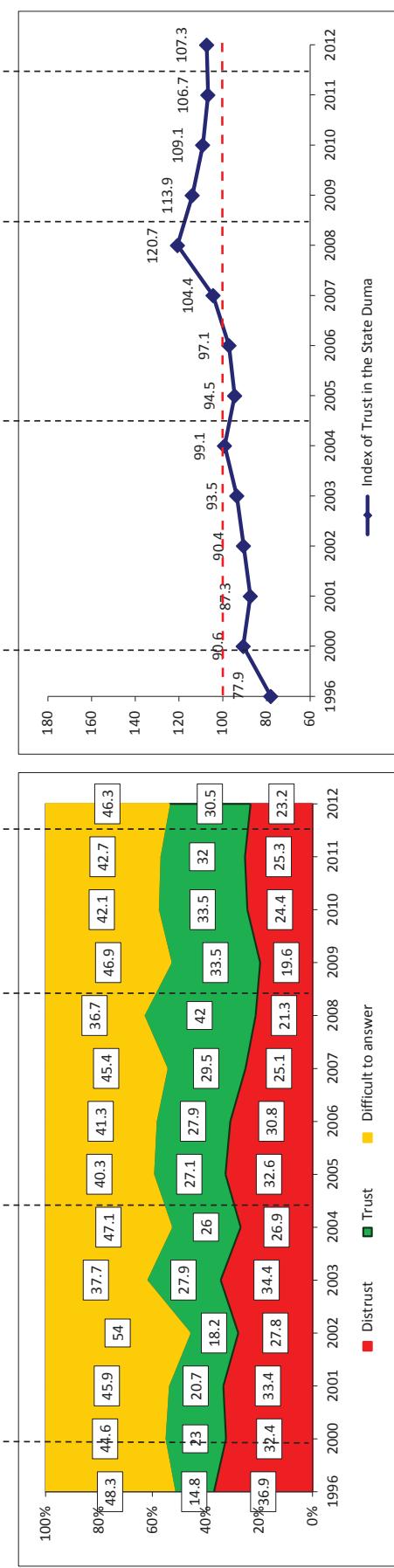




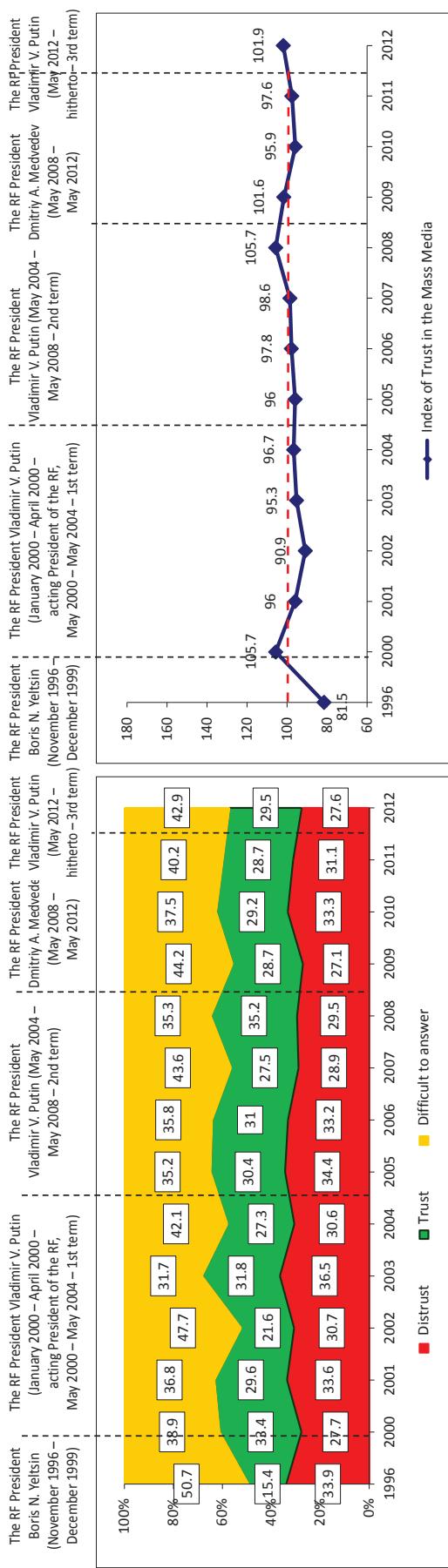
### Attitude toward the Army



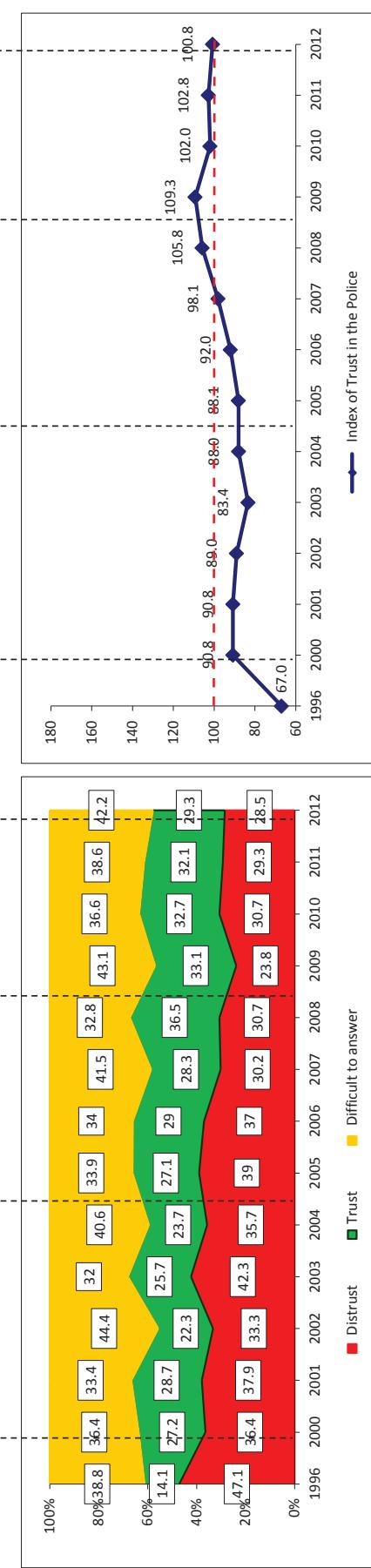
### Attitude toward the State Duma



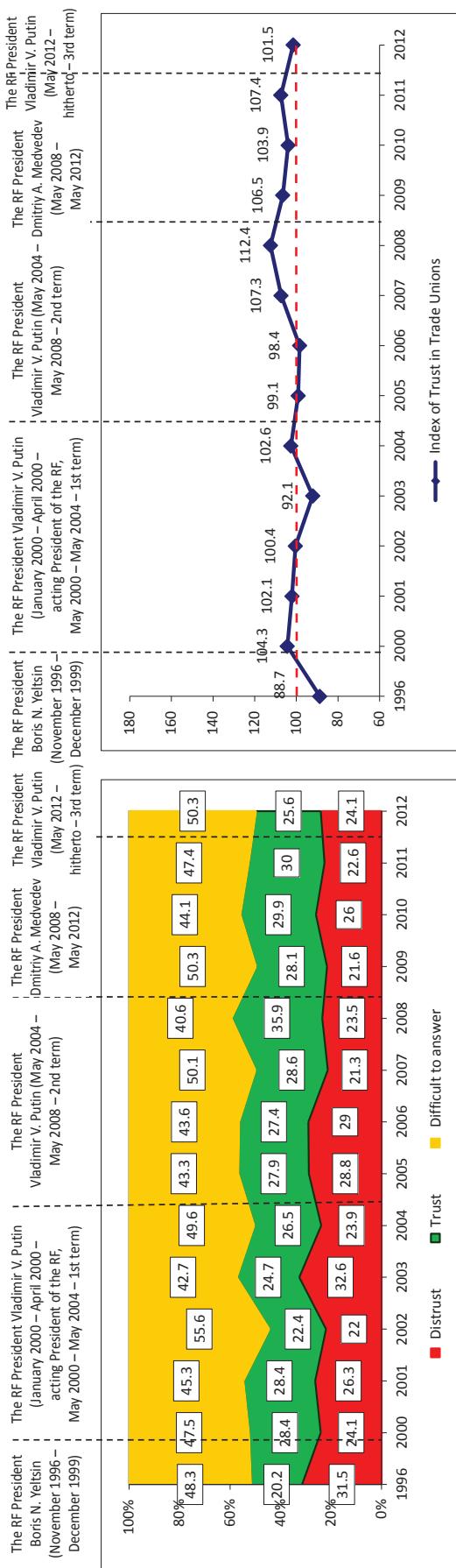
### Attitude toward the Mass Media



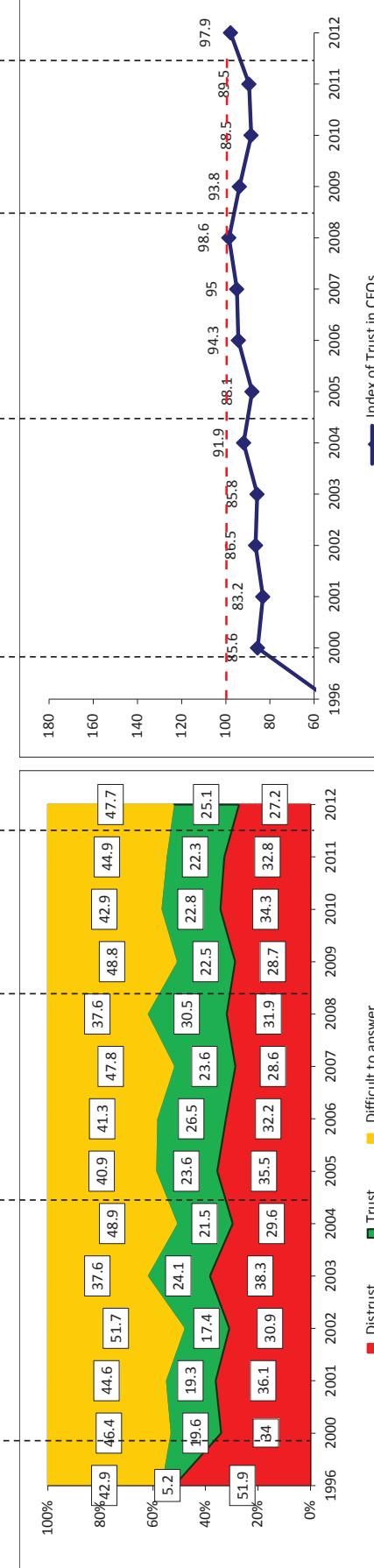
### Attitude toward the Police



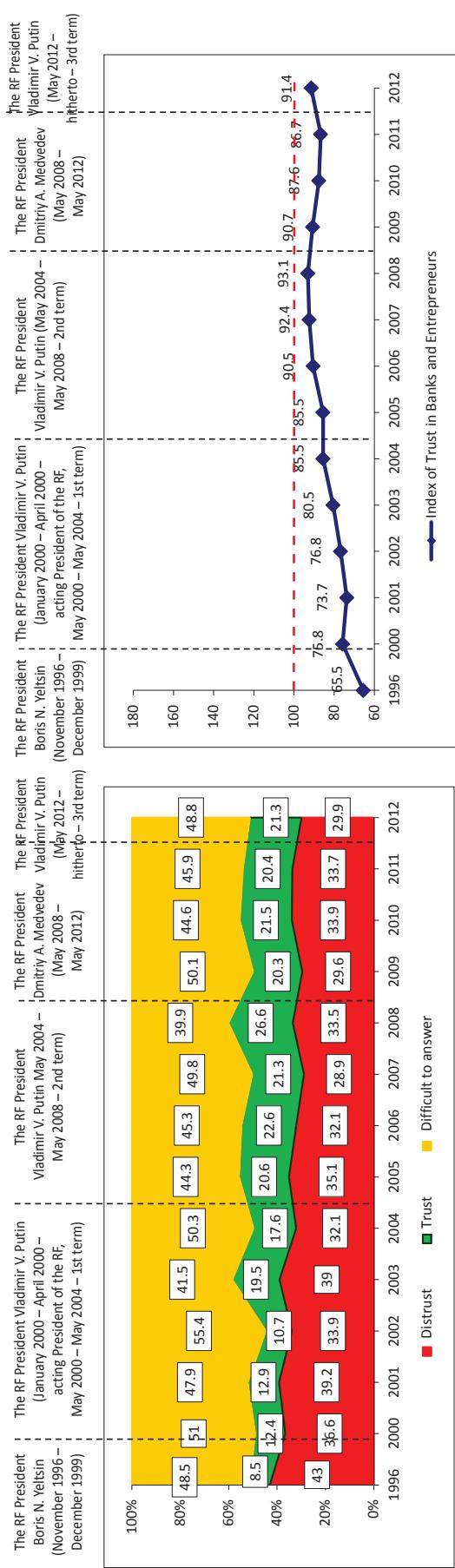
### Attitude toward Trade Unions



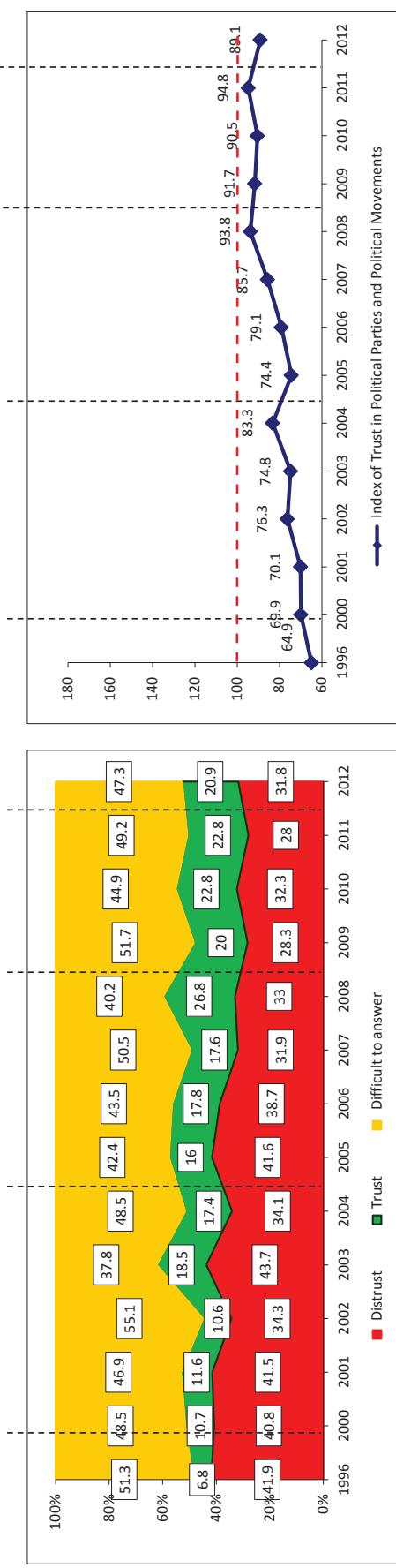
### Attitude toward CEOs



### Attitude toward Banks and Entrepreneurs



### Attitude toward Political Parties and Political Movements



**j**

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 December 2012. The data for 8 months of 2008 are used to characterize pre-crisis social sentiments.

**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, Dec. 2012 to 8 months 2008	Dynamics indices, Dec. 2012 to Dec. 2011	
	8 mnth. 2008	Dec. 2011	Feb. 2012	Apr. 2012	June 2012	Aug. 2012	Oct. 2012	Dec. 2012			
The President of the RF	75.0	51.7	47.3	50.3	54.5	53.7	50.9	53.3	0.71		
The Chairman of the Government of the RF	76.4	52.9	52.6	51.7	49.5	48.5	47.1	48.3	0.63		0.91
The Governor of the Vologda Oblast	57.8	41.9	37.7	37.7	44.7	45.3	43.6	42.5	0.74		1.01

Vertical power structure	Disapproval, in % to the total number of respondents								Dynamics indices, Dec. 2012 to 8 months 2008	Dynamics indices, Dec. 2012 to Dec. 2011	
	8 mnth. 2008	Dec. 2011	Feb. 2012	Apr. 2012	June 2012	Aug. 2012	Oct. 2012	Dec. 2012			
The President of the RF	9.3	35.7	35.7	33.3	28.9	31.1	32.1	34.6		3.72	0.97
The Chairman of the Government of the RF	10.4	32.7	32.0	33.1	31.5	34.5	32.8	35.9		3.45	
The Governor of the Vologda Oblast	19.9	36.1	33.8	32.6	31.8	32.7	33.7	35.4		1.78	0.98

**Table 2. What party expresses your interests?**

Party	In % to the total number of respondents								Dynamics indices, Dec. 2012 to 8 months 2008	Dynamics indices, Dec. 2012 to Dec. 2011	
	8 mnth. 2008	Dec. 2011	Feb. 2012	Apr. 2012	June 2012	Aug. 2012	Oct. 2012	Dec. 2012			
United Russia	40.5	26.1	26.0	28.3	31.9	31.4	26.6	30.4	0.75		1.16
KPRF	6.8	13.4	10.1	11.4	10.0	9.5	10.4	12.2		1.79	0.91
LDPR	7.7	9.2	9.1	9.5	7.7	6.7	6.8	7.2	0.94		0.78
A Just Russia	5.0	13.9	10.2	8.2	4.6	5.6	5.5	5.5		1.10	0.40
Other	1.4	4.6	3.1	3.2	2.8	2.3	2.4	3.5		2.50	0.76
No party	20.1	23.9	25.7	28.6	31.5	33.2	36.1	32.5		1.62	
It's difficult to answer	13.7	9.0	15.8	10.8	11.6	11.1	12.3	8.7	0.64		0.97

\* 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 coefficient of change shows the ratio of data for December 2012 to December 2011 and 8 months of 2008.

The results of the ISEDT RAS polls are available at [www.vsc.ac.ru](http://www.vsc.ac.ru)

Table 3. Estimation of social condition

In % to the total number of respondents								Dynamics indices, Dec. 2012 to 8 months 2008	Dynamics indices, Dec. 2012 to Dec. 2011		
8 mnth. 2008	Dec. 2011	Feb. 2012	Apr. 2012	June 2012	Aug. 2012	Oct. 2012	Dec. 2012				
<b>What would you say about your mood in the last days?</b>											
Usual condition. good mood											
70.2	64.2	62.9	63.4	69.0	71.3	69.0	68.0	0.97	1.06		
Feeling stress, anger, fear, depression											
22.1	30.2	33.5	30.2	23.4	23.3	25.5	26.5	1.20	0.88		
<b>What statement, in your opinion, suits the current occasion best of all?</b>											
Everything is not so bad; it's difficult to live, but it's possible to stand it											
81.0	78.6	74.9	76.5	77.3	73.2	77.5	79.9	0.99	1.02		
It's impossible to bear such plight											
10.9	14.1	18.1	16.8	13.6	17.0	15.6	13.7	1.26	0.97		
<b>Consumer Sentiment Index</b>											
107.5	85.6	89.8	90.1	93.4	92.3	91.7	91.7	0.85	1.07		
<b>What category do you belong to?</b>											
The share of people who consider themselves to be poor and extremely poor											
39.8	41.9	43.2	43.6	45.0	44.2	44.1	47.0	1.18	1.12		
The share of people who consider themselves to have average income											
50.7	42.2	44.9	46.5	45.3	43.4	44.7	43.4	0.86	1.03		

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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 - 2012, according to the frequency of their viewing for the recent 12 months (January — December 2012)

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	Modernization of the Russian economy as the imperative of the country's prospective innovative development	4637	5139	185	155	155	28	No.16	August 2011	Kondakov Igor Anatolyevich
2	Agriculture of the Vologda Oblast on the eve of Russia's accession to the World Trade Organisation	4261	4261	125	125	121	34	No.21	June 2012	Anishchenko Nikolay Ivanovich Ivanova Marina Nikolayevna Bilkov Valentin Alekseyevich
3	Fiscal federalism and inter-budget relations in the Russian Federation	1760	2767	198	114	14	14	No.13	March 2011	Avetisyan Ishkhan Artashovich
4	Threats to the region's economic security and the ways to overcome them	1605	3012	153	73	0	20	No.14	April 2011	Uskova Tamara Vitalyevna Kondakov Igor Anatolyevich
5	Methodology of the comparative estimation of the scientific and technical potential of the region	1211	3478	180	62	0	19	No.12	December 2010	Zadumkin Konstantin Alekseyevich Kondakov Igor Anatolyevich
6	The post-crisis economic development and prospects of innovation activity in the Tomsk Oblast	1063	1259	44	36	0	29	No.15	June 2011	Mysakota Ekaterina Aleksandrovna Vorob'ev Aleksandr Grigoryevich Putilov Aleksandr Valentinovich Zhiganov Aleksandr Nikolayevich
7	Demographic problems of the Republic of Belarus and their solutions	993	1202	90	73	0	13	No.16	August 2011	Shakhottko Lyudmila Petrovna
8	Agriculture on the European North: All-Russian agricultural census results	815	2050	132	69	0	15	No.11	September 2010	Ivanov Valentin Aleksandrovich Ivanova Yelena Valentinovna
9	Programmed project modernization of the federative structure in Russia	669	669	30	30	0	22	No.18	December 2011	Tatarkin Aleksandr Ivanovich Lavrikova Yuliya Georgievna
10	Topical issues of the improvement of intergovernmental dealings in the system of local government	588	588	40	40	0	15	No.19	March 2012	Uskova Tamara Vitalyevna Pechenskaya Mariya Aleksandrovna

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

# DEVELOPMENT STRATEGY

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LBC 65.261.713

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## Budget crisis of the regions in 2013 – 2015: a threat to Russia's security

*The article continues the series of publications on the issues of budgetary sufficiency of the territories. Judging by the main budget parameters, the 2013 – 2015 period will be a serious challenge to the strength of sub-national budget systems. In the conditions of an acute debt crisis, Russian regions have to take up the bulk of public obligations of the Russian Federation concerning the implementation of the President's election programmes. Of special concern is the reduction of federal financial support, which creates additional risks for the territorial budgets burdened with loans. However, despite the gravity of the situation, there still exist the reserves for implementing the President's assignments and stabilizing the country's budgetary system. The main of them concern the necessity of conducting the state policy in the sphere of business capital exports.*

*Budgets of the subjects of the Russian Federation, federal budget, national debt, implementation of the decrees of the President of the Russian Federation, export of capital.*



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On 7 May 2012, immediately after the inauguration, Vladimir V. Putin signed 13 decrees, which determined the main guidelines of Russia's development in the nearest

and medium-term perspective: the long-term state economic policy; the activities on implementing the social policy; the improvement of policy in health care; the

measures for implementing the state policy in education and science; the provision of citizens with affordable housing and enhancement of the quality of housing and utilities services. It was particularly stressed that all the decrees were signed by Putin in the framework of his election programme.

The execution of the President's decrees will require about 5 trillion rubles, including the decrees on raising the salaries of public sector employees – 2.6 trillion rubles, out of which 1.5 trillion rubles should be provided by the subjects of the Russian Federation, mainly from their own revenues. Additional financial support, envisaged in the federal budget for these purposes, does not compensate even for the one-third of the territorial budgets' expenditures (fig. 1).

The data on the education and health expenditures in the country's consolidated

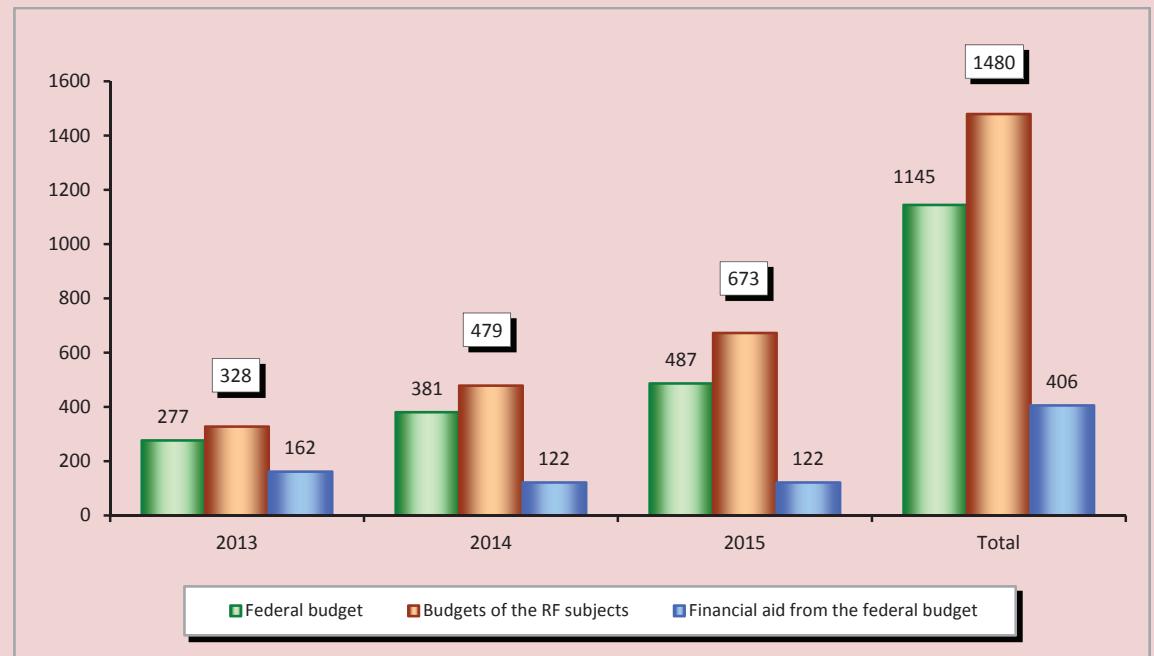
budget for 2013 – 2015 prove that the greater share of social obligations funding is shifted to the subjects of the Russian Federation (fig. 2).

As you can see, the forecast for the consolidated budget envisages the reduction of the federal budget's expenses and the increase in the regional budget expenditures on the main funding streams in the social sphere.

In general, government expenditures of the federal budget will reduce to 19% of GDP in 2015, compared with 25% of GDP at the peak of the crisis in 2009, including inter-budget transfers to the RF subjects – up to 1.4% of GDP against 3.8%, respectively (fig. 3).

According to A. Belousov, the Head of the RF Ministry of Economic Development, "on such a scale, fiscal consolidation is carried out only by the countries, which are experiencing significant financial difficulties or are willing to avoid them"<sup>2</sup>.

Figure 1. Funding sources allocated for increasing the salaries of public sector employees, billion rubles

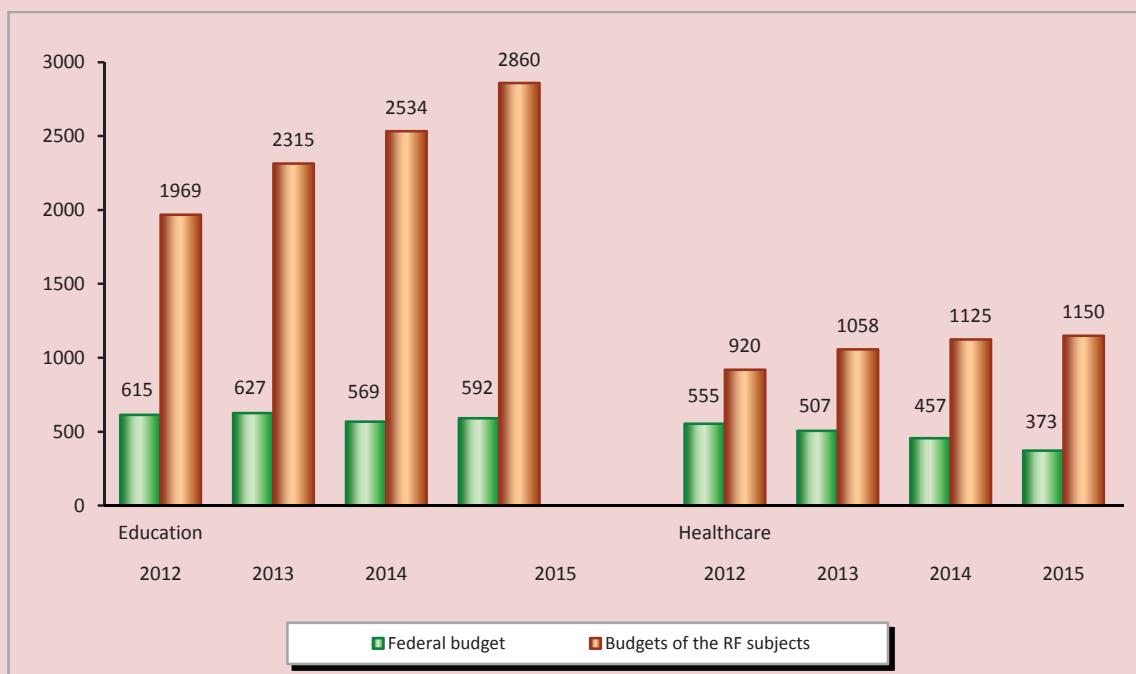


Source: data of the RF Finance Ministry.

<sup>1</sup> Gazeta.Ru. Available at: <http://www.gazeta.ru/financial/2012/09/20/4781377.shtml>

<sup>2</sup> Ivanter A. Accounting crossbow. Expert. 2012. No. 39. P. 25.

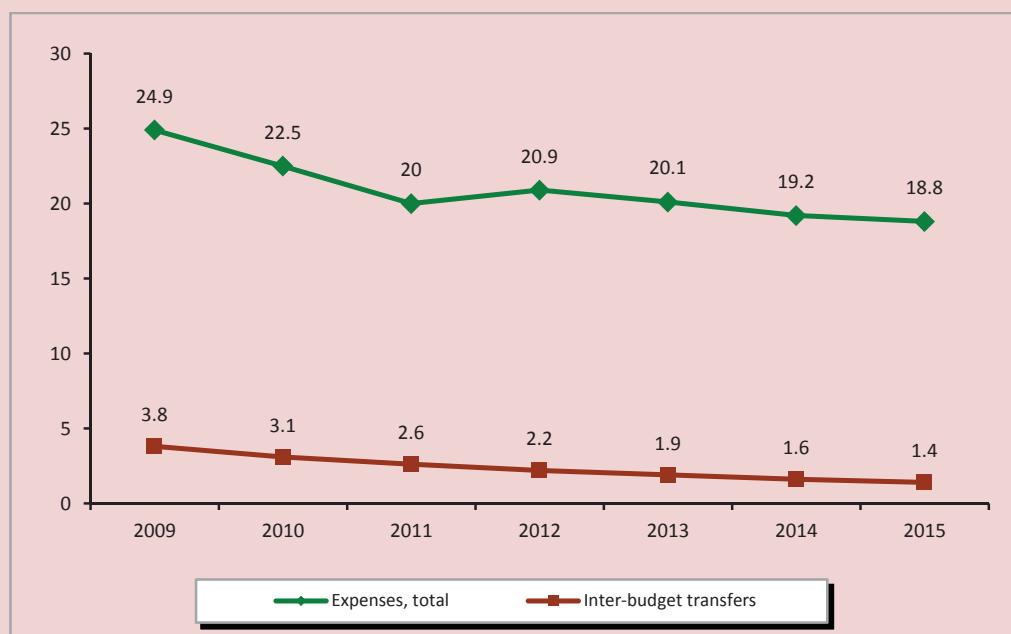
Figure 2. Forecast education and health care expenditures of the RF consolidated budget\* in 2012 – 2015, billion rubles



\* Without the expenses of state extra-budgetary funds.

Sources: data of the RF Accounts Chamber.

Figure 3. Dynamics of the federal budget expenditures in 2009 – 2015, % to GDP



Sources: data of the RF Finance Ministry; the RF Ministry of Economic Development; ISEDT RAS calculations.

The forecast parameters of the budgets of the RF subjects show a growth in tax and non-tax revenues, however, the need for the implementation of the presidential decrees will result in an almost 4-fold increase of the deficit already in 2013 (*tab. 1*).

The problems of sub-federal budgets are aggravated by a significant debt load, which has exceeded 20% of the volume of own revenues since 2009 (*fig. 4*)<sup>3</sup>.

The main reason for the increase of the debt load of the overwhelming majority of the RF subjects was the fall of the profit tax, which led to the deficit of territorial budgets. In this situation, the strict fulfillment of undertaken social commitments required the involvement of external funding sources in the form of commercial bank loans and loans from the federal budget. The borrowings of the RF subjects have grown almost twice by the end

Table 1. Main parameters of consolidated budgets of the RF subjects, billion rubles

Parameters	2012	2013	2014	2015	2015 to 2012, %
Revenues, total	8074.3	9061.7	9839.1	10958.3	135.7
Tax and non-tax revenues	6716.5	7764.8	8654.4	9789.6	145.8
<i>Share in the revenues, %</i>	83.2	85.7	88.0	89.3	+6.1 p.p.
Inter-budget transfers	1357.8	1296.9	1184.7	1168.7	86.1
<i>Share in the revenues, %</i>	16.8	14.3	12.0	10.7	-6.1 p.p.
Expenditures	8106.8	9182.5	9925.1	10958.3	135.2
Deficit	32.5	120.8	86.0	0	

Sources: data of RF Accounts Chamber; ISEDT RAS calculations

Figure 4. Dynamics of the public debt of the RF subjects in 2008 – 2012.



Sources: data of the RF Finance Ministry; the Treasury of Russia; ISEDT RAS calculations.

<sup>3</sup> As of 1 October 2012 only a quarter of Russian regions had the debt load under 20%.

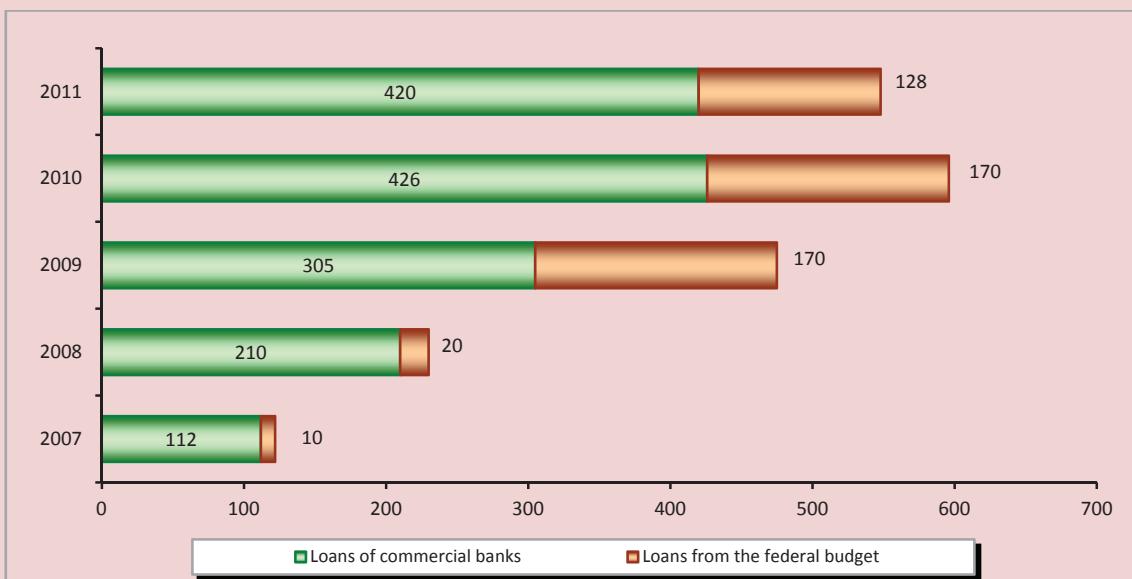
of 2008 in comparison with 2007, and in 2011 – 4.5-fold (*fig. 5*).

According to our estimates, the state debt of the RF subjects increased to 30% in the volume of own revenues in January – September 2012 against 24% at the beginning of the year. Besides, the number of regions with a debt load over 50% increased from 15 to 25 in this period. Therefore, in the coming years, these regions will have to spend more than half of their own revenues on the discharge of the state debt.

The critical level of debt load in the Vologda (91.3%), Saratov (96.2%), Penza (93.6%) and Kostroma (108.4%) oblasts, the republics of Mordovia (181.3%) and Tatarstan (103.4%) challenges the implementation of V. Putin's election programmes without substantial financial support from the federal centre.

According to the RF Finance Ministry's forecasts, the consolidated regional budgets are to be balanced by the beginning of 2016. Actually, the achievement of the deficit-free budget is unlikely. So, according to our calculations, the return of the loans, received only from the federal budget in 2008 – 2011, will require the use of the regions' own revenue sources amounting to 400 billion rubles<sup>4</sup>. As a result, the real deficit of sub-federal budgets will amount to 152 billion rubles in 2015 (*fig. 6*), which yet again proves the impossibility of implementing the RF President's social initiatives to the fullest. Meanwhile the 2013 – 2015 federal budget envisages the reduction of inter-budget transfers by nearly 200 billion rubles, which is comparable to the actual volume of budget deficit in the regions.

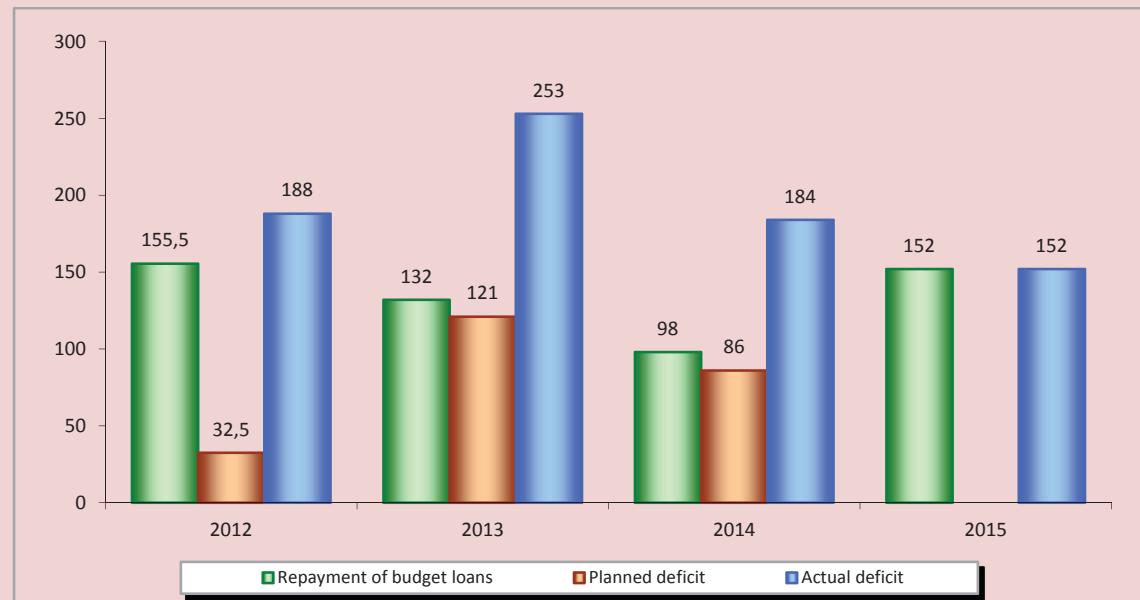
**Figure 5. Dynamics of credit borrowings of the RF subjects in 2007 – 2011, billion rubles**



Source: data of the Treasury of Russia.

<sup>4</sup> In accordance with the budget classification, in the formation of the budgets of the RF subjects, the expenses for the return of borrowed sources of deficit financing are not included in the expenditure part and they are carried out exclusively at the expense of their own revenues. In our opinion, at present, when the majority of territorial budget systems are in a critical condition, and the practice of delegation of state powers to the regional and municipal levels is expanding, this approach indicates clear gaps in the budget legislation.

Figure 6. Forecast of the actual budget deficit in the RF subjects in 2012 – 2015, billion rubles



Source: ISEDT RAS calculations based on the RF Finance Ministry data.

The forecasts of the RF Ministry of Economic Development concerning the regions' budget deficit are more pessimistic: for 2013 – 2015, the deficit of the territorial budgets will increase 7-fold – up to 330 billion rubles in 2015 vs 50 billion rubles in 2012, and it will be about 2 trillion rubles in 2018<sup>5</sup>, which exceeds 2-fold the planned expenses for 2018 for the implementation of the RF state programme "Development of education for 2013 – 2020".

The leading Russian economic publicist A.N. Privalov concludes that "...no more than a dozen of the most powerful regions will be able to make the promised contribution to the social sphere, the others will have to make a choice: whether to postpone the construction of roads, or the heating season, or the increase in the salaries of doctors or teachers"<sup>6</sup>.

In order to fulfill the President's election promises, the regions will have to increase their debt. This is proved, in particular, by the forecast parameters of the regional budgets in the majority of constituent entities in the North-West of the Russian Federation, as well as the Lipetsk and Chelyabinsk oblasts (*tab. 2*).

The debt crisis of the sub-national budgets will become the main factor causing the investment costs reduction, the weakening of support to domestic demand and the ability to confront new challenges in the budget sphere.

The experts of the international rating agency Standard & Poor's<sup>7</sup> also see the risks of regional budgets execution and warn that "if Russian government doesn't change the policy of powers transfer, then more than half of the RF subjects will face default in 2013 already".

<sup>5</sup> Speech by the Deputy Minister of Economic Development A. Klepac at the seminar of the heads of legislative power bodies of the RF subjects on 20 November 2012. Official website of the information group Interfax. Available at: <http://www.interfax.ru/ifx.asp?id=9005a80a-bbeb-224e-8538-dba879d35cea>

<sup>6</sup> Privalov A. About an ostrich budget. Expert. 2012. No. 47. P. 14.

<sup>7</sup> Reznikova A. "Putin's plan" devastates the regions. RBC daily. Available at: <http://www.rbcdaily.ru/2012/10/17/focus/562949984941455>

Table 2. Forecast of the state debt of the RF subjects in 2013 – 2015, billion rubles

Subject	2012*	2013	2014	2015	2015 to 2012, fold
Republic of Karelia	8.5	13.5	15.5	17.1	+2.0
Republic of Komi	7.6	16.9	22.7	27.9	+3.7
Arkhangelsk Oblast	15.9	26.2	33.0	40.4	+2.5
Kaliningrad Oblast	12.0	16.2	17.7	19.7	+1.6
Leningrad Oblast	4.1	10.8	14.1	17.5	+4.3
Murmansk Oblast	4.0	16.5	24.9	34.5	+8.6
Novgorod Oblast	9.0	10.5	10.0	9.2	+1.0
Pskov Oblast	4.6	9.6	12.3	15.2	+3.3
Saint Petersburg	6.9	43.6	65.6	84.6	+12.3
Vologda Oblast	25.6	28.0	23.9	17.2	-1.5
Lipetsk Oblast	9.3	14.3	17.0	19.6	+2.1
Chelyabinsk Oblast	14.2	28.0	26.6	25.6	+1.8

\* As of 1 November 2012

Sources: RF Finance Ministry; Laws (draft laws) of the RF subjects on the regional budgets for 2013 and the planned period of 2014 – 2015.

Provision of social security has become an urgent problem in Russian society. The difficulties in solving social issues are usually explained by the limited revenues of the state budget. At that, the responsibility for the execution and financing of social obligations is being shifted more and more to the regional level without an adequate redistribution of revenue sources.

Meanwhile, Russian authorities do not fully use the existing opportunities to increase budget revenues, primarily by limiting the outflow of capital. The country lacks the state system of regulating the export of business capital, the state policy in the sphere of exports of capital hasn't been formed and even the very concept of this policy doesn't exist.

As is known, in recent years, the large amounts of Russian capital have been accumulating abroad, when the economy is in the need of internal investments for the implementation of its structural reconstruction. It became possible in many aspects when Russian authorities lifted the restrictions on cross-border capital movement. The transfers of funds by natural persons from Russia increased 3.5-fold, up to 44 billion dollars in

2011 vs 12.5 billion dollars in 2005. The net outflow of capital over this period has increased from 0.1 billion dollars to 80.5 billion dollars.

Academician D.S. Lvov criticized the abolition of restrictions on foreign exchange regulation as follows: “Pushed by the right-wing liberals, the law on the liberalization of foreign economic activity is not only scientifically ungrounded, but also extremely dangerous for the country according to its socio-economic consequences... The very fact is surprising that at the adoption of a new currency law, the interests of a dozen of the richest oligarchs outweighed the interests of the multi-million population of Russia”<sup>8</sup>.

Unfortunately, the scale of capital outflow from the Russian Federation continued to expand in 2012.

According to the data of the Bank of Russia, the net export of capital was 58 billion dollars for 9 months of 2012; this figure exceeds that of the similar period of 2011 by 12.4 billion dollars (*tab. 3*). This amount 35 times exceeds the revenues of an average regional budget of the Russian Federation.

<sup>8</sup> Lvov D. The moral economy. Svobodnaya mysl - XXI. 2004. No. 9.

Table 3. Net export of the capital and cross-border transactions of individuals, billion dollars

Indicators	January – September 2011	January – September 2012	Changes (+, -)
<b>Net export of the capital, total</b>	<b>45.5</b>	<b>57.9</b>	<b>+12.4</b>
- by banks	17.4	5.3	-12.1
- by other sectors	28.1	52.6	+24.5
Transfers of funds by individuals from the RF, total	31.8	34.6	+2.8
- to far abroad states	20.1	20.9	+0.8
- to CIS states	11.7	13.7	+2.0
Inflows for the benefit of individuals into the RF, total	9.1	10.2	+1.1
- from far abroad states	7.2	7.9	+0.7
- from CIS states	1.9	2.3	+0.4
<b>Net transfers of funds by individuals from the RF, total</b>	<b>22.7</b>	<b>24.4</b>	<b>+1.7</b>

Sources: data of the Bank of Russia; ISEDT RAS calculations.

Table 4. Shady transactions on the export of capital from Russia

Indicators	January – September 2011	January – September 2012
Shady transactions, billion dollars	23.0	25.8
In % to the net capital outflow	50.5	44.6
Pure errors and omissions	4.2	12.9
In % to the net capital outflow	9.2	22.3

The overwhelming majority of the money is exported not by banks, but by enterprises of the real sector, the owners of which, trying to minimize taxation, are registered, as a rule, in offshore territories. If in January – September 2012, the banks withdrew 5.3 billion dollars out of the country, the enterprises withdrew 52.6 billion dollars.

For the 9 months of 2012, the individuals have transferred 35 billion dollars abroad, while the inflows in Russia have accounted for only 10 billion dollars, which is 3.4 times less. Accordingly, the volume of transfers to the CIS countries has amounted to almost 14 billion dollars. According to our calculations, income tax amounting to 1.8 billion dollars and insurance fees – 4.1 billion dollars (about 180 billion rubles) should be paid out of the transferred amount of money. Unfortunately, the information on the taxes paid out of the transferred funds, is not published officially.

The export of private national capital is carried out by opening the time deposits in foreign banks, purchasing the low-yielding securities of foreign issuers and real estate

abroad. At that, the certain forms and methods of capital export can emerge that may violate the interests of the national economy development and inflict a destabilizing effect on it. Such forms include: non repayment of export revenues; concluding fictitious contracts on the delivery of production; carrying out the fictitious transactions with securities; withdrawal of assets to offshore zones, etc. Banking statistics consider these forms as shady transactions.

The total amount of funds, that hadn't been received due to the shady transactions, have increased by 2.8 billion dollars for the 9 months of 2012 compared to the same period of 2011, and it amounted to 25.8 billion dollars or 45% of the volume of the exported capital (*tab. 4*).

Besides, the Bank of Russia carries out the statistics of unrecognized operations (pure errors and omissions), the number of which is increasing as well. If for the 9 months of 2011, this item of Russia's balance of payments amounted to 4.2 billion dollars, then by the results of the 9 months of 2012 it was 13 billion dollars or more than 22% of the exported funds.

These facts indicate that, despite the liberalization of capital export from the Russian Federation, its exporters carry out transactions with the violation of accepted standards, transferring abroad the so-called "shadow" or unrecorded capital.

As a rule, the export of capital, primarily by the large exporters, is carried out using the offshore schemes in order to minimize taxation. Our research and the analysis of works of Russian scientists studying the issues of offshore companies revealed the following most common schemes.

1. Transfer of ownership rights for a large Russian enterprise to a company, registered in offshore territories. This provides the opportunity to leave a part of the taxes at the disposal of the owners, the information about which is not disclosed.

2. Understatement of contract prices as compared with the world prices. According to the RF Accounts Chamber data, in 2008 over 80% of coal (72 million tons) produced in the Kemerovo and Rostov oblasts were exported under the contracts concluded with the contracting parties registered in offshore zones. The level of contract prices for coal was about 30 – 54% lower than the level of sale prices for coal in the world markets. The estimated revenue, formed in offshore zones, which is not subject to Russian taxation, amounted to 3.6 billion dollars, or about 105 billion rubles.<sup>9</sup> Conditional profit tax for this revenue is estimated at 25.2 billion rubles, including in the federal budget – 6.8 billion rubles, in the budgets of the Kemerovo and Rostov oblasts – 18.4 billion rubles or more than 35% of the profit tax actually received by the consolidated budgets of these regions<sup>10</sup>.

<sup>9</sup> Report on the results of control activity "Examination of customs control organizations while moving coal and coal products across the customs border of the Russian Federation, the formation of contract prices, correctness of calculation, completeness and timeliness of payment of customs payments in 2008". Official website of the Accounts Chamber of the Russian Federation. Available at: <http://www.ach.gov.ru/ru>

<sup>10</sup> ISEDT RAS calculations

3. Tolling schemes<sup>11</sup>. As Doctor N.A. Krichevskiy points out, "the tolling schemes are used by almost all the factories of the Russian aluminum monopolist O. Deripaska" (UC RUSAL). The application of this scheme allows the company to retain up to 90% of the profit. In 2008 the RF Accounts Chamber assessed the tolling losses of the budget for profit tax only at 11.5 billion rubles. And there also exist other taxes and levies"<sup>12</sup>.

4. Insurance schemes. A holding company creates an offshore insurance company to insure the risks, according to which the insurance event won't happen, and transfers some of the profits for insurance premiums, and then these funds in the form of loans are transferred to the main holding company again<sup>13</sup>.

5. Unrecorded export of capital, in particular, the investments in foreign financial and non-financial assets, upon the purchasing of which the exporters cease to pay taxes to the Treasury of Russia or pay the token amounts<sup>14</sup>.

The use of such schemes indicates the purposeful use of entrepreneurial potential in the interests of the private capital, which goes against the national interests.

So, according to the Boston Consulting Group<sup>15</sup>, in 2011 Russia moved from the 11th to the 4th position in the world according to the number of dollar millionaires. While the number of oligarchs, whose fortune is estimated at 100 million dollars, decreased in the West, in Russia it increased from 607 in 2010 to 686 in 2011.

<sup>11</sup> Tolling – the processing of foreign raw materials with the subsequent exportation of finished products when neither the imported raw materials, nor products of its processing are subject to customs duties and VAT.

<sup>12</sup> Krichevskiy N.A. Corruption through the return. Moskovsky Komsomolets. 2011. No. 25715. Available at: <http://www.mk.ru/politics>

<sup>13</sup> Demin V. A. Offshores – a real threat to Russia's economic security. Official website of the expert-analytical centre Modernization. Available at: <http://www.modern-rf.ru/>

<sup>14</sup> Katasonov V.A. Russia on the threshold of WTO. Soviet Russia. 2012. No. 3.

<sup>15</sup> Official website of the Boston Consulting Group. Available at: <http://www.bcg.ru/>

The real incomes of the population grew only by 1% in 2011. The narrow circle of super-rich citizens accounts for a total of 500 billion dollars and all the 143 million citizens of Russia – for 800 billion dollars.

According to the estimates of N. Shaxson, an English economist and famous researcher of the offshore zones, there are about 60 secret jurisdictions in the world, and through these tax havens more than half of all the banking assets are transferred and more than half of the world trade is done. In his book "Treasure islands: tax havens and the men who stole the world" N. Shaxson makes a conclusion that the main cause of the global economic crisis lies in a network of offshore companies, spreading throughout the world. The author assesses the losses of Russian budget at about 200 billion dollars of taxes<sup>16</sup>.

Russian researchers come to similar conclusions. A team of authors, including such prominent scientists as RAS Academician R.I. Nigmatulin, Doctor of Economics N.A. Krichevskiy, Doctor of Economics V.A. Kashin, etc., in their work "Russia's Modernization Programme" point out that "offshores, i.e. the transfer of Russia's economic assets under foreign jurisdiction, pose a threat to Russia's national security. Even according to the official data, at present up to 50% of the capital of all the largest RF companies are directly owned by foreign firms. In fact, there are Russian owners behind the majority of these foreign companies. And to what degree are these owners "Russian"? Many of them long ago got a residence permit in some Western country, or were even granted the citizenship of that country. They still preserve the citizenship of the Russian Federation. And now imagine that from 1 January 2013, after the election of the new President of Russia, they would all together renounce their Russian citizenship.

<sup>16</sup> Nicholas Shaxson's interview in the newspaper Arguments and Facts. Arguments and Facts. 2012. 18 July. Available at: <http://www.aif.ru/money/article/53548>

And the interests of the owners of Rosstal and Roschugun, Rosnickel and Rosaluminium and all the rest of the "Ross'es" would be protected against Russian government with the sudden support from the presidents of the United States, France, Germany... And just one more thing. Russian oligarchs' children have long been living abroad, they studied in these countries, they have absorbed their culture and, obviously, there will create their families there. In other words, Russia is nothing to them. So, here you have a clear and obvious fact: after 5 – 15 years, the control over Russia's economy would pass into the hands of its open enemies (at best – its haters)<sup>17</sup>".

The problem of capital flight from Russia with the use of low-tax jurisdictions requires establishing the system of state regulation and regulatory restrictions of these processes, which have an increasing negative impact on the national development.

I.G. Kalabekov in the book "Russian reforms in figures and facts"<sup>18</sup> writes: "In 2010, our deputies adopted a record-breaking number of laws – 452. How did these laws influence the development of the economy... the quality of our lives? And where is just one law consisting of only two points, introducing a complete ban on the export of our raw materials to offshore zones and the sale of raw materials at prices below the world level?"

Speaking 19 December 2011 at the session of the Governmental Commission on the Development of Electric Power Industry, V. Putin declared the withdrawal of national economy out of an offshore shadow as a priority issue: **"If we want to create a favourable investment climate in the country, then the**

<sup>17</sup> Report on the research work "Russia's Modernization Programme". Moscow, 2011. Official website of the expert-analytical centre Modernization. Available at: <http://www.modern-rf.ru/>

<sup>18</sup> Kalabekov I.G. Russian reforms in figures and facts. Available at: <http://kaig.ru/reform.pdf>

**possibility of offshore schemes, should be, no doubt, eliminated. The withdrawal of financial resources from the industry turnover through dummy firms is unacceptable and it is vital to put an end to the offshore legacy of the uncontrolled privatization era, otherwise a good business climate in the country and its credibility are out of the question. The withdrawal of national economy, its strategic branches out of the offshore shadows is our priority for the near future”.**

Will Russian authorities be able to reveal the large number of illegal methods of tax evasion, first of all by the largest owners? If they can, then, according to our approximate calculations, the budget system of the Russian Federation will regain the annual losses of around 4 – 6 trillion rubles<sup>19</sup>. It will allow solving the problem of the deficit of not only federal, but also regional budgets and the budget of the Pension Fund, as well as the lack of funds for infrastructure development.

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## Forming of the regional institutions of spatial development of the Russian Federation\*

*This paper reviews the ability and willingness of regions and municipalities to upgrade spatial development using a systemic approach to the selection of programme-project priorities and institutions of market development. The potential of individual factors and institutions in the areas of systemic modernization of regions and territories is reviewed; the need for programme-project upgrade of the federal structure of the Russian Federation is substantiated. New institutions of regional development – self-development of the regions and municipalities, the formation of business area, program-project planning, spatial development etc. are proposed.*

*Spatial development, sources, factors and institutions of programme-project management of modernization processes, self-development of regions and areas as the most effective institution of a federal structure of society, cluster and programme-project planning strategy and management of spatial development.*



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The transition of the Russian state to the innovational socially-oriented scenario of economic development is possible with a serious increase of the role of science in the advanced development of those sectors of domestic economy, which determine its specialization in the global economic system and allow implementing the national competitive advantages to the maximum extent. This approach requires implementation of a set of interconnected transformations of resources, time and stages of modernization both of sectoral and territorial nature.

The latter should include the need for transition to a new model of spatial development and management of the Russian economy, which will allow, *on the one hand*, creating a framework of regional (republic, oblast, krai, okrug) and territorial (city, district) focal points for economic growth that will create and transfer innovation impulses of modernization and economic development to neighboring entities.

*On the other hand, it will allow controlling these processes on the basis of market institutions, bringing peripheral and outlying*

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regions and territories to the path of rapid and sustainable development<sup>1</sup> [1, 19 – 30].

### **Modernization mission of agglomerative associations**

At the stage of post-crisis recovery of the Russian economy, the need to strengthen the role of science *in the justification of the “smooth” transition from regional policy to the new alignment of its type, appropriate to the federal structure of Russia*, to enhance the processes of innovative development and the formation of its social orientation, increases. There is a need to increase, not decrease the research intensity and capacity of the decisions in all areas of social development. We consider the ideology of this transition in addressing a full range of problems on creating a market environment in the Russian space which is favorable for the development.

The problem of active and purposeful formation of the *institutional environment* by the state through the system of market and more progressive institutions of development and norms that contribute to the creation of *a polycentric spatial structure of the national economy* aggravates. This means the formation not of a couple, but of a multiple framework of economic growth centres, which in most countries of Europe, as well as in China, include virtually all the major regions and major cities, and that contributes to the network effect around these centres. The development impetus should be given also to small and medium-sized cities in the development, as well as their inclusion into agglomerations and other peripheral and outlying areas. Among these centres, which can now fulfill this mission, we name the following ones: Moscow, Saint Petersburg, Yekaterinburg, Chelyabinsk, Samara, Tolyatti, Nizhny Novgorod, Volgograd, Vologda, Kazan, Ufa, Novosibirsk, Tomsk,

<sup>1</sup> More details on this subject are described in this paper: Tatarkin A. I. Historical mission of an average region in modernization of the Russian economy. Federalizm. 2011. No. 1. P. 19-30.

Omsk, Krasnoyarsk, Irkutsk, Khabarovsk and Vladivostok agglomerations, plus the agglomeration of southern Rostov Oblast and Krasnodar krai<sup>2</sup> [34, 239 – 252].

We consider the question as essential, whether the flywheel of agglomeration benefits should start at the individual and the most prepared for agglomerational association centres. Or, it would be preferable, by targeting at large-scale effect, to operate across the spectrum of already formed or forming agglomerations by connecting to their operation the new territories, previously not involved into agglomerational subcontractions. Doubts and delayed actions are due, in our opinion, *first of all*, to the lack of a clear answer to the question of the effectiveness of agglomerational cooperation. It is stated, in particular, that the effect is usually monopolized by large centres with serious growth potential. *Second*, due to the lack of serious scientific researches (methods, concepts and regulations) to establish and “launch” agglomerational associations and their focus on systemic development of territories within the agglomeration areas. Unfortunately, there is no interest of the power structures of regions to attract serious research teams to create, “launch” and scientifically support agglomerational agreements. Without this, the organizers constantly face the problems that cannot be solved solely proactive, relying only on the practical knowledge and experience.

In principle, we can assume that a large-scale strategy at the initial phase will include activation of a limited number of agglomeration associations, to the launch of which all the levels of government will be connected, as well as the financial resources including federal ones, plus regional scientific community and the public.

<sup>2</sup> The experience in the development of agglomerations and management models are reviewed in the paper by R.V. Babun “Agglomeration of cities as an object of management”. Region: economics and Sociology. 2012. No. 2. P. 239-252.

But each agglomeration has an individual character and cannot be formed as a “carbon copy”, without serious scientific study and scientific support, even in the interest of minimizing the possible risks of loss of benefits. It is necessary to pre-determine the mechanisms of diffusion (distribution, transmission) of positive experience to other regions and territories, because the market cannot do it independently. Its missionary role consists in preserving and deepening the unevenness as a natural result of market competition between regions and territories for maximizing the impact and revenue. The lack of effective diffusion mechanisms is a serious reason for unsuccessful modernization in many countries; it is particularly noticeable in Russia during the market reforms in some sectors and areas (education, health, housing services and utilities, etc.).

Distinguishing and maintaining the centres is an important, but not the only one problem to be solved. *The search for new territorial sources and institutions of competitiveness growth* is necessary. In developed countries, including the European Union, which is known for its long traditions in the field of regional policy, a strategy focused on the introduction of the idea of territorial cohesion and, therefore, a balanced approach to territorial development was formulated and implemented. European countries recognized innovative development as a scientific fact of economic growth *and not only through major cities*. The efforts of the Chinese leadership are activated to enhance the role of peripheral and outlying areas in the development problems by the expansion of their infrastructure capabilities<sup>3</sup>.

<sup>3</sup> See: Berger Ya. M. The Chinese model of development. World economy and international relations. 2009. No. 9. P. 73-81. Xin L. On the Chinese model. Revisited. The world of transformations. 2011. No. 1. P. 83-89. The implementation of the Chinese leadership infrastructure programme, in particular the construction of roads (mainly speedways) in the peripheral and marginal regions, according to the experts, has allowed to increase the pace of development of these regions to the average level in China, and even higher. See: Koshcheyev N. A proper economy in Russia does not exist. Nashi dengi. 2012. No. 5. P. 40-41.

Exactly this approach will allow paying attention to urban agglomerations in Russia as the new centres of innovation development that *can be an impetus for the development of regions and territories on the basis of development institutions updating and the formation of new centres to generate competitiveness*:

- *of outlying areas* as spokesmen and translators of Russian geopolitical interests in border relations with other countries;
- *of remote areas and small towns* as required participants of cluster projects and solutions, which are born in large regional and territorial centres and agglomerations, which will turn these areas into the centres of economic development of region-wide scale;
- *of rural territories* as emerging centres of competitiveness arising on the basis of the formation of diversified economy. New opportunities for renewable energy usage, energy efficiency and the turnaround of technology in agricultural production, approximation of processing of agricultural products to the industrial production will boost the competitiveness of these areas to a greater extent than of urban ones.

These areas can become a new source of no less ambitious competitiveness along with the major cities. The new regional policy should be aimed at realizing the potential of these areas for continued development and updating of their integration with the cities and regional centres of innovation. But this requires, in our view, *on the one hand*, increasing the role of the human factor in the socio-economic space and all the social development at all levels of social hierarchy. For the Russian government and population there is a need to recall Adam Smith's assessment of the market system, as given by him in his work “An Inquiry into the Nature and Causes of the Wealth of Nations”. He believed, and this statement is supported by most experts, that the market economic

system works best in communities made up of “economic individuals” with the ability to think and act proactively and creatively, to make decisions in the interest of the public, not just the individual gains.

*On the other hand*, it requires the promotion of the role of the state and its power bodies in the regulation of spatial development of Russia with an active connection of federal, regional and local institutions and mechanisms to these processes.

### **Human factor role in spatial development**

The new regional policy should be based on *human-friendly institutional development paradigm*.

For our country, the most important imperative is the speedup of the entire spectrum of investments into human capital, in the first place, its innovation components. This is the new *paradigm of human-friendly socio-economic development* of the 21 century. Today the understanding has become an axiom that socially and economically motivated, professionally and civically active human potential becomes the key and the only active and future-oriented factor for the successful implementation of Russia’s resource potential. Qualitative characteristics of the country’s population, their active innovation and pioneering position may be the dominant factor in shaping the outlines of its future development.

*One of the major challenges of the sustainable development of regional economy is the absence and/or reduction of the impact of incentive component of an effective high-performance labor. This is especially true for peripheral regions with large agricultural areas and territories of the traditional natural resources usage by indigenous peoples.*

Fundamental changes in the socio-economic system during the reform period led to the radical changes of the conditions, in which motivational processes carry on.

A significant part of the enterprises is more focused on the *strategy of coercion, using a strong negative motive for the current stage of possible dismissal and unemployment. This model of motivation forms an attitude to labor only as a mean of obtaining material benefits and uses only the lower levels of motivation, without considering the potential focus on innovative and pioneering initiative and responsibility for the fate of the country*, enterprise and region – one’s place of residence that are the reference signs of labor and civil activity and engagement<sup>4</sup>.

That is why, in the current state of regional policy update, it would be appropriate to discuss the possibility of scaling up the effect of increasing the motivation of labor activity on key issues, such as:

- formation of standards of decent and high productive labor in the regions and municipalities;
- development of the corporate culture of relations between administration and employees, businesses and the population of cities and settlements in the regions;
- usage of stimulating potential of social technologies implemented in the legal and economic framework based on following the principles of reasonableness, fairness and awareness;
- expanding the capacity of employees in the regions and municipalities focused on proactive and creative work.

<sup>4</sup> V.N. Belkin points out that “the economic reality itself urgently brings up the issue of rising the competitiveness of human capital ... But this fact is not widely acknowledged... and the contribution of science to the theoretical substantiation of this process is not sufficient”. Belkin V. N. Formation of competitive human capital of an enterprise. Yekaterinburg: Institute of Economics, Ural RAS department, 2012.P. 31-32. M. Starchevov calls to “reconsider the neoclassical theory and build a new human model that can explain much of what was previously misunderstood or even excluded from the analysis”. Starchevov M. Starchevov M. A new model of man in economics. Voprosy ekonomiki. 2011. No. 4. P. 78.

The driving force of the Russian economy and society should be the *anchorage on the processes of self-development and autonomous management of all levels of regional and territorial socio-economic systems*<sup>5</sup>. For this, *mechanisms and tools to select the most effective regional development priorities, including regards to problematic territories aimed at improving their sustainable functioning based on self-organization, self-support and self-government* should be defined<sup>6</sup>.

The question of determining self-developing regional (municipal) economic system is complex and controversial. Without going into a detailed analysis of existing approaches, we suggest our own option:

**Under the self-development of regional economies we understand *strategically***

<sup>5</sup> A comprehensive analysis of the possibilities of self-development of regional and territorial socio-economic systems is grounded in our papers: Tatarkin A.I., Tatarkin D.A. Tatarkin A.I., Tatarkin D.A. The dialectic of formation and functioning of self-developing territorial economic systems. Federalizm. 2009. No. 4. P. 77-99; Tatarkin A.I., Doroshenko S.V. Region as a self-developing socio-economic system: crossing the crisis. Ekonomika regiona. 2011. No. 1. P. 15-23; Self-developing socio-economic systems: Theory, methodology and forecasting estimates. Ed. by RAS Academician A.I. Tatarkin. In two volumes. Moscow: Ekonomika. 2011.

<sup>6</sup> Some aspects of self-development were extensively discussed in scientific literature. V. S. Bochko emphasizes the integrative strategic development of territories as an integral link in the self-development areas. See Bochko V. S. Integrative strategic development of areas (theory and methodology). Yekaterinburg: Institute of Economics, Ural RAS department. 2010. P. 272-285. A.A. Abishev substantiates the need for accelerated development of the technological mode of production in self-developing socio-economic systems. See: Abishev A. A. Socio-economic evolution of the technological mode of production: monograph. 2nd edition. Almaty: Ekonomika, 2009. P. 18-36. Suggestions on the development of a “model of innovation self-development of regional industrial systems” are made. Tatarkin A.I., Romanova O.A., Grebenkin A.V., Akberdina V. V. Economic and technological development: diagnostics and forecast methodology. Moscow: Nauka, 2011-2012. P. 145. O.S. Sukharev thoroughly investigates and describes the basic principles of financial and technical production systems. Sukharev O.S. Structural analysis of the economy. Moscow: Finances and statistics. 2012. P. 103-112. The possibilities of self-development of socio-economic systems to ensure macroeconomic stability are actively studied. See: Problems of sustainable development of socio-economic systems. Ed. by RAS Academician A.I. Tatarkin and Doctor of Economics, Professor V.V. Krivorotov. Moscow: Ekonomika, 2012.

*sustainable ability of the region and its population in the current macro-environment in the community to provide the expanded reproduction of the gross regional product for the available capacity of their own resource capabilities and revenue sources for the implementation of both macroeconomic objectives and national priorities, as well as the intra-regional target plants of systemic character.*

Self-development of a regional economic system requires two system-building conditions:

1) internal self-sufficiency of a regional economic system capable of providing long-term sustainability of regional development (material and financial resources, human resources, market institutions, targeted programmes, strategies and plans);

2) favorable external conditions that could, if taken together, provide a balanced sustainable self-development of regional and territorial socio-economic systems on the strategic perspective.

Of crucial importance is the readiness of the regions and localities to take the responsibility for self-development of regional and territorial economic systems, as well as the leadership of the federal centre to create favorable socio-political and macro-economic conditions for the successful use of the institute of self-development for the benefit of spatial arrangement of the RF regions.

System-preserving and backbone role of external conditions, warranties and factors on the processes of formation and functioning of the self-developing regions is seen in the following<sup>7</sup>. *If the internal self-sufficiency of the regional economic system provides a source for its sustainable development and reproduction of GRP, simple or advanced, then the external*

<sup>7</sup> We give a more detailed discussion of these problems in a special paper: Self-developing socio-economic systems: theory, methodology and forecasting estimates. Ed. by RAS Academician A. I. Tatarkin. Volume 1 Theory and methodology of formation of self-developing socio-economic systems.. Moscow – Yekaterinburg: Ekonomika, 2011. P. 191-196, 199-209; Tatarkin A.I., Tatarkin D.A. Self-developing territorial socio-economic systems. St. Petersburg: UEU, 2011 and others.

*conditions are designed to create and reproduce the socio-political, legal, macroeconomic and external economic environment capable of providing the most complete and efficient use of regional capacity and resources to implement general federal and regional targets, ensuring stability and security of the Russian Federation as a whole.*

The definition of the territorial self-sustaining social and economic system proposed for the discussion allows:

first, to determine the criteria for self-development in the form of an annual GRP growth from its own resources, the initiative of enterprise managers and population of these areas. It is possible to argue about the proposed definition and criteria and provide further arguments for and against the proposed criterion. But the estimations on 83 federal subjects give reason to believe that 20 – 25 subjects are ready to operate in a mode of self-sufficiency. Another 30 – 35 of the federal subjects are close to this status with the improvement in macroeconomic conditions<sup>8</sup>. For example, the remote (peripheral, border) regions traditionally receive grants for reimbursement of transportation costs, subsidies on agriculture complex support are retained, which can be minimized by the objective regulation of purchasing prices for agroindustrial production and legally limiting the number of intermediaries between farmers and consumers. In addition to funding through federal programmes, the practice of subsidizing the majority of regions in the development of transport and other infrastructure, handling the issues of social protection of certain categories of the population is continued, thereby preserving the dependency behavior of management and population of the subsidized

<sup>8</sup> These issues are studied in the following works: Zakharchuk Ye.A., Pasynkov A.F. Zakharchuk Ye.A., Pasynkov A. F. Attributes of self-developing socio-economic systems. *Ekonomika regiona*. 2010. No. 4. P. 32-39; Zakharchuk Ye.A., Pasynkov A.F., Nekrasov A.A. Russian Federation regions classification according to criterion of self-developing. *Ekonomika regiona*. 2011. No. 3. P. 54-63.

regions. Although the solution to this problem exists and it is supported by most experts, it is being blocked by the Ministry of Finances. Its essence is to increase the share of regions and municipalities in the consolidated budget revenues of Russia from 34 – 37% to 50 – 55%, as it was during B. N. Yeltsin's Presidency and as is the case in other countries with a federal form of government<sup>9</sup>:

second, to turn the regions and municipalities into the real (working, earning and responsible) institutions for sustainable development of the Russian Federation, by eliminating political and administrative barriers to initiative and enterprise activity of regional authorities and population in solving the issues of spatial development and surface infrastructure development of its territory with optimal usage of its potential, human and entrepreneurial opportunities – creativity, innovation and entrepreneurship.

The scientific literature is full of intensive discussions on systematic subordination of federal, regional and local strategies and priorities<sup>10</sup> [22, p. 75]. There are different suggestions are made concerning their subordination and systemic character, but the majority agree on the one point: the initiative municipalities and regions achieve better results than the more economically powerful, but less active ones. Recently, not the most economically developed subjects of the federation have become leaders in innovative development (Tomsk Oblast),

<sup>9</sup> See: Leonov S. N., Sidorenko O. V. Foreign experience of regional management. Khabarovsk: ERI FEB RAS, 2011. P. 34-48, 67-70, 125-134, etc. It is the limited budgetary possibilities, as V. N. Leksin points out, that do not allow the regions and municipalities to fully perform the empowerment assigned to them by the Constitution of the Russian Federation. See: Leksin V. N. Efficiency and effectiveness of the regional and municipal authorities: the purpose and possibilities of correct estimation. Region: economics and sociology. 2012. No. 1. P. 27-33.

<sup>10</sup> O. V. Bakhlova, for example, believes that “the baseline scenarios of political-territorial system of Russia in the short and medium term will be the scenarios of ‘partial federation’ and ‘unitary Russia’”. Bakhlova O.V. Scenarios of development of the territorial system of Russia. Federalizm. 2012. No. 2. P. 75.

foreign investment (Kaluga Oblast) and formation of air transport infrastructure (Sverdlovsk Oblast). It is necessary to point out that regions and municipalities get a minimum from these initiatives, passing the benefits of the initiatives into the federal treasury.

Obviously, in the process of systemic modernization of the Russian economy it is necessary, focusing on the system of general federal priority of spatial development, to take into account and increase their awareness of the production and use of socio-economic characteristics and advantages of the region, encouraging and motivating them to lead and compete among themselves for the mobilization of resources for development. Similarly, the regions should build relationships with municipalities and businesses that operate in the region.

### **Formation of regional institutions of spatial development**

One of the priorities of regional economic policy, successfully implemented in developed countries, is the formation of new forms of spatial organization of the economy through the *creation of business areas* within the region and/or municipalities as one of the real institutions of regional-production self-development.

The typical examples of formed business areas that have received approval in the global and domestic practice and science are technologic cities, industrial parks, special economic zones, technologic parks and industrial, transportation and logistics centres, specialized trade and storage areas and other business territories that can be formed anywhere in the region or municipality or created if there are relevant objective and subjective conditions. In all of this, *the most promising is the formation of a business area within the boundaries of a municipality (city or district), which is able to develop the potential of the territory systematically and comprehensively*, for the benefit of its citizens on the principles of self-sufficiency and self-development.

The implementation of a new regional policy is possible only on the basis of *the establishment, implementation and transformation of different kinds of market development institutions*. In this case, the institutions should be sufficiently varied and provide a multi-targeted focus of regional development. *The first group of institutions* may be connected to the direct action of the state to implement key provisions of the regional policy, especially with regard to problematic areas. These institutions may include: housing and utilities reform fund, fund for financial support of subjects of the Russian Federation, regional finance reform fund, regional development fund, etc. *The second group* includes institutions that provide stimulation measures of innovation development of the areas: creation of special economic zones, business areas, and innovation centres. *The third group* of institutions can be focused on the changes (implementation and enhancement) of technology for regional planning and management. The list of such institutions usually includes revolving funds by focusing on the implementation of project management in the regions and municipalities, indicative planning, etc. *The fourth group* of institutions is aimed at enhancing the business communities in the format of strengthening horizontal linkages, including through the cluster forms of business development, public-private partnership, project planning, etc. Especially promising is the institute of cluster development of territories and the region as a whole.

It is considered that the cluster forms of development have been formed and actively used in the European market (Italy) as institutions of industrial and territorial development of depressive and problematic regions. Meanwhile, in the mid 1980s, in the Urals, and specifically in the cities of Nizhny Tagil, Sverdlovsk, Serov, Verkhnyaya Tura and others, production and territorial associations (PTA) began to operate, as well as territorial inter-

branch complexes (TIC). Being created in a period of increased market activity on the basis of territorial integration and production capabilities of the power structures and the production potential of the territories, they solved the problems of a balanced and integrated (systemic) development of territories<sup>11</sup> [9].

The cluster approach allows us to “bind” the centre and its surrounding areas through closer inter-firm cooperation, the establishment of common labor, technologies and knowledge markets, and increase the availability of common resources to enterprises, reduce overall costs and form synergetic interaction effect. All members of the cluster gain competitive advantage under the influence of the combined effect of synergies scale. In addition, the cluster contributes to the development of relations in the horizontal network integration and cooperation, exchange of experience, diffusion of modernization initiatives and others, as well as the partnership of *business, government, science and education*<sup>12</sup> [10; 11;12;13;24].

<sup>11</sup> See, for example: Tatarkin A.I., Vazhenin S.G., Danilov N.I. Organizational and economic basics for the creation of business and regional production and territorial associations. Sverdlovsk: Institute of Economics, Ural Branch of the USSR Academy of Sciences, 1989 and others.

<sup>12</sup> Together with the Sverdlovsk Oblast Government, a group of research scientists from the Institute of Economics, Ural RAS department developed a methodology to create cluster associations taking into account various industry, specific and regional characteristics. See Lavrikova Yu.G. Clusters: strategy of formation and development in the economic space of a region. Yekaterinburg, Institute of Economics, Ural RAS department. 2008.; Tatarkin A.I., Lavrikova Yu.G. Cluster policy in the region. Industrial Policy in the Russian Federation. 2008. No. 8. P. 11-19 and other. Also noteworthy is the experience of Volgograd on the usage of cluster management model of integrated development in the major cities (see: Ivashova S. Comprehensive development in big cities: cluster model of management. Theoretical and Practical Issues of Management. 2011. No. 4. P. 60-65), FSPC Altai (City of Biysk) that use the production and social infrastructure of the parent company by other separated teams, departments of a business through the cluster model. (See: Pacific Russia — 2030: scenario forecasting for regional development. Ed. by RAS Academician P. A. Minakir. Khabarovsk: Far-Eastern Branch of RAS. 2010. P. 399. See also: Tatarkin A., Lavrikova Yu., Vysokinskiy A. Development of economic space of the Russian Federation on a basis of cluster principles. Federalizm. 2012. No. 1. P. 45-60.

The integrative nature of the cluster approach as an institution of regional development is seen in the *possibility of comprehensive solutions to many problems of the federal, regional and local levels*: the implementation of a regional strategy aimed at improving the competitiveness of the regional economy and businesses, and therefore the country as a whole, industrial policy based on the formation of optimal branch-wise (typical) structure and advanced technological modes, the development of an innovation model of regional development and the formation of a basis for a competitive environment, small and medium business interacting with large business; regional infrastructural development, growth of basic and applied science, improving the educational level of employees etc.

Institutional approach to the regional development enabled the Institute of Economics, Ural RAS department, together with the regional government not only to formulate the basic provisions of cluster policy for industrialized regions, but also to differentiate its tasks to separate groups of clusters: *functioning, latent and potential* (tab. 1).

A core idea of cluster policy was the formation of the poles of competitiveness at the territories, which, in contrast to growth poles, are more focused on the formation of collective performance, endogenous innovations and active promotion of it by government agencies at various levels.

According to a study conducted together with the regional government, the Concept of the cluster policy of the Central Urals up to 2020 was elaborated. It was approved by the Governor of the Sverdlovsk Oblast on April 11, 2011.

Some authors have grounds to consider that for the formation of effective institutions and monitoring of their functioning, the existing “control system needs to be complemented with intermediary institutions at all the levels, providing interaction between administrations,

**Table 1. Grouping of cluster associations of the Sverdlovsk Oblast by the level of development**

Type of cluster association	Characteristics of cluster association	Examples of cluster associations in the Central Urals
Functioning clusters	Implementation of agglomeration advantages, flow of resources from other sectors and regions, emergence of new companies in the "key" and related industries	Ural pharmaceutical cluster; IT-cluster; Special Economic Zone "Titanium Valley", Chemical cluster - chemical park "Tagil", railway engineering cluster
Latent clusters	A number of companies is beginning to collaborate around a "core" type of activity and create sustainable market linkages	Cluster for the production of oil and gas equipment, energy and electrical equipment, medical instruments cluster, machine-tool cluster, wooden housing construction cluster, technical and innovational centre of metallurgy and heavy engineering; Ural technological cluster "Production and usage of rare earth metals"; pipe cluster, tourism cluster "Ural meridian".
Potential clusters	A number of businesses and companies is in the industry, but the relationships between them do not fully realize the benefits of agglomerational cluster association	Cluster in the field of trade, tourism industry, agroindustrial complex, transport and logistics, road infrastructure, education, housing services and public utilities, food and light industry, chemical and pharmaceutical cluster, chemical-metallurgical cluster, bioenergy (peat) cluster.

business, science and civil society". According to RAS Academician V. M. Polterovich, this mission "could be completed by regional economic development agencies" along with clusters<sup>13</sup> [28, p. 17-29].

### **Programme-project possibilities of the spatial modernization of a territory**

The **programme-project approach**, which is a federal institution of spatial planning, capable of meeting the modern needs of the globalizing economy can serve as the organizational basis for the implementation of the regional policy and regional development, the management of these processes, along with regional economic development agencies.

An example case of planned management of spatial development can be found in Great Britain, the country with more than two hundred year history of market development.

In March 2012, the British government published a draft document on the further progress of the planned management of spatial

development under the title "Framework of National Planning Policy", which described not only the procedures for the development of plans, coordination of national, regional and local priorities, socio-economic development with regard to environmental protection and the promotion of sustainable growth. In the introduction to the published document, the Minister of Planning Hon. Greg Clark noted the following: "The planning is designed to promote sustainable development. A better life for you does not mean the deterioration of life for future generations... Sustainable development associated with positive growth rates, making available economic, environmental and social progress both for the current and future generations. The planning system facilitates it. Sustainable development should be a guide to going forward without delay – the presumption in favor of sustainable development, which is the basis for each plan and for each solution, should be kept..."<sup>14</sup> [33. P. 169].

Before its adoption, the draft document was discussed a few months in scientific journals and public newspapers, and received a positive evaluation both from the specialists and society.

<sup>13</sup> The problem of using regional agencies is examined in this paper: Polterovich V. M. Regional institutions of modernization. Economics of contemporary Russia. 2011. No. 4. P. 17-29. The decision of the Russian Government was made on the establishment of the Ural Agency of strategic initiatives with its duty to identify and rank the sequence, timing and sources of funding for the promotion of market institutions development on the Ural territories.

<sup>14</sup> See: Krasnopolskiy B. Kh. Spatial-economic planning: Great Britain's experience (on the "National Planning Policy Framework"). *Spatial Economics*. 2012. No. 2. P. 169.

The mechanism for implementing regional policy is usually associated with the definition of its strategic priorities and therefore a growing need for the development and approval of the *Concept (key directions) of the regional policy of the Russian Federation* as part of the socio-economic development of the Russian Federation until 2030.

On the basis of the strategic priorities of the regional policy of the Russian Federation (up to 4 – 5), it is reasonable to develop appropriate programmes to address the most complex issues of regional development. The solution of specific problems should be based solely on the *programme-project approach*.

The pioneer in the usage of programme-project development of territories was the city of Yekaterinburg, which was the first in the Russian Federation to adopt on 10 June, 2003 the “Strategic Plan of Yekaterinburg”<sup>15</sup> by the decision of the City Council [15]. According to the estimation of the Mayor, and now the Member of the Federation Council, A. M. Chernetskiy, the urban development plan was elaborated and implemented on the basis of three brand new practices of innovation for the Russian Federation, that required significant changes of management mentality and city leaders, as well as business and the city population<sup>16</sup> [15, 3].

*First*, the motto of development, consultation and implementation of the plan was the idea “to think strategically and act together”. Exactly this idea was the starting point for the development of the Strategic Plan and *combination in one document for programming all strategic priorities with the project initiative of its population*.

*Second*, the Strategic Plan since the moment of its development was a city-wide document. During the three years of its development and discussion, a large group of scientists, managers

of different levels, government representatives, businessmen, civil society organizations and experts attended the sessions of talks. International experience has been studied, including programme-project development of Birmingham (Great Britain). The Strategic Plan was subject to broad public discussion that took into account a lot of suggestions and wishes of residents, state and federal agencies. This allows us to consider the strategic plan of the city as *programme-project creativity of the urban community*.

*Third*, the strategic goal of the development plan of Yekaterinburg lies in the *sustainable improvement of the citizens' life quality* All eight programme areas of the plan and the majority of more than a hundred business projects are devoted to this purpose. The first programme direction of the plan, “Preservation and development of human potential”, opens the programme of actions, and the eighth “The main plan of Yekaterinburg – the city for the people” completes the programme actions of the city community in the development of Yekaterinburg. The final section of the plan is also noteworthy – “The mechanism of the strategic plan implementation”, the essence of which can be summed up as “Working on the result and be open to innovations”<sup>17</sup> [15, 3].

The strategic plan of the city in its content is scientifically grounded and, at the same time, it is a document which is based on the actual needs, taking into account specific and comprehensive needs of the city and its competitive capabilities. In this case, it is characterized by the high level of innovations aimed at solving the problems of restructuring the economy, accelerated development of industrial and social infrastructure, etc.

The advantage of programme-project approach in market conditions can be considered not only innovation and pioneering participation of the citizens in the development

<sup>15</sup> See: Strategic Plan of Yekaterinburg. Yekaterinburg, 2003.

<sup>16</sup> Ibidem. P. 3.

<sup>17</sup> See: Strategic Plan of Yekaterinburg. Yekaterinburg, 2003. P. 3.

of strategic plans and constant public control of the implementation of programme priorities. This is important, but it is not the only virtue. Programme-project approach allows, *on the one hand*, combining the possibility of using a single document for the development of planning and administrative and market-based initiatives, the administrative resource and enterprise, plus consistently meet the needs of the urban integration of government, science, business and public opinion. *On the other hand*, this approach allows to distribute the load to finance programmes and projects between the budget of the city, businesses and the public, which not only significantly reduces the total costs and increases the effect of the implementation of business projects, but also reduces the load on the regional and federal budgets<sup>18</sup> [16, 24].

Positive evaluation of the Yekaterinburg Strategic Plan implementation in 2003 – 2008 required some adjustments in the part of review of most programme parameters to increase. After nearly a two-year debate (between 2008 and 2010), in 2010 an updated Strategic Plan of Yekaterinburg up to 2025 was approved by the City Duma<sup>19</sup> [17]. Some adjustments were made on the timing and direction of changes, priorities were adjusted and the project part of the plan was seriously revised. The number of projects was increased to almost 130. Business activity in project financing increased markedly – up to 45% or more of the total value of projects is funded and implemented by private business.

<sup>18</sup> In scientific literature, these calls for changes have been sounding more and more increasingly; these changes are defined as “denationalization” of economic policy, transition from the traditional Russian state monologue to polyphony, where the state remains a leading voice, but does not overwhelm the other voices. This will not only change the composition of the subjects, but also the configuration of economic policy. Korolyuk Ye. Modern Russian economy: strategic orientation and economic space. Theoretical and practical issues of management. 2011. No. 4. P. 24.

<sup>19</sup> See: Strategic Plan of Yekaterinburg. Yekaterinburg. As approved by the City Duma on 26 October 2010. Yekaterinburg, 2010.

The application of the methods of programme-project management allows a more informed definition of goals and planning of the optimal innovation, investment and other activities of regions and territories, including the territories of the new economic development<sup>20</sup> [18; 35, 57-69]. Project management provides an opportunity to consider project risks more fully, to optimize the usage of available resources and avoid conflict situations, to control the execution of the plan, to analyze the actual performance and make timely correction in the course of work, to store, analyze and use the accumulated experience in the successful future projects.

Over the passed years, much has changed in the relation of the citizens to the problems of the city and its development opportunities in the public interest, taking into account public suggestions and wishes. The reasons for this are seen in the following. *First*, a creative approach to the design and implementation of the strategic plan will allow the city to reach the leading positions among the Russian cities with population over one million on the majority of socially significant indicators (*tab. 2*)<sup>21</sup> [32, 12-14; 20, 10-11].

*Second*, people's interest in the city and its development priorities can be assessed, in our view, by the dynamics of migration of its population, who “vote with their feet” for the chosen strategy. If until 2003, when a strategic plan of the city was approved, more people

<sup>20</sup> More details on these issues are discussed in the paper: Strategy of economic development of underinvestigated areas of the Ural Soviet territory. Edited by RAS Academician A.I. Tatarkin. Yekaterinburg, Institute of Economics, Ural RAS Department, 2011. P. 11-41. See also: Chuzhmarov A.I. The development of public-private partnerships in the conditions of the North. Moscow: Econ-inform, 2012. P. 57-69 and others.

<sup>21</sup> See: The results of socio-economic development of the municipal entity “Yekaterinburg City” in 2011. Yekaterinburg. Department of Economics. 2012. P. 12-14; The results of socio-economic development of the municipal entity “Yekaterinburg City” in 2010. Yekaterinburg: Strategic Planning Committee, 2011. P. 10-11; Data on the budgetary sufficiency (See: Stolitsa Urала. No. 35. P. 9)

Table 2. Key indicators of the development of Yekaterinburg city in comparison with other cities with population over one million in 2006 – 2010. Numerator – 2010, denominator – 2006

Indicators	Yekaterinburg	Novosibirsk	Nizhniy Novgorod	Samara	Chelyabinsk	Ufa	Omsk	Kazan	Rostov-on-Don	Vologograd	Perm	Saint Petersburg	Moscow
Population size at the end of the year, thousand people	1411.1 1346.3	1497.5 1391.9	1263.6 1286.4	1169.3 1139.1	1143.2 1091.5	1082.4 1029.8	1156.5 1134.8	1145.4 1116.0	1091.5 1051.6	1018.8 1020.8	1001.0 990.2	-	-
Investments into fixed assets, billion rubles	100.8 36.8	63.2 29.9	71.0 23.5	53.7 30.3	54.3 23.8	43.5 34.0	46.4 24.8	107.7 52.1	29.4 21.3	30.5 14.7	39.86 34.2	-	-
Retail trade turnover per capita, thousand rubles	560.9 149.1	286.4 96.0	241.2 90.2	219.0 98.3	259.4 105.4	337.6 130.9	193.1 81.4	301.3 109.3	273.2 118.3	198.6 78.3	270.45 134.5	-	-
Housing construction, thousand m <sup>2</sup>	1050.2 735.3	1029.8 827.9	393.8 443.3	746.5 228.8	752.4 512.3	702.2 521.1	391.1 723.4	942.7 729.6	895.1 707.4	253.6 388.9	406.6 426.1	-	-
Average monthly salary, rubles	29544 14026	25937 11806	24581 10188	23186 11376	23420 11106	25125 11916	21951 10812	21878 9773	23806 10587	20264 9801	24989.7 12468	-	-
The number of births, per thousand*	13.0 10.3	12.8 9.9	10.7 8.9	11.3 9.6	12.6 10.3	14.4 9.5	12.1 9.3	13.2 8.7	10.3 8.7	10.4 8.7	11.7 10.0	-	-
The number of deaths, per thousand*	11.6 12.8	12.9 14.0	16.3 16.9	16.1 15.8	12.6 13.7	12.2 12.4	12.9 14.0	12.9 13.4	12.9 13.6	14.3 14.6	11.9 13.7	-	-
Natural increase (decrease) of population, per 1 000 residents *	1.4 -2.5	0.1 -4.1	-5.6 -8.2	-4.8 -6.4	0.0 -3.5	2.2 -1.2	-0.8 -4.5	0.0 -4.1	-2.6 -4.9	-3.9 -4.9	0.2 -3.7	-	-
Budgetary supportability of million cities in 2011, thousand rubles per capita	21.8	24.8	20.4	16.2	25.6	17.4	12.8	26.8	22.4	12.0	22.0	28.0	88.1
* In the numerator of all cities with population over one million except Yekaterinburg – indicators of 2010.													133.8

Figure 1. Population migration in Yekaterinburg, persons



were leaving than arriving, starting from 2004 a stable dynamics indicates the preferences of the visitors. The out of city movement has ceased significantly (fig. 1)<sup>22</sup> [20, 30; 32, 25].

The usage of project management of a territory allowed accelerating the implementation of the result-oriented model of management<sup>23</sup> [5, 30], which ensures development and provides an opportunity:

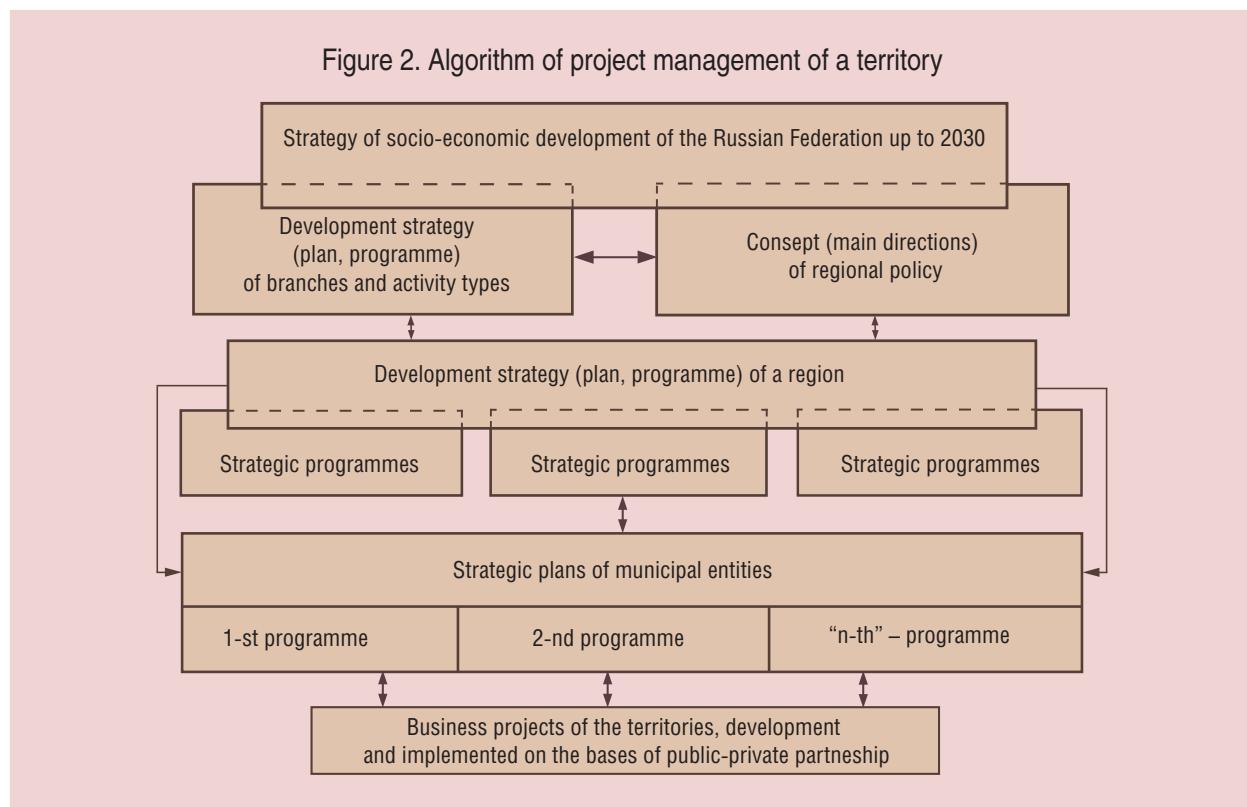
- to use the most effective institutions of spatial development at all levels, seamlessly coordinating abilities and interests of all levels of government, business and the public with one document;
- *to get tangible results of each objective, each service and activity;*

<sup>22</sup> See: The results of socio-economic development of the municipal entity “Yekaterinburg City” in 2010. Yekaterinburg: Strategic Planning Committee, 2011. P.30; The results of socio-economic development of the municipal entity “Yekaterinburg City” in 2011. Yekaterinburg: Department of Economics, 2012. P. 25. Data on the budgetary sufficiency. See: Stolitsa Urala. 2012. No. 35. P. 9.

<sup>23</sup> See: Tatarin A.I., Doroshenko S.V. Region as a self-developing socio-economic system: crossing the crisis. Ekonomika regiona. 2011. No. 1. P. 15-23.

- to “calculate” the *number and quality of services and activities* that will be provided to the population of the region (territory) when defining the goal;
- *to assess the impact on performance change in terms of changes in the budget plan indicators* up or down;
- to “receive” *socially significant results* for the region’s population from delivering the concrete services;
- to evaluate the performance of agencies and institutions work on the basis of analysis of their costs relative to their results;
- to determine for each of the socio-economic development objectives its *real value of achievement, as well as implementation tools and persons responsible for the implementation*.

At the level of regions and municipalities, the usage of project approach requires two conditions. *First*, the project must be built in the complex areas of strategic planning documents and logically proceed from the goals and objectives of the strategic plan (strategy) of the region’s (municipal entity’s) development.



In other words, these projects have to become strategic projects built in the logical chain of federal strategic planning management of spatial development;

*Secondly*, strategic projects at this approach turn into specific mechanisms (institutions) of implementing strategic development not only for the municipality, but for the region as a whole. Their development, as well as the documents from which they are derived, is based on the interaction of all the participants of the territorial community, including private businesses, governmental agencies and all levels of government, science, education and public representatives experienced in the area of project implementation.

The bases of strategic projects are the business plans of private sector development, including on the principles of public-private partnership (*fig. 2*).

The proposed approach allows focusing the projects on the effective coordination of all project developers, which can be refined on the basis of the careful planning and determination of very specific activities and sources of funding for each of the participants in these projects. Only in this case the plans, programmes and projects become *documents of public consent*, in the implementation of which not only the initiators and participants are interested, but also the entire population of the municipal entity and the region.

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## **Development of trade relations and economic cooperation between Belarus and Russia – an important component of successful functioning of the Union State**

*The article considers the condition and prospects of trade and economic cooperation between Belarus and Russia at the present stage in the framework of the Union State. It highlights the importance of the Belarusian-Russian inter-regional cooperation, outlines the basic guidelines of trade and economic policy of the Union State for the period up to 2020.*

*Trade and economic cooperation in the framework of the Union State, inter-regional cooperation between Russia and Belarus; Customs Union and Common Economic Space.*

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The expansion of Russia-Belarus economic and trade cooperation is one of the main directions of economic development in the framework of the Union State. Every year their mutual trade turnover is increasing, and it exceeded 38 billion U.S. dollars at the end of 2011. Its further growth will be enhanced through the improvement of the export commodity structure of both countries, the use of the advantages of territorial and industrial clusters and transport corridors, the expansion of sales geography of goods and services in the regions.

Belarus-Russia relations entered a new stage after the establishment of the Customs Union and in the course of forming the Common Economic Space of Belarus, Russia and Kazakhstan: the unified customs tariffs, non-tariff measures of foreign trade regulation have been adopted for the Republic of Belarus,

the Russian Federation and the Republic of Kazakhstan, and the Customs Code of the Customs Union has been adopted.

Belarus is one of Russia's major trade partners. According to the results of 2010 – 2011, Belarus was among the top ten of its main foreign trade partners, ranking 6th after China, the Netherlands, Germany, Italy and Ukraine. In addition, Belarus remains the main trade partner of Russia among CIS countries as well, ranking 2nd after Ukraine. The share of Russia's foreign trade turnover in the overall foreign trade turnover of Belarus in different years of cooperation ranged from 47% to 60%.

Russia completed the negotiations on its accession to the World Trade Organization (WTO) in 2011, the preparation of the documents concerning its full-fledged membership was completed in August 2012.

According to the data of Belstat (National Statistical Committee of the Republic of Belarus), trade turnover between the Russian Federation and the Republic of Belarus in January – September 2012 was 33268.5 million dollars, including Russia's exports to Belarus – 21409.1 million dollars, import – 11859.4 million dollars. The total growth of commodity turnover in comparison with January – September 2011 was 14.8%. The favourable balance for Russia increased up to 9549.7 million dollars.

Russia's share in the trade turnover of Belarus in January – September 2012 amounted to 46.9%, in Belarus' export – 32.9%, in its import – 61.6%.

The structure of Russia's exports to Belarus in January – September 2012 was dominated by fuel and energy (oil, oil products, natural gas, electricity) that accounted for 65.4% of the total volume of exports; the share of metals and metal products accounted for 9.9%; chemical industry products – 7.1%. The share of machines, equipment and transport vehicles increased from 8.3% in January – September 2011 up to 9% in January – September 2012. The share of foodstuffs and agricultural raw materials amounted to 3.2% and 2.6%, respectively.

Statistical data show a significant increase in oil supplies from Russia to Belarus (according to the Ministry of Foreign Affairs of Belarus, they increased 2.4-fold in quantitative terms, and in value terms – 2.3-fold in comparison with the similar period of 2011). The supplies of electricity and chemical industry production also increased in quantitative and value terms.

The volume of Russia's supplies of machine building production to Belarus in January – September 2012 amounted to 1931.8 million dollars, which is 27.9% more than in January – September 2011. The main cost volumes of this product group accounted for internal combustion engines – 187 million dollars

(growth by 9.5%). The export of cars and trucks increased. At the same time, the supplies of railway cars, parts and accessories for motor vehicles and rolling stock remain significant items of Russian export in the machine-building industry.

Machines, equipment and transport vehicles still occupied the key place in the structure of Russian import from Belarus in January – September 2012 (38.1%).

At the same time, food products and agricultural raw materials formed a substantial part in the total volume of Russian imports from Belarus: 24.5% vs. 23.3% in January – September 2011. The growth of import of this group of goods was conditioned by the increased volumes of purchases of poultry meat, as well as sugar, milk and cream.

The volume of imports of chemical industry production increased due to the increase in the cost volumes of purchases of Belarusian medicines, ethylene and tyres. The group of mineral products witnessed the growth in the supply of petroleum products: in value terms – 3.3-fold, in physical terms – 3.8-fold.

Further expansion of mutual trade in the framework of the Union State will take place in accordance with Russia's and Belarus' national development strategies, the guidelines of creating the Common Economic Space of Belarus, Kazakhstan and Russia, the integration processes in CIS, as well as in the conditions of increasing investments inflow, including the stimulation of direct investments. The reduction of the list of industries where the activities of foreign investors are restricted or prohibited contributes to the development of cooperation in this direction. Joint work on determining the optimal quantity and location of special economic zones in Belarus and Russia will lead to the increase in their number in comparison with the current situation and to the further development of trade within the Union State.

In the framework of the Customs Union, unified export control order is established, unified measures of non-tariff regulation are applied, as well as a uniform procedure for the mutual recognition of licenses, certificates, etc. The mechanism of the Customs Union covers the system of foreign trade relations with third countries. However, it doesn't affect trade and economic relations and cooperation of the economies within the Union State so far. This potential, far from being exhausted, will be reflected in the annual growth of trade turnover, largely conditioned by the development of inter-regional cooperation, creation of more favorable and equal conditions for small and medium-sized businesses in the Union State.

The removal of unsettled issues of mutual access to markets of the Parties (trade barriers in the Russian-Belarusian trade) will lead to the further intensification of mutual trade and diversity in the range of goods.

The development of exhibition and trade fair activities can become an important direction of cooperation in the framework of the Union State. This will contribute to the further expansion of mutual and external trade of the member-states, attraction of foreign investments into their economy, promotion of goods and services produced there.

The priority directions of cooperation in trade-economic sphere for the period up to 2020 can involve:

1. Activities aimed at creating the necessary conditions for comprehensive development of mutual trade, as well as equal conditions for competition, provision of the pre-emptive influence of market factors.

2. Development of the concept paper and action plan for its implementation in the economic sphere in the medium term on the basis of national strategies. The preparation of proposals on introducing amendments into national strategies of the Parties with regard to the Union's development strategy.

3. Creation of the sectoral body of the Union State in the sphere of coordination of bilateral trade-economic cooperation issues instead of the currently non-functioning Commission on tariff and non-tariff regulation under the Council of Ministers of the Union State.

4. Continuation of bilateral work on elaborating the coordinated position in the issues of removing all possible obstacles and restrictions in the mutual trade, and the creation of favourable conditions for the promotion of goods in the mutual trade, and the promotion of the Union State's products in the third countries.

5. Optimization of the import of the Parties, first of all the import from the third countries.

6. Creation of the conditions for the transition of the Russian-Belarusian trade to the internal trade regime within the Union State in the long term (by 2020), first of all, concerning the goods, not included in the fuel and energy group.

7. Development and approval of the balance of fuel and energy resources, the demand and supply concerning the most important types of products.

8. Organization of the permanent exhibitions of the Union's achievements and production, as well as the promotion of the participation of the Union State's exhibitions in international exhibitions.

Further integration of Belarusian and Russian national statistical services will also contribute to the development of their trade and economic interaction, because the comprehensive and reliable information on the state of affairs in all the fields of the Union State will facilitate the objective observation of its current situation and forecast its development.

Building of trade-economic relations within the Union State involves monitoring of the activities on the transformation of Russia's

obligations to WTO regarding those stated in the documents of the Customs Union and the Common Economic Space. Under the construction of the common state, it is necessary to hold regular consultations of Belarusian and Russian parties concerning the terms of Russia's membership in WTO.

After the establishment of the Customs Union, some of the powers concerning trade regulation have been delegated to the supranational level, Russia has assumed the obligations of ensuring the implementation of the WTO requirements at the level of the Customs Union as well. The implementation of such commitments is possible due to the treaty on the functioning of the Customs Union in the framework of the multilateral trade system. In accordance with the treaty, the obligations assumed by a Union State member in case of its accession to WTO, become part of the legal system of the Customs Union.

In general, the final level of tariff protection, agreed upon by Russia and WTO, is compatible with the economic interests of Belarus, because it established the majority of tariff lines at the level of Russia's rates while forming the unified customs tariff, i.e. Belarus agreed to the raising of the tariff compared with the former Belarusian customs tariff.

After Russia's accession to WTO, the inflow of foreign investments in the country's economy will significantly increase, which will ensure the development and further modernization of enterprises and more rigid competition for Belarusian products on the Russian market. Upon joining WTO, Russia has assumed the obligations of this international organization, including those concerning the involvement in the resolution of disputes within WTO, and this makes Russia more attractive for investors.

The complicated conditions created by the competition with the goods (not only foreign, but also Russian) from the third countries will affect Belarusian enterprises, as well as economic entities with direct budget support,

and those categories of Belarusian goods, the foreign analogues of which will be allowed into the Customs Union on more liberal terms. So, import duties on machinery products will decrease in average by 15% down to 5 – 10% on almost all the types of agricultural machinery, which can affect the Belarusian agricultural machine-building.

The changes in the sphere of customs and tariff regulation in connection with Russia's accession to WTO will be carried out with regard to the agreements that were previously made on this issue in the framework of the Customs Union.

It appears that it is necessary to establish in the medium term the system of joint measures to bring the national Belarusian legislation in the trade-economic sphere in compliance with the norms and requirements of WTO on the basis of the conditions of Russia's membership in it.

The implementation of the stated cooperation directions in the trade-economic sphere can result in the following:

- development of mutual trade and optimization of its commodity structure;
- transition to the internal trade regime in the framework of the Union State;
- development of exhibition and trade fair activities of the Union State;
- provision of mutual access to economic information to the fullest extent possible;
- development of interaction in the field of statistics, including the formation of a unified system of statistical indicators and ensuring their comparability, the functioning of a unified statistical service of the Union State;
- creation of conditions for accession of the Republic of Belarus to the World Trade Organization.

*It should be noted, that the issues of inter-regional cooperation contain a considerable potential for the further expansion of cooperation in the framework of the Union State.*

Active inter-regional relations with the Republic of Belarus are maintained by more than 70 subjects of the Russian Federation. The regulatory-legal base of inter-regional cooperation includes over 250 agreements and treaties between the regions, cities, districts, municipalities of Russia and the regions, districts, cities of Belarus. Bilateral councils and committees on cooperation have been established for the purpose of promoting trade and economic cooperation between the Republic of Belarus and Russian regions.

Production cooperation is one of the priority directions of the bilateral inter-regional relations. Its capabilities should be maintained in the medium term as well, providing reliable links between the Russian and Belarusian enterprises, which are engaged in, first of all, the mutual supplies of raw materials, components and spare parts.

It appears that the joint territorial planning of Russian and Belarusian border regions should become a perspective issue of bilateral cooperation in the present-day conditions.

In the medium term, the expansion of the regional and interregional ties, including at the level of economic entities, will be promoted by the implementation of the following cooperation directions:

- ◆ implementation of the joint projects in scientific, technology and innovation spheres, as well as in the framework of the Union State programmes;
- ◆ development of industrial cooperation;
- ◆ development of investment cooperation;
- ◆ expansion of the participation of economic entities of the one Party in the regional programmes implemented by the other Party;
- ◆ promotion of business cooperation, in particular among the representatives of small and medium-sized business, in the line of the chambers of commerce and industry;
- ◆ expansion of inter-regional cooperation, including the promotion of direct contacts

between the subjects of the Russian Federation and the regions of the Republic of Belarus and the city of Minsk, including at the level of administrative-territorial units;

- ◆ development and implementation of the programme “Intergovernmental scheme of integrated territorial organization of Russia and Belarus”.

At present, the exhibition and trade fair activity of the Union State has the substantial development potential. For the 16 years of the Union’s existence its achievements haven’t been properly exhibited. The long-term policy in the sphere of exhibition and trade fair activities of the Union State still hasn’t been worked out, and the results of the Union’s development aren’t demonstrated to the public, business and international community. The exhibitions, displaying the achievements of the Union’s construction, have been organized for the past period neither in CIS, nor abroad.

The common policy in the sphere of exhibition and trade fair activities of the Union State members, aimed at informing the public, business and international community about the results of the Union’s achievements and construction, will ensure the strengthening of the Union State’s image on the international arena, the active promotion of its goods on the markets of the third countries.

The implementation of the stated areas of cooperation in the exhibition and trade fair area will result in the following:

- ✓ development of exhibition and fair activities of the Union State;
- ✓ awareness of the general public in CIS and non-CIS countries concerning the activities of the Union State, its products and services.

At the present stage it is still very important to provide mutual access to economic information of the maximum possible amount of participants of foreign economic activity in the countries of the Union State.

It is necessary to develop cooperation in the field of statistics, including the formation of a unified system of statistical indicators and ensuring their comparability, to develop and apply the uniform methods of calculations of the main macroeconomic indicators.

Extensive experience in the format of bilateral cooperation has been accumulated by the Inter-agency Statistical Council of Belstat and Rosstat (Federal State Statistics Service of Russia), functioning since 1996 when the Community of Belarus and Russia was formed. This allowed Russia and Belarus, taking into account the joint practices and developed normative and methodological base, to shift quite painlessly to the format of the cooperation between the three states in the Customs Union.

We can highlight the following priority directions of cooperation development in the framework of the Union State in the sphere of statistics for the period up to the year 2020:

- unification and expansion of the published statistical data on the socio-economic situation in Belarus and Russia;
- issuing the statistical collections of the Union State;
- expansion of information exchange on economic issues;
- elaboration of joint documents on cooperation between the statistical agencies of Belarus and Russia in accordance with the national programmes on statistical activities;
- development of unified methodologies in accordance with the world standards and

integration processes in the framework of the Common Economic Space, the implementation of joint research and analysis programmes of Belstat and Rosstat;

- creation in the short-term perspective of branch-wise body of the Union State (Statistical Committee of the Union State).

The implementation of these cooperation directions in the field of statistics will result in the following:

- ◆ provision of mutual access to economic information to the fullest extent possible;
- ◆ development of cooperation in the field of statistics, including the formation of a unified system of statistical indicators and ensuring their comparability;
- ◆ functioning of the integrated statistical service of the Union State.

Growth points and strategic guidelines of Belarusian and Russian economies are in many respects similar. They include the orientation toward innovations, including, nano-, bio- and information technologies, the increasing importance of social factors in economic programmes of the countries. But the scale and the degree of openness of the economies is different, as well as the role of the government in them.

Formation of the Common Economic Space of Belarus, Russia and Kazakhstan will introduce, in the medium term, structural changes in the pattern of economic growth in the member states. But it seems that the Union State will remain the driving force of the integration processes.

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# BRANCH-WISE ECONOMY

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## Industrial policy as a tool of neo-industrialization of regional industrial systems\*

*The article describes the essence of neo-industrialization of an economy as an alternative to the establishment of a post-industrial economy. It substantiates the three stages of industrial policy, aimed at neo-industrialization of the economy in the Ural region taking into account the characteristics of its industrial system. A special importance is attached to clusters as market institutions of implementing the regional industrial policy.*

*Neo-industrialization of an economy, stages of implementing neo-industrialization, institutions of regional industrial policy, industrial clusters.*



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The modern stage of economic development is characterized by the new requirements connected with the peculiarities of civilizational development of society in the era of globalization.

The period we live in may be regarded as the era of the transition of society from the traditional industrial and market system to a new highly organized economic management system.

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Informatization of society, the need to adapt to the changing global situation under the “new economy”, the growing number and the increasing importance of intellectual and innovation industries and services – all this significantly changes the modern profile of the economy and its major structural sector – industry. In these conditions, the most promising are those development models, in the framework of which the territories are not just places where branches of large corporations are located. These territories include old industrial regions of Russia, which are capable of creating specific resources, promoting innovation activities, forming competitive advantages, and increasing their attractiveness for business through an efficient development policy.

The regions started working out their own territorial concepts and laws on industrial policy due to the challenges in choosing the models of economic growth, the search for the strategic priorities of development approved both at the federal and regional levels as well as the emerging new technologies of regulating development in the old industrial regions. This policy is based on the policy aimed at building a competitive, structurally balanced industry. It should efficiently combine the intellectual core of the industry with the so-called “supporting industries”, which provide the development of key technologies, such as nano-, bio-, information technologies. In addition, the industrial policy as a tool, integrated into the general strategy of socio-economic development, should ensure a balance not only between conflicting economic goals, but also between purely economic, social and environmental goals. As viewed from this angle, the assessment of the industrial policy efficiency becomes much more complicated. The industrial policy implementation cannot be efficient, first of all, in the short term concerning its evaluation by the criterion of Pareto efficiency.

It would be more proper to assess it by the Kaldor–Hicks criterion, which allows for taking into account not only the potential benefit in the framework of the implemented industrial policy, but also the losses of individual economic actors inevitable in the current stage of economic development<sup>1</sup>.

One of the main problems in modern Russia, as well as many developing countries, is the problem of neo-industrialization of the economy as a kind of alternative to the formation of a post-industrial economy<sup>2</sup>. It is particularly relevant for the industrial regions of the country. Unfortunately, the strategic documents of the development of such territories up to the present time don't highlight the ways of transition to the new technical and technological bases, the possibility of promoting industrial production to the new progressive development levels, which determine neo-industrialization as the relevant trend in the modern stage of economic development of the country and its old industrial regions.

It can be noted that at present, the situation in Russia is characterized by a weak, uncompetitive industry, low innovation activity, problems in the rapid development of the hi-tech sector of the economy, which does not allow counting on a swift implementation of some breakthrough technologies and formation of the essential elements of a modern technological mode. It is known that Russia lags far behind the developed countries concerning the share of the world's expenditures on R&D in terms of purchasing power parity – 2%, (compare: in the U.S. – 35%, in the European Union – 24%)<sup>3</sup>.

<sup>1</sup> <http://bugabooks.com/book/83-istoriya-ekonomicheskix-uchenij/74-5-popytki-resheniya-problemy-sopostavleniya-optimalnyx-sostoyaniij.html>

<sup>2</sup> Gubanov S. On the policy of neo-industrialization of Russia. Economist. 2009. No. 3.; Gubanov S. Neo-industrialization and vertical integration (on the formula of the development of Russia). Economist. 2008. No. 9.

<sup>3</sup> Lyubushin N.P., Babicheva N.E., Korolev D.S. Economic analysis of the opportunities for technological development of Russia. The economic analysis: theory and practice. 2012. No. 9. P. 4.

In these conditions it is necessary to change the model of economic growth, to take into account the realities of the socio-economic development, to work out such mechanisms of economic policy, which will allow Russia to rank high in the global economy.

A forward-looking course for neo-industrialization, expressed in the priority directions of technological development (the industry of nano-systems, security, information and communication systems, energy efficiency, etc.), implies the intensive innovation development of the real sector of the economy. More and more researchers are emphasizing the expediency of working out the economic development strategy, based on the structurally balanced development of the economy as well as on the efficient interaction of all sectors of the real economy, first of all mineral raw materials and manufacturing.

The proposals have been also put forward concerning the formation of the integrated resource-processing model<sup>4</sup>. The model of integrated complementary functioning of the mineral-raw materials and industrial processing sectors is applicable first of all in those regions for which the exploitation of mineral-raw-material base and the creation on its basis of the industrial-technological mineral and raw materials complex is a priority in the development of the economy.

The Ural region is an example of such a region. Here the resource-processing development strategy can be implemented, based on the presence of the variety of mineral deposits, including industrial resources, the efficient production and processing of which is sufficient not only for the neo-industrialization of Russian economy, but also for mutually beneficial international cooperation with the countries that have a poor mineral raw materials base.

<sup>4</sup> Kimelman S. Integrated resource-processing model. Economist. 2012. No. 1.

It appears that the main task of the mining industry under neo-industrialization is not to increase the production and export of crude oil, gas and other mineral resources, but to make the processing of raw materials more profound and to expand the markets of downstream products. The leading manufacturing sectors in the framework of the neo-industrialization strategy implementation can form a sustainable economic base for the development of other industries and economic activities.

In these conditions, it is efficient market institutions and the active participation of the government in the development and implementation of industrial policy that should become the main tool for maintaining the optimal structure of the industrial complex and the basis for the formation of its intellectual core and the enhancement of competitiveness. Industrial policy based not on the opposition of government regulation and market freedoms, but, on the contrary, on the combination of the active involvement of the state and market mechanisms should play a decisive role in the neo-industrialization of the economy of Russia and its industrial regions.

The neo-industrialization in the Ural region can be carried out in the framework of its long-term development strategy. The implementation of the new industrialization scenario can include three stages, typical for the country as a whole<sup>5</sup>, and taking into account the peculiarities of the industrial system in the Ural region. In the first stage (2012 – 2013) the priority task can include the recovery of industrial production volumes to the level of the pre-crisis year of 2007, combined with the formation of innovation clusters in basic industries. The raw materials sector, associated primarily with the oil and gas production complex, should be developed at the first stage in the direction of deepening the crude hydrocarbons processing.

<sup>5</sup> Amosov A. On the neo-industrialization scenario in the concept of development up to 2020. Economist. 2011. No. 6. P. 15-16.

At the same time, the strategy of involving the production capacity in economic activities should be re-oriented toward the creation of conditions for the renovation strategy implementation.

In the second stage (2013 – 2017), the large-scale industry, based on resource- and labour-intensive sectors of manufacturing (heavy machinery, fuel and chemical industry, metallurgy, etc.) will stabilize in its borders, and then it will be characterized by the narrowing of its scale. It should be noted that the processing industry (first of all chemical and petrochemical, woodworking, etc.) is poor in advanced technologies and needs radical technological reconstruction, for the implementation of which it is advisable to use a part of the revenues derived from the exports of primary resources. The revival of the processing industry in the Ural region can have a positive influence on the related sectors of the economy: infrastructure, civil and industrial construction, development of the consumer complex. To some extent, this will have a positive impact, through the tax mechanism, on the improvement of the situation in the social sphere, defense complex, etc.

The development of the large-scale industrial sector will be determined by the beginning of technological neo-industrialization, which will result in the gradual substitution of the production and technological potential created on the basis of the innovation component. During this period, the upgraded productions of large and medium-sized enterprises, as well as the enterprises of the new economic sectors, established under the regional target programmes and innovation projects, will function at full capacity. It can be assumed that such a development of the industry will promote the onset of neo-industrialization in the economy of the old industrial region.

At the third stage (2018 – 2020) one can expect that not the GRP growth, but the qualitative development of the regional industry

will become the criterion for assessing the efficiency of the industry. In this period, the change of the technological base of the industry can be expected as a consequence of the development of a strong scientific, technological, human and intellectual potential.

Neo-industrialization of the economy in the Ural region will facilitate the transition to the achievement of high quality production standards in the respective industries. At that, obviously, the major concentration will take place in the largest cities of the region, such as Yekaterinburg, Chelyabinsk, in the most cost-effective R&D, experimental-design and service departments of industrial enterprises. Their capacities will be oriented toward the development and maintenance of high quality of the final industrial products.

The new economic positioning of the Ural region in the implementation of the neo-industrial development strategy will largely depend on the advantages of the investment environment, innovation climate, the timeliness of the necessary institutional reforms, the sound consideration of territorial development trends. The tendencies of territorial development of the European countries and the BRICS countries (especially China) indicate that the points of growth are now beginning to shift to the remote areas of the country – it is these areas where growth rates of national economies are the highest. Let us estimate from these positions the changes in the territorial structure of the economy of the industrially developed region on the example of the Sverdlovsk Oblast.

The peculiarity of the territorial development in the Sverdlovsk Oblast is the unification of its municipalities according to the administrative and geographic principle into six major areas: five administrative districts (Northern, Gornozavodskoy, Western, Eastern, Southern) and Yekaterinburg agglomeration (the near zone, which includes the municipalities: the city of Yekaterinburg, Aramilsky urban district, Berezovsky urban district, Rezhevskoy urban district, Sysertsksy urban district).

General development processes, as well as significant changes in the oblast's economy after the crisis have caused a number of territorial changes in the structure of the economy in the Sverdlovsk Oblast. In particular:

- The actual processes of concentration of industrial production in the centre of the region – Yekaterinburg agglomeration and Western administrative district are going on (the share of these regions in the total turnover of industrial organizations increased respectively from 26.7% and 21% in 2007 to 31.5% and 25.7% in 2010). Meanwhile, the share of industrial production has been declining in Northern district (from 12.2% to 8.4%), Gornozavodskoy district (from 24.6% to 21.0%) and Southern district (from 13.3% to 11.7%) and is practically reduced to nothing in Eastern administrative district (from 2.2% to 1.7%). The lowest growth rates of industrial production were observed in Northern administrative district – only 5.2%. The highest – in Western administrative district (87.1%).

- Judging by the dynamics of investments (*fig. 2*), industrial production growth in Western administrative district won't be sustainable. The volume of investments in 2010, as compared with 2007, reduced by 30% (the share of the district in the total volume of investments of the Sverdlovsk Oblast decreased from 19.7% to 13.9%). There has been a substantial reduction in the investments in Northern district (by 44.5%) and Eastern district (by 38.6%). An insignificant growth of investments was observed in Yekaterinburg agglomeration and Gornozavodsky district (3.9% and 5.5% respectively). The highest growth of investments was observed in Southern administrative district, by 79.9%, at the expense of investments in the construction of a new unit at the Beloyarsk nuclear power station and the development of Sukhoy Log urban district.

- Dynamics of the number of working-age population (*fig. 3*) indicates that the territorial structure is stable, and for 2007 – 2010 their share according to the administrative districts has remained practically unchanged.

Figure 1. Territorial structure of the turnover of organizations of the Sverdlovsk Oblast by the kinds of economic activities C, D, E, 2010

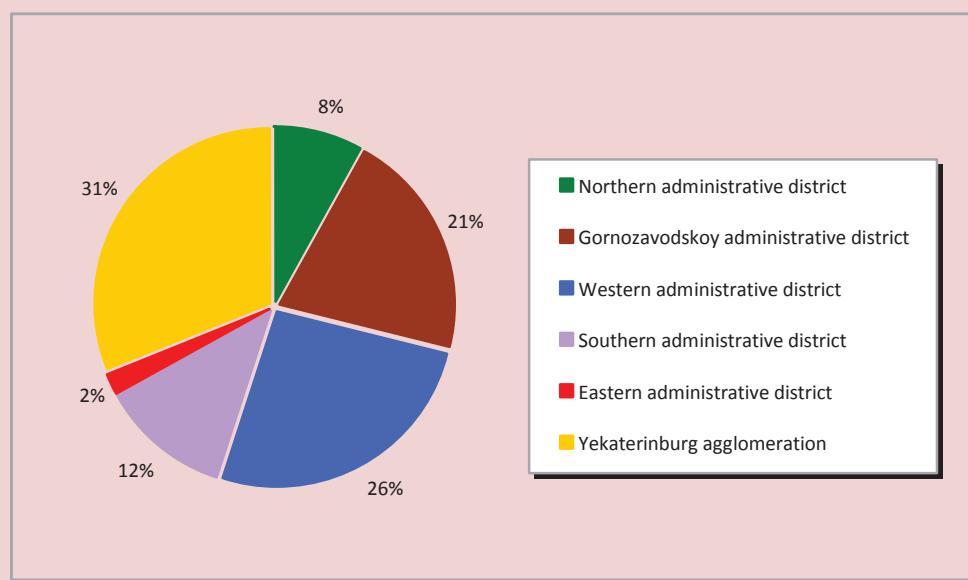


Figure 2. Dynamics of investments in fixed capital in the Sverdlovsk Oblast, million rubles

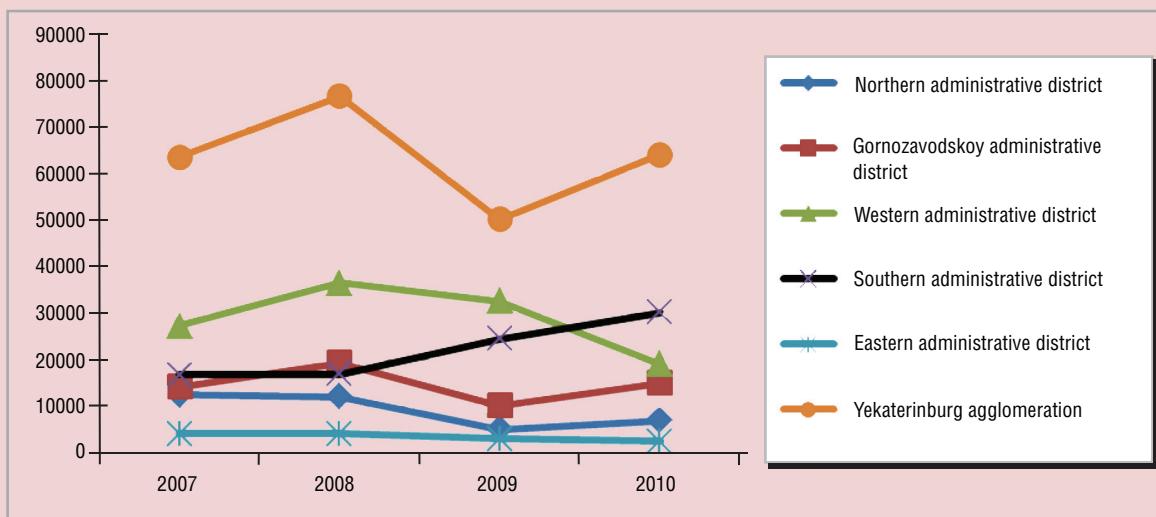
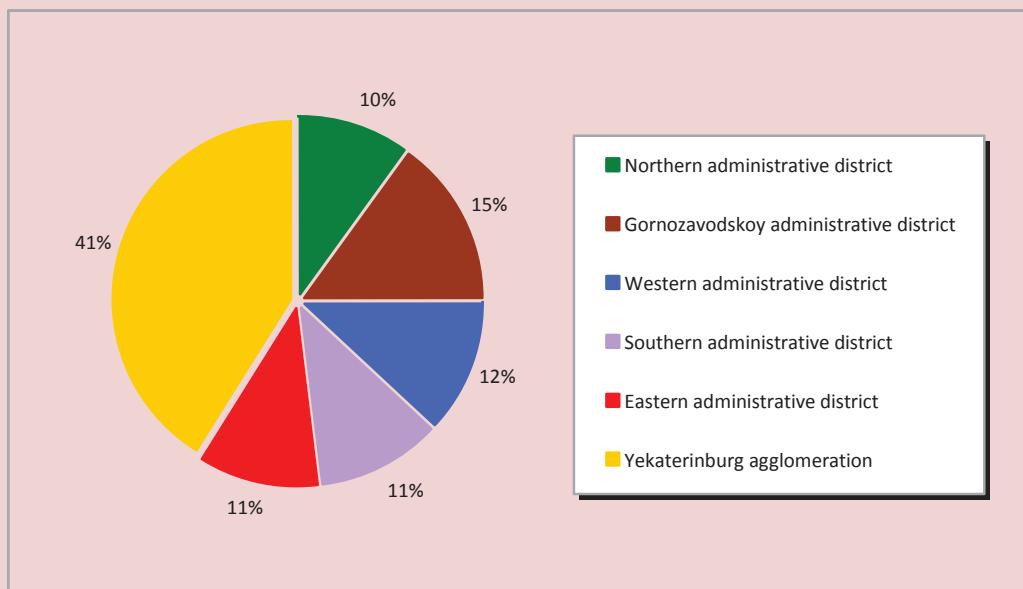


Figure 3. Territorial structure of working-age population in the Sverdlovsk Oblast, 2010



The largest number of the able-bodied population is concentrated in Yekaterinburg agglomeration (over 40%).

Thus, in case of the absence of state regulation in the form of the targeted industrial policy, taking into account territorial aspects, the process of “uncontrolled compression” of economic space is possible to develop in the region.

This will take place through the increase in the concentration of production, investment and population in Yekaterinburg agglomeration and the reduction of population and the number of settlements, as well as closing up the economic activity first in Eastern and Northern administrative districts of the Sverdlovsk Oblast, and then – in Southern and Western administrative districts.

The consequences of the uncontrolled process of narrowing the economic space consist in the reduction of the territorial basis of economy, as well as in the deterioration of its spatial structure, the disintegration of the spatial framework of the Sverdlovsk Oblast. Thus, the small towns, which form the basis for the economy and employment of the population of the surrounding rural areas, are disappearing and this process affects rural settlements as well. This increases the burden on the big cities, creating excessive tension in the employment, social sphere, crime rate, etc.

The European countries recognized long ago that the economic growth of innovation development is ensured not only by the largest cities. The experience of regional policy shows the importance of relations in the context of small and medium-sized towns, and the issues of enhancing the role of regional and local centres in rural areas are being rapidly resolved as well. The role of medium-sized towns is viewed in the linking of cities, small towns and remote rural areas. Medium-sized towns are capable, in the creation of appropriate conditions, of fulfilling an important function in promoting integration, curbing the depopulation of rural territories under the establishment of appropriate macroeconomic and regional conditions.

To prevent territorial compression, the Sverdlovsk Oblast, being one of the most advanced regions in the sphere of institutional transformations and the implementation of the neo-industrialization strategy, should develop the regional industrial policy, aimed at the following.

1. The use of market institutions of neo-industrial development for enhancing the quality of economic growth in the territories. These institutions include clusters, business territories.

The integrating nature of a cluster approach as an institution of regional development lies in the ability to find the comprehensive solution

of the following tasks: the regional development, aimed at enhancing the competitiveness of the region's economy and economic entities; the industrial policy, aimed at creating a competitive industrial complex in the region; the transition to the innovation model of regional development; the development of a competitive environment, small and medium-sized businesses in cooperation with large-scale businesses; the increase of the region's educational level, the development of regional infrastructure, etc.

This approach allowed the research team at the Institute of Economics of the Ural RAS Department to formulate the main provisions of the cluster policy in a developed region, the tasks of which are differentiated according to the different groups of clusters: functioning, latent, potential. Cluster policy is aimed at the formation of poles of competitiveness, which, in contrast to poles of growth, are characterized by collective performance, the endogeneity of innovations, as well as by the fact that the most important unifying element for the cooperation between the organizations belonging to different spheres, is the active promotion of such cooperation by the state and public bodies.

These centres for competitiveness can be successfully developed practically in all the administrative districts of the Sverdlovsk Oblast (*table*). Each centre involves from 5 to 15 municipal entities of the oblast in its development. The centre of cluster development and its environment will be linked through the closer cooperation between the enterprises, the creation of common labour markets, technologies, knowledge and the promotion of the enterprises' access to the use of common resources.

In order to implement the cluster effects in the Sverdlovsk Oblast, it is necessary to develop the new infrastructure for creating new jobs, launching the small and medium-sized production and services.

The following activities should be carried out in this respect:

- the comprehensive examination of the current condition of the territories that are planned to be used by cluster associations, the evaluation of engineering infrastructure and its potential, taking into account the modern technologies of enhancing the resource efficiency of the industry, the ecological constraints and opportunities;
- the combination of concepts and programmes on the development of clusters with the Sverdlovsk Oblast policy in the sphere of the placement of new objects of infrastructure and high-tech industries;
- the legislative support of the development of the oblast's industrial territories — the adoption of rules, regulations, etc., to initiate the re-development of complex territories that are important for the cluster development, including the town-forming territories.

2. The adoption of certain financial and political decisions at the regional level, aimed at the development of neo-industrialization processes and the creation of conditions for the self-development of the territories through the improvement of the relations of budgetary spending powers distribution and their financing. At present, a tendency is observed, when the increase in the number of spending powers causes the reduction of the territories' own income sources. In such a situation, the heads of municipalities have to think not so much about the neo-industrialization strategy, as about the solution of the most troublesome issues of territorial development. There has been a decline in the motivation of municipal authorities to increase budget revenues by broadening the tax base (i.e. the development of the economy) and increasing the fiscal performance, their initiative is restrained, dependency and irresponsibility are developed.

Calculations by the municipalities, for example, Perm Krai, show that the estimated coverage of expenditure obligations only for the

maintenance and repair of roads in 2009 was: about 35% in Krasnovishersky district, about 60% in Cherdynsky district, about 55% in Ilyinsky district. Thus, the calculation of only one authority indicates the significant lack of its funding. Such a situation is typical of the Sverdlovsk Oblast as well.

The Institute of Economics of the Ural RAS Department carried out the assessment of funds necessary for the transition to neo-industrialization development of the territories in the Sverdlovsk Oblast. It shows that the amount of funding is comparable with that of the actual oblast's budget. Thus, it is possible to form the system of commitment of the heads of municipalities to the socio-economic development of the municipal entity, if there is a political will and competent methodological support of the distribution of revenue and expenditure powers, the establishment of the cost of budgetary services in the region and the system of evaluating the efficiency of the expenditure obligations fulfillment.

3. The heads of municipalities should promote the creation of organizational, information, methodological conditions for the efficient interaction of all territorial sub-systems and economic entities in the municipality. The administrations of municipal formations are advised to do the following:

✓ to study and use their territories' potential of creating clusters, industrial parks, technology parks in order to enhance the competitiveness of the town-forming, budget-forming, socially important enterprises and to establish cooperative relations with small and medium-sized enterprises;

✓ to involve business entities in the process of personnel formation in the territory, especially in the field of secondary professional education (there are successful examples of such cooperation: for example, in the city of Pervouralsk the college tuition costs are compensated from the budget, while the enterprises of the city take on the costs of practical training);

## Centres of cluster development in the Sverdlovsk Oblast

	Cluster name	Cluster status*	Location of the cluster's "core"	Location of other participants of the cluster**
<i>Functioning clusters</i>				
1	Ural pharmaceutical cluster	Inter-regional	<b>Municipal entity "the city of Yekaterinburg", Novouralsky urban district</b>	Sverdlovsk Oblast, Chelyabinsk Oblast, Moscow Oblast (Skolkovo)
2	"Titanium Valley"	Inter-regional	<b>Verkhnesaldinsky urban district</b>	Sverdlovsk Oblast, Perm Krai (city of Berezники)
3	IT – cluster	Regional	<b>Municipal entity "the city of Yekaterinburg"</b>	Sverdlovsk Oblast
4	Chemical cluster	Regional	<b>The city of Nizhny Tagil</b>	Sverdlovsk Oblast
5	Railway engineering cluster	Regional	<b>Verkhnyaya Pyshma urban district</b>	Sverdlovsk Oblast
<i>Latent clusters</i>				
6	Oil and gas equipment cluster	Regional	<b>Municipal entity "the city of Yekaterinburg", Artyomovsky urban district</b>	Sverdlovsk Oblast
7	Cluster for electrical machinery and power-generating equipment	Regional	<b>Municipal entity "the city of Yekaterinburg", the city of Nizhny Tagil, Kamyshlovsky urban district</b>	Sverdlovsk Oblast
8	Cluster for medical instrument-making	Regional	<b>Municipal entity "the city of Yekaterinburg"</b>	Sverdlovsk Oblast
9	Machine-tool cluster	Regional	<b>Municipal entity "the city of Yekaterinburg", Kirovgradsky urban district, Verkhneye Dubrovo urban district</b>	Sverdlovsk Oblast
10	Technology-implementing centre for metallurgy and heavy engineering	Inter-regional	<b>Municipal entity "the city of Yekaterinburg"</b>	Sverdlovsk Oblast, Chelyabinsk Oblast, Moscow
11	Ural technology cluster "Production and use of rare earth metals"	Inter-regional	<b>Novouralsky urban district</b>	Sverdlovsk Oblast, Chelyabinsk Oblast, Kurgan Oblast, Moscow
12	Pipe-producing cluster	Regional	<b>Municipal entity "the city of Kamensk-Uralsky"</b>	Sverdlovsk Oblast
13	Timber-processing cluster	Regional	<b>Turinsky urban district, Municipal entity Alapayevsky (Verkhnyaya Sinyachikha rural settlement)</b>	Sverdlovsk Oblast
14	Wooden house-building cluster	Regional	<b>Tavdinsky urban district, Krasnoturyinsk Urban district</b>	Sverdlovsk Oblast
15	Automotive industrial cluster	Regional	<b>Novouralsky urban district</b>	Sverdlovsk Oblast
16	Tourist cluster	Regional	<b>Severouralsky urban district, Karpinsk urban district, Verkhotursky urban district, Nevyansky urban district</b>	Sverdlovsk Oblast
<i>Potential clusters</i>				
17	Chemical and metallurgical cluster	Regional	<b>Pervouralsk urban district</b>	Sverdlovsk Oblast
18	Bioenergy (peat) cluster	Regional	<b>Verkhnesaldinsky urban district, municipal entity "the town of Ibit", municipal entity "the city of Yekaterinburg"</b>	Sverdlovsk Oblast
19	Agroindustrial cluster (on the basis of the enterprise "Good taste")	Regional	<b>Municipal entity "the city of Yekaterinburg"</b>	Sverdlovsk Oblast
20	Transport and logistics cluster	Regional	<b>Municipal entity "the city of Yekaterinburg"</b>	Sverdlovsk Oblast
21	Scientific-educational cluster	Regional	<b>Municipal entity "the city of Yekaterinburg"</b>	Sverdlovsk Oblast

\* In this table the status is estimated according to the location of the cluster's "core" and its other participants.

\*\* Determined as of 01 June 2011 for the functioning and latent clusters, and also for the potential clusters that are envisaged by the appropriate cluster initiative.

✓ to participate in enhancing the prestige of working professions (through the city contests of professional skills), which should also become one of the tasks of the heads of industrially oriented municipal entities.

Thus, it is only the system approach to industrial policy in the region, combining its

technological, institutional and territorial aspects, that is capable of implementing the neo-industrialization trends in Russia and its old industrial regions, aimed at the considerable increase of efficiency of industrial production and the creation of new productive jobs.

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## Economic risks of agricultural organizations' activity in the Vologda Oblast in the context of Russia's membership in WTO

*Russia's accession to the World Trade Organization provides the domestic agribusiness with a fundamentally new economic and organizational-legal business environment.*

*The article analyzes the financial condition of agricultural organizations in the Vologda Oblast, indicates increasing acuity of the problems in the industry and identifies the economic risks for the agricultural commodity producers of the northern region in the context of Russia's membership in WTO. It substantiates the top priority measures to improve the financial sustainability of agricultural organizations and the need for changes in the mechanism of state support for the industry.*

*WTO, Vologda Oblast, agricultural production, economic risks, the development of regional agriculture.*



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The share of the Vologda Oblast's agriculture, which is one of the key branches of the economy, in the gross regional product is about 4%; about 4.5% of employed people are engaged in agriculture. Almost 30% of the total population lives in rural areas.

In 2011, all the categories of agricultural commodity producers produced goods to the amount of 23.3 billion rubles, including crop production – 8.2 billion rubles, livestock production – 15.0 billion rubles.

The share of agricultural organizations in the structure of agricultural production accounts for 68.5%, the share of peasant (farm) households is 2.9% and the share of population is 28.6% (fig. 1).

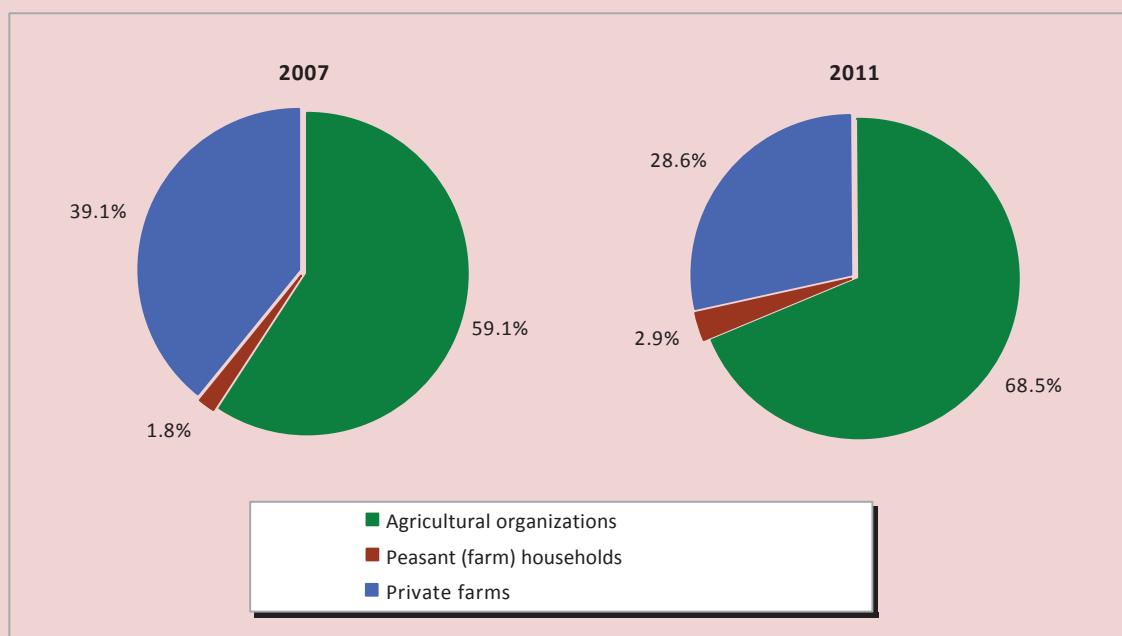
Agricultural commodity producers provide the population with the opportunity to consume

staple foodstuffs in accordance with sensible nutrition standards (except for meat and vegetables, fig. 2).

Agricultural organizations are the major producers of milk (90%), meat (83%), eggs (97%) and corn (96%). Potatoes and vegetables are produced mainly by private farms of the population (74% and 82%, respectively). Thus, the problem of food security is solved primarily by agricultural organizations.

First of all, increased competition due to Russia's accession to WTO will have negative influence on the public agricultural sector, which bears the brunt of food security and provides 21.4 thousand people with jobs and an average monthly income of 13,845 rubles (in 2011 ).

Figure 1. The structure of the agricultural production in the Vologda Oblast



The situation can be aggravated by the problems of agricultural organizations, including low profitability, high debt load, a lack of government support, poor supply with technical equipment and, consequently, low production efficiency.

239 agricultural organizations that submitted their accounting reports for 2011 had the following results (fig. 3):

- sales revenues of agricultural products, works and services amounted to 13706.8 million rubles (118% by 2010);
- cost of agricultural products sold amounted to 12841.0 million rubles (122%);
- before-tax profit (including subsidies) – 654 million rubles (83.8%).

Organizations' account payable increased greatly due to ever-increasing energy products rates, prices for fertilizers, feed and other material and technical resources. Besides, they attracted more and more credit and borrowed funds incurring a heavy deficit of working capital.

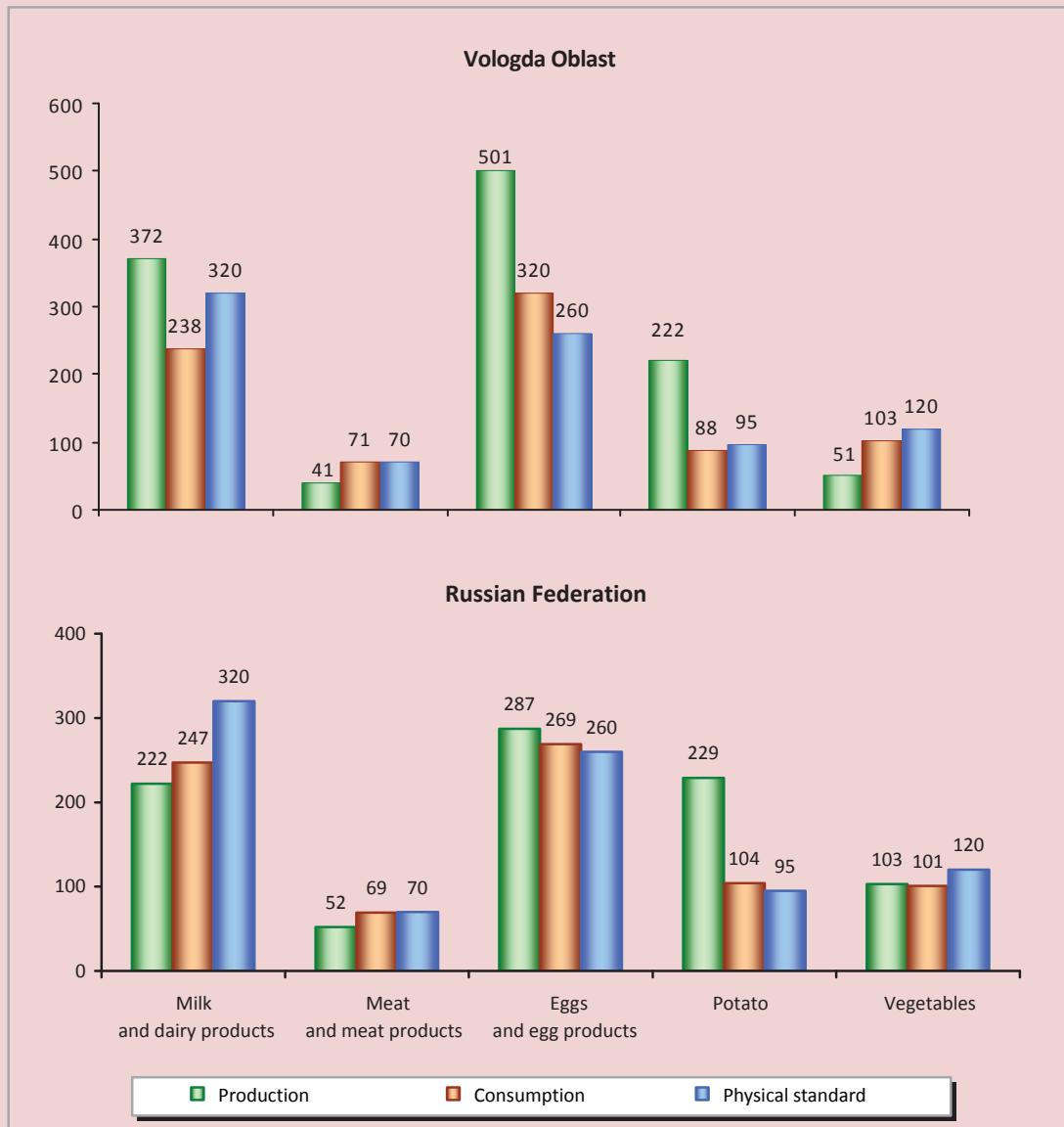
The total loan indebtedness of agricultural enterprises amounted to 11.9 billion rubles (long-term and short-term) or 77% of the gross revenues at the end of 2011, and debt exceeded revenues in some organizations. Almost 8% of revenues are spent annually to service credits and loans; this sum is equal to 1.1 – 1.2 billion rubles which is comparable to the full volume of state support for the industry from the federal and regional budgets (tab. 1).

These expenses are included in “miscellaneous costs” of organizations and along with subsidies (“miscellaneous income”) they affect the final result – the profit of organizations.

The share of profitable organizations amounted to 67% at the end of 2011 and their profit amounted to 1065.7 million rubles. The losses of 78 unprofitable organizations came up to 411.7 million rubles, which was 2.1 times more than in 2010.

And there are more companies that operate at a profit under 5 million rubles (119) among profitable organizations (161) including

Figure 2. Production and consumption of staple foodstuffs per capita per year, kg



56 organizations which profit is less than 1 million (*fig. 4*). This profitability leads to narrowing down of production and increases the risk for all the organizations.

- According to existing conditions, the Economic Policy Agency of the Department of Agriculture, Foodstocks and Trade analyzed a number of indicators (21) in order to find if their values correspond to standard (recommended) or optimal values of financial stability efficiency (effectiveness) and technical support of agricultural organizations.

Depending on the total values of these indicators, the organizations were divided into five risk groups:

- Group 1 (under 50 points) – the risks are within acceptable values;
- Group 2 (from 50 to 80) - increased risk;
- Group 3 (from 80 to 120) - high risks;
- Group 4 (over 120) - super-high risk;
- Group 5 – the organizations that have ceased their production activities or the company in liquidation, which financial recovery is nearly impossible.

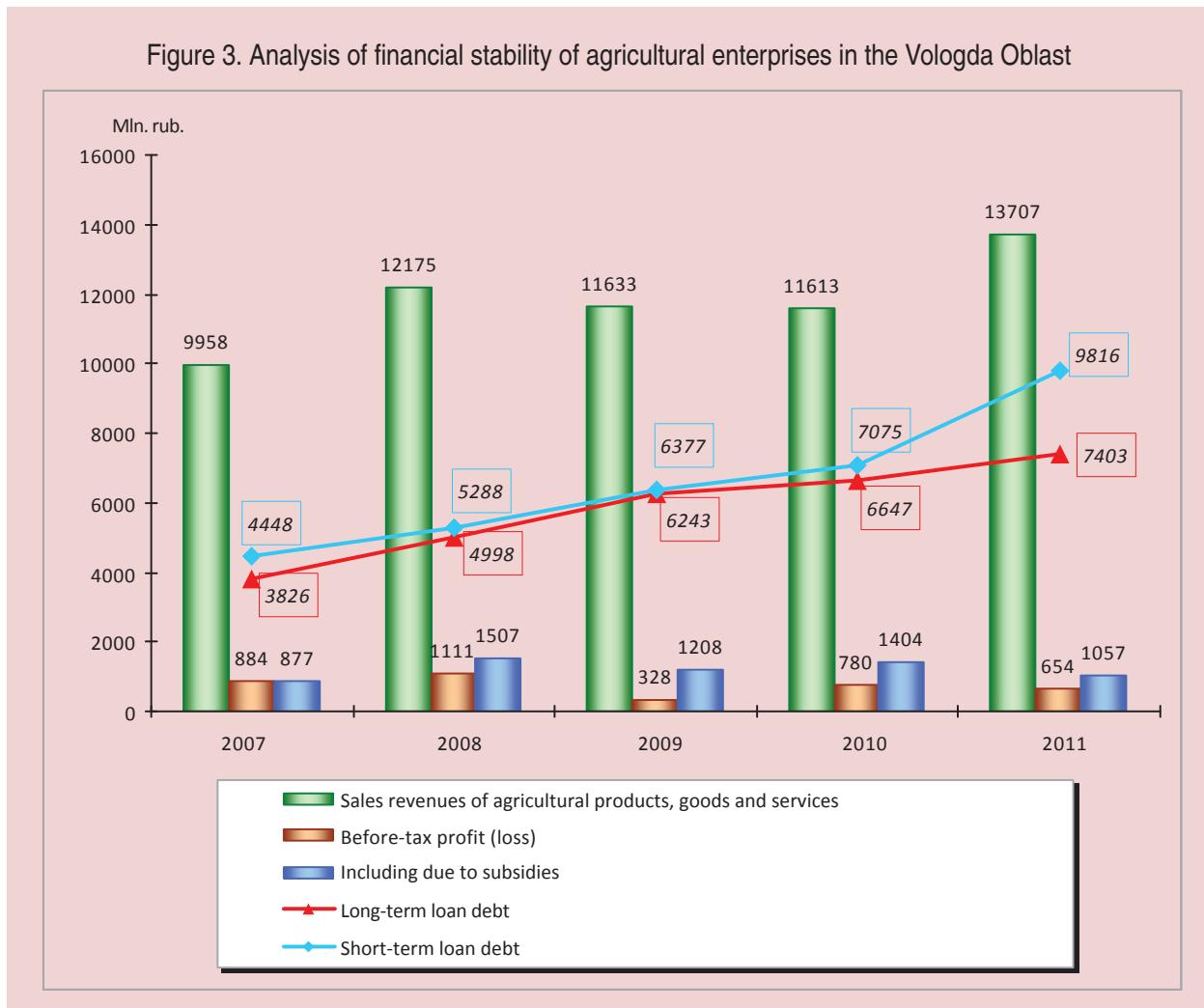


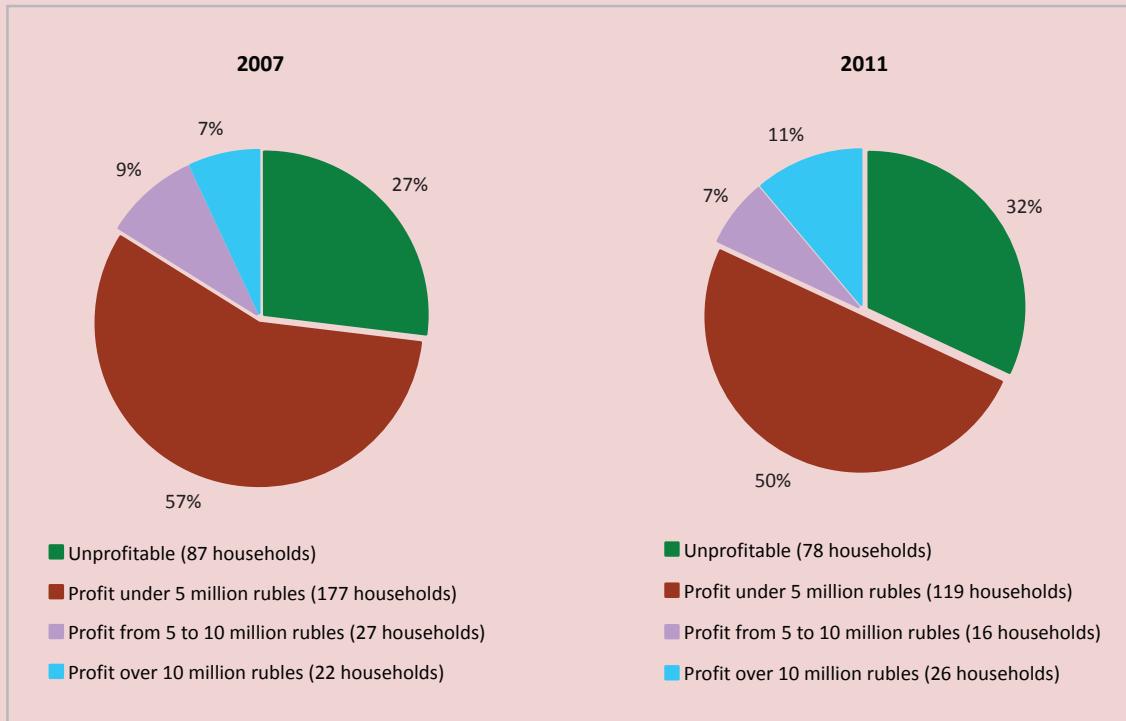
Table 1. Service costs of attracted credit resources by agricultural organization in the Vologda Oblast in 2008 - 2011.

Items of expenditure	2008	2009	2010	2011	2011 in % to 2008
Credit and loan service by agricultural organizations – total, mln. rub.	795.9	1064.9	1272.1	1205.1	151
Including:					
long-term	466.7	569.7	756	718.9	154
short-term	329.2	495.2	516.1	486.2	148

According to the Department's estimates, there are 113 high risk organizations (from Group 3 to Group 5) in terms of operating in new economic conditions, or 47.3% of the total number of organizations. Moreover, there are 75% of high and super-high risk companies in six regions out of 26 ones; and there are the only high and super-high risk agricultural organizations in two regions.

The average annual number of employees amounted to 4960 people in high and super-high risk organizations in 2011(23% of the total number of agricultural employees); their average monthly wage accounted for 11,227 rubles. These organizations use 42% of the Vologda Oblast's agricultural land, including 39% of arable land (173.1 hectares), and they have 23% of cattle stock, including 25% of cows (18.6 million head).

Figure 4. Distribution of the Vologda Oblast's agricultural enterprises according to their profit before tax



In 2011, these organizations produced 25% of grain, 54% of rotted straw, 20% of milk, 10% of meat, 49% of eggs in the total production of agricultural enterprises. The share of long-term loan debt of these organizations amounted to 39% as of 1 January 2012; short-term loan debt was equal to 34%. The situation continued to deteriorate in the current year due to the reduction of state support (by 20% – from the federal budget and by 34.5% – from the regional budget).

In these circumstances, taking the level of state support of the industry for the criterion of development forecast, it is possible to calculate the bankruptcy of a third of agricultural organizations due to its further reduction and without the imposition of all the conditions and requirements of WTO. As a result, public small commodity production, which is located in the peripheral areas of the oblast and which is required mostly for providing employment and incomes of the rural population and implementing social control over the territories, will cease to exist.

If the state support is reduced, in 2013 agricultural commodity producers will be able to sow no more than 110 thousand hectares with corn in spring and 1.7 thousand hectares with flax; the lands under potato and vegetables can be maintained – about 20 – 21 hectares (including private households). There will be the following croppage from these sown areas: no more than 153.2 thousand tons of grain (62.5% in 2011), 233.3 thousand tons of potato (87.5%), 57.1 thousand tons of vegetables (94.3%), 0.2 thousand tons of flax seeds (45%), 1.2 thousand tons of flax fiber (42.9% to the level of 2011).

As for a livestock sector, it will be possible to produce no more than 430 tons of milk (96.3% to the level of 2011) and 67 thousand tons of meat and poultry on hoof (89.3% respectively). These amounts will be caused by the reduction in the number of cows in the public sector by 2.5 million head, by 5.3 thousand head in 2014 and by another six thousand head in 2015 (up to 73 thousand head).

As a result, milk production in all the types of households will be able to reach 370 thousand tons in 2015 (-76 tons to the level of 2011).

Further reduction of state support can lead to the general elimination of public agricultural production in 18 districts of the oblast (*fig. 5*). As a result, 5 thousand people working in agriculture will be unemployed, which, in turn, will lead to the increase in budget expenditures for hardship allowances and providing low-income citizens with various benefits. Income of farmers amounted to 668.3 million in 2011 – it is the tax base for personal income tax, therefore, more than 86 million of this tax did not go to the budget.

There is a threat of regional food security due to the processes mentioned above, since the production of staple agricultural products will not meet the required standards of per capita consumption (*fig. 6*). According to the figure, in 2020 the domestic production of staple agricultural products will be reduced by

30% on average with the minimal state support for the industry in the context of Russia's membership in WTO; these figures will be below the standards of rational consumption. There will be a positive growth in agricultural production and foodstuffs with the maximal level of state support, workplaces and social control over vast territories of the oblast will be kept.

In order to minimize the negative consequences of Russia's membership in WTO, the Economic Policy Agency of the Vologda Oblast Department of Agriculture, Foodstocks and Trade has developed a draft state programme "Development of agriculture and consumer market of the Vologda Oblast for the period from 2013 to 2020" for the Vologda Oblast's agricultural sector by the Governor's Order No. 13-SOV as of March 11, 2012 and in accordance with the regional government decrees No. 422 as of April 25, 2011 and No. 1629 as of December 22, 2011.

**Figure 5. Forecast of agricultural development of the Vologda Oblast in 2020 in the context of Russia's membership in WTO (with the minimal state support for the industry)**

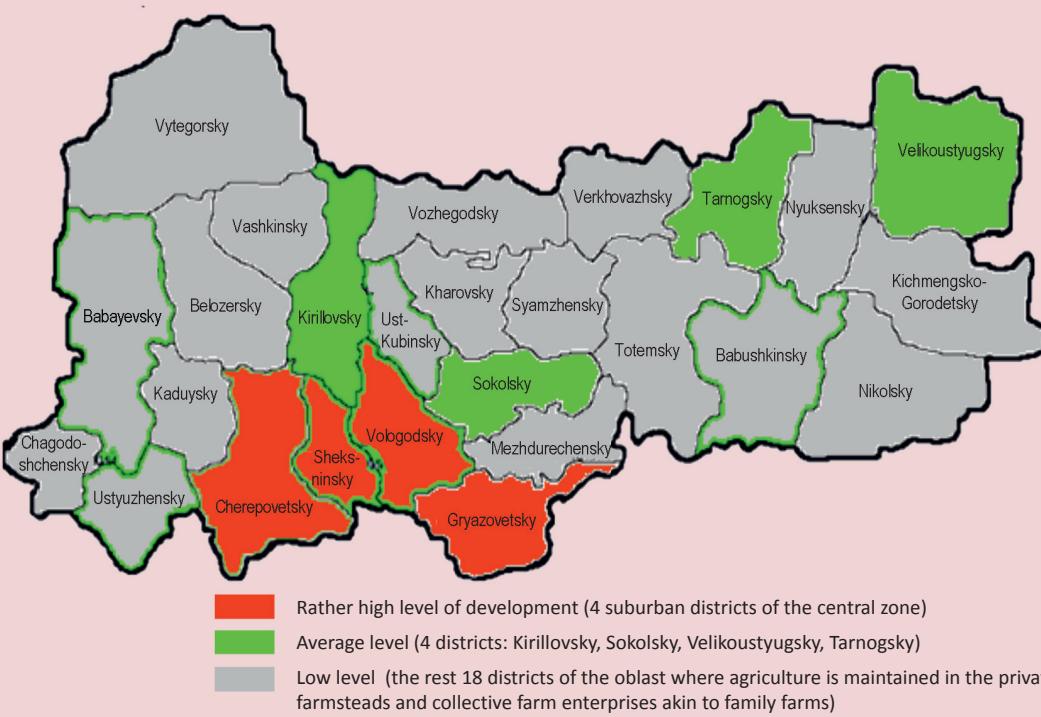
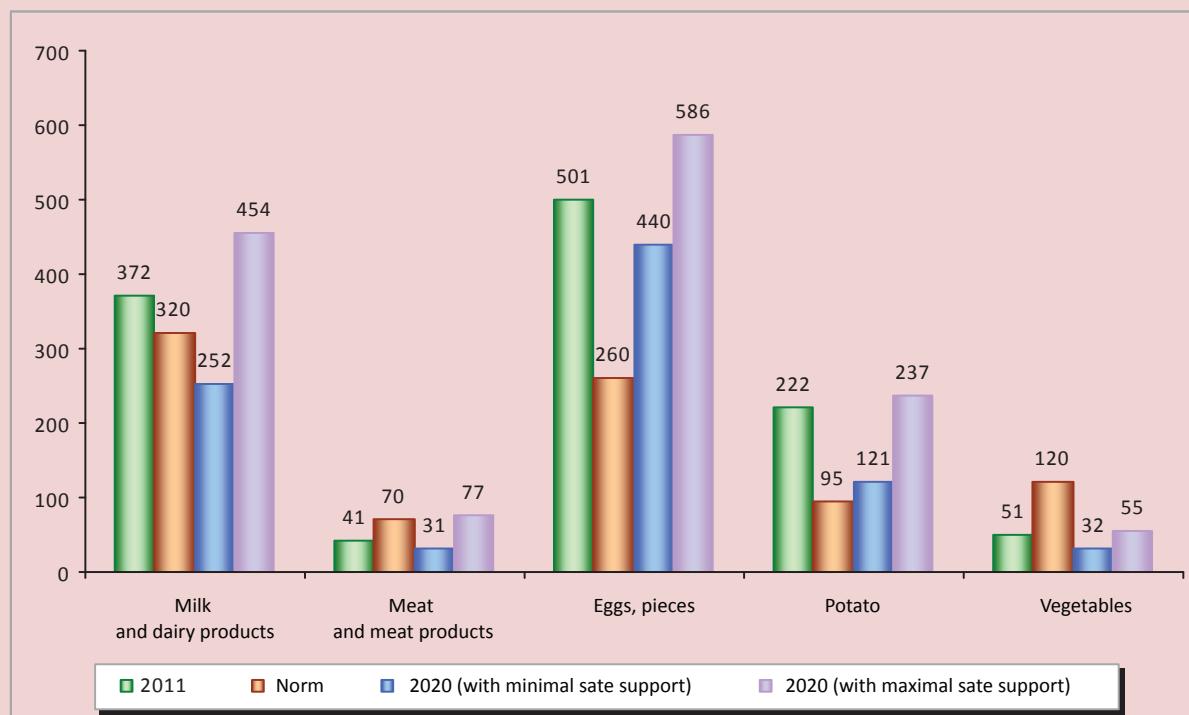


Figure 6. Forecast of staple foodstuffs production per capita in the Vologda Oblast in the context of WTO with the different levels of state support for agriculture



The project provides for the comprehensive development of all the sectors, sub-sectors and the spheres of agricultural activity in the context of Russia's accession to the World Trade Organization. It will be possible to keep positive dynamics in the development of the industry, make conditions for its fast transition to a new technological base and increase its competitiveness only in the case of full funding of the state programme (the demand for budget funds will amount to 2390.7 million rubles in 2013).

It is proposed to introduce new subsidies for the partial reimbursement of milk production cost (commercial premium and first grade milk) as the state support for milk producers (most regional agricultural organizations). The subsidies for reimbursement of forage equipment purchasing costs will encourage farmers to transfer their production to a new technological level. It is

proposed to introduce subsidies for the partial reimbursement of mixed fodder purchasing costs in order to ensure the state support for specialized organizations in the pig breeding and poultry farming sectors. Support for the food and processing organizations, especially regional dairy companies, will allow us to maintain their financial stability in the face of increased competition, raise production capacity, develop the logistics and promote value added goods under a single trademark "Vologda Made Product".

In addition, the following measures will be necessary to overcome the possible negative consequences of Russia's membership in WTO: the extension of a number of tax incentives for agricultural producers (in particular, zero profit tax rate) at the federal level; keeping the remission of property and transport taxes for all the agricultural organizations at the regional level.

It is proposed to increase the investment attractiveness of agricultural industries due to providing tax holidays for the period up to 5 years for the agricultural organizations, implementing investment projects that are socially and economically important.

The proposed measures will contribute to the financial sustainability of agribusiness organizations, they will minimize the risks of bankruptcy and liquidation of public agri-

cultural production and, therefore, they will prevent the growth of unemployment and social tension in the vast territories of the region. At the same time, the economic activity of agricultural organizations, the use of their hidden reserves, saving material costs, audacious implementation of advanced and innovative technologies will allow us to achieve a significant effect and raise the industry to a new level of development.

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## Russia's defense industry modernization as part of the national idea: learning from history

*The article is devoted to the issue of the defense industry complex modernization as a key direction in the strategy of strengthening Russia's national security and ensuring its sustainable economic development, increasing its performance and competitiveness. It analyzes the historical experience of creating and using the science and technology potential of the USSR defense industry.*

*Defense industry complex, national security, economy modernization, science and technology development, weapons and military equipment, R&D, design and experimental activities, State Armaments Programme.*



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In the conditions of scientific and technological progress the tasks and demands of the Armed forces stimulate the production of weapons and military equipment (WME), as well as the wide range of products for consumer and industrial purposes. Regarding modern challenges and threats to the national interests of the Russian Federation, one of the priorities of the long-term military construction programme is technical re-equipment of the army, which should be carried out on the basis of advanced innovation technologies and ensuring the long-term production of the new generation of WME.

Dealing with this task combines, on the one hand, the demands of the RF Military Doctrine and the Armed forces' requirements necessary for their implementation, and on the other hand, the country's economic potential and the state of its military sector. In this regard, particular importance is attached to the level

of implementing scientific and technological achievements in the basic sectors of the national economy and defense industry complex (DIC), as well as the ability of the military economic sector to solve successfully the problems of maintaining competitiveness and economic sustainability.

Undoubtedly, complex structure of military production, its scale and diversity, affiliation of goods and services producers to various government departments and different forms of ownership found among them require efficient coordination of management bodies' activities at all levels and coordination of development trends in various sectors of defense economy.

At the same time, special attention should be paid to the issues of strategic planning of DIC development and the search for ways to increase the efficiency of using the resources allocated to the defense.

These issues were discussed at the enlarged meeting of Russia's Security Council on 31 August 2012.

Opening the meeting, President V.V. Putin pointed out the large-scale character of the Armed forces upgrading plans, and noted that our industry, research and design centres, DIC in general should be ready to implement all these plans to the fullest. First of all, it concerns the ability to develop and produce advanced military products with the forward-thinking approach. The funds allocated to the State Armaments Programme and DIC modernization programme should be invested efficiently in order to enhance the country's defense capacity, and develop our technological, scientific and economic base, the Head of State pointed out.

V.V. Putin mentioned the industrialization of the 1930s under Joseph Stalin as an example. "We need to make the same powerful comprehensive breakthrough in the modernization of defense industry, as it was done in the 1930s", the President explained. He pointed out that in the shortest possible time it is necessary to renew the production assets and ensure the priority scientific-technological capacity for the serial production of advanced weapons. "We need to make up for what we lost", V. Putin said. "It is a very difficult task, but it can be and should be solved" [5]. The Head of State made it clear that defense industry modernization should be part of a national idea that can unite the country.

The proposed ideology is dialectically complicated. On the one hand, as V.V. Putin admits, "concerning their technological development, many enterprises remain at the previous century level" and "our defense industry complex has missed several modernization cycles". On the other hand, "defense industry has always been an engine pulling the other branches", so in the coming decade "the unprecedented sum of almost 23 trillion rubles will be allocated to the State Armaments Programme and the DIC modernization programme" [5].

In this connection, it is considered quite important to refer to historical experience of creating and using the scientific-technological potential of the defense industry in order to determine the reasons for DIC lagging behind in a number of areas, the flaws in technological innovations implementation, and in order to find efficient forms of economic interaction between science and production.

It should be noted that the history of the USSR in the twenty years between the end of the Civil War and the beginning of the Great Patriotic War is one of the most interesting and significant periods in our country's modern history. Those were the years when the political and economic system, which lasted until the end of the 1980s, was established. The USSR of that time was in a state of constant confrontation with the majority of developed countries. Such a situation, of course, resulted in the desire of Soviet leadership to create a powerful, which means well-equipped, army.

In those years, this was possible only through the modernization of domestic defense industry in the already existing spheres of military production (artillery, small arms, etc.) and the creation of new branches in the defense industry complex. The circumstances of establishment and functioning of defense industry left their mark on almost all the events of 1921 – 1945 Russian history.

At present, a lot has been written on the subject of industrialization in the USSR, its enhancement in the years of the First Five-Year Plan, and its consequences. In this connection, one should emphasize that in the abandonment of the New Economic Policy and in transition to the command economy the military leaders played a much more significant role than it is generally considered [12, p. 82]. Throughout the 1920s they insisted on the increase of governmental subsidies to military plants, strict planning of military production, centralization of management, submission of civilian branches to the needs of defense sector

and concentration of production in numbered plants. Red Army leaders in their speeches and reporting notices constantly reminded of the necessity to accelerate industrialization as a factor of the country's military power expansion given the hostile relations between the USSR and many other countries.

The beginning of 1930s was characterized by the surge of aggressiveness on the part of imperialistic states, which made the prospect of a new world war even more tangible. In the current situation the defense complex modernization was considered as a necessary condition for the survival of the USSR in the face of a military threat from the outside.

In this rather complicated state of affairs, in February 1931, J. Stalin delivered a speech "On the tasks of economic executives". He said, "One should have a passionate Bolshevik desire to handle the machinery, to master the science of production." The entire history of Russia indicated that "it was beaten because of its backwardness" and first of all – military backwardness. "Do you want our socialist Homeland to be beaten and to lose its independence?" Stalin asked. "We are lagging behind the advanced countries by 50 – 100 years. We have to cover this distance in 10 years. Either we do it, or we'll be crushed" [13, p. 38]. If in 1930, according to Stalin, industrial growth was 25%, then a completely unrealistic target of 45% was set for 1931 which concerned primarily the defense objects.

In the 1930s, in fact, such branches as machine-tool industry, precision engineering and instrument making, chemical, power engineering, tractor and automotive industry were created anew. This provided the means of production for such branches of defense industry, as aircraft and tank production, artillery and small arms production, surface and submarine vessels production.

Gradually the defense sector turned into a vast branch of industry, which, according to

some estimates, accounted for 9 – 10% of the annual gross income of the country already in the late 1920s – early 1930s, and by the end of the 1930s, this share reached 30% [9, p. 35].

In 1936 and 1937 the Soviet military industry began a new stage of advanced foreign technologies development, the demands to the quality of manufactured products increased. Aircraft industry, the production of arms and ammunition apply such methods as hot stamping, casting, cold pressing and other set-up operations, increasing the accuracy and smoothness of parts processing [11, p. 104].

The production of the main types of WME steadily increased. The total volume of industrial production in the USSR increased 2.2-fold, and the defense products production – 3.9-fold in the period of the Second Five-Year Plan (1933 – 1937). The average annual production of planes and tanks for 1935 – 1937 increased 4-fold in comparison with 1930 – 1931 period, artillery tubes production – 2.6-fold, rifles – almost 2.3-fold [14, p. 95].

In those days, the defense industry indeed became an "engine" of not only industrial, but also economic development of the country as a whole. The demand for technologies in weapons creation "forced" the development of civilian industries. The country faced an increase in the production of coal, oil, cast iron, steel, and the generation of electricity.

Approximately a 7-fold increase in the gross industrial output for only 11 years, and a 15-fold increase in comparison with the pre-revolutionary level, achieved without foreign financial and resource support, speak for themselves [8, p. 65]. One should only add that it concerns, first of all, the development of the high-tech industries.

This ensured the country's technological independence on the eve of dramatic armed clashes. The data in *table 1* illustrate the general nature of the changes, justly viewed by contemporaries as revolutionary and successful.

Table 1. Dynamics of the share of import in the USSR domestic consumption as an indicator of the country's technological independence, in % [8, p. 65]

Types of production	1913	1927/28	1937
Mechanical engineering production	43.6	30.4	0.9
Tractors	-	63.4	0
Automobiles	100	68.2	0
Rubber	100	100	23.9
Superphosphate	63.1	28.0	0
Aluminum	100	100	4.9
Watches	100	100	2.3

Simultaneously with the strengthening of the scientific and technological potential and the creation of extended military production, the activities were undertaken on the preparation of national economy to military restructuring and enhancing its vitality. The second defense industrial base was established at a quick rate in the area of the Volga region, the Urals, Siberia, defense enterprises were constructed in the Russian Far East.

The main result of the country's pre-war industrial development was the opening of 2,900 new plants, factories, power plants, mines, collieries and other industrial enterprises, most of which to a certain extent worked for the defense. At the same time, the development pace of the defense sector exceeded that of the other sectors. So, the annual output of the entire industry grew by 13% on the average, as for the defense production, its output increased by 39% [9, p. 36].

Naturally, the intensification of the defense industry development demanded the creation of special supervising bodies. The Order of the Supreme Council of the National Economy (VSNKh) dated 4 December 1925 No. 164 established the Military-Industrial Agency under the VSNKh Presidium for the general supervision over defense industry activities on the basis of committees for mobilization and demobilization of industry and military orders. As for the state association Glavvoyenprom (Chief Directorate for Defence Industry),

it was transformed into the Industrial Association for Defense Industry (Voyenprom), retaining its functions of direct management of the enterprises.

Thus, the transition to industrialization and creation of sectoral associations in the industry revealed itself firstly in the military production. In 1937 the People's Commissariat of Defense Industry was established.

Due to the great work on the establishment of a powerful economy, the development of defence industry and the army that was carried out in the pre-war years, the USSR ranked first in Europe and second in the world by the volume of industrial production. Encyclopedia Britannica evaluates the results of industrialization in the USSR as follows, "In 10 years the USSR actually worked its way up from one of the backward states to the great industrial power; this was one of the factors that ensured Soviet victory in World War II" [16, p. 302-303].

Achievements of the national economy were inextricably linked to the development of science. The Soviet government took active measures for coordinating scientific work in the whole country. Branches of the USSR Academy of Sciences appeared, the number of institutions in the system of the USSR Academy of Sciences increased from 28 in 1932 to 48 in 1937, and the number of their staff increased 2.6-fold. There were 806 research institutes and their branches in the USSR by the end of 1937 [6, p. 86].

The country had a significant potential for handling fundamental theoretical problems, as well as applied, practical issues connected with the tasks of strengthening the defense and increasing the combat power of its Armed forces. Great progress was achieved in the study of physical properties and chemical structure of metals and alloys, sources of energy and raw materials. Soviet mathematics and physics produced major scientific achievements as well. The number of those having important practical value include the discovery of the combinatorial scattering of light by Academicians L.I. Mandelstam and G.S. Landsberg; the achievements in the field of physical phenomena taking place at temperatures close to absolute zero. The research by Academicians N.D. Papaleksi, A.A. Andronov, N.M. Krylov had important theoretical and practical value for the development of radio and mechanics. The studies of Academician A.F. Ioffe in the physics of semiconductors opened new horizons in the field of electrical materials [6, p. 87].

Numerous scientific discoveries shaped the perspective directions in the development of military equipment. The 1930s already witnessed a series of fundamental works on the nuclear structure theory, radioactive decay, search for more advanced principles of subatomic particles acceleration, etc. The method of studying ultra-rays and processes of nuclear decay in a strong magnetic field, developed by D.B. Skobeltsyn, served as the basis for the discovery of positrons, neutrons and other subatomic particles constituting the atomic nucleus. Soviet physicists V.A. Fok, G.A. Petresh, G.N. Flerov, Yu.G. Khariton, Ya.B. Zeldovich made a great contribution to the substantiation of the process of uranium fission chain reaction.

The works in the field of jet propulsion went on successfully as well. For their consolidation, the decision is made in April 1933 on the establishment of the Rocket Research Institute, which played an important part in the study of

the problems of jet propulsion and rocket and missile engineering.

The achievements of the economy, science and technology have allowed a most difficult problem in the sphere of military construction to be handled, which was the creation of new armament types and the establishment of their serial production.

However, when solving specific tasks related to the technical rearmament of the troops, the state met with serious difficulties in the beginning.

First of all, there was a shortage of qualified engineering personnel. Therefore, according to the direction of the Central Committee of the All-Union Communist Party in the first half of the 1930s, specialized research institutes, design bureaus and testing production facilities were founded, which launched the creation of advanced WME. As a result, the number of engineers-designers from 1936 to 1939, in aircraft design bureaus for instance, increased from 1370 to 3166 people [3, p. 183]. In this period the design bureaus headed by A.I. Mikoyan, S.A. Lavochkin, P.O. Sukhoy were established.

It should be noted that the system of organizing R&D in the pre-war years was well-adapted to functioning in emergencies. The Great Patriotic War showed it most clearly. The rigid vertical management structure made it possible to review the research directions in no time and to focus the efforts on solving the key problems in the sphere of defense. So, the Academy of Sciences was able to complete this work in just a few months despite the great difficulties connected with the evacuation of academic institutions to the east.

From the very first days of the war the work of the research institutions of the Academy of Sciences was reorganized to meet the demands of the defense sector in the major directions: modernization of series-produced weapons and military equipment, creation of advanced weaponry with improved or completely new

combat characteristics and also the provision of tangible support to the defense industry in the development and implementation of advanced technologies. The State Defense Committee (GKO) and the Council of People's Commissars engaged the USSR Academicians I.P. Bardin, B.E. Vedeneyev, S.I. Vavilov, A.V. Vinter, P.L. Kapitsa, A.Ye. Fersman, A.N. Bakh, A.A. Blagonravov and others. A special commission on scientific and technical issues under the chairmanship of Academicians A.F. Ioffe and I.V. Kurchatov was established to deal with the issues concerning the use of scientific achievements for the needs of the front [6, p. 157].

At the same time, the priority importance of defence issues didn't imply the cessation of fundamental research. The top-priority basic research went on alongside a great scope of activities aimed at creating and improving weapons and military equipment, development of new technological processes, search for and development of mineral deposits. Thus, in the end of 1942, GKO decided to resume the research on uranium, which was aimed at the creation of an atomic bomb. And in February of the following year, the first scientific-research institution (Laboratory No.2 of the USSR Academy of Sciences), headed by I.V. Kurchatov was opened, which dealt with nuclear issues. Continued work, including the creation of jet engines, provided a reserve for the future, and immediately after the war it promoted a new stage of technological development in our country.

It should be noted that at the same time, Nazi Germany decided to stop the financing of any R&D, which didn't produce the result within six months [1, p. 45].

The war promoted the strengthening of centralization in the leadership of the scientific-technological sphere. Under the supreme power body, the GKO, a special position of the Commissioner for Science was established, besides, the Scientific-Technical Council was

formed, which included prominent scientists, representatives of industrial ministries and the military. The Council coordinated the research on the most important scientific and technical issues, organized the work on defense issues. But in general, the activities of the GKO Commissioner for Science along with its subordinate structures became the first experience of establishing inter-sectoral cooperation on the national scale.

The conditions of war demanded other changes in the forms of scientific activity organization. Thematic and integrated commissions became widespread in the system of academic science. The Council for Scientific and Technical Examination at the State Planning Committee (Gosplan) of the USSR played an important part in the planning of scientific-technological support to the war economy. It is noteworthy, that in 1945, 20 out of its 26 members were the representatives of the Academy of Sciences. Similar structures in the form of scientific-technical councils were established under the republican Gosplans and people's commissariats. A number of R&D and project-design organizations functioned at large aircraft, tank, ordnance, and other plants.

The development of defense production was characterized not only by quantitative indicators, but also by profound structural changes, connected with the development of new forms and types of armaments, enhancement of tactical and technical characteristics of weapons, improvement of technological processes in defense plants. In the three years from May 1942 to May 1945, labour productivity in the industry on the whole increased by 43%, and in defense branches – 2.2-fold [9, p. 39]. In many ways this was the result of the new technologies introduction and labour organization improvement. Growth in labour productivity ensured a reduction in the cost of living labour per unit of products (*tab. 2*).

Besides, the costs for the production of major weaponry were significantly reduced. In 1944, the cost price of all types of military products in comparison with 1940 decreased 2-fold in average (*tab. 3*). Ultimately, the cost of military products for 1941 – 1945 was reduced by 50.3 billion rubles that was equivalent to the war costs in the period of 150 days [9, p. 40].

During the war, Soviet industry constantly updated the samples of the arms produced and supplied to the troops. As a result of the efforts of designing and engineering personnel and ordnance and rifle industry, small arms were updated by 80% and the ordnance park – by 85% by the end of the war; the rest of the artillery systems were substantially upgraded. Armored industry produced more sophisticated tanks and self-propelled guns. In the course of the war, the serial production of 25 new models of aircraft (including modifications) and 23 types of aircraft engines was launched [2, p. 51 – 52].

In the years of the war, the factor of time was of crucial importance, the ability in the shortest time to develop new weapons and organize their serial production. For example, the new 152 mm howitzer D-1 was constructed in 18 days. And its mass production was launched in 6 weeks. Self-propelled guns were created on the basis of serial tanks and guns, for example SU-122 on the basis of T-34 tank and M-30 howitzer, ISU-152 on the basis of IS and a 152 mm howitzer gun.

On the whole, the USSR defense industry produced 19.75 million units of small arms, 490 thousand guns, 136 thousand aircraft, 102.5 thousand tanks and more than 8 million tons of ammunition [9, p. 39].

It should be noted that in the years of World War II, the USA significantly expanded the scope of R&D in the defense sphere as well. The Manhattan Project, the research and development programme for creating an atomic bomb became an important landmark in the

Table 2. The cost of labor at the enterprises of military industry (thousand man-hours per unit) [7, p. 114]

No.	Item	1941	1943
1.	Il-4 aircraft	20	12.5
2.	Il-2 aircraft	9.5	5.9
3.	Pe-2 aircraft	25.3	13.2
4.	KV tank	14.6	7.2
5.	T-34 tank	8	3.7
6.	152mm howitzer-gun	4.5	2.4
7.	76mm regimental gun	1.2	0.8
8.	76mm divisional gun	2.2	0.6
9.	Heavy machine gun	0.642	0.329
10.	7.62mm rifle	0.012	0.009
11.	Cartridges for TT pistols (1000 pcs.)	0.013	0.0108

Table 3. Cost of some types of weapons and military equipment (in thousand rubles per unit) [4, p. 40]

No.	Item	1941	1942	1943	1944
1.	Il-4 aircraft	800	468	380	380
2.	Li-2 aircraft	650	510	424	424
3.	Pe-2 aircraft	420	353	265	265
4.	KV tank	635	295	225	-
5.	T-34 tank	269.5	193	135	135
6.	122mm howitzer-gun M-40	94	39	35	35
7.	PPSh submachine gun	0.5	0.4	0.14	0.148
8.	7.62mm rifle	0.163	0.12	0.1	0.1

history of using science for military purposes. The programme pulled together the immense scientific, production, material and financial resources. The major works were performed in 1942 – 1945.

The creation of an atomic bomb revealed the tremendous potential of modern science and technology, demonstrated the ability of large teams of scientists and engineers, supplied with appropriate material and financial resources, to achieve crucial results in the short term.

The Second World War led to the profound revolutionary transformations in the world. First of all, the geopolitical standing of the Soviet Union strengthened considerably, its moral authority increased and its position in interstate relations improved. Another outcome of the war was the U.S. aspiration for becoming the world ruler. Only the USSR could challenge those ambitions. This meant the emergence of two superpowers on the international arena – the USA and the Soviet Union with fundamentally different interests and views on the world order, which created a firm basis for conflicts and direct confrontation.

The Cold War was also spurred by the revolution in defense and technology. It was marked by the emergence and rapid improvement of new arms, including missile and nuclear weapons, jet aircrafts, space-based assets, etc. That required radical transformations in the defense-economic sphere, creation of new military-industrial facilities, innovation R&D base, organizational and management systems complying with the new requirements.

In these conditions, the inequality in the development level of the anti-Hilter coalition leading member-states increased even greater. The economic power of the United States was supported by their monopoly on nuclear weapons, which made the overwhelming superiority of the USA over the USSR even more threatening, and in the case of direct military conflict between the superpowers, this might have disastrous consequences for the Soviet Union.

Taking into account the trends in the development of arms, only the possession of nuclear weapons and the means of their delivery would ensure the USSR – U.S. strategic parity to some extent. At the same time it was necessary to protect the main centres of the country from a possible nuclear attack. For these purposes, the Soviet government directed its special attention to the issues of nuclear energy, creation of an atomic bomb, development and production of missiles and the deployment of an air defense system capable of repelling a mass nuclear attack.

It is noteworthy that this task was unprecedented according to its scope and organizational complexity. First of all, the newly established production facilities required enormous resources. And there existed no other options, but their redistribution at the expense of other sectors, of the consumer sector, in particular. [1, p. 73].

Another innovation envisaged the boosting of the Soviet Union's own R&D. The nuclear power industry, rocket and missile production, radio-electronic industry are extremely science-intensive sectors. Therefore, their establishment and successful development depends on the regular input of basic research achievements.

However, the idea of relying on foreign R&D as the main source of innovations was obviously futile. Choosing the foreign scientific achievements caused the delay in their implementation. Besides, at any time, they could become inaccessible. Therefore, in the development of the new types of weapons, a decision was made to create the research-and-production complexes based on the country's own fundamental and applied R&D.

The research carried out in the pre-war years and the years of the Great Patriotic War influenced the solution of these problems greatly. It concerns, first of all, the progress in nuclear engineering and jet engine building.

These two spheres in many ways predetermined the evolution of not only the means, but also the forms and methods of military struggle. R&D achievements in the sphere of nuclear power enabled the test of the Soviet Union's first atomic bomb already in 1949, and in 1953 – the world's first thermonuclear device. Civil nuclear energy was also developing: the world's first nuclear power plant was launched in the city of Obninsk in 1954. The "Lenin", the world's first icebreaker with a nuclear power unit was built in 1957.

The development of jet engine building facilitated the emergence of jet aviation and, what is most important, the creation of ballistic missiles. All this led to the development of national missile-borne nuclear weapons (MBNW), that still remain the main deterrent to a possible aggression. The intensive development of MBNW, jet aviation, nuclear submarines, space-based systems and other types of WME influenced the related fields of science and technology, which, in general, promoted progressive scientific and technological advance of our industry and country on the whole.

It is necessary to mention the increased number of scientific and engineering establishments, engaged in R&D projects implementation. After the successful test of the first atomic bomb the Secretariat of the Special Committee prepared a paper, which listed the institutions and organizations, which dealt with the "problem number one". It contained 29 "main" institutes and design bureaus, where over 20 thousand people were engaged in "special research", including about 1.5 thousand scientific associates and over 5.5 thousand engineers and technical staff [1, p. 86].

In addition to the "main" establishments, about 50 other institutes and design bureaus of the Academy of Sciences of the USSR, Academy of Medical Sciences, various ministries and departments participated in the nuclear project.

They solved the single scientific and technical tasks, set by the "head" organizations. And with the creation of the first atomic bomb, the scale of attracting scientific resources to the work on the "problem number one" by no means decreased. On the contrary, it was significantly expanded. Nuclear capacity build-up rates set by the government, did not allow any other option. And now the emphasis was placed on implementing the national achievements. Copying American R&D became a thing of the past. In some cases the USSR even managed to surpass the former "teachers".

This was exactly what happened in the case of a hydrogen bomb. The USSR government adopted the decision on its creation in February 1951, a year later than the U.S. [14, p. 206]. The USSR – U.S. contest in the area of hydrogen weapons became a kind of "intellectual" arms race, the first one in the history of mankind. The creation of atomic weapons implied the necessity of dealing with engineering issues first of all, of organizing large-scale work in the mines and factories, as for the development of a hydrogen bomb, it led to the emergence of new directions in science – physics of high-temperature plasma, physics of ultra-high energy densities, physics of abnormal pressure.

It was the Soviet Union that won this "battle of brains". A hydrogen bomb was dropped from a Tu-16 aircraft on 6 November 1955. In the USA the release of a hydrogen bomb took place only on 21 May, 1956.

The rise of radioelectronic industry resulted in the serial production of state-of-the-art equipment for air defense systems of Moscow. In May 1953, the first stage of the missile firing tests with radio-controlled aircrafts as targets was successfully completed, and two years later the air defense system was put into operation [1, p. 96]. It was then upgraded many times thanks to its functional reserves; at that, the changes in the strike aircraft of the U.S. strategic aviation were taken into account. The life cycle of the system exceeded 30 years.

The obsession with the need to achieve military superiority over the Cold War rival manifested itself in huge government expenditures on the development and production of more sophisticated military equipment, in the creation of appropriate technologies, which, after some time, entered various segments of the civil sector (nuclear power engineering, communication technology, computer, satellite technologies, etc.). As a result, these “war” technologies introduced in the civil segments of the world market economy created a variety of multiplicative effects, which led, in particular, to the emergence of new “technological modes” [15, p. 54].

Thus, the transition from ultra-high frequency physics to quantum-electronic physics was marked by the creation of an essentially new class of devices. Masers, or variable-parametric amplifiers were developed for improving radar equipment as high-sensitivity receivers with a low level of self-noise for early strategic warning systems. Their creation was preceded by the development of lasers, widespread at present, the role of which is also significant in the plans of creating space-based military complexes within the “Star Wars” programmes. It is worth recalling that lasers and masers are the fruits of fundamental science, acknowledged in 1964, when the Nobel Prize was awarded to N.G. Basov, A.M. Prokhorov and C. Townes for the outstanding achievements in the field of quantum radiophysics.

Theoretical and technological results, obtained in the course of radar development, facilitated the establishment of radionavigation, radiospectroscopy, radiometeorology and many other scientific and applied fields, including radar astronomy. This most ancient natural science witnessed radical changes in its tool base that led to important discoveries, including quasars (1960), cosmic microwave background radiation (1965) and pulsars (1967) [10, p. 281].

It is the needs of the Cold War that brought to life new “technologies of creating new technologies”, which are sometimes called innovation-design technologies. In this period, the Manhattan Project technology type was used systematically for achieving, first of all, the military-strategic goals. A brightest and most well-known example is the U.S. programme Apollo dedicated to landing a man on the Moon, as well as Reagan’s Strategic Defense Initiative.

It should be emphasized that in the USSR the tasks of maintaining the military-technological parity with the USA and NATO were solved in similar ways. Our country possessed the corresponding programme and design technologies of innovations creation, large-scale technological breakthroughs were achieved.

Despite serious flaws in organization and management of the military economy at the top level (wrong strategy of military confrontation with the West adopted by the Soviet government, excessive secrecy, lack of mechanisms providing the spread of advanced technologies, created for military purposes, to the civilian sector, etc.), the Soviet Union, due to the efforts of scientists, engineers and defense industry manufacturers, launched the first satellite into space, opened the era of manned space exploration, established many world records in aviation and ensured other achievements, contributing to the glory of the Homeland.

At the peak of their development, the military industrial complex enterprises were the most advanced ones in the Soviet industry in terms of technologies and organization. They accumulated the most part of the country’s scientific and industrial potential. Due to the fact that, at present, defense-industrial complex remains the leading high-tech sector of Russian industry, it can still be the “engine” of Russia’s renewed economy in the 21st century.

Thus, the analysis of the defense industry development and modernization in the first half of the 20th century, allows a number of conclusions to be drawn.

Firstly, given the serious complications in the 1926 – 1927 foreign policy of the USSR, the economy industrialization was regarded as a national idea that would facilitate the country's uniting, its overcoming the backwardness in the military, cultural, governmental, industrial spheres, would set the general trend of further development, and strengthen the country's defense capability.

Secondly, a comprehensive approach to the formation of industrialization strategy in the conditions of centralized planning allowed the set tasks to be solved in the shortest possible period for the first time ever. At that time, the Soviet Union shifted from the "catching-up" to the "outrunning" type of development and joined the ranks of world leading countries.

Thirdly, the intensive development of armaments was to a great extent determined by the efficiency of ordering bodies, people's commissariats and chief directorates, design bureaus and serial production plants, the initiative and search for out-of-the-box solutions; furthermore, a new constellation of designers emerged, and modern weapons bear their names.

Fourthly, of crucial importance in the defense industry modernization, especially in the war period, was the viability of the state and military management system: the ability to manage and the governability of the organizational structures themselves in the most complicated state of affairs.

Fifthly, the defense industry reacted swiftly and flexibly to the demands of the army, to the defects revealed in operation, it allowed the basic types of armament to be promptly updated and adapted to the combat conditions.

Sixthly, the continuity of scientific research ensured a constant inflow of theoretical achievements to design bureaus and industrial enterprises. Science was to the fullest extent close to production, to practice, to the assessment and analysis of the experience of using weapons and military equipment on site.

Seventhly, the continuous increase of scientific-technological potential not only in the fields directly connected to WME creation, but also in the related ones, for example, in medicine, biology, quantum physics, helped to create a new structure of industrial sectors, including the branches of new "technological modes".

Taking into account the historical experience, it won't be an exaggeration to say that the present course toward the defense industry modernization is a tangible opportunity for Russia to handle the tasks of national importance: the enhancement of Russia's status as a world power, promotion of sustainable economic development, increase of its efficiency and competitiveness. In this regard, providing support to the defense-industrial complex for the perspective of gaining technological innovations is an important guarantee of Russia's national security. Moreover, it may be the emerging new technologies, on which Russia should pin its hopes for overcoming the crisis of the early 1990s, its hopes for establishing itself a full-fledged participant in the world economy.

We think that today the state of the economy and the expectations of Russian scientific community are quite favourable for further reforms on the defense industries modernization. The unprecedented scale of the State Armaments programme and DIC modernization programme confirms the seriousness of government's intentions. In turn, one should hope that the government has enough will and political tools for the comprehensive implementation of declared plans.

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# SOCIAL DEVELOPMENT

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## The role and place of the Public Chambers in the context of civil society and social capital concepts

*The article provides an overview of the conceptual foundations of civil society and social capital theories. It reflects the views of R. Putnam, one of the most reputable theorists of modern civil society. The hypothesis of a possible positive influence of the state over the development of civil society through special facilitative procedures is put forward in the article. The activity of the Public Chamber in the Vologda Oblast is considered as an example of establishing a special practice – cooperative confrontation that is used both for implementing the interests of developing civil society in coordination with the authorities and forming the constructive civic culture.*

*State, social capital, civil society, Public Chambers, cooperation between the government and non-governmental organizations.*



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The concepts of civil society and social capital hold the special positions in the efforts to describe and define informal and often intangible social structures and relationships that can help to consolidate democratic practice.

Despite the fact that the term “civil society” is full of different meanings, it has deep historical roots. Applied by Machiavelli during the Renaissance to denote the rights of a citizen, it acquired its more common modern meaning almost two centuries ago, when de Tocqueville noted the positive relationship between civic engagement and democracy.

While the civil society is a relatively well-developed concept, although allowing a wide range of interpretations, social capital is a more recent addition to sociological discourse that was initially developed, in particular, by the radical French theorist Pierre Bourdieu [1, 2] and the American sociologist James S. Coleman [3].

Social capital is a complex concept that covers several dimensions: sociological aspect (James S. Coleman), economic aspect (e.g., Francis Fukuyama [4]) and political aspect (e.g., R. Putnam [5]), as well as group, individual, micro- and macro- levels. We have been able to

show that this multifaceted concept is rooted in Marx's capital theory, E. Durkheim's theory of solidarity and, substantially, A. de Tocqueville's political theory of democracy [6].

In his 1835 masterpiece "Democracy in America" Alexis de Tocqueville studied the characteristic tendency of Americans to form associations in order to meet their common needs and interests. When he visited the United States, it was the Americans' constant "propensity for civic association" that most impressed him. "There are not only commercial and industrial associations in which all take part, but others of a thousand different types – religious, moral, serious, futile, very general and very limited, immensely large and very minute" [7]. The activity of these associations led more or less naturally to their participation in political life.

Today's use of the term "social capital" is mostly recognizable by its "Tocqueville's" inspiration. An American political scientist Robert Putnam is the most famous current follower of the French author and one of the most prominent contemporary theorists of civil society and its product – social capital. As well as A.de Tocqueville, Putnam (1993) explored the relationship between participation in associations and democracy. Putnam defines the civil society simply as a social space located between the individual and the state [8]. It includes in its most elementary sense the family, but spreads out into an almost infinite number of more or less well-organized associations. These associations are ranked from the extremely informal, such as bowling leagues, to long-standing and deeply institutionalized ones, such as churches and trade unions.

He asserts that such social associations and the level of civic engagement indicate the degree of social capital in the society. These associations and civic engagement develop and strengthen the collective norms and trust, which play a central role in creating and maintaining the mutual benefit and prosperity.

Putnam believes that the quality of public life and the performance of social institutions (and not only in America) are indeed powerfully influenced by the norms and networks of civic engagement. According to his empirical survey, Putnam comes to the conclusion that social trust, the norms of reciprocity and networks of civic engagement – all the sources that he calls "social capital" – are the key factors that can make democracy work and also stimulate economic prosperity. The communities that have the high levels of civic participation and, in particular, a dense network of the various ways of civic engagement, are more successful. They have better schools, faster economic development, lower crime, and more effective government. For Putnam, social capital is a critical element of any successful society.

It inheres both in individuals and communities, that is, it has both an individual and a collective face. It can be both a private and a public good, and it can be either specific or generalized. In other words, people may do things for others either because of a specific sense of obligation, or more generally because they feel a sense of kinship with a particular group in society that will benefit (or even with society as a whole).

Social capital consists of three constituent elements. They are social networks, moral norms and obligations, and social values. Social networks include informal and formal networks and associations, of which participatory voluntary associations are the most effective in creating "horizontal interaction and reciprocity" which are at the core of social capital [9].

A number of radical scholars have criticized the Putnam's interpretation of social capital as a departure from the classic Tocqueville's understanding of civil society's functions. Thus, F. Alford believes that, according to Tocqueville, there are three objectives of voluntary associations: 1) continual resistance to the state; 2) a "substitute" for

the government; 3) the release of private life. According to the first two objectives, associations are considered as an alternative centre of power, as a source of power that isn't formed and framed by public institutions and purposes. The first two meanings of associations are largely absent in Putnam's works. Only the third contribution of associations mentioned by Tocqueville takes a good deal of Putnam's analysis: civil society is an antidote to anomie, the disintegration of norms, which affects the modern society [10].

The criticism of Putnam is also built around the "depoliticization" of social capital, its exclusion from political life. Putnam's statement runs as follows, "Social capital ... is closely related to political participation in the conventional sense, but these terms are not synonymous. Political participation refers to our relations with political institutions. Social capital refers to our relations with one another" [11]. This reasoning doesn't offer logical objections, but social capital often serves empirically as an important political resource. Social capital as an investment in social relations with expected return on the "market" can be defined in general as resources embedded in a social structure which are accessed and/or mobilized in purposive actions, in particular, political. We emphasize that social capital is distributed unequally in society, and it is an important resource in the political struggle. It is rooted in the historical discourses and movements, and it can be recovered and converted into new social and political contexts.

The theory of social capital is considered often as a normative theory of democratic society. Social capital availability in it is interpreted only in the positive sense: it enriches informational flows between people, promotes the tolerant attitude towards people, as well as interpersonal and normative trust, without which there can be neither collective life, nor economic cooperation, nor viable democracy.

In his early works Putnam tended to share and even extend Coleman's tendency to consider social capital as simply a social good. However, after 2001 he emphasized that social capital could be used as a resource for various purposes – both for prosocial and antisocial. From this point of view, the great importance is given to the concept of different types of social capital developed by Putnam and amended later – "bonding" and "bridging", or, according to the interpretation of L. Polishchuk and R. Menyashev, closed and opened social capital [12].

"Closed" (bonding or "tying", "binding", "encircling", "conglutinating" – the translation has not been formed) social capital refers to the ties between "equal" members of the community who form closed groups and can pursue the objectives that are contrary to the public interest.

"Open" (bridging or "linking", "overcoming") social capital is the ties over social splits between the various groups, social networks that consist of heterogeneous groups. Open social capital serves as a kind of "bridge" between the people who belong to different groups. According to Putnam, participation in voluntary associations is the most effective way to make a bridging capital.

The societies founded upon the bridging, decentralized, horizontally structured endeavors of voluntary associations, which were studied by Putnam in northern Italy, have more social capital, and, thus, they are more successful than those based upon vertical, hierarchical structures that he found in southern Italy. This final hypothesis underlies the strategy that is aimed at strengthening civil society organizations and supplementing and replacing vertical social ties with horizontal ones.

His 1993 comment that "without norms of reciprocity and networks of civic engagement, the Hobbesian outcome – amoral familism, clientelism, lawlessness, ineffective government, and economic stagnation – seems likelier than

successful democratization and economic development. Palermo may represent the future of Moscow" is an allusion to the hierarchical nature of both southern Italian and post-Soviet societies. And he draws attention to the difficulties of building civic society where it doesn't already exist, "Local organizations implanted from the outside have a high failure rate. The most successful local organizations represent indigenous, participatory initiatives in relatively cohesive local communities" [13].

The distinction between the two types of capital and defining their impact on the prerequisites for regional economic growth were taken as the basis of the study "Social capital and the development of Russian cities" that was conducted under the guidance of L.I. Polishchuk by the Laboratory for Applied Analysis of Institutions and Social Capital of the National Research University "Higher School of Economics". The analysis performed by L.I. Polishchuk and R.I. Menyashev allowed us to distinguish two main factors that can be used to measure social capital. The first factor is associated with the characteristics of social solidarity, harmony, readiness to unite and the sense of responsibility for the situation in the city. Therefore, the first factor characterizes the ability to form broad social coalitions. Not only the quantity but also the quality of social capital is of fundamental importance: the prevailing tendency to form small groups in order to search for particular solutions damages development, while civic culture and readiness to form broad social coalitions have a positive impact on the state of the economy and social sphere. The significant positive relations between the efficiency of city administrations and the situation in the cities with open social capital and civic culture, as well as negative – in the cities with closed civic capital have been revealed. According to researchers, there are significant reserves of modern social capital in Russia, which are distributed unevenly among the cities and regions of the country.

According to the study, the city of Cherepovets has turned out a civilian "leader" – it has the highest level of open social capital, well-developed civil culture and feebly marked closed networks. The reserves of social capital are high in the North-West ports – Murmansk and Arkhangelsk; its level is rather high in Tomsk and other cities. Krasnodar, Saratov and Magnitogorsk are at the bottom of this ranking; Moscow takes the middle position. Researchers mention that their data require clarification and confirmation by other sources [14].

L.I. Polishchuk fixes the task arising from the high value of social capital for development in his clear conclusions: "Since the late 90's, when it turned out that social capital was an important developmental resource, governments around the world have been worrying about its state and dynamics. It is impossible to catalyze this process on the outside. Everything (or almost everything) in this world is imported or borrowed: new technologies, specialists, investment ... Social capital is solely a "local" product. It is only necessary to create favorable conditions to reproduce and accumulate it due to supporting an educational system (including governmental support), opening the opportunities for public initiatives, and self-organization in business and citizens' everyday life" [Ibid]. It remains only to raise a question: what methods and tools can be used to create conditions for the accumulation of social capital?

Developed civil networks and the level of regional social capital have become the subject of another major project in recent years. The materials for general conclusion were collected in 2007 during the unique mass survey according to the technology 'Georating' that was conducted by the Public Opinion Fund on the questionnaire developed by the National Research University "Higher School of Economics". The surveys covered the population aged 18 years and older in 68 regions of Russia.

The sample size amounted to 500 respondents in each region of the Russian Federation and 34 thousand respondents in Russia as a whole.

The researchers proceed from the fact that the development of civil society is uneven in Russia's regions. On the one hand, promoting the development of civil institutions is not one of the regional and municipal policy directions in all the regions. On the other hand, social and human capitals are heterogeneous per se; their development is influenced by a lot of prerequisites for the formation of civil society that lie in the sphere of the individual subject, as well as in social, political, economic and other aspects.

According to the concepts of civil society and social capital, the researchers proposed a system of indicators and developed a classification of Russia's regions in terms of favorable conditions for the development of civil society. All the regions were divided into 6 groups according to the development of prerequisites for civil society:

- 1) extremely unfavorable (there are three subjects of the Russian Federation in this group);
- 2) unfavorable (18 subjects of the Russian Federation);
- 3) more unfavorable than favorable (19 subjects of the Russian Federation);
- 4) more favorable than unfavorable (19 subjects of the Russian Federation);
- 5) favorable (6 subjects of the Russian Federation);
- 6) highly favorable (3 subjects of the Russian Federation).

According to the study, the sixth group, where the prerequisites for the development of civil society is defined as "very favorable", includes only three subjects of the Russian Federation: the Arkhangelsk, Vologda, Chelyabinsk oblasts. The high level of the Vologda Oblast's social capital confirms L.I. Polishchuk's conclusions mentioned above.

Summing up the results of the study on the regional characteristics of social capital, Irina Mersiyanova draws a general conclusion important for our topic: "It is clear that our country requires the special efforts to consolidate the social base of civil society, which is composed of the people involved in the social practices of civil society. It should be a conglomerate of stakeholders – non-government and non-profit organizations, mass media, universities, as well as all the level of authorities, which influence the arrangement of institutional conditions for the development of civil initiatives and citizens' self-realization in civic activity" [15]. Thus, the researcher also includes the authorities in a list of parties that are interested in the development of civil society.

Here, we have to go back to the critics of R. Putnam, who pointed out the fact that he had ignored the function of civil society revealed by Tocqueville – to be a form of resistance to the state, a method of self-organization against the state. Having no opportunities to present here a detailed analysis of this criticism, we have to stint ourselves of the following opinions: firstly, Tocqueville did not absolutize this function, but he fixed the empirical fact that the development of the political system in the USA took place in the climate of mass religious exaltation, wide-spread and institutionalized distrust in government and political power in general, which was resulted in the famous system of checks and balances – sharing of power, on the one hand, with a network of voluntary associations, on the other hand.

Secondly, Putnam focused on what he thought the most important – the decline of trust and civic spirit in the USA, decreasing active participation of Americans in voluntary associations that was considered by him as an extremely dangerous tendency because it threatened not only the pillar of society, but political system. Putnam's analysis

is characterized by undoubted country's specific that was reasonably pointed out by his numerous followers, who tried to apply his concept for the countries and political systems outside the United States and who found different tendencies in the development of social capital in their own countries as compared with the USA.

Thus, the discussion about the relationship between the civil society and the state with regard to Russia is expanded with a different focus and in other cultural and political context. That is illustrated, by the way, by the above researchers' quotations who couldn't be reproached for their loyalty and idealization of the current Russian state: it is impossible to develop the civil society in Russia through its head-on confrontational opposition to the state and against the state. Thereupon, we should consider the assumption that functioning of political institutions can have facilitative influence on the development of collective social capital and social cohesion indicators.

Certainly, we will have to answer the question on the base of inter-regional and cross-national comparative researches: whether the state and political institutions are able to make a positive contribution to the development of social capital and civil society, and, in case of positive answer, to what extent they are able to do this. But a preliminary hypothesis can be defined among many possible ones for this study: systematic public involvement into solving important political and other problems; the policy of the "involvement" of social groups and voluntary organizations into the actual process of political decision-making at the various levels of governance rather than ejection policy contributes to forming trust culture, a lack of which is always confirmed by sociological studies. Let us suggest cautiously that a tool of public "involvement" into the discussion of political issues is Public Chambers – both nationwide and regional ones.

The establishment and activities of federal (since 2005) and regional Public Chambers haven't become the subject of systematic research yet, although interesting materials are collected and summarized in a range of publications and theses.

There is no consensus in the academic and expert community about the place and influence of this institution in the political and public spheres. The assessment of the role of regional Public Chambers in the system of political governance and the development of regional civil society are divergent, if not to say they are polar. The problems, failures and shortcomings in their work are widely discussed.

Generalized negative evaluations of the Public Chambers given by the critics can be summarized as follows. This is "the House of Lords" of which two thirds are appointed by the government, and the rest part consists of the politically loyal representatives of public organizations or media stars who are devoid of ability to do laborious team tasks for the benefit of society. This is a surrogate representation under the rather abstract credentials, an imitation, and a showcase of authoritarianism that is not worth any public attention or resources expended.

This is a vision that can be easily found in online discussions, but it is both dreary and false according to its preconditions and the opinions that are included in it.

Surely, the Public Chamber is a deliberative body; it is neither legislative nor executive body. Indeed, the duplication of the Parliament (in addition to the inefficient Parliament) would be a waste of resources. Thus, the Chamber is not a political organization according to both its formal status and the essence of activity. In terms of initial attitudes towards the authority, the Chamber is a systemic opposition, but at the same time, it is a non-political tool; it does not form the power, it does not the power, but it tries to influence the power. It is a non-political opposition because, according to

Tocqueville's concept, it cannot but criticize the government and the state; it cannot but put tough questions and bring forth acute problems to the authorities.

But the Public Chamber cannot be an irresponsible and unconstructive opposition due to the links through its members with the concrete public interests and thousands of participants of different associations. After all, only due to its separation from the authorities and simultaneous addressing to it, the Public Chamber can become an instance that will be able to set the various branches of government listening to itself, aggregating the interests and views of civil society and achieving the satisfaction of its interests. This ambiguous status – “cooperative opposition” – often makes its assessment problematic.

Let's consider this duality of Chamber's functioning in terms of two recent cases of non-confrontational opposition between the Public Chamber of the Vologda Oblast and the Government of the Oblast.

**Case one.** Having been a donor for the federal budget and a region with surplus budget for many years before the crisis, the Vologda Oblast has become a debtor with the rapidly growing public debt after the crisis (*table*). There was a budget deficit in 58 subjects of the Russian Federation at the end of 2009, and it accounted for more than 10% of budget expenditures in 12 regions (exclusive of subventions). There was the maximum percentage of the consolidated budget deficit in the Vologda Oblast. The situation was worsening in 2010 – 2012.

Having ranked 6th according to the public debt in 2012, the Vologda Oblast has come on the brink of default and introducing external financial management by the federal government. The Governor and the Government of the Vologda Oblast have developed the measures to optimize the budget and create the programme to overcome the budget crisis in the Vologda Oblast. This painful, tough plan that proposed cost cutting in all the spheres also involved the termination of a number of capital investment projects, revision of the oblast's special purpose programmes, large-scale reduction of the state apparatus, reduction of social benefits, etc. After a wide public discussion of the proposed reductions of social payments, and after the consultations with the Public Chamber of the Vologda Oblast, the programme was adjusted toward the improvement of social benefits. At the same time, the Public Chamber generally supported the programme and its measures as a necessary way to recover the region's economy.

Acting as a qualified intermediary between civil society and the government, along with other institutions, the Public Chamber hasn't allowed an unconstructive politicization of an acute and urgent issue, but it also hasn't allowed solving the problems of state finance, completely passing them on to the population, especially its low-income and disadvantaged social groups.

**Case two.** According to its mandate, the Public Chamber of the Vologda Oblast prepared the analysis of the oblast's draft law “On the regional budget for 2013 and the planning period of 2014 and 2015”.

The dynamics of the Vologda Oblast's public debt in 2008 – 2012.

RF subject	01.01.2009		01.01.2010		01.01.2011		01.01.2012		01.09.2012		
	Bln. rub.	%*	In % to 01.01.12.								
Vologda Oblast	1.8	3.8	11.0	39.4	19.0	52.8	26.9	67.0	27.3	98.2	101.3
For reference: Russian Federation	599.6	12.2	1024.5	24.1	1265.8	25.4	1387.3	23.8	1332.8	31.8	96.1

\* The percentage of public debt in the volume of tax and non-tax revenues of the consolidated budget.

Sources: the data of the Ministry of Finance of RF, the Treasury of Russia; ISEDT RAS.

The session of the Public Chamber on the issue of the Vologda Oblast's socio-economic development and the oblast's draft law "On the regional budget for 2013 and the planning period of 2014 and 2015" was held on 16 November 2012. The chamber adopted the Resolution on the draft budget law, which states that "the Public Chamber of the Vologda Oblast considers it impossible to support the oblast's draft law "On the regional budget for 2013 and the planning period of 2014 and 2015", because it does not correspond to the goals of socio-economic development of the country and its regions, stated in President V.V. Putin's pre-election programme articles and his decrees dated 7 May, 2012 aimed at improving the living standards of the regions' population through the development of economy, enhancement of government performance, reduction of extreme social inequality and provision of social justice" [16]. Among other things it was noted that the draft oblast's budget doesn't take into account the available reserves of revenues increase. The critical viewpoint of the chamber was brought to the oblast's Government and the Legislative Assembly, it was highlighted in the press and became known to the public.

At the end of November, the deputies of the Legislative Assembly and the Oblast Government decided to revise the draft budget in order to increase the salaries of school and kindergarten teachers, and also to clarify the revenues of the Oblast budget. Finally, on 12 December 2012, the Oblast Legislative Assembly promptly adopted the oblast's budget for 2013. It was agreed that additional revenues to the oblast's budget would be allocated for a gradual increase of cultural workers' salaries, social welfare, education and medicine. Obviously, the voice of the Public Chamber was quite weighty and authoritative among the critics of the draft budget.

How representative are these cases?

Of course, one or two cases are not enough for making large-scale general conclusions. A

comprehensive survey of the actual role of regional Public Chambers is required, so that it could be possible to make a conclusion concerning their significance for the political process and for increasing the influence and competence of civil society. But this is exactly the case when, like in a good photo, the characteristic features of the object are reflected.

The solution of the problems by means of politics is always preceded by a very important period when a significant issue of public life, a social problem, which has already taken shape, but still hasn't caught public attention, must seize people's consciousness and form public opinion. In fact, the mechanism that implements this process is the very network of civil society, and the Public Chambers are one of its elements. They are quite capable of acting as early warning systems revealing acute problems in the spheres of economy, ecology, human rights, etc., they attract the attention of politicians, officials, journalists, they make these issues the subject of public discussion. Politics is formed on this very basis, in this very context. And these are the two sides of the same coin – with power and political life on the one side, and structures and networks of civil society, in particular, the Public Chamber – on the other side. And as politics can't exist without civil structures that highlight relevant issues, so the structures of civil society can't exist without politics that resolves these issues.

Under painful reforms, when, acting for the "patient's" own good, authorities don't pay attention to what the patient himself tries to say, the most obvious consequence of such a manipulation will be the alienation of people from power. The Public Chamber should carry out its activities to ensure that people's opinion is taken into account in the reforms.

Can any single institution, such as the Public Chamber, adequately and fully represent the interests of civil society? Obviously, it can't. Civil society is multisided, versatile and

chaotic by its nature. That's why its interests are necessarily expressed through a variety of institutions. But being a very important link in a network of civil society, raising urgent issues on its behalf and seeking their solutions by government, the Chamber will, no doubt, revive the citizens' faith in the ability to be heard. And it is the very trust, which, according to modern concepts, is the "currency" on the market of social capital.

The democratization process in Russia is going on with considerable difficulties and

much slower than many analysts predicted. Theorists of civil society and social capital suggest a plausible explanation in this connection. But this process is, undoubtedly, moving on, and our two examples, appear to confirm this viewpoint. Democracy is based on the free expression of different opinions and interests, and the North of Russia, the Vologda Oblast, is gradually establishing the structure of independent both horizontal and vertically integrated organizations, which contribute to this free expression.

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## Monitoring of economic and social processes (the case of inter-ethnic relations)\*

*The article highlights the importance of inter-ethnic relations monitoring in connection with the changes in the ethnic composition of population, caused by labour migration. It also points out that the study and adoption of competent managerial decisions in the sphere of inter-ethnic relations will promote peace among different nationalities living on the same territory, since ethnic conflicts pose a serious threat to the integrity of the state. The article analyzes the results of three monitorings carried out in the Komi Republic in 2008 – 2010, and it defines several topical blocks: the assessment of the residence of different ethnic groups on the same territory, the likelihood of ethnic conflicts occurrence, their causes, the attitude of the local population towards migrants (migrant workers).*

*Problems of inter-ethnic relations, ethnic conflicts, nationality, mixed marriages, labour migrants.*



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*Defining the problem.* The importance of taking managerial decisions in the sphere of inter-ethnic relations only after their thorough consideration was highlighted in Russian President V. Putin's pre-election articles, "The issue of inter-ethnic relations is, indeed, of fundamental importance for Russia with its great variety of languages, traditions, ethnic groups and cultures. Any responsible politician and public figure should be aware of the fact that one of the main conditions of the very existence of our country is the civil and inter-ethnic concord" [4].

In Russia the representatives of different ethnic groups coexisted peacefully under the single state until the 1990s. At present, the situation has changed: the subject of inter-ethnic relations is becoming a most important one and it is acquiring an explosive character. There exist three acute problems connected with inter-ethnic relations. The first one is uncontrolled migration, in which the unscrupulous employers take special interest. The second one lies in the fact that it is the natives of the regions where corruption flourished even in the Soviet period that were

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able to adapt best of all in the conditions of lawlessness and uncontrolled crime. The third problem, according to some rumors, consists in the fact that young people from the Southern regions arrive in big cities in order to beat Russians because they consider it something of a maturity test [6, p. 7].

Each country has its own way in the resolution of ethnic conflicts. But there is a common rule: "besides laws there ought to be the rules of coexistence in the civil society - the distinction between the public and private spheres. And the norms of behavior in the public sphere should be uniform for all, regardless of their cultural and religious background". The question is how to make the "co-habitants" follow the rules?

In general, one can say that we will have to deal more and more with the representatives of other ethnic groups and cultures in our daily routine. And we will have to accept it and adapt to it.

Taking into account the circumstances stated above, the Ministry of National Policies of the Komi Republic initiated the annual monitoring of ethnic tension in the region. It was carried out for the first time in 2008 and was continued in 2009 – 2010.

The monitoring is aimed at measuring the level of inter-ethnic tensions (inter-ethnic relations) and its influence on the region's socio-economic development. In this respect, the following tasks were to be solved: 1) people's attitude to the environment of joint residence and to inter-ethnic marriages was revealed; 2) the relationship between different nationalities and the attitude of local population towards migrants (migrant workers) were assessed; 3) the possibility of ethnic conflicts and their nature were estimated.

*Description of the sample.* In 2008 – 2010, the survey was conducted in three cities and towns: Syktyvkar, Ukhta and Usinsk; in three rural districts: Izhemsky, Ust-Kulomsky and Knyazhpogostsky. At the beginning of 2011,

489,237 people lived in these cities, towns and districts, which comprised 54.4% of the total population of the republic (899,215 people): in Syktyvkar – 251,599; in Ukhta – 121,995; in Usinsk – 47,074; in Ust-Kulomsky District – 26,690; in Knyazhpogostsky District – 23,243; in Izhemsky District – 18,636 people [3, p. 5]. The sample size was more than 1% of the general population and it conformed to its basic parameters.

In 2010, 591 people took part in the survey, among which 46.8% - men and 53.2% - women. People aged up to 29 accounted for 29.1%, aged from 30 to 39 – 22.7% and older than 40 – 48.2%. More than half of the respondents were married – 53.7%, 22.1% never married, 9.2% were cohabiting. The sample includes all social groups of the society: managers – 8.7%, specialists – 23.1%, employees – 16.7%, workers – 26.4%, non-working pensioners – 8.8%, students – 8.7%, unemployed – 3.7% and housewives – 2.7%. The respondents have a high educational level: with higher or incomplete higher, including post-graduate, education – 38.9%; with secondary vocational education – 24.3%; with initial vocational education – 13.6%; with complete secondary education – 14.2; with general basic and primary education – 9.0%.

Of a special interest are the figures representing the share of various nationalities in the sample. The respondents include the Komi – 35.3%, the Russians – 47.1%, the Ukrainians – 6.9%, the Tatars – 3.7%, the Chuvashes – 1.2%, the Belarusians – 1%, the Germans – 0.8%, the Moldovans – 0.8%, other nationalities – 3%.

The respondents were also asked about the nationality of their spouse. The answers showed quite a diversity of nationalities: the Russians – 48.1%, the Komi – 36.9%, the Ukrainians – 7.6%, the Tatars – 2.3%, the Belarusians – 1.3%, the Chuvashes – 1.3%, the Germans – 0.5%, the Moldovans – 0.2%, other nationalities – 1.8%. The greatest share of

monoethnic marriages is found among the Russians – 70% the Komi account for 68.7%, the Tatars – 28.6%, the Ukrainians – 26.7%. The data on the distribution of inter-ethnic marriages are presented in *table 1*.

According to their native place of birth, 45.8% of respondents are natives of the area where the survey was conducted, and 54.2% are natives of other territories. The respondents, who were non-natives of their residence area, answered to the question “How long have you been living in this settlement?” as follows: less than 2 years – 8.3%, from 3 to 5 years – 9.9%, from 6 to 9 years – 8.1%, from 10 to 19 years – 19.5%, more than 20 years – 54.2%. The former places of residence of the respondents were: the cities, towns and urban-type settlements of the Komi Republic – for 16.3% of respondents, the rural areas of the republic – for 27.9%, 29.8%

came from urban areas and 11% – from the villages of Russia, 14.7% – from CIS countries, 0.3% – from the far abroad countries. The important characteristics of the sample also include the reasons for the respondents’ arrival in the place of their present residence (*tab. 2*).

While speaking about the migration characteristics of the population, one should dwell on such reasons for leaving as “the comfort and security of living in the region”, since they determine the migration attitudes of the population. At the time of the survey 37% of respondents were not going to leave the Republic of Komi, 42.3% were going to leave, and 20.7% hadn’t decided yet for the next few years. Everything will depend on the state of the external and internal social environment in the republic. This is what forces people to think about leaving or, on the contrary, to continue to

Table 1. Distribution of respondents by the nationality of the spouse, %

Nationality of respondents	Nationality of the respondent's spouse					
	Komi	Russian	Ukrainian	Tatar	Belarusian	Other
Komi	<b>68.7</b>	19.1	5.3	1.5	2.3	3.1
Russian	19.0	<b>70.0</b>	6.8	1.6	0.5	2.1
Ukrainian	26.7	43.3	<b>26.7</b>	0.0	0.0	3.3
Tatar	28.6	35.7	0.0	<b>28.6</b>	0.0	7.1
Belarusian	0.0	50.0	25.0	0.0	<b>25.0</b>	0.0
Other	32.0	48.0	0.0	0.0	0.0	<b>20.0</b>

Table 2. Distribution of answers to the question: “Why have you chosen this settlement as the place of residence?”, %

Answer option	2008			2009			2010		
	Total	City/town	Village	Total	City/town	Village	Total	City/town	Village
Wanted to get higher wages	9.6	15.2	3.8	14.9	20.2	7.8	11.8	16.4	6.8
Hoped to find a job for myself or my family members	6.6	7.6	5.6	11.8	12.3	11.1	10.5	14.4	6.2
Wanted to improve housing conditions	5.2	5.8	4.7	4.5	5.4	3.3	4.8	4.6	5.1
Arrived here in order to study, to provide the children with education	12.4	22.8	1.4	7.9	13.3	0.6	5.9	10.2	1.1
Was placed here on a job	13.7	8.9	18.8	8.7	5.4	13.1	12.3	7.7	17.4
Moved here with my parents	14.7	18.7	10.3	19.4	25.6	11.1	25.5	30.3	20.2
Returned to my parents or other relatives	17.4	5.4	30.0	9.8	1.0	21.6	10.5	4.1	17.4
Got married or divorced	12.4	8.0	16.9	19.4	12.3	28.8	13.1	7.7	19.1
Other reasons for settling here	8.0	7.6	8.5	3.6	4.5	2.6	5.6	4.6	6.7

live here. As the survey shows, the main reasons for leaving are: for 29.3% – “the desire to change their place of residence, from the North to the South or the Central Russia”, 25.0% of respondents think that “the settlement, where I live, is unpromising, because production is not developing there”, 14.9% would like to leave because “there are no opportunities to provide for the family, etc. (tab. 3).

*Results of the monitoring.* The analysis of the information from the mass media, the speeches of the region's leaders and the reviews of external experts shows that over a long period of time the Republic of Komi has been a region, where the representatives of virtually all the nationalities of Russia and the countries of near and far abroad live peacefully together. The presence of different peoples with different cultures can lead to different behavioral strategies. One can have a positive or negative attitude to the representatives of other ethnic groups. The monitoring revealed that for the majority of citizens in the republic

the neighborhood of people of a different nationality doesn't bother them. From 2008 to 2009 the share of respondents for whom “the national composition of the inhabitants does not matter” increased from 47.1% to 49.6%. It decreased by 0.8% in 2010 as compared with 2009 and amounted to 48.8%. In 2010 the share of respondents, for whom the monoethnic composition of the population in the place of their residence is desirable, was 29.5%, which is 2% more than in 2008 and 3.8% more than in 2009. (tab. 4).

The survey was also aimed at revealing what is the main factor that brings people of different nationalities together. The answers show that it is their “common language” (in 2008 – for 59.9% of respondents, in 2009 – for 65.7%, in 2010 – for 58.7%), “national customs and traditions” (in 2008 – for 50.6%, in 2009 – for 46.6%, in 2010 – for 49.2%). For the village dwellers “living together in one place” is also important (in 2008 – for 50.7%, in 2009 – for 55.4%, in 2010 – for 50.2%) (tab. 5).

Table 3. Distribution of answers to the question: “If you decide to leave, then what are the reasons that make you think about leaving?”, %

Answer option	2008			2009			2010		
	Total	City/town	Village	Total	City/town	Village	Total	City/town	Village
I have no opportunity to provide for the family	13.5	10.2	17.3	18.2	8.5	28.1	14.9	9.2	20.1
There exists a chance of losing the job and there are no opportunities for finding another one	11.7	10.2	13.6	15.8	8.2	23.4	11.7	8.8	14.2
The children lack the opportunity to receive education and afterward find a job in the place of their residence	14.9	9.4	21.2	14.4	8.5	20.5	11.3	4.4	17.8
The settlement, where I live, is unpromising, because production is not developing there	18.6	13.7	24.2	19.0	10.1	28.1	25.0	11.9	37.3
The desire to return to my native region, to my parents, relatives	8.2	11.3	5.3	12.3	19.0	5.6	10.0	13.2	6.6
Because of my health condition	4.2	5.6	2.8	6.4	6.5	6.3	2.5	2.0	3.0
For family reasons (divorce, marriage, absence of the opportunity to create a family, etc.)	3.2	4.0	2.5	4.9	4.2	5.6	4.6	5.1	4.0
The desire to change the place of residence, from the North to the South or the Central Russia	27.1	43.0	11.4	30.0	49.3	10.6	29.3	42.4	15.8
Other reasons	2.3	3.0	1.7	1.0	1.6	0.3	2.7	3.0	2.3

The majority of the inhabitants in the republic (54.6%, in 2008 – 50.4%, in 2009 – 52.5%) don't care about the ethnic composition of their children's classmates. Only 21.2% of the respondents (in 2008 – 22.2%, in 2009 – 21.0%) would like all their children's classmates or their majority to belong to the same nationality (*tab. 6*).

Continuous living in a multi-ethnic environment formed the positive attitude of the population toward inter-ethnic marriages. When choosing a spouse, the people are

guided by a simple principle: "It is the heart that matters". Only 3.6% of the respondents in 2009 considered the inter-ethnic marriage undesirable (*tab. 7*). However, the events of the last years (much publicized divorce cases involving the issues of granting custody of the children to the mother and father of different nationalities) can change the attitude to contracting such marriages. The 2010 survey showed the increase in the share of the respondents, who consider an inter-ethnic marriage undesirable, up to 8.0%.

Table 4. Distribution of answers to the question: "In your opinion, what kind of settlement is the best to live in?", %

Answer option	2008			2009			2010		
	Total	City/town	Village	Total	City/town	Village	Total	City/town	Village
Where everyone or the majority of the residents belong to the same nationality as myself	27.5	28.0	27.0	25.7	21.4	30.1	29.5	28.1	30.8
Where the population is multi-ethnic and there are people of the same nationality as myself	15.5	16.4	14.5	16.4	18.1	14.7	13.4	9.3	17.4
The national composition of the inhabitants does not matter	47.1	42.9	51.4	49.6	50.6	48.5	48.8	53.7	44.1
It is difficult to answer	9.9	12.7	7.1	8.3	9.9	6.7	8.3	8.9	7.7

Table 5. Distribution of answers to the question: 'What, in your opinion, is the main factor that brings people of one nationality together?' %\*

Answer option	2008			2009			2010		
	Total	City/town	Village	Total	City/town	Village	Total	City/town	Village
Living on the same territory	44.1	37.6	50.7	48.9	42.5	55.4	44.7	38.0	50.2
Common language	59.9	56.5	63.3	65.7	59.5	71.9	58.7	53.6	62.4
National customs and traditions	50.6	54.0	47.2	46.6	48.4	44.9	49.2	49.5	47.9
National literature, art	16.0	16.9	15.1	16.9	16.0	17.8	11.8	10.2	13.2
Likeness of appearance, character, behaviour	17.2	21.8	12.7	20.2	21.9	18.5	16.8	18.0	15.2
Religious denomination	-	-	-	-	-	-	11.3	16.9	5.6
Other	-	-	-	-	-	-	1.2	1.4	1.0

\*Respondents could pick several answer options.

Table 6. Distribution of answers to the question:  
"It would be preferable for you if your children studied..?", %

Answer option	2008			2009			2010		
	Total	City/town	Village	Total	City/town	Village	Total	City/town	Village
In a class where all the children or the majority belong to one nationality	22.2	22.7	21.8	21.0	20.2	21.7	21.2	18.9	23.5
In a multi-national class	21.0	19.4	22.6	17.3	14.4	20.3	18.0	18.9	17.1
It doesn't matter to me	50.4	49.4	51.2	52.5	54.6	50.3	54.6	56.6	52.7
It is difficult to answer	6.4	8.5	4.4	9.2	10.8	7.7	6.2	5.6	6.7

Table 7. Distribution of answers to the question: "What is your attitude toward inter-ethnic marriages?", %

Answer option	2008			2009			2010		
	Total	City/town	Village	Total	City/town	Village	Total	City/town	Village
Such marriage is desirable	10.7	8.6	12.8	15.2	6.6	23.9	10.5	6.6	14.2
It would be better if my son/daughter chose a partner of our nationality, but I have nothing against the inter-ethnic marriage	19.0	24.2	13.8	18.0	22.6	13.3	18.5	13.2	23.5
The nationality doesn't matter, it is the personality that does	59.0	51.9	66.1	54.6	57.7	51.5	54.4	59.4	49.7
Such marriage is undesirable	6.3	9.1	3.5	3.6	4.3	3.0	8.0	8.0	8.0
It is difficult to answer	5.0	6.2	3.8	8.6	8.8	8.3	8.6	12.8	4.6

Table 8. Distribution of answers to the question: "What is your attitude toward inter-ethnic marriages?" – according to the nationality of respondents, %

Nationality	Such marriage is desirable	It would be better if my son/daughter chose a partner of our nationality, but I have nothing against the inter-ethnic marriage	The nationality doesn't matter, it is the personality that does	Such marriage is undesirable	It is difficult to answer
2008					
Komi	11.6	15.8	66.9	3.4	2.3
Russians	10.5	19.4	55.6	7.7	6.8
Ukrainians	5.3	21.0	55.3	13.1	5.3
Tatars	12.0	24.0	40.0	12.0	12.0
2009					
Komi	18.9	20.6	50.0	2.1	8.4
Russians	13.0	15.2	58.7	3.4	9.7
Ukrainians	13.3	16.7	60.0	3.3	6.7
Tatars	8.7	30.4	43.5	4.4	13.0
2010					
Komi	12.0	21.6	55.8	5.3	5.3
Russians	8.3	16.2	53.1	9.8	12.6
Ukrainians	9.8	17.1	65.8	4.9	2.4
Tatars	13.6	18.2	50.0	9.1	9.1

The respondents of different nationalities were also asked a question concerning their attitude toward inter-ethnic marriages. In this regard we can point out the following. The year 2010 faced the decrease in the share of the Komi and the Russians, who consider that "the nationality doesn't matter, it is the personality that does", the figures were 55.8% against 66.9% in 2008 and 53.1% against 55.6%, respectively; other nationalities show a positive dynamics in this respect. The negative aspects identified in 2010 include the increase among the representatives of all nationalities of the share of those who "consider inter-ethnic marriages undesirable", and the decrease in the

share of "those who consider such marriages desirable" (exception – the Tatars, among which this share has increased from 8.7% to 13.6%), while in 2009 the situation was reverse as compared with 2008 (*tab. 8*).

Similar answers were received to the question about the ideal marriage partner's nationality. For the majority of respondents (60.3%) the nationality of the spouse doesn't matter (*tab. 9*).

The answers to the question: "Do you sometimes feel or don't feel anger or hostility toward the people of one or another nationality?" require careful assessment. The monitoring shows that the majority of the

Table 9. Distribution of answers to the question: “Of what nationality should your ideal spouse be and what would you advise your children in this respect?”, %

Answer option	2008			2009			2010		
	Total	City/town	Village	Total	City/town	Village	Total	City/town	Village
Definitely of the same nationality as myself	14.6	17.1	12.1	9.8	11.5	8.0	13.4	13.8	13.0
The same nationality as myself is preferable but not obligatory	28.3	29.8	26.7	29.8	32.2	27.4	26.3	21.2	31.1
The nationality of my spouse doesn't matter to me	55.7	51.5	60.1	60.4	56.3	64.6	60.3	65.0	55.9

Table 10. Distribution of answers to the question: “Do you sometimes feel or don't feel anger or hostility towards the representatives of one or another nationality?” %

	Answer option		
	Feel anger or hostility	Don't feel anger or hostility	It is difficult to answer
2008			
All residents	26.9	57.2	15.9
Urban residents	33.3	50.6	16.1
Village residents	20.4	63.8	15.8
2009			
All residents	27.8	55.6	16.6
Urban residents	37.3	48.2	14.5
Village residents	18.3	63.1	18.6
2010			
All residents	32.7	51.5	15.8
Urban residents	34.3	47.5	18.2
Village residents	31.2	55.2	13.6
For reference: data of the Public Opinion Foundation			
April 2002	32.0	65.0	3.0
September 2006	28.0	66.0	6.0
June – July 2007	25.0	69.0	6.0
December 2010	24.0	69.0	7.0
February 2011	19.0	76.0	5.0

inhabitants in the republic (51.5%, in 2008 – 57.2%, in 2009 – 55.6%) don't feel irritation or resentment toward the representatives of other nationalities, but from year to year their share is decreasing; rural dwellers are more tolerant of the persons of other nationalities – 55.2% (in 2008 – 63.8%, in 2009 – 63.1%). However, it should be pointed out, that about one-third of the respondents feel hostility towards the representatives of other nationalities, and their share has increased considerably – from 26.9% in 2008 to 32.7% in 2010; urban dwellers show a more “aggressive” attitude (34.3%).

At the same time, the share of those who find it difficult to answer remains practically unchanged: 15.9% in 2008, 15.8% in 2010. Consequently, the share of people faced with inter-ethnic problems has increased over the past three years (*tab. 10*).

When comparing these figures with the data of the Public Opinion Foundation polls conducted in 2002 – 2011, we can note two points [1]. In general, the answers given by the residents of the republic and those of all the country are similar: the majority of them don't feel irritation or resentment toward the representatives of other nationalities.

The difference in the answers lies in the fact that from year to year in Russia in general the dynamics of this indicator is positive (the increase from 65% in 2002 to 76% in 2011); in the Republic of Komi this dynamics is negative. The share of the respondents feeling hostility toward the representatives of other nationalities in the Republic of Komi is increasing. In Russia, on the contrary, it is gradually decreasing. So, if 32% of the respondents admitted their dislike of the representatives of other nationalities in 2002, then in 2007 this figure was 25% and in 2011 – 19%.

Our study can be complemented by the data of the Russian Public Opinion Research Center survey “Ethnic sympathies and dislikes of the Russians”. The initiative all-Russian poll was conducted on 1 – 2 May 2010. 1600 people in 140 settlements in 42 oblasts, krais and republics of Russia were interviewed. The survey showed that 56% of the respondents treat the representatives of all ethnic groups equally. But 35% have negative attitudes toward the representatives of certain nationalities.

Our fellow citizens have the greatest sympathy toward the Russians (36%). And for the previous year the respondents stated it more often (from 29 to 36%). The Belarusians rank second (10%) and the Ukrainians – third (9%) in the list. The Russians also have good feelings toward the Europeans and the representatives of all the Slavic peoples (8%). The latter started to arouse positive emotions among the respondents more often (from 3 to 8%). The representatives of other peoples in the rating of sympathies are much more rare and they took up no more than 1 – 2%. 8% of the Russians don't have national preferences (a year ago – 20%).

Most often, it is still the peoples of the Caucasus that arouse negative emotions among the fellow citizens (29%). The dislike of immigrants from Central Asia is expressed more rarely (6%). 3% of the respondents dislike the Chinese and the Jews.

However, the majority of the respondents express positive attitude toward all peoples and nationalities (56%).

Every second respondent can't give specific reasons for the rejection of the representatives of other peoples and nations. The rest usually talk about their anxiety over the threat of terrorist attacks (13%) and over the unwillingness of newcomers to comply with the norms and customs, accepted in Russia (11% and 9% in 2004). Each of the following factors: appearance, behavior of migrants, the low cultural level and control in certain areas of business irritates 6% of the respondents. The negative attitude is least of all caused by the belief that immigrants take away jobs from local population (4%) [8].

In the course of the survey the respondents were asked the question: “Is it possible, in your opinion, that ethnic conflicts will take place in your settlement?” The answers were as follows: 45.0% (in 2008 – 40.9%, in 2009 – 46.4%) believe that it is unlikely, 37.9% (in 2008 – 39.6%, in 2009 – 30.1%) of the respondents believe that it is possible, for 17.1% it was difficult to say. A clearly positive dynamics observed in 2009 deteriorated in 2010. It should be noted that 55.1% of the urban residents think that the cases of ethnic conflicts in the place of their residence are possible; in the rural areas this share is 21.4%, which is 2.6 times lower (*tab. 11*).

In this respect, it is necessary to make the following note. The poll conducted by Yu.P. Shabayev in 1996 showed that only 15.9% of the respondents believe in the likelihood of inter-ethnic conflicts in the Komi Republic; 65% consider them unlikely and 18.3% exclude such a possibility at all. Among the Komi the share of people who consider ethnic conflicts possible was slightly higher than among other ethnic groups of the population [7]. In 2010 the share of people who consider ethnic conflicts possible, was the greatest among the Tatars (50%; *tab. 12*).

Table 11. Distribution of answers to the question “Is it possible, in your opinion, that ethnic conflicts will take place in your settlement?”, %

Answer option	2008			2009			2010		
	Total	City/town	Village	Total	City/town	Village	Total	City/town	Village
I believe it is unlikely	40.9	29.6	52.4	46.4	37.5	55.5	45.0	28.9	60.5
It is possible	39.6	50.8	28.3	30.1	39.8	20.3	37.9	55.1	21.4
It is difficult to answer	19.5	19.6	19.3	23.5	22.7	24.2	17.1	16.0	18.1

Table 12. Distribution of answers to the question: “Is it possible, in your opinion, that ethnic conflicts will take place in your settlement?” – according to the nationality of respondents, %

Nationality	I believe it is unlikely	It is possible	It is difficult to answer
Komi	58.8	26.0	15.2
Russians	37.2	45.1	17.7
Ukrainians	31.7	43.9	24.4
Tatars	36.4	50.0	13.6
Belarusians	50.0	33.3	16.7
Germans	20.0	40.0	40.0
Chuvashes	57.1	14.3	28.6
Moldovans	60.0	20.0	20.0
Other	44.4	50.0	5.6

The construction of a balanced national policy and avoiding ethnic conflicts to the extent possible requires the knowledge of their reasons. In the course of the survey, the respondents named eight reasons that may cause ethnic conflicts. In 2008, 2009 and 2010, the respondents named three reasons most commonly: “bad manners, lack of culture, stupidity, lack of self-control, mutual misunderstanding” (48.9%); “there are too many newcomers, their defiant behavior, oppression of the native residents” (42.5%); “poverty, disorderly life, a huge gap between the rich and the poor, envy for those who are wealthier” (33.2% in 2010).

Such reason as “wrong internal policy, it is the authorities that ought to be blamed for this, it is the result of corruption and disregard of the law” (23.9%), ranking 5 in 2009, shifted to the 4th position in 2010. Of equal importance are the following reasons: “differences in views, traditions, and religion” (22.8%); “economic competition, clash of monetary interests, competition in the labour market” (20.6%; tab. 13).

One of the consequences of the demographic crisis and migration outflow of the population from the republic was the inflow of labour force from the countries of CIS and far abroad. According to the Department of the Federal Migration Service of Russia for the Republic of Komi, over the last 7 years (except 2006 and 2010) the number of officially registered labour migrants has been increasing. 5.5 thousand foreign citizens from 37 countries, including 10 CIS countries, arrived in the Republic of Komi in 2010. The main flow of migrants, 46.7% of the total number of migrants, came from Ukraine, 21.6% – from Uzbekistan. The share of Armenians (11.9%) in the total number of migrants remains consistently high [2, p. 79].

In 2010 22.9% of migrant workers were engaged in construction, 17.0% - in agriculture and hunting, 13.8% - in the real estate sphere and services sector. In the total number of the registered labour force, working in the republic’s economy, men accounted for 96.8%. One third of the foreign workers (32.6%) were at the age of 18 to 29, the citizens aged 30 – 39 accounted for 26% (tab. 14).

Table 13. Distribution of answers to the question: “What, in your opinion, may be the reasons for inter-ethnic conflicts?”, %\*

Answer option	2008			2009			2010		
	Total	City/town	Village	Total	City/town	Village	Total	City/town	Village
There are too many newcomers, their defiant behavior, oppression of the native residents	42.3	43.8	40.7	47.3	47.1	47.5	42.5	48.1	36.0
Wrong internal policy, it is the authorities that ought to be blamed for this, it is the result of corruption and disregard of the law	22.9	24.7	21.0	21.8	22.5	21.1	23.9	21.7	25.4
Poverty, disorderly life, a huge gap between the rich and the poor, envy for those who are wealthier	34.9	31.5	38.3	33.0	25.2	40.9	33.2	22.4	42.9
Bad manners, lack of culture, stupidity, lack of self-control, mutual misunderstanding	46.8	46.8	46.9	49.3	57.2	41.3	48.9	50.2	46.5
Economic competition, clash of monetary interests, competition in the labour market	21.0	21.2	20.8	24.5	22.2	26.7	20.6	17.6	23.1
Chauvinistic sentiments, activities of radical nationalistic groups and movements, skinheads	17.2	22.8	11.6	19.0	29.1	8.9	13.0	18.0	7.9
Race for power, for influence and control over the territory of residence	14.0	15.1	12.9	15.3	17.6	12.9	16.1	18.0	13.9
Differences in views, traditions, and religion	19.1	21.5	16.7	21.8	26.5	17.2	22.8	24.7	20.5
Other	0.4	0.5	0.3	0.5	1.0	0.0	0.2	0.3	0.0

\* Respondents could pick several answer options.

Table 14. The number of labor migrants working in the Komi Republic in 2004 – 2010, persons

Year	Total number of working migrants	Including by sex		Including those who arrived		
		men	women	from CIS countries	from other countries	stateless persons
2004	1358	1322	36	1183	175	-
2005	4050	3944	106	3762	288	-
2006	2961	2884	77	2845	116	-
2007	4377	4299	78	4178	199	-
2008	5840	5766	74	5572	267	1
2009	6329	6201	128	6058	271	-
2010	5537	5358	179	5277	258	2

In the course of the survey the respondents were asked a question: “What is your attitude toward the fact that the number of employees from the near and far abroad countries at the enterprises of the Komi Republic is increasing?” The attitude of 46.8% of the respondents is “indifferent”, 34.2% consider this situation “negative” and only 11.8% view it as “positive”. Among village dwellers, 39.3% of the respondents stated their negative attitude toward migrant workers, this is due to the fact that it is quite difficult to find a job in rural areas, and, to make things worse, the newcomers (foreigners) are becoming competitors on the labour market (*tab. 15*).

Today, the problem of inflow of people of other religious denominations and nationalities is so acute in the republic, as it may be in other regions. This is due to the fact that since 1930s the Komi region had been a place of political exile, special settlements and labour camps. The Komi people got used to and adapted to a multicultural environment. The difference between the present days and the past “black period of history” lies in the fact that at that time migrants were exiled for political or criminal reasons and they aroused sympathy and compassion. Today the situation is different: migrants come to live and work in the republic due to economic motives and

Table 15. Distribution of answers to the question: "What is your attitude toward the fact that the number of employees from Ukraine, Belarus, Moldova and other countries of the near and far abroad at the enterprises of the Komi Republic is increasing?", %

Answer option	2008			2009			2010		
	Total	City/town	Village	Total	City/town	Village	Total	City/town	Village
Positive	13.7	13.5	13.9	10.8	11.2	10.4	11.8	13.7	10.0
Indifferent	51.3	58.1	44.4	47.8	59.1	36.4	46.8	48.2	45.4
Negative	26.5	20.3	32.7	32.1	18.8	45.5	34.2	28.9	39.3
It is difficult to answer	8.5	8.1	9.0	9.3	10.9	7.7	7.2	9.2	5.3

Table 16. Distribution of answers to the question: "How would you evaluate the relations developing between the native residents and people who arrived here to work?", %

Answer option	2008			2009			2010		
	Total	City/town	Village	Total	City/town	Village	Total	City/town	Village
The relations between the native residents and migrants are stable and trouble-free	30.8	30.4	31.2	33.3	32.0	34.7	31.0	27.7	34.1
These relations are characterized by a certain degree of tension	31.4	37.0	25.7	28.0	35.0	20.7	30.8	33.0	28.7
Considerable tension that may provoke conflicts is evident	4.8	5.0	4.7	2.5	3.3	1.7	4.5	6.3	2.7
It is difficult to evaluate these relations	33.0	27.6	38.4	36.2	29.7	42.9	33.7	33.0	34.5

their behaviour is different here. Gradually it can change from adaptation to local socio-economic and political conditions toward aggression and offense.

The results of the monitoring show a negative tendency: the share of the respondents who consider that there are tensions between the immigrants and the native population exceeds the share of those who believe otherwise (35.3% against 31.0%). A high percentage of those, who found it difficult to answer, is also noteworthy. A thorough search for the causes of such an answer often proves that people just haven't faced this problem directly or can't express their attitude, but they admit that the problem exists and when the situation changes, they may change their attitude (*tab. 16*).

The poll revealed that it is the school and student youth that is more intolerant toward the persons of other nationalities, the working young people are less intolerant. The negative attitude to the representatives of other nationalities is found least of all among older people, brought up under the Soviet ideology. The

middle-aged population is also tolerant toward other nationalities. We can conclude that the older the people, the more tolerant they are towards the representatives of other ethnic groups (*tab. 17*).

In 2009 a new question was included into the survey: "How would you assess the role of the state and municipal authorities in the solution of inter-ethnic issues?" The following answers were obtained in 2010: "positive" – 22.9% (in 2009 – 27.7%), "negative" – 27.2% (in 2009 – 21.1%), "difficult to answer" – 49.9% (in 2009 – 51.2%). Such distribution of answers can be explained by the fact that this question should be addressed more likely to experts, and not just to the residents of the republic. Therefore, if we exclude from the calculations those who found it difficult to answer, then in 2009 the assessment of the role of the state and municipal authorities in the solution of inter-ethnic issues would be more positive: 56.8% of the respondents estimated it as "positive" and 43.2% - as "negative". In 2010, the "positive" assessment was given by 45.7% and the "negative" – by 54.3%.

**Table 17. Distribution of answers to the question: "Who is currently most likely to feel intolerance toward the persons of other nationalities?", %**

Answer option	2008			2009			2010		
	Total	City/town	Village	Total	City/town	Village	Total	City/town	Village
School youth	34.6	33.6	35.6	34.8	33.0	36.6	31.6	36.9	25.7
Student youth	40.8	39.5	42.0	35.0	33.0	37.0	37.4	39.3	34.7
Working youth	21.5	25.5	17.5	23.5	20.9	26.1	22.5	18.0	26.4
Middle-aged people	11.6	13.2	10.0	14.4	14.1	14.9	15.2	13.6	16.5
Elderly people	8.5	9.9	7.0	8.5	11.4	5.6	9.5	10.2	8.6
It is difficult to answer	22.6	22.6	22.6	28.2	31.0	25.4	24.9	21.0	28.1

*According to the results of the monitoring it is possible to draw the following conclusions:*

1. Half of the population of the republic has no negative feelings toward the neighborhood of the people of other nationalities, and in 2011, as compared to 2008, their number increased from 47.1 to 48.8%, or by 1.7 p.p., and in relation to 2009 it decreased by 0.8 p.p. There has been an increase in the percentage of respondents for whom the monoethnic composition of population is important: from 27.5% to 29.5%, or by 2.0 p.p. as compared with 2008, and by 3.8 p.p. as compared with 2009.

2. It is the “common language” that brings people together in the first place – 58.7%, it is followed by “national customs, traditions” – 49.2%, “living together in the same area” – 44.7%. From 2008 to 2010, the rating of these reasons has not changed. We should note only that the reason “national customs, traditions” was replaced by “living together in the same area” in 2009. In 2010 11.3% of the respondents chose a new answer option – “religious denomination”.

3. The majority of the inhabitants in the republic don’t attach great importance to the nationalities of their children’s classmates (54.6%; in 2008 – 50.4%; in 2009 – 52.5%). The last years witnessed the decrease in the share of the respondents, who would like to have their children educated in a monoethnic environment (from 22.2% to 21.0% in 2009 and to 21.2% in 2010).

4. In the issues of marriage, the population of the republic is guided by the personal traits of the partner, and not his/her nationality – 54.4% (in 2008 – 59.0%, in 2009 – 54.6%); 18.5% of the respondents believe that it is better to marry someone of the same nationality as themselves, but they have nothing against inter-ethnic marriages (in 2008 – 19.0%, in 2009 – 18.0%).

5. Less than half of the respondents (44.8%) stated that their siblings weren’t married to a person of another nationality, whereas in 2008 and 2009 the situation was quite the opposite (55.5 and 54.6%, respectively).

6. Some concern is caused by the fact that quite a few respondents (37.9%) consider that there is a possibility of arising ethnic conflicts in the place of their residence (in 2008 – 39.6%, in 2009 – 30.1%); a considerable share of the respondents (45.0%) believe that ethnic conflicts in the place of their residence are unlikely (in 2008 – 40.9%, in 2009 – 46.4%); one in five didn’t answer.

7. Three main reasons of possible interethnic conflicts can be considered most important: “bad manners, lack of culture, stupidity, lack of self-control, mutual misunderstanding” – 48.9%; “there are too many newcomers, their defiant behavior, oppression of the native residents” - 42.5%; “poverty, disorderly life, a huge gap between the rich and the poor, envy for those who are wealthier” – 33.2%.

8. One should note that the share of those who dislike the representatives of other

nationalities, has significantly increased: from 26.9% in 2008 to 32.7% in 2010. The share of those, who find it difficult to answer, remained practically unchanged: in 2008 – 15.9%, in 2010 – 15.8%. The share of those, who don't have such a dislike, has been reducing – from 57.2% to 51.5%. Consequently, over the past three years there has been an increase in the share of people who faced with inter-ethnic problems.

9. It was revealed that the school youth (31.6%) and student youth (37.4%) feel greater intolerance towards the persons of other nationalities; the working youth is more tolerant in this regard (22.5%). A negative attitude to the representatives of other nationalities is manifested least of all among older people (9.5%), brought up under the Soviet ideology. The middle-aged population (15.2%) is also tolerant toward the people of other nationalities.

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## Lifelong learning as a condition for human capital formation

*The article gives the grounds for lifelong learning as one of the conditions for human capital formation. The parameters that can be a base for evaluating the involvement of the population in the educational process are defined. Professional training of population was studied at the regional level on the basis of opinion polls. The results of the analysis allowed the authors to reveal the conditions that promote and hinder the development of lifelong learning system in the region.*

*Lifelong learning, condition for formation, human capital, professional training of population.*



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One of the first documents that dealt with the problem of lifelong learning was the Resolution of the CC CPSU and USSR Council of Ministers “On the measures to radically improve the quality of training and involvement of specialists with higher education in the national economy” adopted in 1987. It assigned the requirements to ensure lifelong economic education, as well as legal education and environmental training of the population. Afterwards, lifelong learning grew out of education proper and moved to the related field – labour and employment [1, p. 29-31].

This was reflected in the federal target programme “Promotion of employment in the Russian Federation in 1996-1997”, which indicates “the development of lifelong learning system as the most advanced means to assure the quality of labour force” among the key objectives.

The strategic state goal at the present stage of social and economic development is forming an innovation economy that requires a different type of employee with a high level of social, cultural and human capital. The experience of European countries shows,

that the sustainable development of such an economic system is possible with reaching the “limiting mass” of employees (up to 35%) corresponding to a new type of economy [9, p. 20-21]. The similar requirement is assigned by law in Russia. In order to improve public policy in accordance with the requirements of innovation economy, it was fixed by the decree of the President of the Russian Federation to increase the share of employed people aged from 25 to 65, who improved their qualification in the total number of working population in this age group, by 37% in 2015 [11].

It should be noted that nowadays Russian labour force on its face is one of the most highly educated in the world: today more than half of workers in the country have tertiary education – higher education (29%) or specialized secondary education (27%) [12, p. 108]. The most important characteristic of lifelong learning is its longevity, which can be estimated through the average schooling and training years.

According to R.J. Barro and J.W. Lee [4, p. 15, 100], there was one of the highest educational levels in Russia in 2010; Russia excelled not only other BRICS countries in the duration of schooling and training period (11 years), but most developed countries (Great Britain – 1.8 years, France – almost a year; *tab. 1*). In 2010, the average schooling and training years in Russia are 3.9 years more than the world average level and 0.7 years more than the level of developed countries.

Comparison of such indicators as the average years of schooling and training and per capita GDP provides a basis to affirm that the countries where the duration of population training has increased by about 2 years over ten years (France, Germany, Czech Republic, Japan, China) demonstrate a significant growth rate of per capita GDP (30% in France, 45% in Germany and the Czech Republic, more than 50% in Brazil, 65% in China).

However, despite the high values of the indicators characterizing the duration of schooling and training, practical implementation of lifelong learning principles is difficult in Russia.

Table 1. Average years of schooling and training (2000, 2005 and 2010)

Country	Average years of schooling and training						Per capita GDP compared to PPP, thsd. dollars		
	Population aged 15 and over			Population aged 25 and over					
	2000	2005	2010	2000	2005	2010	2000 *	2005	2010
<i>Developed economies</i>									
France	7.86	9.90	10.53	8.37	9.80	10.43	26.90	30.70	35.00
Germany	10.20	11.80	11.82	9.75	12.20	12.21	26.10	31.40	37.90
Japan	9.47	11.30	11.58	9.72	11.10	11.48	27.30	30.30	34.30
Great Britain	9.42	9.30	9.75	9.35	9.00	9.42	28.50	32.20	35.90
USA	12.05	12.90	13.10	12.25	13.20	13.27	36.70	41.90	48.10
<i>Transitional economies</i>									
Czech Republic	9.48	12.70	12.13	9.46	13.10	12.32	17.90	20.40	25.90
Hungary	9.12	11.50	11.65	8.81	11.50	11.67	15.40	17.00	19.60
Poland	9.84	9.70	9.87	9.90	9.70	9.95	11.90	13.80	20.10
<i>BRICS economies</i>									
Brazil	4.88	7.20	7.54	4.56	6.60	7.18	7.70	8.50	11.60
Russia	10.03	11.30	11.52	10.49	11.60	11.73	9.10	11.90	16.70
India	5.06	4.70	5.13	4.77	4.00	4.41	2.90	2.20	3.70
China	6.35	7.60	8.17	5.74	8.30	7.55	5.10	4.10	8.40

\* At the 2000 dollar exchange rate.

Sources: Barro R. J., Lee J. W. International Data on Education Attainment: Updates and Implications . Oxford Economic Papers. 2001. Vol. 53. No. 3; World Development Indicators. Washington: World Bank, 2005.

These difficulties are caused by a lack of lifelong learning system (common legal and regulatory framework for educational institutions, the mechanisms of self-regulation and self-organization) [14, p. 129-137], as well as by the reduction in funding of this sector, unequal access of the population to education during the period of life, increase in educational expenses as far as people are involved in the professional activity, decline in the economic returns of education because of aging (a demotivating factor of investing in adult education) [6, p. 81, 97].

In this regard, the article is aimed at the analysis of opportunities and obstacles in the implementation of lifelong learning in the region and studying the territorial differences according to some educational indicators.

The study is based not only on the data of statistical agencies, but also on European educational policy reviews, and the analysis of lifelong learning development at the regional level is based on the results of opinion polls.

It is necessary to mark out the Global Competitiveness Index (GCI) among the parameters that allow us to carry out this analysis: it consists of the indicators combined into nine pillars<sup>1</sup>, one of which is "higher education and training"<sup>2</sup> (*tab. 2*).

According to the World Economic Forum, in the period from 2005 to 2012, Switzerland and the United States were at the top of the rating by both the Global Competitiveness Index (1<sup>st</sup> and 5<sup>th</sup> positions, respectively) and the Higher Education and Training Index (3<sup>rd</sup> and 13<sup>th</sup> positions, respectively). The

indices of Great Britain are high-repeatable. There were significant positive changes in this sphere in China and Russia during that period (China improved its position by 23 points in the GCI ranking, Russia – by 12 points).

Russia's medial position in the ranking for both the Global Competitiveness Index and the Higher Education and Training Index proves its ability to generate and use knowledge efficiently, which is strategically important in the transition to an innovation economy.

Denmark, Great Britain and the United States were the leading countries in the effective use of knowledge for economic development in the period from 2000 to 2012. Russia has ranked 55 among more than 140 countries in 2012, which means the improvement of its rating by 9 positions as compared to 2000.

The analysis of integral indicators and their components reveals not only the economic growth potential of the country, but also the degree of the educational system development, the opportunities to improve lifelong learning and use accumulated human capital in practice (*tab. 3*).

In terms of Russia's transition to an innovation economy, there are changes in the production process and increasing requirements for vocational training and educational level of employees in general. On the one hand, it generates the need for lifelong learning to overcome the disparities between the situation in the labour market and education, and, on the other hand, the need to study the theoretical approaches to lifelong learning.

The idea of lifelong learning was formulated for the first time by A. Mansbridge in his report at the World Conference on Adult Education in 1929 in England. Initially, this concept wasn't interpreted as "retraining" and "continuity" because the education itself was seen as a process of lifelong learning and working [5, p. 18]. Lifelong learning was described as adult education that took into account specific interests of this population group, training technologies and the need for professional

<sup>1</sup> Nine pillars: institutional environment, infrastructure, macroeconomic environment, health and primary education, higher education and training, goods market efficiency, technological readiness, business sophistication and business practice.

<sup>2</sup> Not only the share of people, who have higher and incomplete higher education, but the quality of education and science in the country, is taken into account in calculating the Index (the quality of business education system, the level of training in mathematics and natural sciences, the quality of school education are taken into account in calculating the Index).

Table 2. Global Competitiveness Index

Country	Global Competitiveness Index (rank)			Higher education and training (rank)		
	2005	2009	2012 *	2005	2009	2012 *
Switzerland	5.46 (8)	5.60 (1)	5.74 (1)	n/a	5.60 (6)	5.80 (3)
USA	5.81 (2)	5.59 (2)	5.43 (5)	n/a	5.57 (7)	5.57 (13)
Great Britain	5.11 (13)	5.19 (13)	5.39 (10)	5.0 (6)	5.17 (18)	5.47 (16)
France	5.39 (12)	5.13 (16)	5.14 (18)	5.30 (15)	5.30 (15)	5.24 (20)
China	4.07 (49)	4.74 (29)	4.90 (26)	5.79 (4)	4.09 (61)	4.34 (58)
Brazil	n/a	4.23 (56)	4.32 (53)	5.36 (17)	4.14 (58)	4.35 (57)
Russia	3.53 (75)	4.15 (63)	4.21 (66)	n/a	4.30 (51)	4.54 (52)

Rankings of 2012 GCI.  
Sources: The Global Competitiveness Report 2010–2011. P. 15, P. 20-21; The Global Competitiveness Report 2009–2010. P. 13, P. 18-19; The Competitiveness Report 2005–2006; The Competitiveness Report 2011–2012. P. 16-17, P. 20-21.

Table 3. Knowledge Economy Index

County	Knowledge Economy Index <sup>1)</sup>		Knowledge Index <sup>2)</sup>		Education Index <sup>3)</sup>		Rank*	
	2000	2012	2000	2012	2000	2012	2000	2012
Denmark	9.50	9.16	9.62	9.00	9.65	8.63	3	3
USA	9.32	8.77	9.40	8.89	9.13	8.70	6	12
Great Britain	9.21	8.76	9.26	8.61	9.39	7.27	9	14
Russia	5.41	5.78	6.68	6.96	8.23	6.79	64	55
Rwanda	1.25	1.83	1.37	1.14	0.92	0.77	145	127

\* Rankings of 2012 data.

1) The Knowledge Economy Index takes into account whether the environment is conducive for knowledge to be used effectively for economic development. It measures a country's ability to generate, adopt and diffuse knowledge in the country. The KEI is calculated based on the average of the normalized performance scores of 4 pillars related to the knowledge economy – economic incentive and institutional regime, education and human resources, the innovation system and ICT. They vary from 0 to 10, where 10 corresponds to the highest sophistication of a characteristic. 10% of the top countries achieve the Knowledge Economy Index that accounts for [9-10]; 10% of the worst countries – [0-1].

2) The Knowledge Index is a component of the Knowledge Economy Index that consists of three pillars – Education Index, Innovation Index, Information and Communication Technology Index.

3) Education Index takes into account such variables as Adult Literacy Rate, Secondary Enrollment, Tertiary Enrollment. It varies from 0 to 10 (10 – the highest sophistication of a characteristic).

Source: KEI and KI Indexes. Available at: [http://info.worldbank.org/etools/kam2/KAM\\_page5.asp](http://info.worldbank.org/etools/kam2/KAM_page5.asp)

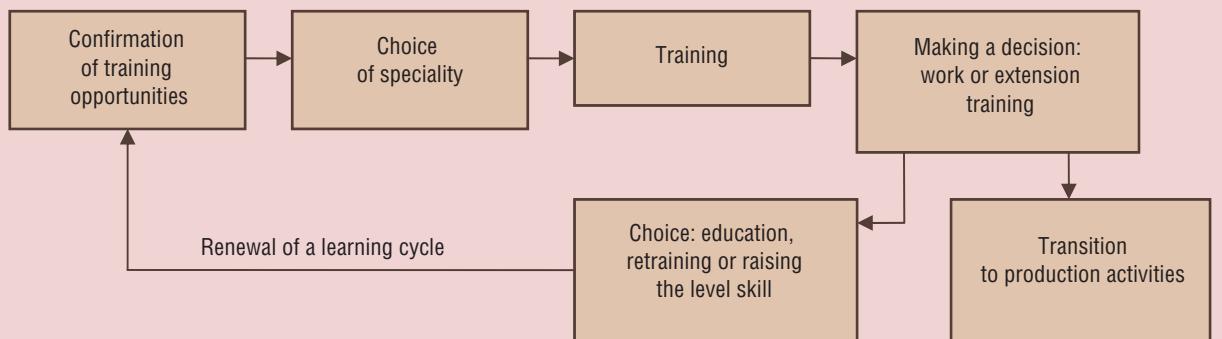
development [5, p. 274-292]. Subsequently, lifelong learning was considered not only as learning activity during adult life, but also as the training and education of a person prior to his/her entry into adult life (children and youth education).

Thus, there was an expansion of the concept content, and it was interpreted in terms of ensuring the sequence and continuation of knowledge acquisition at different stages. This interpretation of lifelong learning corresponds to the paradigm of information-oriented society that can consider any active information search, obtaining and processing as an educational and self-training process [1, p. 17-20].

The approaches to the definition of the concept also changed: it was characterized both as a process (A.I. Kravchenko, A.D. Churaeva) and a system. In addition, some researchers consider lifelong learning as an objective (Parson, 1990), a product (Hatton, 1997), a moral duty (Wain, 1991). However, process and system approaches are the most widespread ones (*fig. 1, fig. 2*).

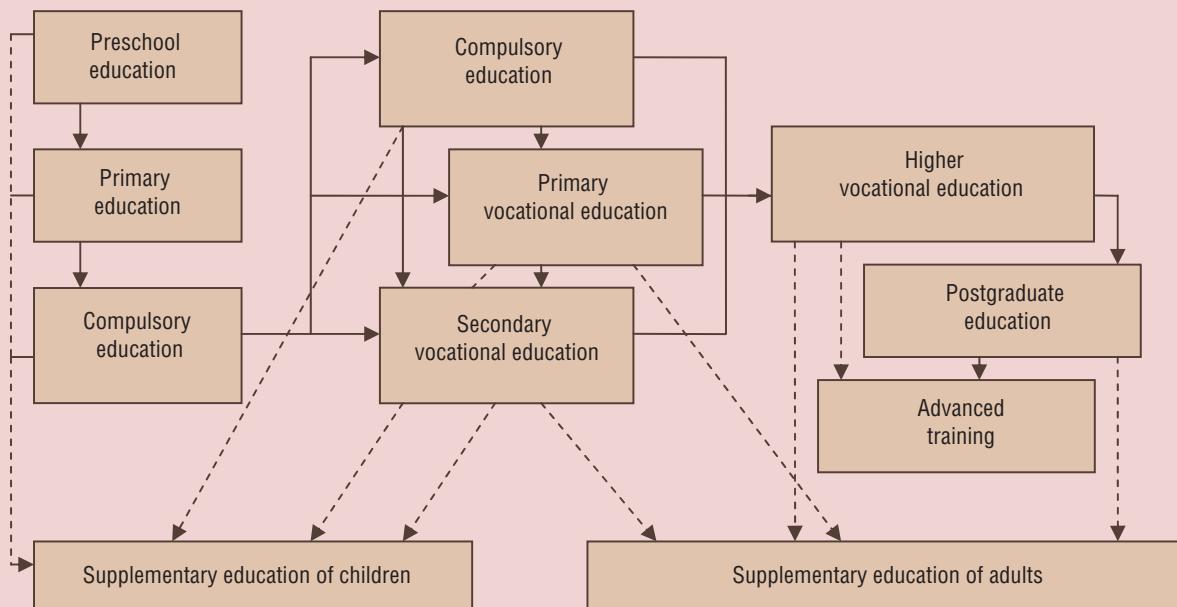
Process approach interprets lifelong learning as a growth of personal educational (general and professional) potential during lifetime, which is supported by government and institutional settings and which meets individual and social needs.

Figure 1. Lifelong learning (process approach)



Source: Karpukhina A.E. Monitoring of lifelong learning: management tool and sociological aspects. Moscow: MAKS Press, 2006. P. 125.

Figure 2. Lifelong learning (system approach)



Source: Karpukhina A.E. Monitoring of lifelong learning: management tool and sociological aspects. Moscow: MAKS Press, 2006. P. 44.

According to the system approach, lifelong learning is considered as a principle of organizing educational activities that integrates all its stages and types (preschool, school, vocational education, advanced training and retraining) into an integrated system that provides the ability to update and enhance knowledge and skills over a period of person's life – from the early childhood to his/her old age.

A.P. Vladislavlev used the system approach to study lifelong learning in his work that was one of the fundamental lifelong learning researches in our country. He emphasized the need for systematic and independent advanced training for all the groups of employees, and he focused on the disclosure of such principles as individuality and system nature [3, p. 8-11]. The theoretical and practical issues of lifelong learning have been developed

by such Russian researchers as S.Yu. Alferov, A.P. Belyayeva, A.A. Verbitskiy, L.A. Volovich, B.S. Gershunskiy, G.L. Ilyin, M.V. Clarin, M.I. Makhmutov, A.M. Novikova and others [10, p. 17-22].

Thus, it is possible to point out the following characteristics of lifelong learning: long-term nature (over a life period), ensuring the growth of personal intellectual potential (through the development of skills and abilities), providing flexibility in person's activity due to taking into account individual interests, as well as the changes in market labour.

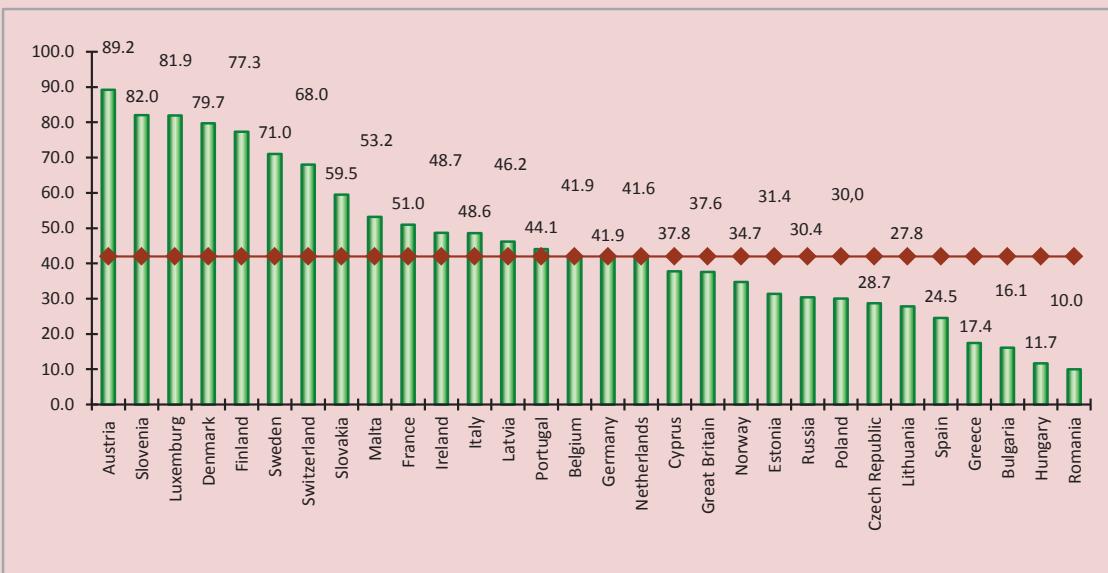
The share of people who take part in the programmes of formal and informal education is a key parameter characterizing the involvement of population in the educational process. According to the Organization for Economic Cooperation and Development, 40% of adults from the member-countries participated in those programmes on average in 2011 and 27% of adults looked for the information on various training programmes [18].

The cross-country analysis of population's involvement into lifelong learning system allowed us to reveal the leading countries (Austria, Slovenia, Luxembourg, Denmark, Finland, Sweden) where 70-80% of the population are involved in lifelong learning; the countries that are in-between position (France, Ireland, Italy, Latvia, Portugal, Belgium, Germany), where the level of public involvement in lifelong learning is comparable to the average for the OECD countries; the countries that have the low population's involvement into lifelong learning. The latter group includes some of the European countries and Russia (*fig. 3*).

Self-education is one of the parameters that can be used as a base for the assessment of population's involvement into lifelong learning (*fig. 4*).

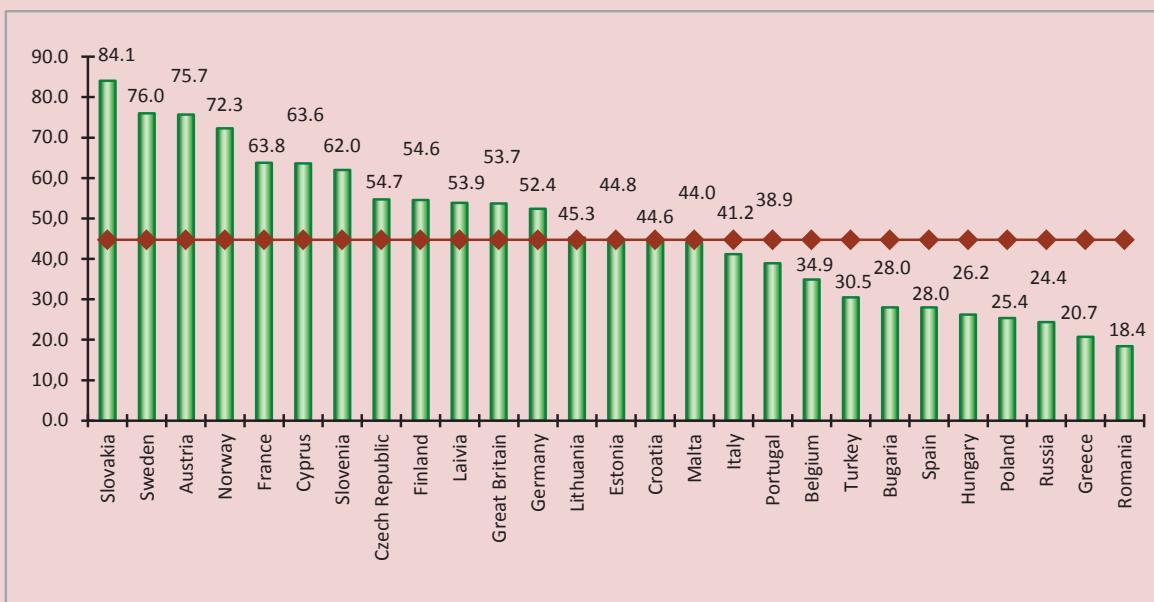
According to this indicator, Russia is inferior to leading European countries: only a quarter of the Russians aged 25-64 are engaged in self-education, while, for example, 80% of the population in Slovakia and more than 70% of people in Sweden, Austria, Norway are involved in self-education.

Figure 3. Involvement of Russia and European countries in lifelong learning in 2010 (% of the respondents aged 25-64)



Source: Indicators of Education. 2011: Stat. Coll. Moscow: Higher School of Economics, 2011. P. 33.

Figure 4. Involvement of Russia and European countries in self-education in 2010 (% of the respondents aged 25-64)



Source: Indicators of Education. 2011: Stat. Coll. Moscow: Higher School of Economics, 2011. P. 37.

As for training and retraining, the polls provide the information about these processes in Russia at the state and regional levels. Thus, the monitoring of labour potential quality in the Vologda Oblast revealed that half of employed people do not work within their specialty obtained in the vocational educational institutions (48% in 2004, 43% in 2012, *fig. 5*).

The degrees of qualification conformity to job requirements is a parameter which characterizes, on the one hand, the disparities in labour market and education, and, on the other hand, the level of training of employees.

In 2000, the qualification of half of respondents met their job requirements in full; and that parameter did not change throughout the study period. It is possible to note a 2-fold reduction in the share of people who have their qualifications below their job requirements among the positive trends (*fig. 6*).

It is possible to assess lifelong learning involvement on the base of respondents' answers to the question if they are going to train or retrain.

As a result of public opinion monitoring in the Vologda Oblast<sup>3</sup>, the following territorial differences have been revealed: urban population is involved in the process of training more actively as compared with rural population (the share of urban people who attend training courses is more than two times higher than the figures for the districts).

At the same time, the people in the districts are interested in increasing their educational level less than those in Vologda and Cherepovets in the long term (there are more people (by 10%) who do not plan to improve their qualifications in the districts, than in the cities; *tab. 4*).

<sup>3</sup> The polls have been held every two months during a year since in Vologda, Cherepovets, and in eight districts (Babayevsky, Velikoustyugsky, Vozhegodsky, Gryazovetsky, Kirillovsky, Nikolsky, Tarnogsky, Sheksninsky). The volume of a sample population is 1500 people aged from 18 and older. Sampling error does not exceed 3%.

Figure 5. The people in the Vologda Oblast who work or do not work within their specialty obtained in the vocational educational institutions  
(% of the number of respondents)

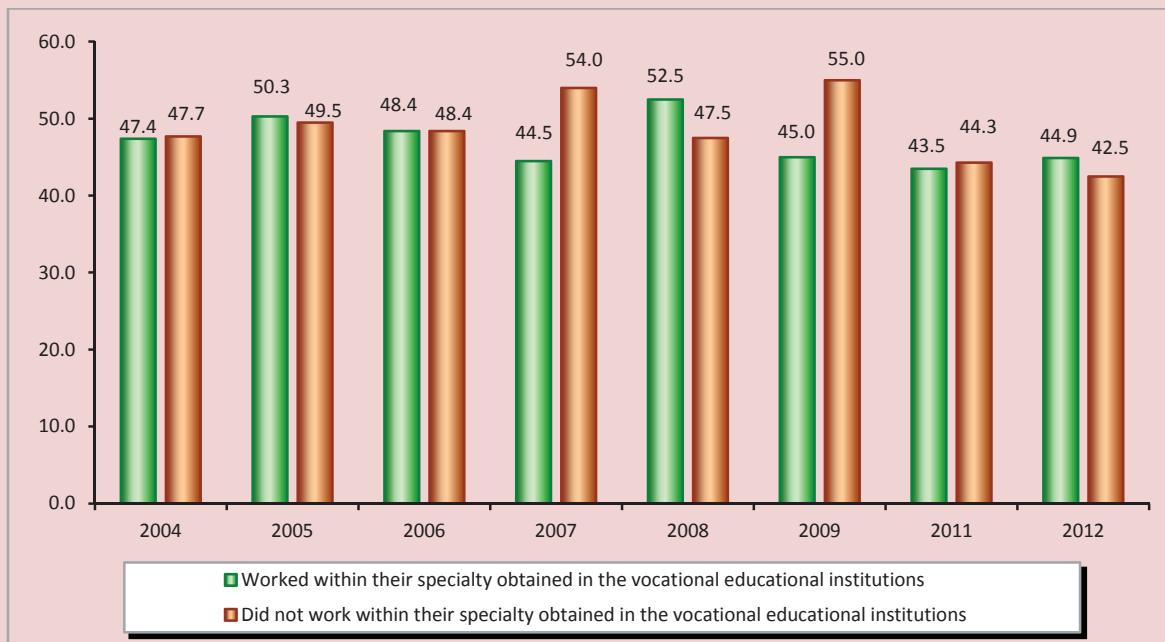
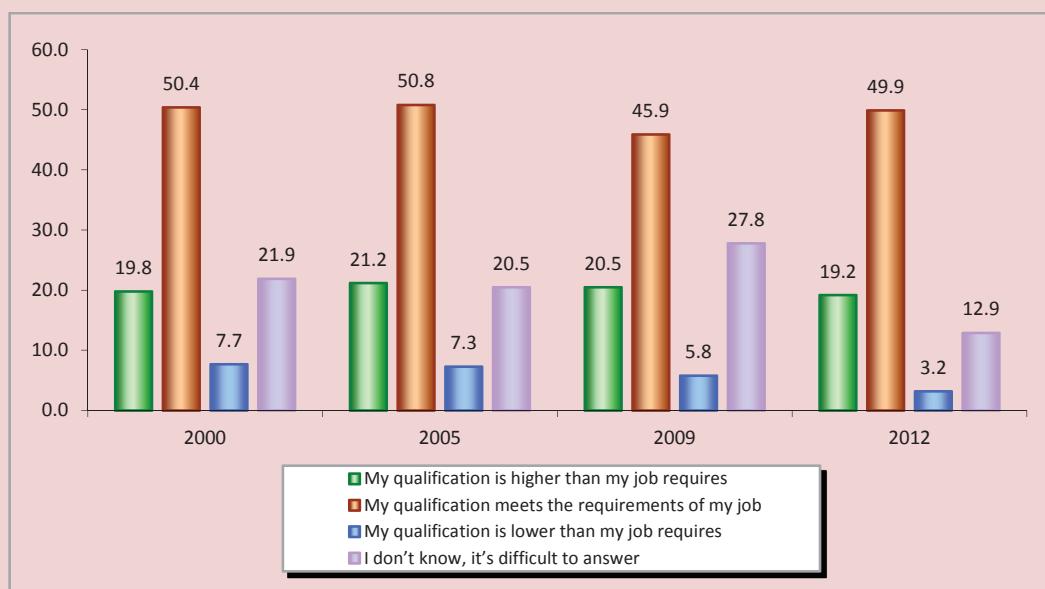


Figure 6. Distribution of the Vologda Oblast's population according to the degrees of qualification conformity to job requirements, (% of the number of respondents)\*



\* According to the data of ISEDT RAS monitoring of labour potential quality in the Vologda Oblast

The possible causes of such a situation at the municipal level are a lack of money to pay for training courses and a shortage of tech-

nological changes in the industry. However, these hypotheses require the further researches in order to prove or disprove them.

Table 4. Distribution of the answers to the question: “Do you plan to attend training or retraining courses?” (% of the number of respondents)

Responses	Vologda	Cherepovets	Districts	Vologda Oblast
Attended during last 6 months	8.2	16.4	3.4	7.9
Plan to attend in the nearest 6 months	11.3	9.6	4.3	7.3
Did not attend	12.7	11.4	10.3	11.1
Do not plan	31.0	30.6	42.0	36.5
It is difficult to answer	36.9	31.9	40.0	37.2

Source: Hereinafter – data of public opinion monitoring in the Vologda Oblast, 2011, ISEDT RAS.

The time period of training is one of the parameters characterizing indirectly the interest of the population in professional development and lifelong learning. About a third of all the respondents have never improved their professional level throughout their career (*tab. 5*).

However, about 30% of the respondents from Vologda and Cherepovets improved their professional level 1 or 3 years ago, while the share of people from the districts, who were involved in retraining, was two times lower. This demonstrates the regional differences according to this parameter.

Despite the lower level of population's activity in improving their professional skills, there is a positive trend: more than half of the respondents in Vologda and Cherepovets, as well as 60% of the respondents in the districts are ready to attend training courses on their own initiative (*tab. 6*).

Employers stimulate the training motivation of their employees using qualifying evaluation and providing the employees with the opportunity for career growth and increasing rewards for their work. Despite the fact that employers try to awake their employees' interest in training (32% in the oblast), about half of the respondents in Vologda and Cherepovets, as well as more than 70% of the respondents in the districts have mentioned the opposite.

According to the poll, the most “efficient” form of motivation of employees is a qualifying evaluation, the second important form is a career growth, and increasing rewards for employees' work rounds out the top three (in

urban areas of the oblast – 20 – 30%, 9 – 16% and 7 – 14%, respectively, *tab. 7*).

According to the poll, training courses are organized for a third of city respondents and for 20% of the respondents from the districts of the Vologda Oblast (*tab. 8*). Such forms of retraining as advanced experience academy and on-the-job training in other organizations are used rarely.

It should be emphasized that their use contributes to the raise in labour productivity and wages, climbing up the career ladder and personal enhancement (*tab. 9*).

In the opinion of the respondents, the most significant results of training include: personal enhancement and career growth (30 and 18%, respectively). According to the latter indicator, we have identified the factors that impede the achievement of high professional degree. Approximately a third of respondents believe that these barriers are absent (*tab. 10*). However, according to many respondents, the factors hampering the professional development include a lack of free time and funds, as well as a lack of employer's initiative and retraining courses.

Despite the fact that lifelong learning of an employee is accompanied with achieving the objectives of personal enhancement and raise in wages, 60 – 70% of people aren't going to improve their education in future (obtain a higher education, enroll in Master's degree programme, study for their Ph.D.); about 20% of respondents have not found their positions yet (*tab. 11*).

Table 5. Distribution of the answers to the question: "When did you improve your qualification?" (% of the number of respondents)

Responses	Vologda	Cherepovets	Districts	Vologda Oblast
Under one year ago	14.4	20.0	8.3	12.7
3 years ago	13.0	11.7	6.3	9.3
5 years ago	6.8	10.1	2.8	5.6
Did not improve	27.6	27.5	31.8	29.7
It is difficult to answer	38.3	30.6	50.8	42.7

Source: Data of public opinion monitoring in the Vologda Oblast, 2011, ISEDT RAS.

Table 6. Distribution of the answers to the question: "Whose initiative makes you improve your qualifications?" (% of the number of respondents)

Responses	Vologda	Cherepovets	Districts	Vologda Oblast
Employer's initiative	38.0	32.9	28.4	32.2
Own initiative	56.0	46.0	65.0	56.6
Employment services' initiative	1.6	9.9	3.6	5.2

Source: Data of public opinion monitoring in the Vologda Oblast, 2011, ISEDT RAS.

Table 7. Distribution of the answers to the question: "What forms of motivation for further training does your employer use?" (% of the number of respondents)

Responses	Vologda	Cherepovets	Districts	Vologda Oblast
Employees' needs analysis	7.9	2.6	2.1	3.6
Qualifying evaluation of employees	31.6	20.1	17.1	21.3
Money reward (bonus)	7.2	14.7	6.5	8.8
Raise in wage	5.9	20.1	3.6	8.5
Career growth	8.9	16.1	3.0	7.9
Other	1.0	5.5	0.5	1.9
It is difficult to answer	51.3	43.7	71.8	59.6

Source: Data of public opinion monitoring in the Vologda Oblast, 2011, ISEDT RAS.

Table 8. Distribution of the answers to the question: "Does your company organize training and retraining courses for the employees?" (% of the number of respondents)

Responses	Vologda	Cherepovets	Districts	Vologda Oblast
Training and retraining courses	35.5	34.9	18.7	26.9
Advanced experience academy	3.8	3.2	0.8	2.1
Training centres, corporate universities	3.1	9.8	0.3	3.4
On-the-job training in other organizations	2.4	3.2	2.1	2.5
Conclusion of contracts with educational institutions for training (retraining) of specialists	5.8	9.2	2.3	4.9
Does not organize	48.8	46.7	73.2	60.5
Other	5.1	5.1	3.7	4.4

Source: Data of public opinion monitoring in the Vologda Oblast, 2011, ISEDT RAS.

Table 9. Distribution of the answers to the question: "What does further training give for your professional advancement?" (% of the number of respondents)

Responses	Vologda	Cherepovets	Districts	Vologda Oblast
Career growth	17.2	17.7	8.3	12.8
Raise in wage	12.7	20.8	8.6	12.7
Rise in labor productivity	8.2	11.7	5.3	7.6
Personal enhancement	31.8	26.5	13.3	21.1
Gives nothing	14.9	15.1	16.2	15.6
Other	0.0	1.6	0.1	0.5
It is difficult to answer	22.5	24.9	45.0	34.5

Source: Data of public opinion monitoring in the Vologda Oblast, 2011, ISEDT RAS.

Table 10. Distribution of the answers to the question: "What impedes your professional advancement?" (% of the number of respondents)

Responses	Vologda	Cherepovets	Districts	Vologda Oblast
Lack of courses that meet your needs	7.0	3.1	2.8	3.9
Lack of self-initiative	1.4	3.6	1.8	2.2
Lack of employer's initiative	11.0	6.5	4.3	6.5
Lack of opportunities for advanced training on the job	8.2	6.2	4.7	5.9
Lack of funds	14.4	11.4	13.4	13.1
Lack of free time	18.9	10.9	3.3	8.9
Other	0.8	2.9	0.3	1.1
Nothing	24.8	30.1	23.6	25.5
It is difficult to answer	26.5	24.4	40.7	33.1

Source: Data of public opinion monitoring in the Vologda Oblast, 2011, ISEDT RAS.

Table 11. Distribution of the answers to the question:  
"Are you planning to...?" (% of the number of respondents)\*

Responses	Vologda	Cherepovets	Districts	Vologda Oblast
<i>To obtain a higher education (second higher education)</i>				
Yes	15.7	20.7	9.9	14.1
No	67.0	64.2	73.8	69.7
<i>To enroll in Master's degree programme</i>				
Yes	1.5	3.1	0.0	1.2
No	86.5	87.2	84.8	85.8
<i>To study for your Ph.D.</i>				
Yes	2.2	3.7	0.2	1.6
No	84.1	84.4	85.4	84.9
<i>Get more any additional education, attend training courses</i>				
Yes	26.3	27.2	11.5	19.1
No	45.7	45.9	64.3	55.2

\* Excluding respondents who are at a loss to answer.

Source: Data of public opinion monitoring in the Vologda Oblast, 2011, ISEDT RAS.

Thus, the analysis allowed us to reveal the major factors impeding advanced training and lifelong learning of the population:

- a high share of people who do not attend and do not plan to attend training courses;
- a lack of plans of people to raise their educational level in the future;
- a lack of employers' active stand on the organization of training courses for their employees;;
- a lack of training results;
- the barriers that impede the career development (a lack of funds and free time).

The following parameters of territorial differentiation in population's training have been identified:

- degree of work conformity to the qualification (the share of people who have their qualification higher than the requirements of their jobs is two times more in the cities, which creates the potential not only for the functioning of organizations, but also for their development, including on the basis of innovation);
- plans of people to improve their qualification in the near future (there are three

times more people who attended or plan to attend training courses in the cities as compared with the districts);

- the party that initiates training (the share of people who improve their qualification on administration's initiative is more by 10% in the cities than in the districts; at the same time, the share of people who improve their qualification on self-initiative is more by 10% in the districts than in the cities);
- training results (people in the cities focus on such training results as personal enhancement, career growth, raise in wages; however, the share of people who get nothing due to their training is higher in the districts).

Thus, it is necessary for enterprises to identify the periodicity of training courses for their employees, it is important for them to create motivational mechanisms for raising the interests of people to improve their professional level and increase investment in education.

Regional governments should provide incentives for employers to increase their activities in the organization of training and retraining courses.

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## System of values and behavioral practices as the significant factors of young people's self-preservation behavior

*The article presents some analysis results of students' self-preservation behavior that is based on the international multi-disciplinary research of university students' health (in the case of the students who have a specialization in humanities), conducted in Poland and Russia in 2011. The paper is aimed at characterizing the system of students' values and their influence on the development of self-preservation behavior.*

*The article deals with the health and behavioral characteristics of students. The results of the international multi-disciplinary research allow the authors to suggest that the system of values have a significant influence on the self-preservation behavior of students.*

*Health, youth, self-preservation behavior, values, behavioral practices.*



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The determining factor of socio-economic development in the post-industrial society is human potential and, more importantly, its youth component<sup>1</sup>. It is youth that accounts for 30% of the world's population will take the

leading position in both economics and politics, as well as in the social and moral spheres of society's live.

Numerous studies conducted among young people in different countries, including Russia, allow us to draw a conclusion about the common problems of young people. Health value and widespread psychoactive substance abuse are important problems that are a cause for

<sup>1</sup> Rimashhevskaya N.M. Modernization of Russia: health of the Russians and demographic situation. Demoskop. 2012. No. 509-510. Available at: <http://www.demoscope.ru/weekly/2012/0509/nauka02.php>

concern to the younger generation. However, the health and well-being of this age group are rarely considered in the comparative European studies. It is also difficult to find national medical and sanitary information about this age group. At the same time, the foundations of health formation in consideration of socio-economic, environmental, behavioral and other factors are laid not only in childhood but also in the period of transition from childhood to adult life.

There are the following trends that are common to young people in Europe<sup>2</sup>.

– *Premature mortality*.

About 30,500 people aged from 15 to 24 die in the European Union Member States every year, including 23 000 men and 7500 women. Road traffic accidents are the main cause of mortality at young adult ages (about 10 000 men and 2000 women per year); every tenth premature death is a result of suicide. There are 20 incidents of mortality at young adult ages due to traffic injuries per 100,000 people in Russia.

– *Rising life expectancy (LE - integral indicator of health)*.

Life expectancy for the population aged 15 has increased by 2 years (from 63.2 to 65.3) in the EU countries over the period from 2000 to 2010 and from 51.9 to 54.7 in 2009 in Russia. At the same time, it is necessary to take into account the increase in the prevalence of such chronic pathologies as asthma, allergies, diabetes and obesity.

– *Young people believe their health is good*.

However, about a quarter of the population in this age group suffers from psychosomatic illnesses.

<sup>2</sup> World Bank, 2005. Dying Too Young. Addressing Premature Mortality and Ill Health Due to Non-Communicable Diseases and Injuries in the Russian Federation; World Bank, 2003. World Development Indicators. World Development European Health for All Database (HFA-DB). Copenhagen: WHO Regional Office for Europe (January 2012); Youth in Russia: literature review (Moscow, 2010), Latysh Ye. Harmful habits. Available at: <http://www.interfax.by/>; A snapshot of the health of young people in Europe (Brussels, Belgium, 9 – 10 July 2009).

– *Increasing differences in the social and cultural determinants of health between the states and within the countries*.

The following characteristics of lifestyle are worth noticing:

■ *Prevalence of tobacco consumption*. There are 50 – 80% of teens aged under 15 who have tried smoking in Europe; 30% of young people aged 15 – 28 smoke daily. There is a tendency to increase tobacco consumption by young people and early daily smoking trend. In Russia, 40% of men and 7% of girls aged 15 – 19 smoke; on average, they smoke 12 and 7 cigarettes per day, respectively (in absolute numbers: there are more than 3 million smokers among teens – 2.5 million men and 0.5 million girls).

■ People begin to use alcohol regularly at a younger age. Young men drink more often than girls, although the gender differences are being reduced. Excessive alcohol consumption is becoming more common among young people in all the countries. According to Rospotrebnadzor, in Russia 33% of boys and 20% girls consumed alcohol daily in 2011. The peak of mass taking up alcohol habits can be observed in the group of teens aged 14 – 15. Alcoholism diseases of teens increased from 18.1 to 20.7 incidents per 100,000 people in 2011 as compared with 2010.

The results of studies show that a significant share of young people have poor physical activity to maintain health.

This article presents some analysis results of students' self-preservation behavior that is based on the international multi-disciplinary research of university students' health (in the case of the students with a specialization in humanities), conducted in Poland and Russia in 2011<sup>3</sup>.

<sup>3</sup> The International multi-disciplinary research of university students' health "Health and healthy life style of students who have a specialization in humanities" was held in the cities of Vologda (Russia) and Lublin (Poland) in 2011. The volume of a sample is 700 respondents. The sample is purposeful and quoted. Representativeness of the sample is ensured by the observance of the proportions of university students' sex-age structure. Sampling error does not exceed 3%.

The paper is aimed at characterizing the system of students' values and their influence on the development of self-preservation behavior.

Self-preservation behavior is considered as a system of actions and relations that are aimed at preserving and maintaining health as long as life endures, as well as at extending life span<sup>4</sup>. Health self-appraisal and health values are one of the main conditions of health formation.

Subjective characteristics of health received due to sociological surveys are used increasingly by domestic and foreign scholars<sup>5</sup>. Despite some limitations of this method, it has been recognized as reliable enough and recommended by the World Health Organization to monitor public health within the countries and for cross-country comparisons. Health self-rating reflects in most cases the true level of public health<sup>6</sup>. Therefore, the use of sociological information about population health is fully justified and useful as an additional tool to assess the public health, as well as a "starting point" in characterizing its different aspects.

Turning to the results of the study, we note that the majority of students (90% in Vologda and 92% in Lublin, *fig. 1*) rated their health as excellent and normal; only a small share of the respondents pointed out the presence of chronic diseases (10% and 8%, respectively).

People have different attitudes towards their health. Health in itself is value for some of them; it is required for other people to achieve, first of all, the concrete aims (significant working results, career development, earning money, etc.). The importance of health for each person determines his/her activity for his/her own health. People form their behavior based on

this. Self-rating has a dual function – an indicator and regulator of behavior. There are strong correlations between health self-rating and the main leading factors of it<sup>7</sup>. Self-rating assumes full information value only in the connection with considering it as a determinant of behavior in regard to the factors that contribute to maintaining and improving health or the threats to physical health and mental well-being<sup>8</sup>.

73% of respondents among students consider their health as an important value in their life; 87% of respondent make aware of their responsibility for health support; 30% of respondents believe that they have good health and they cannot take care of it<sup>9</sup>.

The respondents who rate their health as "excellent" not only "are glad to have good health" but they agree with the statement: "My health depends on me" (*fig. 2*) more often than the respondents from other groups. The comparison of value characteristics and health self-rating identifies the group of careless young people who do not take care of their health even if they have chronic illness.

Identifying the important negative factors affecting their health, most students pointed out poor environmental conditions (Vologda – 76%, Lublin – 73%, *tab. 1*). But they were unanimous only in the assessment of this factor.

Students from Vologda's universities pointed out the impact of learning environment more often than their counterparts from Poland (25% and 15%, respectively). Polish students chose harmful habits among the most important factors more often than the students from Vologda (53% and 39%, respectively) and poor living conditions (23% and 10%, respectively).

<sup>4</sup> Antonov A.I. Microsociology of family (methodology of the study of structures and processes). Moscow: Nota Bene, 1998. 360 p.

<sup>5</sup> Shabunova A.A., Krasnova P.S. Alcohol overconsumption as a form of self-distractive behavior of population. In the world of scientific discoveries. 2012. No. 6 (30). P. 78-100.

<sup>6</sup> Zhuravleva I.V. Public attitudes to health. Moscow, 1993. P. 97.

<sup>7</sup> Vvedenskaya I.I., Vvedenskaya E.S., Shilova L.S. Self-rating of health as an indicator of the self-preservation behavior of the elderly persons. Problems of social hygiene, public health and medical history. 1999. No. 5. P. 12-15.

<sup>8</sup> Buck C.N., Aucoin J.B. // J. Gerontol. 1975. Vol. 30. P. 73-76.

<sup>9</sup> The analysis is based only on the data set for the city of Vologda.

Figure 1. Answers to the question: "How would you rate your health?"  
(in % to the number of respondents)

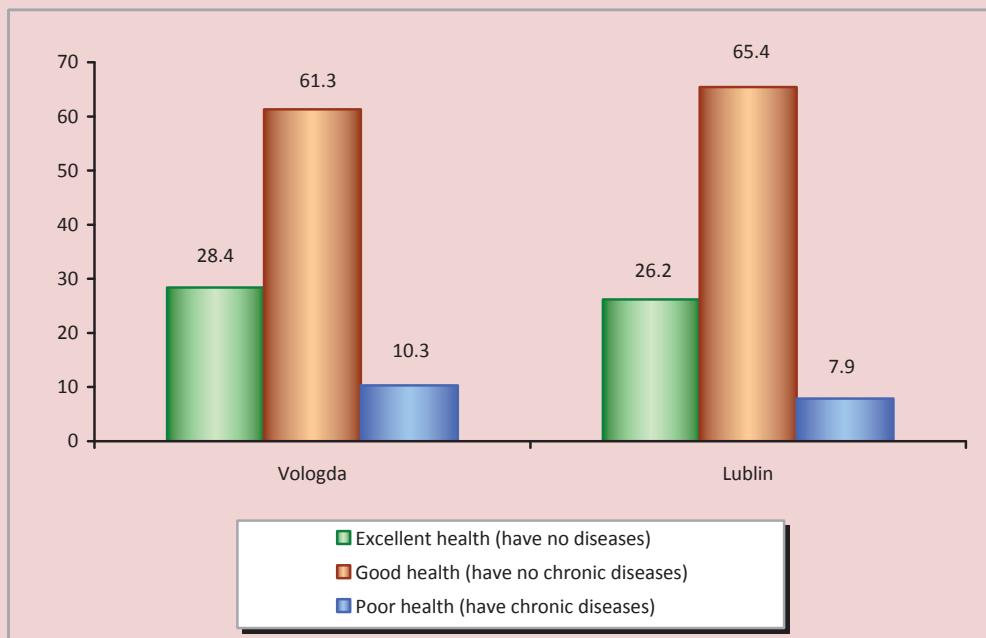


Figure 2. Health saving attitudes of the students answering the question:  
"How do you rate your health?", Vologda (points, point average on a five-grade scale)

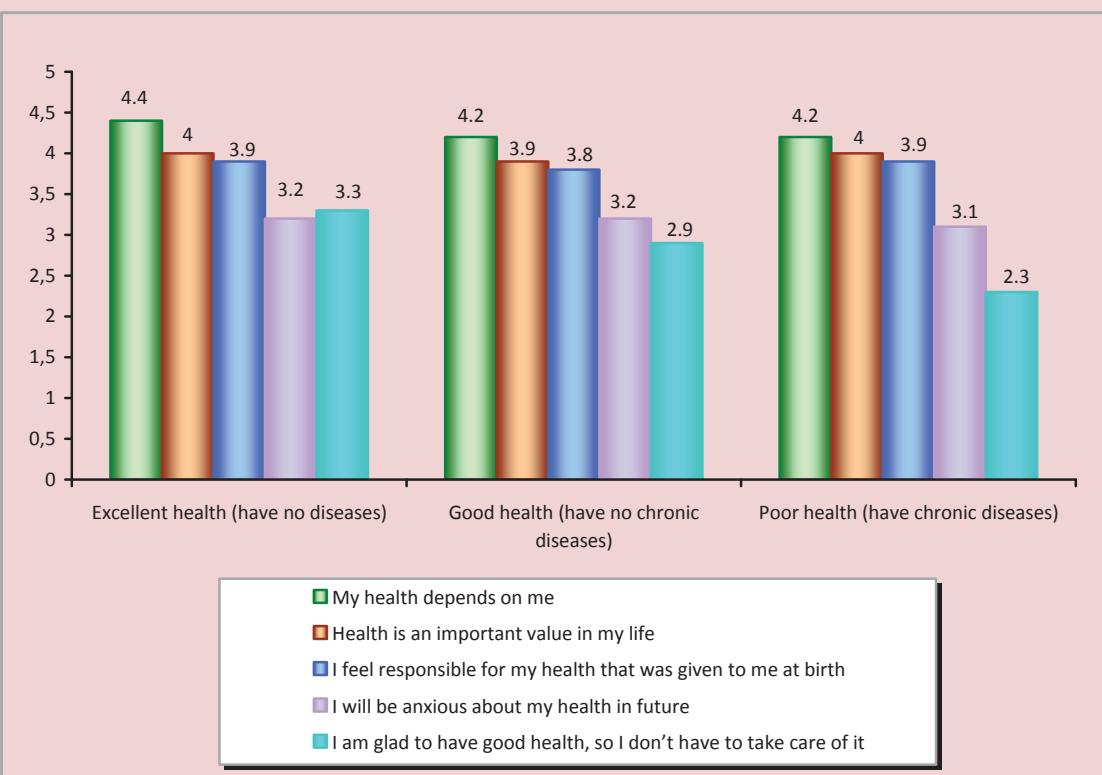


Table 1. Answers to the question: "Will you list the factors that have a negative affect on your health?" (in % to the number of respondents)

Factors	Study, on average	Vologda	Lublin
Poor environment	74.6	75.8	73.4
Unhealthy lifestyle (harmful habits)	45.9	38.9	52.8
Learning environment	20.2	25.3	15.0
Domestic life (living) conditions	16.4	9.8	22.9
Other	15.0	14.1	15.9

Modern people often have a need for health, but it is interpreted by them with regard to particular circumstances, and it is not implemented in their health<sup>10</sup>.

The examples confirming the acuteness of the problem can be found in the current study. Thus, for example, 24% of students think smoking is a bad habit, but at the same time they smoke (23% of smokers in Vologda and 24% in Lublin); 26% of respondents allow the consumption of beer and other alcoholic drinks, even without cause (15% and 36%, respectively); 10% of respondents have used drugs one or more times (6% and 13%, respectively).

Despite visible differences in values and ideas about the factors hampering the preservation of health, behavioral practices of Polish and Russian students are very similar<sup>11</sup>. The most popular health-saving activities include active outdoor recreation (64% of the students in Vologda, 54% – in Lublin) and sports (41% of young people in each city). The share of students who do morning exercises (15% and 11% respectively) and go to fitness rooms (21% and 8%, respectively) is lower.

Significant academic loads and the prevalence of behavioral risk of health deterioration are the causes of various diseases of young

people during their training. 11% of students from Vologda and 25% of Polish students almost always feel tiredness after their classes; about 70% of respondents "are very tired sometimes". The study shows that 70% of students from Vologda and 60% of Polish students have health abnormalities acquired during the training period (*tab. 2*).

However, the students who have faults in posture seldom spend their free time walking (on average, 40% of respondents who have scoliosis vs. 46% of respondents with no diseases; *tab. 3*), and they more often enjoy time in playing computer or watching TV (on average, 33 % vs. 23%, respectively). At the same time, the students suffering from myopia sit at a computer more often than the respondents who have strong eyes (on average, 29% versus 23%). The revealed relationships characterize the students from both countries, and they confirm the important role of behavioral practices in preserving and maintaining the health and underrating of students' efforts in preserving it.

Value orientations to long and healthy life are important factors that determine the demographic behavior and influence the life of man<sup>12</sup>. The analysis of prolonged health guidelines shows that about a third of respondents believe that their health will be better than the health of their grandparents (*fig. 3*). However, only 15 – 16% of respondents rate the health of their grandparents as good and 1 – 2% – as excellent.

<sup>10</sup> Kovaleva A.A. Self-preservation behavior of the population: sociological analysis. Proceedings of the XV International conference of students, postgraduate students and young scientists "Lomonosov". Ed. by I.A. Aleshkovskiy, P.N. Kostylev, A.I. Andreyev. Moscow, 2008. Available at: [http://lomonosov.econ.msu.ru/2008/19\\_22.pdf](http://lomonosov.econ.msu.ru/2008/19_22.pdf)

<sup>11</sup> Krasnova P.S. Self-preservation behavior of youth (in the case of the students attending the humanities departments of higher educational establishments). Problems of Development of Territories. Vologda: ISEDT RAS, 2012. No. 3 (59). P. 93–98.

<sup>12</sup> Encyclopedic dictionary of sociology: English, Russian, French and Czech. Ed. by G.V. Osipov. Moscow: INFRA-NORM, 1998. P. 224.

Table 2. Answers to the question: "Will you point out the disease that you have acquired during the training period?" (in % to the number of respondents\*)

Type of disease	Vologda	Lublin
Have no diseases during the training period	27.1	40.2
Nervous and mental diseases	46.3	33.2
Myopia	30.0	30.4
Scoliosis	25.5	14.5
Gastrointestinal diseases	20.6	22.0
Diseases of the respiratory system	4.7	7.0
Heart diseases	4.0	8.4
Other	4.3	8.4

\* It was possible to give some answers to the question, so the sum can exceed 100%.

Table 3. Relationship between the form of students' leisure activity and their health (in % to the number of respondents)

Form of leisure activity	Diseases acquired during the training period								
	Vologda			Lublin			Study, on average		
	No diseases	Scoliosis	Myopia	No diseases	Scoliosis	Myopia	No diseases	Scoliosis	Myopia
Walking with friends	49.6	31	35.6	42.4	48.4	48.4	46.0	39.7	42.0
Sitting at a computer at home	27.4	39.8	38.6	18.8	25.8	18.8	23.1	32.8	28.7
Watching TV at home	4.3	9.7	7.6	11.8	19.4	10.9	8.1	14.6	9.3
Reading at home	3.4	7.1	9.8	10.6	3.2	10.9	7.0	5.2	10.4
Hobby	15.4	12.4	8.3	16.5	3.2	10.9	16.0	7.8	9.6

Figure 3. Answers to the question: "What will your health be when you are under the age of your grandparents?" (in % to the number of respondents)

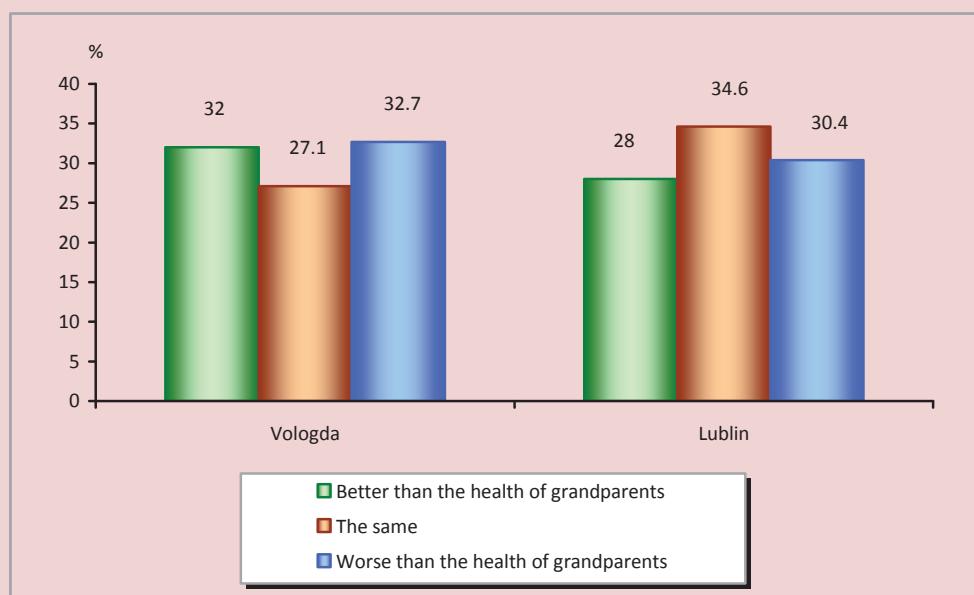
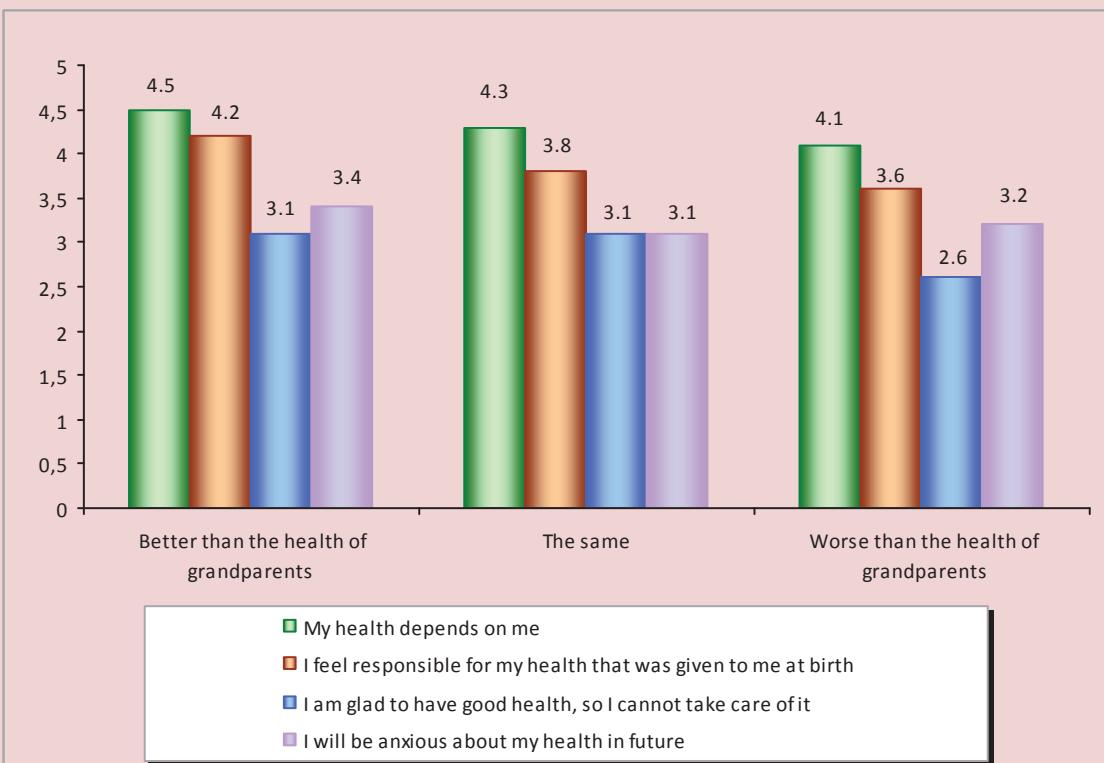


Figure 4. Health saving attitudes of the students answering the question:  
“What will your health be when you are under the age of your grandparents?”,  
Vologda (points, point average on a five-grade scale)



The study has found that students' orientation to healthy longevity is associated with the realization of their own responsibility for health. The deeper the students realize their role in preserving health, the more they can count on the fact that their health will be better than the health of their grandparents when they are pensioners (fig. 4).

In consideration of the things mentioned above, it should be noted that students have high value orientations to health, but they are not always supported by students' personal responsibility for preserving health and their active actions aimed at improving the physical and psychological well-being. Polish students understand the influence of subjective factors on their own health more than Russian

students, and they try to have such a lifestyle that would not harm their health and contribute to their educational productivity. Young people from both countries consider their health as never-ending welfare and they do not think that it is necessary to make some effort to keep it from earliest infancy.

The development of healthy habits of today's youth will ensure the health of future specialists and managers, young families and children, the health of the nation on the whole. However, students have an internal base in the form of a system of health saving attitudes to develop their self-preservation behavior, but it is necessary to strengthen the mechanisms that stimulate and promote implementing health-preservation behavioral practices.

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## Topical issues of labour potential development in the Republic of Komi \*

*Labour potential of the region is characterized by the size and health of the population, a progressive age distribution and economic activity ratio, an employment rate, the structure of labour resources and their professional competence, as well as the changes in these characteristics and the factors that cause them. The article deals with the trend in changing the quantitative characteristics of labour potential in the Republic of Komi for the period after the 1989 census. The current state of labour potential in the republic and its utilization level are estimated in the article.*

*Age distribution, labour potential, economic activity of the population, employment.*



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Region's labour potential is a set of aggregate population's abilities to work in the specific historical and socio-economic conditions. It can be characterized by the size and health of the population, a progressive age distribution and economic activity ratio, an employment rate, the structure of labour resources and their professional competence, as well as the changes in these characteristics and the factors that cause them.

The main source of employment resources is young people who reach working age. Accordingly, the formation of labour potential depends on marriage and birth rates that were observed fifteen years ago, infant and children's mortality, non-adult morbidity and injury rate. However, region's labour potential can be largely determined by the specifics of the migratory behavior of its population and migration attractiveness of

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the area for the residents from other regions. The reproduction of labour potential is influenced by the adult health, disability rate and working population mortality rate. Consenescence of age distribution is resulted in growth rates of working-age overrun and, therefore, a narrowing down of labour potential reproduction. Formation of the region's labour potential is inextricably linked with educational availabilities for the population, acquiring a specialty and labour skills, restoring the ability to work.

Next, we'll consider the changes in the quantitative characteristics of labour potential in the Republic of Komi over recent two decades and estimate the current state of labour potential in the republic and its utilization level.

**Population dynamics in the Republic of Komi.** Population in the Republic of Komi, as well as in the Russian North, has been formed mainly due to migration flows. Therefore, the republic had been experiencing a significant growth of the population for a long period. Since the late 1980s, the population has been declining here after nearly sevenfold increase over 70 years (*tab. 1*). The population in the republic has decreased by 28.9% since the 1989 census, when the maximum population size was fixed (1250.8 thousand people); it has

been accounted for 889.8 thousand people as by 1 January 2012. The urban population has decreased by 27.2% (from 944.4 to 687.2 thousand people); the rural population has decreased by more than a third – by 33.9% (from 306.4 to 202.6 thousand people), despite the fact that some urban-type settlements were moved into the category of villages in the 1990s.

There was the maximum volume of population decline in the republic in the 1990s. Population size has decreased by 232.1 thousand people (18.6%) over the intercensal period from 1989 to 2002 and by 117.1 thousand people (11.5%) over the period from 2002 to 2010. Over this time, the Republic of Komi has moved from the 48<sup>th</sup> to the 53<sup>rd</sup> position in 2002 according to the population size among Russia's regions and to the 58<sup>th</sup> place in 2010. Average population density has reduced from three persons to 2.2 persons per one square kilometer, which is more than three times lower than the national average.

**The role of migration and natural population movement in depopulation.** According to Komi Statistic Service, the republic has been characterized by the stable negative balance of migration since 1987. So, if positive migration exchange with FSU countries compensates more than half of natural population loss in Russia,

Table 1. The dynamics of the resident population in the Republic of Komi  
(according to the data of population census, thsd. people)

Year	Resident population	Including		In % to the previous population census		
		Urban population	Rural population	Total population	Urban population	Rural population
1897	170.7	4.5	166.2			
1920	179.8	5.4	174.4	105.3	120.0	104.9
1926	225.6	10.0	215.6	125.5	185.2	123.6
1939	320.3	29.2	291.1	142.0	292.0	135.0
1959	815.6	484.3	331.3	254.6	1658.6	113.8
1970	967.0	598.1	368.9	118.6	123.5	111.3
1979	1110.4	786.5	323.9	114.8	131.5	87.8
1989	1250.8	944.4	306.4	112.6	120.1	94.6
2002	1018.7	766.6	252.1	81.4	81.2	82.3
2010	901.2	693.4	207.8	88.5	90.5	82.4
2012*	889.8	687.2	202.6	98.7	99.1	97.5

\* Calculated data on the base of the 2010 population census – at the beginning of year.

then migration, on the contrary, contributes a lot to the population decline here, as well as in most northern regions of the country.

The population has declined by 98.4% due to migration over the period between the censuses of 1989 and 2002; only 1.6% of population decline has been caused by natural loss. The natural increase in urban areas is generally positive over this period between the censuses, i.e. migration has determined the total decline in the republic's urban population over the period from 1989 to 2002. In rural areas, the contribution of migration to population loss is estimated at 80.8% for the period from 1989 to 2002.

The role of migration in the republic decreased later, since the volume of outward migration flow declined after it had reached the maximum values in the first half of the 1990s. The republic's population has been declined by 85.1% due to migration over the period between the censuses of 2002 and 2010. As in the previous intercensal period, migration's impact is more significant in urban areas (90.9%) than in rural areas (75.6%).

Recently, the role of migration in the population decline has been growing again due to the reduction of natural loss because of the favorable trends in fertility and mortality. The total population decline in urban areas has been determined mostly by migration since 2007. And the natural increase of the Republic's population became positive in 2011. Transition to the natural increase under the conditions of preserving natural loss in the whole Russia was provided by relatively young age structure of the population in the Republic of Komi, which made for the subsequent natural loss in the region at one time (in 1993 vs. 1992 for the whole country). But if only 1.6% of total depopulation in the republic was caused by the prevalence of a mortality rate over a birth rate in the period between the censuses of 1989 and 2002, then 14.9% of depopulation was caused by that in 2002 – 2010.

The absolute natural loss in Komi has amounted to 46 thousand people over the period from 1993 to 2011. The number of deaths exceeded the birth rate by 19.4 thousand people over 19 years in urban areas (more than a thousand per each year) and by 26.6 thousand people in rural areas (1.4 thousand per year). At the same time, the rural population accounts for less than one quarter of the total population in the republic. The rural population natural loss was several times higher than the similar urban indicator in some years. Absolute annual natural loss maximum was fixed in the republic in 2003: -4.3 thousand people (-4.3 per 1,000 people). At the same time, the rural population natural loss was -9.8 per 1,000 people as compared with -2.6 % in urban areas. This was followed by the reduction of loss and, as mentioned above, the positive natural increase of the population was fixed in 2011, i.e. the number of births exceeded the number of deaths.

**Changes in age distribution.** At one time, active migration inflow was accompanied with a significant rejuvenation of age distribution in the republic. Migration outflow, on the contrary, tends to raise demographic ageing rates (increasing the share of seniors and elders in the total population) due to reducing the group of people at the working age who have the greatest migration mobility. The population's consenescence was also caused by a low birth rate during the last two decades that led to a reduction in the share of children ages. At the same time, it should be noted that the aggregate birth rate, which was kept in Komi until the second half of the 1980s, was significantly higher than the average national rate; it did not differ appreciably from it in 1990 – 2000, and it was lower than the national average in some years. The decline in the population under the working age and the increase in the population at the working age and over were fixed in Komi during the period between the censuses of 1989 and 2002 (*tab. 2*).

Table 2. The dynamics of age distribution in the Russian Federation and the Republic of Komi (according to censuses) [1, 2, 3, 4, 5, 7, 8]

Year	The share of population			The share of people over the working age among the population aged 16 and over, %
	under the working age, %	at the working age, %	over the working age, %	
Russian Federation				
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
Republic of Komi				
1959	29.1	65.0	5.9	8.3
1970	32.6	60.1	7.3	10.8
1979	26.9	65.4	7.7	10.5
1989	28.0	62.1	9.9	13.8
2002	19.8	66.1	14.1	17.6
2010	17.7	64.7	17.6	21.4

Moreover, absolute population growth was specific only for the retirement age, but the working-age population declined from 776.4 thousand to 673 thousand people, i.e. by 13.3%, in Komi in 1989 – 2002, as opposed to the country as a whole.

Urban population in the republic is characterized by the significant consenescence of population that consists in marked reduction in the share of children and increase in the share of pensioners. In rural areas, on the contrary, there was a more significant increase in the share of working-age population. However, the absolute number of working people has decreased by 11.2% here over the period from 1989 to 2002.

There was an increase only in the share of population over the working age in the last intercensal period from 2002 to 2010 in the Republic of Komi. And only the rural population is still characterized by a slight increase in the share of working-age people mainly due to a less significant increase in the number of pensioners because of the high mortality of the working-age villagers. It should be noted that in 2002 – 2010 there was more significant decrease in the share of children ages in rural areas than in cities. There was a marked decline in the share of working-age population: by 16.1% versus 12.6% in cities.

Table 2 shows that Russia's population has already crossed the threshold of old age in 2002. The Komi Republic's age distribution allows the population not to be considered as old. At least, according to not all the scales of old age. The share of pensioners (men aged 60 and over, women aged 55 and over) does not exceed 20% both in rural and urban areas. Despite the fact that the Republic of Komi had a migration population loss in the last 25 years and it is characterized by the increased rates of population aging, its population is still younger. According to the 2010 Population Census, the average age of the population in Russia accounted for 39 years, it increased by 1.3 years as compared with 2002 [8]. The average age of the population in Komi accounted for 37.2 years [7, p. 94]. However, it has increased by 2.2 years over the recent intercensal period.

At the same time, it should be taken into account that there is an early retirement age in the republic: 50 years – for women and 55 years – for men, which is an additional factor affecting the labour potential in the region. Moreover, the branch system of management and uncomfortable living conditions in the North impose the special requirements to the characteristics of public health and, accordingly, to the age distribution.

**Dynamics of the level of economic (demographic) pressure.** The significant decrease in the share of children and slight decrease, especially in rural areas, in the share of pensioners in 1989 – 2002 led to the marked reduction in the level of demographic pressure on the working-age population in the republic (*tab. 3*). The demographic pressure index has reduced from 610 people aged under and over working age down per 1000 able-bodied people to 513 people, i.e. by 15.9%.

However, there is a natural increase of economic pressure in recent years due to the fact that a lot of generations of post-war fertility compensatory recovery have reached the pensionary age, but a few generations of the 1990s have reached the working age, which heightened the negative effects of migration.

The latter fact is also accompanied by a decline in the number of reproductive contingents, especially in the most active child-bearing ages, which defines the unfavourable trends in fertility in the near term and, thus, the further narrowing of labour reproductive resource base.

According to the 2010 Population Census, the demographic pressure was equal to 546 people aged under and over working age per 1000 able-bodied people in Komi. It was still lower than the nationwide statistics. However, it should be noted that the economic pressure on the working-age population continued to decrease the intercensal period from 2002 to 2010 in Russia as a result of the migration inflow of working-age population from the neighboring countries, while there was a significant increase in demographic pressure in the Republic of Komi in this period.

Economic activity of the population in the Republic of Komi. It is impossible to assess the region's labour potential without the analysis of the trends in the population's economic activity. Since the middle of 1993, the national statistics has transited to the classification system recommended by the International Labour Organization, which divides the population into economically active and economically inactive. It is economically active population, i.e. people aged from 15 to 72 offering their services in the labour

Table 3. Dynamics of the demographic pressure index in the Russian Federation and the Republic of Komi (according to the population censuses)\*

Year	The number of persons aged under and over working age per 1000 able-bodied people, pers.	The number of persons aged under working age per 1000 able-bodied people, pers.	The number of persons aged over working age per 1000 able-bodied people, pers.
Russian Federation			
1959	712	538	175
1970	786	511	275
1979	656	386	270
1989	754	430	325
2002	630	295	334
2010	623	263	360
Republic of Komi			
1959	538	448	91
1970	664	542	121
1979	529	411	118
1989	610	451	159
2002	513	300	213
2010	546	274	272

\* Accounted on the base of [1; 2; 3; 4; 5; 7; 8].

market, which is a real labour potential of the region. Quantitatively, this group is made up of the number of employed and unemployed population that includes the strictly defined categories of people. The size of these categories is assessed on the basis of sample population employment surveys that have been regularly held in Russia since 1992; and since 1999 – every three months (as of the last week of every second month of the quarter).

According to the 2011 population employment surveys, the size of the economically active population in the Republic of Komi accounted for 531 thousand people, or 70.1% of the total population in this age group [6]. There was a steady decline in the population aged 15 – 72 (*tab. 4*) as a result of both migration outflow and reaching the working age of a few contingents who were born in the 1990s. People who were born in 1996 reached 15 in 2011; the share of people from this age group will decrease in the next few years. However, there are growth trends in the economic activity of the population over the 2000s both in the country and the Republic of Komi. Thereby, it should be noted that the level of the economic activity in Komi is traditionally higher than the nationwide average, which is natural under the conditions of increased share of the working-age population.

According to the 2010 Population Census that took place at the end of the year, there were 582.7 thousand of working-age people in the republic. According to the population employment surveys, 491.4 thousand persons were classified as economically active population in 2011. In other words, the level of economic activity is about 84% of working-age population. The rest of working-age people belong to the economically inactive population. The economic activity of the working-age population is about 85% in urban areas and 81% in rural areas.

It should be noted that in recent years there has been a growth trend in the level of the working-age population's economic activity in Komi. More recently, nearly 20% of the working-age people in urban areas and almost 30% in rural areas were referred to the economically inactive population. These figures were about 15 and 19% in 2011. If the economic inactivity of the urban working-age population is caused largely by the full time students, then the economic inactivity of the population in rural areas, where there are practically no professional institutions, reveals the high share of people who "lost hope of finding a job and stopped looking for it", i.e. a significant transition of stagnant unemployment into the population's economic inactivity.

**Table 4. Dynamics of economic activity of the population in the Republic of Komi\***

Year	Number of people aged 15 – 72, thsd. pers.	Size of economically active population, thsd. pers.	Level of economic activity, in % to the number of people aged 15 – 72	For reference: Level of economic activity in the Russian Federation, %
2001	810.6	549.6	67.8	64.2
2002	807.1	536.1	66.4	64.9
2003	803.4	549.7	68.4	64.8
2004	801.7	531.4	66.3	65.3
2005	798.0	547.0	68.5	65.8
2006	792.3	547.3	69.1	66.1
2007	785.1	547.2	69.7	67.1
2008	779.5	569.8	73.1	67.7
2009	771.4	541.5	70.2	67.8
2010	766.2	547.1	71.4	67.7
2011	757.5	531.0	70.1	68.3

\* According to sample population employment surveys.

Absolutely, the decline in the working-age population's economic inactivity should be regarded as a very auspicious moment that shows, first of all, the improved situation on the labour market.

The level of labour potential utilization in the republic. In 2011, the economically active population in the Republic of Komi consisted of 485.8 thousand of employed people (91.5%) and 45.2 million unemployed persons (8.5%) according to the International Labour Organization. The 2000s population employment rate is characterized by an increasing trend, and unemployment rate, respectively – by a decreasing trend (*tab. 5*). However, the table shows that there are the swings in these trends due to the impact of economic conditions (i.e., the effects of the 2009 global financial crisis) or the features of surveys' samples in some years.

The unemployment rate was traditionally about two times higher in rural areas of the republic than in urban areas. In 2011, it covered 13.7% of the economically active rural population vs. 7.1% in urban areas. Unemployment population included 13.9% of rural working-age residents and 7.3% of urban working-age people.

The most depressing regions in terms of employment are Troitsko-Pechorsky District, northern regions (Ust-Tsilemsky District and Izhemsky District) and southern rural areas. They are characterized by high registered unemployment rates and significant pressure on job vacancies of enterprises. The most favourable situation is in Usinsk, Syktyvkar and Ukhta, which are characterized not only by low unemployment rates, but also the number of vacancies that are sufficient to provide everybody with job – it is obvious that unemployment is structural here.

Unemployment naturally covers mostly young people, who have no sufficient experience and who are characterized by high requirements for working conditions and wages. If the total unemployment rate of the economically active population was 8.5% in 2011, then it was 12.5% among young people aged under 30. A registered unemployment rate is also higher among young people.

There are more than half of women among the registered unemployed population (by the way, the share of women in the unemployed population has reduced recently). At the same time, the total women unemployment rate is traditionally lower than that of men: 6.9% vs. 10%,

Table 5. Dynamics of population's employment rate in the Republic of Komi \*

Year	Employed in economy			Unemployed	
	Employed population size, thsd. pers.	in % from the size of economically active population	in % from the number of people aged 15 – 72	Unemployed population size, thsd. pers.	in % from the size of economically active population
2000	481.8	88.0	59.1	65.9	12.0
2001	473.8	86.2	58.4	75.8	13.8
2002	486.8	90.8	60.3	49.3	9.2
2003	484.3	88.1	60.3	65.4	11.9
2004	465.5	87.6	58.1	65.9	12.4
2005	483.9	88.5	60.4	63.1	11.5
2006	479.7	87.6	60.5	67.6	12.4
2007	492.3	90.0	62.7	54.9	10.0
2008	528.2	92.7	67.8	41.6	7.3
2009	477.6	88.2	61.9	63.9	11.8
2010	490.9	89.7	64.1	56.2	10.3
2011	485.8	91.5	64.1	45.2	8.5

\* According to sample population employment surveys.

respectively, in 2011. Women's economic activity is also lower than that of men: 66.1% vs. 74.6%. I.e. in 2011, about a third of women aged 15 – 72 (including 17.2% of working-age women) are referred to the economically inactive population. However, it should be noted that the increased economic inactivity of women is primarily caused by the large share of full time students as compared with men.

The total unemployment rate in the Republic of Komi, as always, is much higher than in Russia as a whole. Thus, these figures were 8.5 and 6.6% in 2011. However, the difference has been reduced in recent years. The registered unemployment rate in the republic, which was above the national average during the 1990s,

has been practically equal to the average nationwide rate in recent years – about 2% of the economically active population.

Summarizing all the above, we can note that the labour potential of the Republic of Komi is characterized by progressive narrowing of the demographic base of its reproduction, which has been largely caused in recent years by demographic history reinforcing the negative impact of the migration outflow; increased level of forced population unemployment with its high economic activity; reduced economic activity and employment of the rural working-age population; reducing, but still significant, degree of stagnant rural unemployment's transition to the stage of economic inactivity.

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## The role of the sport industry in the development of today's economy

*Historically, all the sport projects related to the sector of recreation and entertainment, so they were rather unimportant. However, the situation has radically changed recently: the sport industry is reaching a new developmental level and becoming a full-fledged economic sector. It is indicated by the huge investments in the development of sport clubs and related infrastructure, as well as the special attention of the Government.*

*Sports economy, finance in sport, financial "fair play", football.*



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According to the Strategy for the Development of Physical Culture and Sports in the Russian Federation until 2020, the development of physical culture and sports is one of the priorities of the country's social policy. At the same time, as N.V. Slobodyanyuk rightly points out in his article, "sport is becoming an important sector of the economy in many developed countries. Physical culture and sports often penetrate into all the spheres of life; they interact with the government, forming a specific area for business. Physical activity and sports are the important area of entrepreneurial activity which provides, on the one hand, the employment of many people in different sectors of the sport industry; on the other hand, these businesses replenish federal and local budgets with tax revenues that allow the state to solve social problems. The dynamics of sports is increasingly linked to the economy, trade and career guidance of the participants in sporting events.

There are significant material and financial assets in this system; the network of labour and management resources is being expanded. The sport industry unites not only the sportsmen, it forms a traditional commercial activity and business organization that allows earning money on the competitive market in national and international sport" [5].

Finally, we present the opinion of the President of the Russian Olympic Committee (ROC) Alexander Zhukov, who says commenting on the signing of an agreement between the Russian International Olympic University and ROC, "In essence, sport is an independent and very serious business sphere" [9].

All this confirms the relevance of studying the sport industry as an independent economic sector. However, there is a lack of scientific and practical works on this subject.

The study is aimed at reasoning the importance of the sport industry for the economic

development in whole and analyzing the prospects of its development.

There are the following research tasks:

- proving the high importance of the sport industry for today's economy;
- identifying the key components of a sport sector;
- defining the factors that, on the one hand, promote the development of the sport industry, and, on the other hand, hinder it;
- grounding or suggesting the criteria of the sport industry efficiency;
- identifying the key trends in the sport industry;
- analyzing the prospects for the sport industry.

It is reasonable to start with proving the high importance of the sport industry for today's economy, basing on some analytical reports.

Thus, according to PwC analysis Outlook for the Global Sports Market to 2015 [4], despite the recent troubled economic times, sport has continued to thrive and develop. Sponsors allocate increasing amounts of money to sport, advertisers increase the budgets of sports events, businessmen invest in sport clubs, the governments actively update sport infrastructure and stimulate the development of this sector in whole. According to PwC forecast, over the five years to 2015, a combination of improved economic conditions, stronger TV advertising, further growth in pay TV penetration, and the ongoing migration of sports to pay TV will be the leading drivers of global sports revenues in all regions.

Global sports revenues were valued at 121.4 billion dollars in 2010 (table 1), a strong year due to the FIFA World Cup in South Africa. Over the next five years to 2015, there will be a compound annual growth rate of 3.7% to achieve global revenues of 145.3 billion dollars. North America starts the period as the largest region with 41% of total revenue, and whilst Latin America will see the highest growth rates. EMEA (Europe, Middle East and Africa) is the second largest

market, but will experience the lowest growth rate over the period. This is partly a reflection of the timing of major sports events, with 2010 being such a strong year in EMEA given the FIFA World Cup and 2015 being a relatively quiet year. If mega events are excluded from the analysis, the global growth rate is 4.7%. Although EMEA remains the slowest growing region, the underlying rate is 4.6%, which is much closer to the global rate of 4.7% and to North America which is also 4.7%. Latin America remains highest at 5.6%. Sports revenue growth in the BRIC countries averaging 4.5 percent compounded annually compared with 3.7 percent for the global market.

Overall, sports revenues globally are on an upward path. However, it should be kept in mind that, firstly, any changes in the inherent trends can lead to opposite results. Secondly, analyzing the global sports market, PwC specialists have missed some decisive moments that are specific to each country. Finally, revenue items are not tied to their recipients in the report, while the distribution of rights, obligations and cash flows play key role here, so it isn't entirely correct to draw any conclusions basing only on absolute values. There is a need to analyze each segment: gate receipts, broadcasting rights, sponsorship and merchandising.

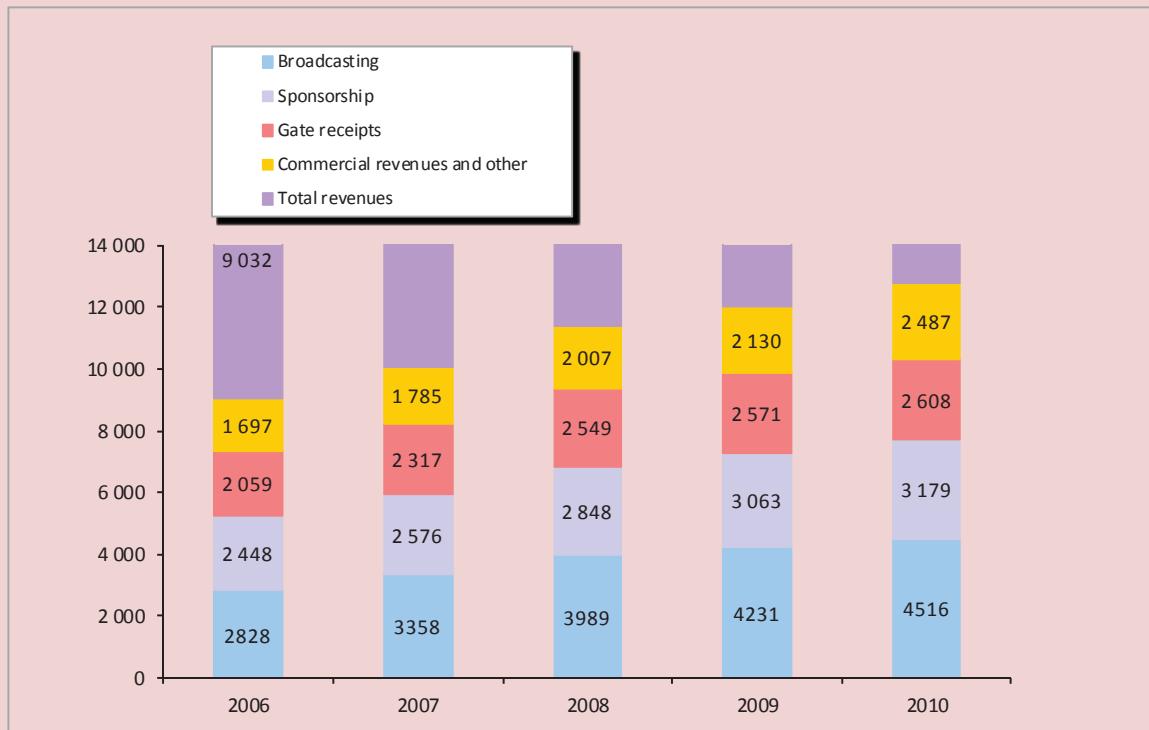
Another important aspect includes the development of individual sports that forms the general tendency for the sport industry. As a rule, the historical popularity of sport in different countries comes to the fore here: football in England, cricket in India, rugby in New Zealand or baseball in the United States. Let us consider football as one of the most popular sports in Russia.

It can be considered UEFA's benchmarking report "The European Club Football Landscape" that covers figures from the audited financial statements for 2010 of 665 football clubs. According to this document, there was another 6% increase in club incomes in 2010, reaching a record level of 12.8 billion euros (*fig. 1*).

Table 1. Revenues of the world sport industry, bln. dollars

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Growth rates	Share (2010)
Gate receipts	37 056	38 387	39 998	38 873	39 570	39 043	40 613	41 317	43 544	44 746	2.5%	32.6%
Broadcasting rights	24 281	23 861	27 005	24 563	29 225	26 945	32 141	30 062	37 801	35 247	3.8%	24.1%
Sponsorship	26 749	29 273	32 494	31 467	34 972	35 132	39 173	40 236	45 559	45 281	5.3%	28.8%
Merchandising	19 430	20 413	21 263	17 586	17 624	17 570	18 002	18 549	19 565	20 067	2.6%	14.5%
<b>Total</b>	<b>107 516</b>	<b>111 934</b>	<b>120 760</b>	<b>112 489</b>	<b>121 391</b>	<b>118 690</b>	<b>129 929</b>	<b>130 164</b>	<b>146 469</b>	<b>145 341</b>	<b>3.6%</b>	<b>100.0%</b>

Figure 1. Europe-wide top division revenues, million euros



Over the period from 2006 to 2010 the aggregate income of football clubs increased by a remarkable 42%, while Europe's economies expanded by just 1%. Indeed, the figure for headline net losses in 2010 reached the level of 1.6 billion euros, following on from the previous record 1.2 billion euros losses in 2009.

Thus, we see again a rising trend, and although there is an increase not only in revenue but also in expenditure, the total amount of funds involved is impressive. By the way, the UEFA pays great attention to the increase of losses. So, since the

2013–2014 season the UEFA Financial Fair Play Regulations will come into effect. They are aimed at limiting the amount of losses and making all club's transition to self-sufficiency. UEFA will be able to ban clubs from playing in European competitions during the following season if the rules have not been met. There will be the following general principle: the club shall not exceed the total loss of 5 million euros over the year of competition and previous two years. Another important aspect concerns the limitation of funding by the owners of clubs.

The UEFA requires the following covenants will be observed:

- auditor's report in respect of club's going concern;
- there are no deteriorates relative to net liabilities (negative equity);
- breakeven requirement;
- no overdue payables.

Such attention to financial results is a rather clear evidence for the importance of sport industry (in this case it's football) as a part of the whole economic system.

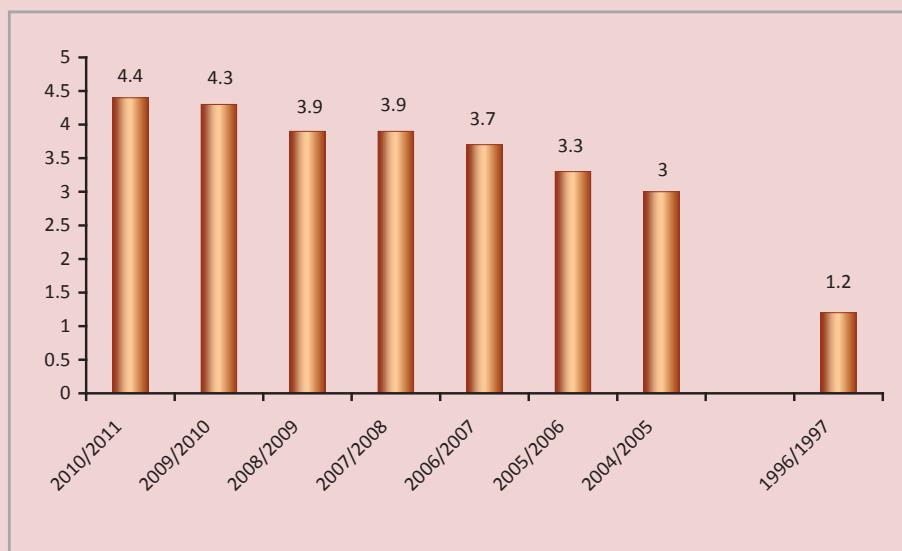
Speaking of football, it is necessary to mention the annual report of the Deloitte Football Money League [8]. According to this document, the top 20 Money League clubs generated combined revenues of 4.4 billion euros in 2010/11; this indicator is 3.6 times higher (!) than the same one for the season of 1996/1997 (*fig. 2*). According to KPMG analysis [1], the leading European football clubs gained profit of more than 11 billion dollars for the 2009/2010 season.

At the same time, clubs' rating and revenue structure are as follows (*tab. 2*).

In addition to rising incomes, the expenses of football clubs are also increasing. The most significant cost items include player transfer fees. According to the FIFA calculations, the cycle of money on the transfer market amounted to 3 billion dollars in 2011, besides the agents, who earned 130 million dollars or 240 thousand dollars for each transaction on average, weren't in the red [11].

Paris Saint-Germain F.C. spent most of all – 100 million euros. The owner of Chelsea F.C. Roman Abramovich spent 102 million dollars and outdistanced his main competitor Sheik Mansour and his Manchester City F.C. Dan King from The Sun estimated that Abramovich had spent on Chelsea more than 2 billion pounds: “In his eight completed seasons in charge, Chelsea spent an incredible 642,584,000 pounds on buying players – and then a mindboggling 1,170,591,000 pounds on paying them. That makes an eye-watering total of 1,813,175,000 pounds. Add a further 66 million pounds lavished on the likes of Juan Mata last year, a little more on Gary Cahill in January and wages so far this season and – hey presto – 2 billion pounds has gone on a club” [20].

**Figure 2. The total revenue of the top 20 European football clubs, billion euros**



Source: Deloitte.

Table 2. Revenues of European clubs in the season of 2010/2011

	Revenue	Games		Broadcast		Advertising	
	mln. €	mln. €	%	mln. €	%	mln. €	%
Real Madrid C.F.	480	<b>123.6</b>	26%	183.5	38%	172.4	36%
FC Barcelona	451	110.7	25%	<b>183.7</b>	41%	156.3	35%
Manchester United F.C.	367	120.3	33%	132.2	36%	114.5	31%
FC Bayern Munich	321	71.9	22%	71.8	22%	<b>177.7</b>	55%
Arsenal F.C.	251	103.2	41%	96.7	39%	51.2	20%
Chelsea F.C.	250	74.7	30%	112.3	45%	62.8	25%
A.C. Milan	235	35.6	15%	107.7	46%	91.8	39%
FC Internazionale Milan	211	32.9	16%	124.4	59%	54.1	26%
Liverpool F.C.	203	45.3	22%	72.3	36%	85.7	42%
FC Schalke 04	202	37.2	18%	74.3	37%	90.9	45%
Tottenham Hotspur F.C.	181	47.9	26%	92	51%	41.1	23%
Manchester City F.C.	170	29.5	17%	76.1	45%	64	38%
Juventus F.C.	154	<b>11.6</b>	8%	88.7	58%	53.6	35%
Olympique De Marseille	150	25.6	17%	78.2	52%	46.6	31%
A.S. Roma	144	17.6	12%	91.1	63%	34.8	24%
Borussia Dortmund	139	27.7	20%	32.1	23%	78.7	57%
Olympique Lyonnais	133	19	14%	69.6	52%	44.2	33%
Hamburger SV	129	41.8	32%	<b>26.7</b>	21%	60.3	47%
Valencia CF	117	27.5	24%	66.4	57%	<b>22.9</b>	20%
S.S.C. Napoli	115	22	19%	58	50%	34.9	30%
Total	<b>4402</b>						
Min		11.6		26.7		22.9	
Max		123.6		183.7		177.7	
Average		51.28	22%	91.89	44%	76.925	35%

Source: Deloitte, author's calculations.

In addition to increasing player transfer fees, their salaries are growing. According to the analysis of the French magazine France Football [12], Lionel Messi is the world's highest-paid player, who retained the title of the best footballer in the world during the last three months. The Barcelona leader Messi earned 33 million euros last season with 21 million euros in advertising, 10.5-million-euros salary within his personal contract with the Catalan club and 1.5 million euros in bonuses for his successful games.

The coaches keep up with the players in their care. Real Madrid coach Jose Mourinho earns 14.8 million euros a year. The second highest-paid coach is Carlo Ancelotti: Arab sheiks, who own a French football club Paris Saint-Germain, have provided the Italian

coach with 13.5 million euros salary per year. Barcelona's master Pep Guardiola ranks 3<sup>rd</sup> in this list. The Spanish coach earned 9.5 million euros in 2011. There are two coaches, who work in Russia, in the rating of France Football. They are Dutch coaches: Guus Hiddink, who is the current manager of FC Anzhi Makhachkala, and the new manager of the Russian national team Dick Advocaat. The owner of FC Anzhi Makhachkala billionaire Suleiman Kerimov pays 8.6 million euros to Guus Hiddink. And the Russian Football Union spends 7 million euros per year for the salary of the current manager of the Russian national team Dick Advocaat. This salary is only 1 million euros lower than the money that is paid by Manchester United F.C. to the world's best coach Alex Ferguson.

Thus, there is a pronounced growing trend in the development of sport industry, which is proved by the rise in clubs' revenues and increase in financing. However, the expenditure growth does not stop the investors: the number of people, who wish to invest in sports, is increasing. The list of the richest shareholders of football clubs can be used as an example of this trend (*tab. 3*). It should be noted that this list includes only the names of persons, whose wealth is more than 1 billion dollars.

It should be noted that this list includes only the owners of football clubs, while other sports are also very popular. For example, Russian billionaire Mikhail Prokhorov bought 80% shares of the basketball club New York Nets and 45% in the construction of the stadium Barclays Centre in Brooklyn.

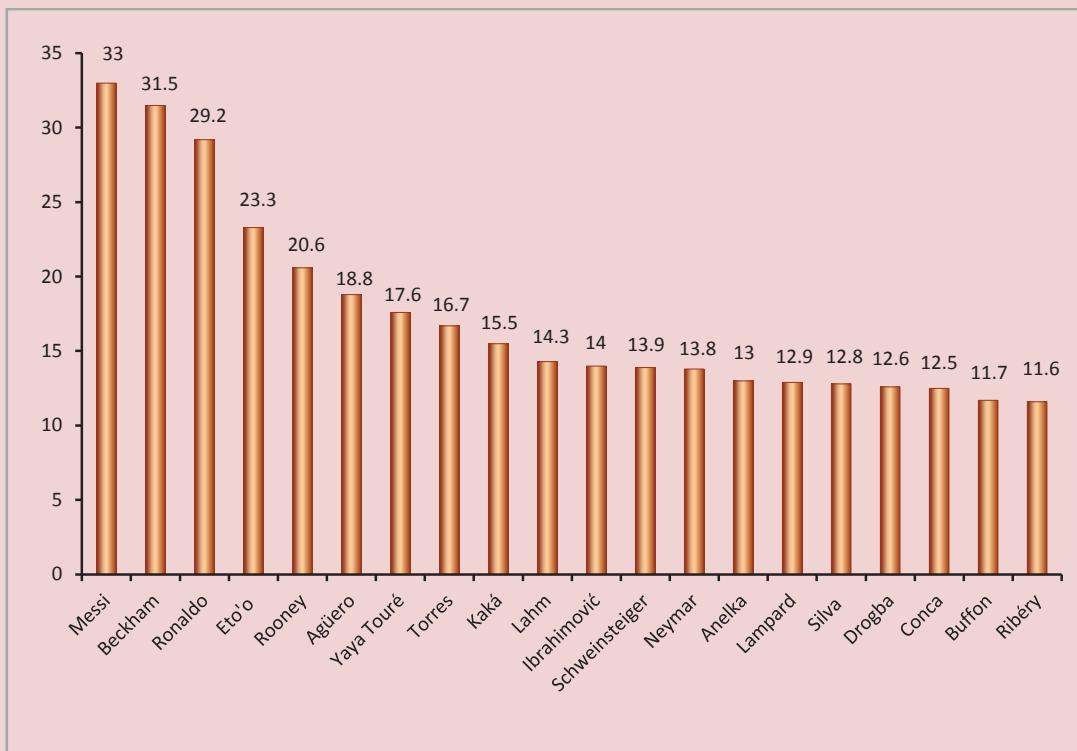
The selling transaction of Frank McCourt, who sold MLB baseball club Los Angeles

Dodgers for 2 billion dollars to Guggenheim Partners Financial Group, which co-owner is a famous basketball player in the past Magic Johnson, also deserves consideration.

Besides, Frank McCourt was in the black after selling. He bought Dodgers for 330 million dollars from Rupert Murdoch in 2004, and he also paid another 100 million dollars for the stadium and 260 acres of surrounding property [13].

In addition to investors' interest in the sport industry, the role of the state should be also noted. In particular, according to the Concept of long-term socio-economic development of the Russian Federation until 2020 (RF Government Order No. 1662-r as of November 17, 2008), one of the strategic objectives of the public policy in the sphere of physical culture and sports is the development of sport infrastructure.

Figure 3. Revenues of the world's highest-paid footballers



Источник: France Football.

Table 3. The richest shareholders of football clubs

No	Owner	Club	Wealth, bln. dollars
1	Amancio Ortega	Deportivo De La Coruna	38.9
2	Sheikh Mansour bin Zayed bin Sultan Al Nahyan	Manchester City F.C.	31.5
3	Lakshmi Mittal	Queens Park Rangers F.C.	23.2
4	Alisher Usmanov	Arsenal F.C.	20
5	Rinat Akhmetov	FC Shakhtar Donetsk	16
6	Roman Abramovich	Chelsea F.C.	13.4
7	Paul Allen	Seattle Sounders F.C.	13.2
8	Francois Pinault	Stade Rennais F.C.	11.5
9	John Fredriksen	Valerenga Fotball	10.7
10	Dmitriy Rybolovlev	AS Monaco F.C.	9.5
11	Margarita Louis-Dreyfus	Olympique de Marseille	9
12	Suleyman Kerimov	FC Anzhi Makhachkala	7.8
13	Leonid Fedun	FC Spartak Moscow	7.1
14	Philip Anschutz	Los Angeles Galaxy	7
15	Ihor Kolomoyskiy	FC Dnipro Dnipropetrovsk	6.5
16	Silvio Berlusconi	A.C. Milan	6.2
17	Sergey Galitskiy	FC Krasnodar	5.5
18	The Liebherrs	Southampton F.C.	4.7
19	Denis O'Brien	Celtic F.C.	4.2
20	Stan Kroenke	Arsenal F.C.	3.2
21	Joe Lewis	Tottenham Hotspur F.C.	3.2
22	Malcolm Glazer	Manchester United F.C.	2.7
23	Mike Ashley	Newcastle United F.C.	1.9
24	Aleksandr Yaroslavskiy	FC Metalist Kharkiv	1.4
25	Andrea Della Valle	ACF Fiorentina	1.2
26	John Henry	Liverpool F.C.	1.1

Source: Bloomberg, Forbes, Finance, sports.ru, bleacherreport.com

The construction of sports facilities during the preparation for the Olympic Games in Sochi, the 2013 Summer Universiade in Kazan, as well as the 2018 FIFA World Cup confirm this. Such projects require a huge investment, both from the government and business. For example, according to KPMG estimation, the construction costs of stadiums for the 2018 World Cup games amount to 2.6 billion euros (*tab. 4*).

It is necessary to note that this cost estimation is rather optimistic: there is information about much more significant cost in the press. In addition, none of the arenas have been built yet, and we can say taking into account the Olympic construction projects that their budgets trend to increase as they are implemented.

Investments in sport infrastructure contribute not only to the development of sports but stimulate economy in whole. Thus, according to Ernst&Young analytical report [9], the 2014 World Cup will produce a surprising cascading effect on investments made in the country. In total, an additional 142.4 billion Brazilian reais will flow in the country from 2010 to 2014: in addition to the 29.6 billion reais spent by Brazil on the World Cup to ensure an adequate infrastructure and organization, the tournament will bring an additional 112.79 billion reais including visitors' expenses. The World Cup's direct impact on the Brazilian Gross Domestic Product (GDP) is estimated by E&Y at 64.5 billion reais or the period 2010 – 2014 – an amount equivalent to 2.17% of estimated GDP for 2010. The state will receive an additional tax collection of 18.13 billion reais.

Table 4. Construction costs of football stadiums for the 2018 World Cup

Stadium	Number of seats	Cost, mln. euros	Cost of a seat, euros
Luzhniki	89 318	189	2 116
Dynamo	44 920	221	4 920
Spartak	43 000	229	5 326
Kaliningrad	45 015	166	3 688
Kazan	45 105	197	4 368
Krasnodar	50 015	205	4 099
Nizhny Novgorod	44 899	189	4 209
Rostov-on-Don	43 702	174	3 982
Saint Petersburg	67 000	316	4 716
Samara	44 198	142	3 213
Saransk	45 015	166	3 688
Sochi	43 702	178	4 073
Volgograd	45 015	166	3 688
Yaroslavl	44 042	158	3 587
Yekaterinburg	44 130	126	2 855
<b>Average</b>	<b>49 272</b>	<b>188</b>	<b>3 902</b>
<b>Total (cost)</b>	<b>739 076</b>	<b>2 601</b>	

Source: KPMG.

The impacts arising from the World Cup on the Brazil economy will be similar to the domino effect. Thus, the production increase in those sectors directly related to the World Cup requires them to consume a larger amount of inputs; the producers of these inputs, in turn, must increase their own intermediate spending. The greatest growth is expected in construction, trade and business services. The Cup should generate 3.63 million jobs and 63.48 billion reais income for the population. The Brazilians will invest 14.5 billion reais in infrastructure, including 4.6 billion reais in the building or renovation of sports stadiums and 1.4 billion reais in the maintenance or renovation of highways. 7.4 million tourists will come in Brazil in 2014, and they will spend 5.9 billion reais; airport congestion will become the main problem of the country despite their reconstruction.

E&Y expert write that after successful hosting one of the world's major sports events and achieving solid macroeconomic core principles, the country approaches its desired status of being the world's fifth largest economy in the very near future. According to the IMF,

Brazil's nominal GDP totaled 2.5 trillion dollars in 2011 that ranked the sixth in the world. France's GDP (the fifth in the world) totaled 2.8 trillion dollars.

According to the calculations of the Organizing Committee of "Russia-2018", the World Cup can have the similar positive impact on the Russian economy. Preliminary estimates show that an additional increase of Russia's GDP will be at least 527 billion rubles by 2018 and 810 thousand jobs will be created. Budget revenues of all levels will rise at least by 95 billion rubles due to expanding the tax base.

According to Postbank, the 2006 FIFA World Cup in Germany accelerated the growth of the German economy by 0.5 percentage points; UBS analysts noted that GDP growth increased from 0.5 up to 2.2% in South Africa in the period from 2006 till 2010 [15]. The impact of the Olympic Games on GDP growth is shown in *table 5*.

Despite most facts, analytics and statistical data are associated with football, these tendencies are inherent in other sports. In this regard, the general conclusions will be drawn for the sport industry as a whole.

Table 5. GDP growth rate of the city that hosted the Olympic Games, %

		Pre-Olympic year	Olympic year	Post-Olympic year
Moscow	1980	1.7	4.3	2
Los Angeles	1984	4.5	7.2	4.1
Seoul	1988	11.1	10.6	6.7
Barcelona	1992	2.5	0.9	-1
Atlanta	1996	2.5	3.7	4.5
Sydney	2000	3.8	2.1	3.9
Athens	2004	4.8	4.7	3.7
Beijing	2008	11.3	9	8.7

Source: <http://i-business.ru/blogs/20167> [17].

Thereby, it is necessary to identify the main components of the sport sector, each of which has some specific features and should be considered separately during a very thoughtful analysis:

- ◆ sports that are divided into professional and amateur kinds; for example, there are 15 winter sports and 33 summer sports in the site of the Russian Olympic Committee [16], and each of them has the essential features both in terms of investment required and the possible income; each sport has its own Federation that oversees it, including financial matters;

- ◆ mass sports – the development of physical culture and public sports; this direction is developed partly by the professional federations mentioned above, however, keeping in mind the scale of our country and a huge range of problems, this set of issues (along with the issues of sports medicine) should be considered separately, and it must be in the range of responsibility of the RF Ministry of Health and Human Development.

Then, there are the main factors contributing to the development of the sport industry:

1. Investors' search for the new projects and opportunities for free cash investment.

2. Prestigious sports team ownership, which provides the opportunity to expand business contacts, to have an access to the private business community and, as a result, new contracts, including the fields that are not related to sports.

3. Market outlets that are not potentially limited, international sports and the opportunity to enter the markets in other countries.

4. Creating a positive image and increasing the number of customers. As an example, it is possible to consider a sponsorship contract of MegaFon that has been chosen as an official partner and mobile network operator of the Olympic Winter Games in Sochi. This cooperation has led to the following results. Firstly, MegaFon has got a chance to attract potential subscribers who are loyal to the company. Secondly, due to its status the company has managed to launch three new major projects within the infrastructure of Sochi and the Olympic facilities. The first one is "Safe City", which is an innovative video control system that allows twenty-four-hour monitoring of urban highways, buildings, popular recreations, etc. The second one is "MeteoFon", which is the launch of local weather stations based on the company network. And finally, the third project deals with the exclusive rights to the deployment of the fourth-generation network (4G) [14]. All these projects require substantial capital investments, and they are expected to be long-term. Of course, they are not fast-payback projects; however, they can make an invaluable contribution to the development of the company in future.

5. Availability of good examples of successful and profitable sport clubs that prove that sport can serve not only as a hobby or a form of social pressure, but also as a full-fledged business.

6. Serious diversification of revenue sources contributing to reducing risks. In particular, football clubs have gate receipts, the proceeds from selling attributes, broadcasting rights, advertising and sponsorship fees. Their own stadium can bring a significant income as a commercial real estate (offices, restaurants, fitness clubs, etc.), as well as through the sale of arena's name. Another item of income is selling transactions of players. Finally, the participation in the European competitions brings a lot of revenues. Practically, all these items of income can be considered as individual business segments, which, on the one hand, make the management of football club a complex and multifaceted process; on the other hand, they open the vast horizons of growth to the owners of clubs.

7. Attention to the sports industry from the government, which is expressed in creating the most favourable regime for sport projects, in particular, providing tax benefits and, most crucially, in the development of related infrastructure and significant investments.

All these factors make the sport industry attractive for many categories of investors and, thereby, they contribute to its further development. However, as often happens, besides the factors contributing to the development of one or another direction, there is a set of restrictions. The sport sector is not an exception.

1. A lack of professional managers who can effectively manage the companies of the sports industry.

2. The need for significant amounts of financing.

3. As any sector of the economy, the sport industry can be affected by financial crises. Any economic swings will be reflected in the reduction of revenues and investment.

It is very important to understand the criteria that can be used to carry out the analysis of the sport industry:

- volume of investment by sectors and periods, and the number of assets in use;

- enlarged cost parameters of construction (the cost of one seat at the stadium, one square meter of an arena, one place in the sports school, etc.);
- investment structure: the share of private investment and public funding;
- cost structure: officials and coaches overheads, medicine expenses, costs of capital investments, etc.;
- performance indicator of sports clubs as business enterprises;
- the number of top places in various competitions that have been won in individual sport over the period;
- average term of sports facilities construction for each kind of sport;
- the number of people employed in the sports industry, the average wages of some standard positions.

If a set of common indicators to analyze the sport sector is clear, then it is not always simple to draw a conclusion about the operating efficiency. Firstly, it is possible to sum up the results of any project in the sport sector after a lapse of some years. Secondly, many indicators should be considered together. First of all, it concerns the amount of investment: unfortunately, investments of billions of dollars are not effective often in Russia. Therefore, the efficiency of any investment should be confirmed, first of all, by the quality of obtained results. At the same time, it is problematic to develop a unified model for the estimation of efficiency due to the individuality of each sports project. Probably, it is necessary to speak about a rigorous sector analysis.

The results of the study allow us to draw the following conclusions.

1. Nowadays, the sport industry in Russia is going through the period of rapid development, and it has a huge investment potential. However, this is only a general trend; the situation is fundamentally different in various sectors. If the situation takes a turn for the better in professional sports from year to year, then

the development rate of physical culture for the mass population is very low. First of all, this applies to sparsely populated towns, and it is expressed in underfunding and lack of athletic fields and sections.

2. There is a similar situation with the workers employed in the sports sector: despite the significant number of coaches and athletes, their wages are extremely low in the whole country. At the same time, it should be noted that the sports industry is not investigated by the Federal State Statistics Service of the Russian Federation as an individual sector. There is only an item "Health and social services" among the economic activities in the category "Employment and unemployment" on the web site of this agency [19]. Perhaps, such an approach was appropriate before, but it can hardly be considered as acceptable for the country, which is going to play host to the Olympic Games and the FIFA World Cup.

3. Besides the direct effects on the economy due to increasing the number of jobs, attracting tourists, developing infrastructure and selling associated goods, sport is also critical for public health and lifestyle, which ultimately has a positive effect on the economic development.

4. In the long-term, business can be interested in sport not only in terms of improving the image attractiveness, but also as a revenue source.

5. Despite the impressive development prospects, it is impossible to forget about the multitude of specific factors that are typical for the sports industry, strong business capital intensity in this area and a high level of risk. Currently, it is possible to expect the profit only when investing in the most popular sports; moreover, the first return can be expected only in several years. Even the Roman Abramovich's Chelsea Football Club ended the fiscal year of 2010/2011 with a loss of 72 million pounds;

and the total losses for the Russian businessman have amounted to 614 million pounds from the date of purchasing the club [18]. All these things confirm the fact that investments in sport are not fast-payback funds.

6. Due to the rapid growth trends, the sports sector should be considered as an individual sector of the economy, first of all, from the perspective of government regulation.

7. Small and medium business can play a special role in the development of the sports industry. Investments in small sport projects in the regions can give no less effect to the economy than the construction of stadiums for the 2014 Olympic Games or the 2018 World Cup.

8. State sport policy should be aimed at stimulating the development of infrastructure projects, their financing, as well as supporting the training of highly qualified specialists in this field.

Thus, the prospects for the development of the sports industry as a full-fledged sector of the economy are quite optimistic for Russia. However, this will require substantial governmental and business efforts, and this will take more than one year.

In conclusion we'd like to quote a saying of one of the owners of the Arsenal FC and the richest man in Russia according to Forbes – Alisher Usmanov [10]: "Arsenal is a real business, which generates about two hundred million dollars in revenue. This is a club that is worth more than a billion dollars today. And when we bought it, it cost about half a billion. I am very pleased with this investment. And in any case, I will increase it. I think that this club has one of the best infrastructures in the world. And I believe that it is very profitable for Russian investors to have the experience of entering inside one of the greatest sport clubs".

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## Researches on poverty alleviation of Wuling Mountain area

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The support of poverty alleviation of central contiguous destitute region is a new strategy of China. “*China’s Rural Poverty Alleviation and Development Program (2011 – 2020)*” divides the poverty population concentration regions into 14 areas, Wuling Mountain area is one of them. Wuling Mountain area includes 71 counties (cities, districts) at the border areas of Hubei, Hunan, Chongqing, and Guizhou. Among them, 37 counties, cities and districts are in Hunan province, 11 counties and cities are in Hubei province, 7 counties and districts are in Chongqing, and 16 counties and cities are in Guizhou province. The total land area is 171,800 square kilometers. By the end of 2010, the total population of these areas is 36.45 million people, the urban population is 8.53 million people, and the rural population is 27.92 million people. There are 9 kinds of traditional homelands of ethnic minorities in these areas, such as Tujia, Miao, Dong, Bai, Hui and Gelao.

### I. Main Features of the Poverty in Wuling Mountain Area

As one of the concentrated and contiguous areas with special financial difficulties which are mainly supported by the country, Wuling Mountain area will be the main battlefield of the national poverty alleviation and development in the next 10 years. Located in the crossroad of the Prachuab culture, the

Chu culture, the Central Plains culture and the Yunnan-Guizhou culture, it is the forefront of the western development in China and an important link between the Central Plains and the Southwest of China.

1. *The poverty is still relatively wide.* Most of the poor people of Wuling Mountain area lived in remote highland and cold areas, karst and arid areas, and reservoir inundation areas with poor living conditions. There are 42 key counties for national poverty alleviation and development, and 13 provincial key counties in these 71 counties (cities, districts). During the implementation of “*Chinese Rural Poverty Alleviation and Development Program (2001 – 2010)*”, Wuling Mountain area identified a total of 11,303 poor villages, accounting for 7.64% of the whole country. In 2010, the per capita GDP and per capita net income of farmers in this area were 33.76% and 59.1% of the whole country respectively, with the gap further widened in comparison to 37.3% and 62.68% in 2001. In 2010, the urban-rural income ratio in this area was 3.04 : 1, with an obvious gap between urban and rural areas. Taking Xiangxi Autonomous Prefecture in Hunan Province as an example, by the end of 2010, it had had 1051 poor national villages with 1.22 million poor people, accounting for 75.4% of the total rural population.

*2. The poverty level is relatively low.* The natural conditions of Wuling Mountain area is featured with few resources, poor infrastructure, low level of social development, and extremely difficult poverty alleviation. The per capita income in this area is lower than the national level and the level of the whole province, the income gap among the residents in this area is obvious, the income in the developed regions such as Qianjiang in Chongqing, Zhangjiajie and Huaihua in Hunan is relatively high, and the income in Tongren in Guizhou, and Enshi in Hubei is lower. According to statistics, in 2010, the farmers' per capita net income in Wuling Mountain area was only 3499 Yuan, which was equivalent to only 59.1% of the national average level. According to the calculation results from the National Bureau of Statistics, in 2009, there were 3.018 million rural poor people with rural per capita net income of less than 1196 Yuan, and the incidence of poverty was 11.21%, which was 7.41% higher than the national level.

*3. The poverty-returning phenomenon is prominent.* Most counties in Wuling Mountain area are the national key poverty-stricken counties and the provincial key poverty-stricken counties. Due to the special geographical and economic conditions and other reasons, a part of poor families and people have been in poverty for a long time, and the poverty alleviation for them is difficult. With fragile survival basis for the rural poverty alleviation population, it is easy to cause poverty-returning in the event of natural disasters, market fluctuations, disease and other factors, or school entering of their children. From the situation of Anhua in Hunan Province, this county is located in Hunan rainstorm centers and drought corridors, suffering huge space time difference during precipitation and torrential rains, flash floods, drought, low temperature, frozen and other inclement weather year after year, which results in the serious poverty-causing and poverty-returning phenomenon. This county experienced a total of 14 major floods,

mudslides, frozen, hail and other natural disasters in 2008-2010, which resulted in the direct economic losses of more than 50 billion Yuan with the poverty-returning population of 35,800 people.

*4. It is more difficult for poverty alleviation and development.* With the deepening of poverty alleviation and development, the poverty alleviation in poor rural areas becomes more and more difficult. First, the factors affecting and restricting the stable income of farmers are increasing, causing the difficulties in poverty alleviation of farmers. The reasons not only include the deterioration of the natural environment and the occurrence of the frequent natural disasters, but also include the impact of macro-economic environment in market or at home and abroad. Such factors as fluctuations in hog prices, global financial crisis and other external shocks, poor sales farm products and livestock, price fall, home returning of migrant workers, and difficulties in export of labour lead to the drop in operating income of poor households and labour income growth. Moreover, with the high production prices, the cost of agricultural and livestock production is rising, which increases the expenses of farmers, offsets the benefits of the policy, dampens the enthusiasm of farmers, and significantly affects the farmers' incomes.

Second, the cost of poverty alleviation is rising. Currently, the poor people are basically concentrated in the mountains and the plateau cold areas, such conditions as the harsh natural environment, poor infrastructure, single industrial structure, inconvenient traffic information, low population quality, and lagging culture and education are extremely difficult for poverty alleviation and development. The demand for capital investment in solving the problems of the poor villages and poor people is growing. The cost of poverty alleviation is much higher than that in the past, and the difficulties in implementation of the promotion in the whole village is also increasing.

Third, the implementation effects of part of poverty alleviation and development measures are not obvious. At present, most of the poor people have diseases or disability, or mental retardation, or grown old and infirm with outstanding capacity poverty. Due to their own poverty, it is very difficult for them to enjoy some direct-to-home anti-poverty measures without start-up capitals or labours, which leads to the difficult poverty alleviation and increased poverty-returning probability.

For example, in some poor villages, the low quality of poor households or the lack of labours results in the lack of effective implementation carrier in poverty alleviation policies of “developing agriculture through science and technology”. Additionally, it is also difficult for the measures of “workforce training transfer” implemented by the government to play the desired effect due to people’s lack of knowledge or other reasons.

Last but not the least, the rural material condition in this area is extremely scarce, the road traffic is extremely bad, and people’s level of education is low, and the cultural life is monotonous. 47 towns in this area do not have the asphalt (cement) road, accounting for 3.41% of the total number of townships; 9271 administrative villages do not have asphalt (cement) road, accounting for 40.25% of the total number of administrative villages; 7790 villages do not complete the rural grid network reconstruction, accounting for 33.82% of the total number of administrative villages. Some poor people still have difficulties in medical treatment, school entering, and low social security.

## **II. Development Concept of Poverty Alleviation in Wuling Mountain Area**

*1. The persistence in combination of regional acceleration development and poverty alleviation reinforcement.* In 14 key concentrated and contiguous areas determined by China’s new round of poverty alleviation and development, there are 11 regions crossing two or more than

two provincial-level administrative regions, among them, Wuling Mountain area crosses four provinces. To achieve the poverty reduction throughout the area, the regional development must be organically combined with the poverty alleviation reinforcement, the protection and improvement of people’s livelihood shall be taken as the starting point and goal of development, and the better external conditions shall be created for the poverty alleviation reinforcement through regional development, to effectively improve the level of the overall work of poverty alleviation reinforcement. At the same time, the poverty population shall be reduced, the people’s living standard shall be continuously improved, and the economic growth in the municipal area shall be effectively promoted and accelerated through the poverty alleviation reinforcement.

*2. The persistence in combination of spanning development and acceleration of reform and innovation.* Taking the mind emancipation, idea change, bold exploration and innovation as powerful driving forces to promote the urban economic development and poverty alleviation reinforcement, we shall deepen the reform of the focus areas and key links and conduct the trial to highlighting areas first as to promote the spanning development. The scientific and technological progress and innovation shall be taken as the important support to accelerate the transformation of the area development mode as to improve the capability of independent innovation, promote the structure adjustment with the technological innovation, lead the industrial upgrading with the science and technology, enhance the regional development with the innovation and achieve the overall poverty alleviation with the regional development.

*3. The persistence in combination of government guidance and market regulation.* Governments shall play dominant roles in regional development and poverty alleviation reinforcement, strengthen the market for the

deployment of production factors and resources and promote the inclination of a variety of resources to the most difficult and the poorest areas as to ensure the priority benefits of disadvantaged groups.

*4. The persistence in combination of self-reliance and policy support strengthening.* We shall persist in self-improvement and hard work, and constantly enhance self-development capacity. The opportunities of poverty policy in contiguous destitute areas shall be fully utilized, the investment shall be further increased, and the participation of all sectors of the community in poverty alleviation and development shall be extensively mobilized so as to fully solve the special difficulties of the poor people development

*5. The persistence in combination of green development and optimization of ecological environment.* With the forest coverage rate of 53%, the area is an important subtropical forest core area of China and an important basin water conservation district and ecological barrier of the Yangtze River. There are diverse biological species in the area, which is known as “a central plant and animal gene pool”. The incorporation of Wuling Mountain area into “the national pilot ecological compensation area” and “the transfer payment range of national ecological function zone”, and pilot establishment of the ecological environment compensation mechanism are beneficial to enhance the carrying capacity, ecological and environmental capacity, intensify the economical use of resources, continuously optimize the industrial structure and the distribution of productive forces and promote the win-win of economic development and ecological construction.

### **III. Poverty Alleviation and Development Countermeasures of Wuling Mountain Area**

The acceleration of regional development and poverty alleviation reinforcement in Wuling Mountain area is a major strategy of regional development and poverty alleviation

reinforcement in China, and is beneficial to explore the narrow regional development disparities and the new mode for poverty reduction of overall poverty population; to explore the promotion of coordinated regional economic development, and promote the construction of ecological civilization and sustainable development of new mechanisms in the poverty-stricken areas, and provide a model for the poverty alleviation reinforcement of a new stage of national centralized contiguous areas with special difficulties; to explore the new ways of accelerating development gap narrowing and poverty eradication of national economic development in cross-chief edge regions.

*1. The regional collaboration must be strengthened by the poverty alleviation and development of Wuling Mountain area.* Regional collaboration is a scientific approach to the sustainable development in China's Minority Areas. For the innovation of the poverty alleviation and development system and mechanism in centralized and contiguous ethnic minority areas, we should break through the administrative division to highlight the cross-administrative regional cooperation, develop comparative advantages, realize the resource sharing, and adhere to the new way of regional cooperation, coordinated improvement and green development. With the regional development as the premise of sustainable poverty alleviation, a solid foundation can be provided for the poverty reduction of ethnic minorities only through the realization of regional development.

*2. Poverty alleviation and development of Wuling Mountain area must give full play to the role of government guidance.* With a weak foundation for the development of the centralized and contiguous ethnic minority areas and the inadequate market system, the guiding role of the government policies must be played to accelerate the pace of regional economic development, and vigorously promote the

population inclination of a variety of resources to the most difficult and the poorest areas, and the planning guidance and policy guidance must be strengthened for the special difficulties in area development.

*3. Poverty alleviation and development of Wuling Mountain area must insistently take the breakthrough point as the important development.* As the development of the centralized and contiguous ethnic minority areas is a systematic project, the key regions, links and fields must be seized while the comprehensive promotion is conducted, to make breakthroughs in some key fields and links of the poverty alleviation reinforcement, the long-term solid foundation for the development must be laid and the outstanding issues must be solved in the comprehensive promotion of poverty

alleviation; the overall regional development must be coordinated, and the breakthrough of the weakest link must be realized; the overall planning must be taken into consideration, which must be implemented and promoted steadily.

*4. Poverty alleviation and development of Wuling Mountain area must be supported by the differentiated policy.* Wuling Mountain area is integrated with old revolutionary base areas, ethnic minority accumulation areas, poverty-stricken areas, and border areas, where it is difficult to develop. Therefore, we should implement the differentiated development policy, support and under the same conditions give priority to the poverty alleviation of ethnic minorities, poor people, women, children and persons with disabilities.

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## Issues of improving inter-budget relations between the region and the federal centre

*The article studies the problems of inter-budgetary relations of the subjects of federation and the federal centre. The analysis of financial interaction between the regions of the North-Western Federal District and the federal centre has been carried out on the basis of general scientific methods. The article identifies the positive and negative sides of the development of inter-budget interaction between these regions and directions of its improvement. The results obtained can be used by the federal and regional state power bodies when forming the budget policy in the sphere of inter-budget relations.*

*Federal budget, regional budget, inter-budget relations, budgets' own revenues, transfers, delegated expenses.*



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Recently, the issues concerning the constructive interaction between the authorities of various levels, the development of financial mechanisms, consolidating the federation, and the search for the ways of enhancing Russian statehood are becoming ever more relevant. It should be noted that in modern conditions, the major problems of budget relations between the centre and the regions include:

✓ elimination of inconsistency between the volume of expenditure commitments and the value of the budgets' revenue sources;

✓ curbing and reducing the level of the regions' differentiation for ensuring sustainable economic development, without a strong inter-regional social tension;

✓ stimulation of territorial "tax efforts" (urging the local authorities to mobilize additional budget revenues on the basis of the more complete use and development of their own revenue potential);

✓ orientation of the budgetary policy of the territorial governments toward the implementation of national priorities;

✓ elimination of flaws in the tax system.

A most controversial question concerns the limits of the RF subjects' autonomy in exercising their powers, the scope of which has been increasing in recent years, first of all, in the sphere of social policy. However, this process is not supported by the adequate funding.

Nevertheless, the provision of financial independence to the regions gives an opportunity to choose the most efficient ways of handling the issues of territorial scale, forms the prerequisites for the comprehensive socio-economic development, creates incentives to increase revenues and optimize budget expenditures.

The most important indicator of the degree of financial self-sufficiency of the RF subject in its relations with the federal centre is the amount of the regional budget's own revenues<sup>1</sup>. The 2006 and 2007 change in this indicator in the North-Western Federal District (NWFD) was characterized by its increase. But it has declined in 2009 already, due to the financial crisis in all the district's regions, except for the Leningrad Oblast. It was the most significant in the Vologda Oblast (almost 40%), the budget of which depends to a considerable degree on the financial condition of the largest budget revenue generating enterprise OAO Severstal<sup>2</sup>. The minimum decrease in budgetary indicators was observed in the Novgorod (0.2%) and Pskov (0.9%) oblasts, where foreign economic activity is developed poorly. In general, it should be noted that, tax and non-tax revenues in the observed period form over 77% of the North-Western regions' revenues, which is higher than the national average level (*tab. 1*).

The change in the volume of own revenues in the budget system of any region is directly proportional to the dynamics of tax revenues. For instance, the own revenues in the NWFD regions are by more than 80% determined by the tax revenues, in particular, profit tax and individual income tax.

<sup>1</sup> According to the Budget code of the Russian Federation the budgets' own revenues include tax and non-tax revenues, as well as revenues in the form of uncompensated receipts, except for subventions. We regard the budgets' own revenues as the sum of its tax and non-tax revenues.

<sup>2</sup> The share of tax payments of OAO Severstal, that was about 40% of the total tax revenues of the Vologda Oblast's consolidated budget up to 2009, decreased to 24% in 2010 – 2011.

This volume excludes regulatory taxes, the collection of which is not influenced by the regional authorities, and fixed taxes<sup>3</sup>, in respect to which the territories independently set the tax and deduction rates. Of course, the increase in the share of fixed taxes in tax payments enhances the regions' autonomy in conducting economic and social policy. In practice, however, the importance of the regional taxes is low. The aggregate share of their revenues in the total volume of tax revenues in the NWFD regions in 2006 – 2011 in general did not exceed 13% (*tab. 2*).

The given data show that the most part of tax revenues are centralized in the federal budget. The recent years' enhancement of this process is one of the main external threats to the sustainability of the regional budget system and the system of inter-budget relations. So, in the observed period the overwhelming majority of the NWFD regions transferred one-third and more of the tax payments collected on their territories to the federal centre. In 2011, the largest absolute contribution to the formation of the federal budget revenues was made by Saint Petersburg, that transferred to the higher authorities 161 billion rubles of taxes and other obligatory payments collected on its territory. In addition, the top three regions included the Republic of Komi (62 billion rubles) and the Murmansk Oblast (50 billion rubles) (*tab. 3*).

At the same time, the expenditure powers are delegated from the superior budget to the regional level. For 2006 – 2011, their share in the expenditures of almost all the regional budgets of the district has increased significantly, especially in the Kaliningrad Oblast (8.8-fold) and Saint Petersburg (7.8-fold). On the contrary, there was a two-fold decline of this indicator in the Murmansk Oblast (*tab. 4*).

<sup>3</sup> The taxes fixed at the regional level include corporate property tax, transport tax and gambling tax.

**Table 1. Tax and non-tax revenues of consolidated budgets  
in the regions of the North-Western Federal District\***

NWFD Subject	2006		2007		2008		2009		2010		2011	
	Billion rub.	Share, %										
Leningrad Oblast	31,2	87.2	38,9	83.4	51,6	84.7	52,4	89.2	61,5	91.2	69,7	89.5
Republic of Komi	28,4	97.1	30,3	94.7	38,4	90.6	35,2	82.2	41,3	87.9	48,3	87.2
Vologda Oblast	27,7	86.8	35,9	87.9	45,8	93.2	27,9	77.2	35,9	87.9	40,2	86.9
Murmansk Oblast	22,8	88.6	31,2	92.7	33,7	73.6	33,2	74.4	41,5	82.8	45,9	83.8
Saint Petersburg	186,0	87.4	242,4	88.3	290,6	87.6	248,8	83.2	285,4	84.6	327,6	83.2
Novgorod Oblast	9,4	82.1	11,1	80.3	16,14	77.9	16,10	73.0	17,4	84.9	20,6	80.7
Republic of Karelia	11,6	79.5	13,8	76.9	17,8	69.6	16,9	72.2	22,0	77.9	26,1	79.3
Arkhangelsk Oblast	20,0	76.5	28,5	81.7	35,8	72.4	29,6	64.3	39,1	71.2	41,5	71.5
Kaliningrad Oblast	15,7	77.1	20,1	76.0	24,3	67.0	21,9	54.7	26,5	73.0	29,6	65.5
Pskov Oblast	7,5	70.2	9,6	71.0	11,5	66.7	11,4	62.2	13,5	67.8	15,5	62.7
NWFD	367,7	86.4	471,4	86.6	571,6	83.1	499,5	78.1	592,9	83.1	676,2	77.6
RF	3115,1	81.9	4084,7	84.3	4912,4	79.3	4243,3	71.6	4979,9	76.2	5827,3	76.2

\* Calculated on the basis of the accounting report on the execution of budgets of the RF subjects and local budgets. Available at: <http://www.roskazna.ru/reports/mb.html>

**Table 2. Regional taxes in tax revenues of the consolidated budgets of the NWFD regions\***

NWFD Subject	2006		2007		2008		2009		2010		2011	
	Billion rub.	Share, %										
Leningrad Oblast	3.6	12.6	4.3	12.3	5.2	11.7	6.3	14.4	7.1	13.5	8.2	13.5
Kaliningrad Oblast	2.0	14.2	2.4	13.8	2.8	13.2	3.3	16.9	3.5	14.4	3.7	13.3
Vologda Oblast	2.0	7.8	2.7	8.1	2.9	6.8	3.5	13.8	3.7	11.0	4.1	10.51
Republic of Komi	2.8	11.0	3.5	12.4	4.1	11.3	4.7	14.3	4.8	12.8	4.8	10.50
Novgorod Oblast	0.8	9.1	1.0	10.5	1.4	9.6	1.6	11.2	1.8	11.8	2.0	10.2
Saint Petersburg	13.0	8.6	19.0	9.6	23.1	9.3	25.1	11.6	25.3	10.2	27.6	9.2
Republic of Karelia	1.2	12.0	1.4	11.8	1.7	11.0	1.8	14.2	1.8	10.7	1.8	8.4
Pskov Oblast	0.6	9.2	0.6	8.3	0.8	8.7	1.0	9.7	1.0	9.0	1.1	8.1
Arkhangelsk Oblast	1.6	9.2	2.0	8.4	2.0	6.2	2.4	8.9	2.6	7.3	2.9	7.4
Murmansk Oblast	2.2	10.3	2.5	8.5	2.9	9.4	3.0	9.6	2.9	7.3	2.9	6.5
NWFD	30.8	9.8	40.9	10.3	49.2	9.9	57.2	13.0	59.5	11.4	64.0	10.3

\* Calculated on the basis of the accounting report on the execution of budgets of the RF subjects and local budgets. Available at: <http://www.roskazna.ru/reports/mb.html>

Table 3. Taxes and other obligatory payments, received by the federal budget out of the volume of those collected on the territory of the NWFD regions\*

NWFD Subject	2006		2007		2008		2009		2010		2011	
	Billion rub.	Share** %	Billion rub.	Share, %								
Saint Petersburg	83.5	35.7	99.2	34.2	98.2	28.7	98.2	31.9	100.0	29.1	161.2	36.4
Republic of Komi	51.1	67.0	49.7	64.0	67.4	65.1	35.6	51.0	42.3	52.5	62.0	57.8
Murmansk Oblast	7.8	27.5	8.7	23.2	9.2	23.2	3.9	11.4	40.8	41.7	50.0	43.9
Kaliningrad Oblast	10.9	44.0	16.4	49.3	20.0	48.7	18.4	49.5	25.8	52.7	40.3	61.5
Leningrad Oblast	23.2	43.7	24.8	39.8	31.8	40.6	36.2	43.5	5.6	12.8	8.0	16.1
Arkhangelsk Oblast	3.4	17.9	4.8	20.0	2.2	9.0	4.0	15.8	5.2	16.7	7.4	20.3
Vologda Oblast	9.2	26.5	15.5	32.4	21.7	34.2	4.2	15.0	4.9	13.6	5.4	13.5
Novgorod Oblast	1.9	19.0	1.5	13.4	4.2	23.1	3.2	19.1	3.2	18.9	3.9	19.2
Pskov Oblast	1.4	19.0	1.8	20.0	1.1	11.2	1.2	11.4	2.2	18.1	2.6	19.0
Republic of Karelia	1.8	15.2	1.5	11.6	2.5	14.3	0.5	4.2	1.5	8.8	2.3	11.1
NWFD	194.2	31.6	223.9	30.8	258.3	29.8	217.8	33.7	255.8	33.4	380.7	39.6

\* Calculated on the basis of the report on the charge and inflow of taxes, levies and other compulsory payments into the budget system of the Russian federation No. 1-NM of the Federal Tax Service of Russia.

\*\* The share of revenues transferred to the federal budget in the form of taxes, levies and other compulsory payments, collected on the territory of the region.

Table 4. The share of delegated expenditures in the structure of expenditures of the consolidated budgets of the NWFD regions\*

NWFD Subject	2006		2007		2008		2009		2010		2011		2011 to 2006, fold
	Billion rub.	%	Billion rub.	%	Billion rub.	%	Billion rub.	%	Billion rub.	%	Billion rub.	%	
Kaliningrad Oblast	0.4	13.1	1.1	4.2	0.9	3.0	2.1	5.3	2.3	5.5	3.5	7.2	↑ 8.8
Saint Petersburg	0.4	6.4	0.9	2.6	0.9	3.5	1.5	6.4	2.6	3.8	3.1	2.9	↑ 7.8
Vologda Oblast	0.8	2.5	1.8	4.2	1.6	3.8	4.0	8.5	5.3	10.1	4.5	7.7	↑ 5.6
Republic of Karelia	0.6	3.7	2.2	10.2	1.4	5.8	2.4	8.3	3.5	11.0	3.0	8.4	↑ 5.0
Novgorod Oblast	0.6	6.6	1.0	6.7	1.0	5.1	1.7	6.5	2.6	9.7	2.6	9.3	↑ 4.3
Arkhangelsk Oblast	1.4	7.5	4.3	11.7	2.1	7.2	3.3	9.5	6.1	9.9	4.7	6.9	↑ 3.4
Leningrad Oblast	1.3	6.1	2.0	4.4	2.5	4.0	3.6	5.4	3.8	5.6	4.4	5.5	↑ 3.4
Republic of Komi	0.9	3.7	2.2	6.5	1.5	4.0	2.6	5.5	2.6	5.3	2.8	4.7	↑ 3.1
Pskov Oblast	5.8	6.9	6.8	6.5	11.2	5.6	20.8	7.1	13.7	11.1	11.7	11.0	↑ 2.0
Murmansk Oblast	3.4	11.9	6.9	18.0	1.3	3.0	1.7	3.4	1.9	2.4	1.8	3.2	↓ 0.5

\* Calculated on the basis of the accounting report on the execution of budgets of the RF subjects and local budgets. Available at: <http://www.roskazna.ru/reports/mb.html>

Table 5. The ratio of revenues transferred to the federal budget by the NWFD regions to the volume of inter-budget transfers and loans received by them from the federal budget (2006 – 2011)\*

NWFD Subject	Transferred to the federal budget, billion rub.	Received from the federal budget, billion rub.	Ratio of the finances allocated to the finances received, fold
Republic of Karelia	7.8	42.5	0.18
Republic of Komi	244.7	36.5	6.70
Arkhangelsk Oblast	25.4	100.9	0.25
Vologda Oblast	47.5	46.8	1.01
Kaliningrad Oblast	113	77.5	1.46
Leningrad Oblast	180.9	45	4.02
Murmansk Oblast	36.8	64.9	0.57
Novgorod Oblast	15.3	32.2	0.48
Pskov Oblast	9.5	44.2	0.21
Saint Petersburg	586.5	161.1	3.64

\* Calculated on the basis of the RF Treasury accounting report on the execution of budgets of the RF subjects and local budgets. and also on the basis of the Rosstat data.

Currently, the RF subjects have transferred 4659 federal powers<sup>4</sup>, including branch-wise powers. Organizing the efficient implementation of such a volume of powers appears to be quite a challenge.

Moreover, according to the Treasury of the Russian Federation, up to 2.7% of the expenditures transferred to the regional level were not financed in 2006 – 2011. Therefore, the regional budgets are to find their own means to cover the remaining costs (about 30 million rubles).

In order to show the imbalances of the financial flows between the federal budget and the budgets of the NWFD regions more clearly, we shall demonstrate the ratio of the amount of financial transfers to the regions to the amount of financing withdrawn from the regions. During the period under review, more revenues were flown into the federal budget from such regions as the Republic of Komi, the Vologda, Kaliningrad, Leningrad, Murmansk oblasts and Saint Petersburg, than was returned in the form of financial assistance and budget loans (*tab. 5*).

<sup>4</sup> From the speech of R. Panov, the Deputy Minister of the regional development of the Russian Federation at the all-Russian conference “Regional Russia: efficient redistribution of powers between different levels of state authority” (25 November 2011, Moscow). Available at: <http://www.upcoo.ru/175/627>

It is necessary to note that some of the regions in the district did not receive financial aid from the federal budget in the form of subsidies. Donor regions in 2006 and 2007 included St. Petersburg, the Leningrad and Vologda Oblasts, the Republic of Komi. The latter lost the status of an unsubsidized region in 2008 – 2010, and the Vologda Oblast – in 2011. The Pskov Oblast headed the list of subsidized regions in the North-West during the whole analyzed period: transfers aimed at the alignment of its fiscal capacity amounted up to one third of the consolidated budget’s own revenues. Besides the Pskov Oblast, the top three of the NWFD subjects that mostly depend on the named type of financial support by the end of 2011 included the Arkhangelsk Oblast (12.5%) and the Republic of Karelia (10.2%). The level of subsidies for the North-Western regions amounted to an average of 2.8%, while for the country in general – 6.8% (*tab. 6*).

The lowest share of federal financial support is registered in Saint Petersburg and the Leningrad Oblast – less than 10% of the total volume of revenues. Meanwhile, the inter-budget transfers in the Arkhangelsk, Kaliningrad and Pskov Oblasts formed up to 40% of the consolidated budgets’ revenues.

Table 6. The volume of subsidies on the equalization of the fiscal capacity of the NWFD regions\*

NWFD Subject	2006		2008		2011	
	Million rub.	In % to the own revenues	Million rub.	In % to the own revenues	Million rub.	In % to the own revenues
Pskov Oblast	2435.9	32.5	3540.5	30.8	4139.3	25.4
Arkhangelsk Oblast	2591.7	13.0	4705.7	13.1	5466.5	12.5
Republic of Karelia	1116.1	9.6	1533.7	8.6	2765.2	10.2
Novgorod Oblast	847.2	9.0	847.2	5.2	768.0	3.6
Murmansk Oblast	1045.9	4.6	1229.9	3.6	1599.4	3.3
Republic of Komi	0	0.0	314.6	0.8	1473.7	2.9
Vologda Oblast	0	0.0	0	0.0	737.9	1.7
Kaliningrad Oblast	783.3	5.0	1075.0	4.4	498.0	1.6
Leningrad Oblast	0	0.0	0	0.0	0	0.0
Saint Petersburg	0	0.0	0	0.0	0	0.0
NWFD	8820.1	2.4	14620.5	2.6	18805.6	2.8
RF. billion rub.	228.9	7.3	330.0	6.7	398.4	6.8

\* Calculated on the basis of the accounting report on the execution of budgets of the RF subjects and local budgets. Available at: <http://www.roskazna.ru/reports/mb.html>

In this connection, the solvency of the regions is to a certain extent conditioned by the transfers, as the sources of the regional budgets' revenues. Therefore, the issue of the timeliness of their transfer is particularly important. Intergovernmental transfers are provided to the regional budgets unevenly, which, taking into account the price factor, creates the risks of inefficient use of the budget funds. The main reasons for such a situation include organizational flaws, caused first of all by the fact that the competitive procedures for the allocation of transfers are carried out in the second half of the year, besides, the circulation of documents is long, the contracts on the performance of works (rendering of services) are not concluded on time, the suppliers don't comply with the terms of delivery of equipment and materials. All this leads to the fact that a significant share of the annual federal transfers is allocated to the regions in the 4th quarter of the year (*tab. 7*).

The system of inter-budget relations should be aimed chiefly on the increase in the supply of public goods at the sub-national level. Therefore, it is important to determine the

dynamics of budgetary sufficiency with per capita incomes. In 2006, the NWFD top five regions by the absolute value of the average per capita income included Saint Petersburg, the Republic of Komi, the Murmansk, Vologda and Leningrad oblasts. In 2009, the Vologda Oblast was only the last but one in this rating. By the end of 2011, the highest growth rates were registered in the Kaliningrad, Pskov and Novgorod oblasts (*tab. 8*).

It is impossible to satisfy the population's demand for budget services to the fullest without the transfer to the territorial level of the resources, sufficient for the realization of spending powers. In this context, the indicator of the coverage of expenditures with own revenues that allows evaluating the budget's ability to realize the spending powers at the expense of its own tax and non-tax revenues becomes very important. Judging by the end of 2011, the Leningrad and Murmansk Oblasts, Saint Petersburg and the Republic of Komi possess the highest indicators in the NWFD, the Arkhangelsk, Kaliningrad and Pskov Oblasts have the lowest ones (*figure*).

Table 7. The share of inter-budget transfers allocated in the 4th quarter, in % to the annual transfers\*

NWFD Subject	2006	2007	2008	2009	2010	2011
Republic of Karelia	30.0	42.0	37.1	21.3	26.5	23.9
Republic of Komi	31.0	33.6	24.0	26.9	17.8	22.7
Murmansk Oblast	30.6	46.1	37.6	32.7	37.6	26.4
Arkhangelsk Oblast	32.6	39.4	33.7	26.9	27.5	26.8
Novgorod Oblast	23.7	28.9	31.8	26.3	18.6	27.5
Leningrad Oblast	43.1	46.7	47.3	25.7	20.9	27.6
Vologda Oblast	23.6	30.4	30.0	23.3	24.3	27.7
Pskov Oblast	23.8	24.9	19.5	17.9	17.1	33.9
Kaliningrad Oblast	46.2	48.6	45.7	13.9	27.5	41.4
Saint Petersburg	38.5	38.1	43.8	21.0	20.0	16.8

\* Calculated on the basis of the accounting report on the execution of budgets of the RF subjects and local budgets. Available at: <http://www.roskazna.ru/reports/mb.html>

Table 8. The per capita budget sufficiency with the incomes of the NWFD regions\*

NWFD Subject	2006		2009		2011	
	Thousand rub.	In % to the previous year	Thousand rub.	In % to the previous year	Thousand rub.	In % to the previous year
Kaliningrad Oblast	22.2	137.7	44.8	112.8	51.6	126.2
Pskov Oblast	15.6	124.0	28.8	110.8	41.5	124.2
Novgorod Oblast	18.3	109.4	36.9	109.5	44.5	122.2
Republic of Komi	<b>30.8</b>	124.0	47.7	104.1	64.6	117.4
Saint Petersburg	<b>47.8</b>	153.0	69.5	92.8	83.3	115.1
Leningrad Oblast	<b>22.6</b>	132.3	38.3	98.5	48.0	115.1
Republic of Karelia	21.9	110.5	37.6	95.7	55.8	112.9
Vologda Oblast	<b>26.5</b>	124.9	32.9	79.3	42.2	110.9
Murmansk Oblast	<b>34.0</b>	171.0	55.4	99.1	71.2	108.9
Arkhangelsk Oblast	21.5	123.3	39.3	96.3	51.3	103.3
NWFD	32.6	141.1	50.9	96.0	67.3	120.6

\* Calculated on the basis of the RF Treasury accounting report on the execution of budgets of the RF subjects and local budgets. and also on the basis of the Rosstat data

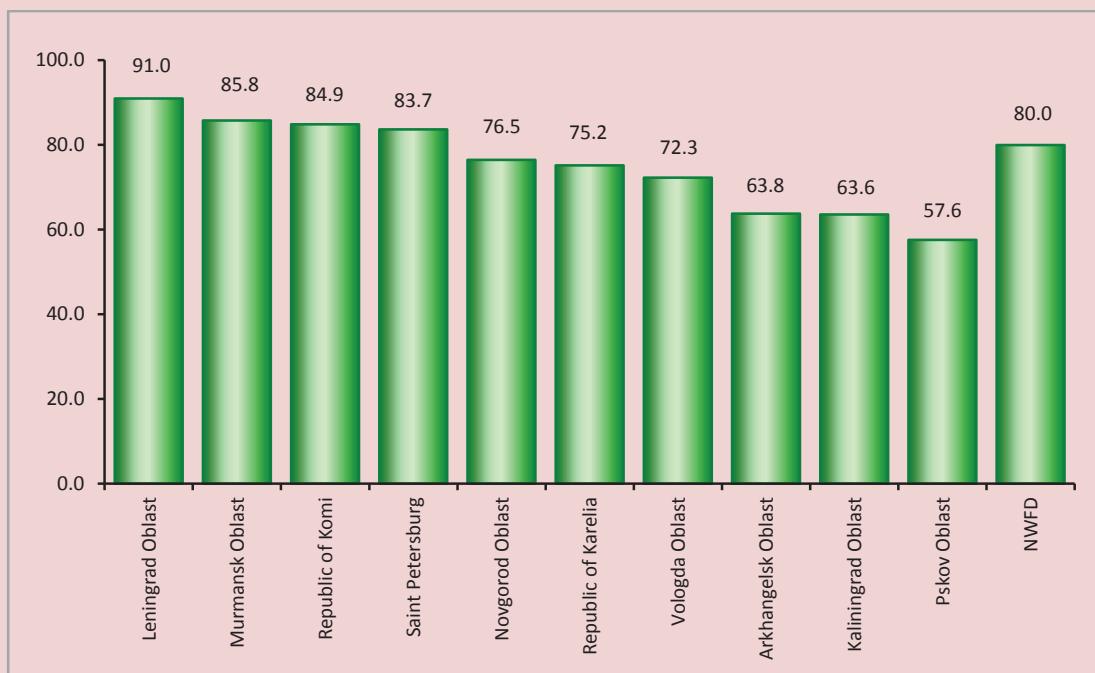
Thus, the analysis of the formation of inter-budget relations between the NWFD regions and the federal centre reveals the positive and negative sides of this system.

The positive factors include the big (over 77%) share of own tax and non-tax revenues in the total revenues of the budgets of the NWFD regions and, as a consequence, their relatively low dependence on financial assistance. For instance, in 2006 – 2011 only about 2 – 4 regions out of 10 received subsidies

on the equalization of budget sufficiency, and their share in the budgets' own revenues was below 4%.

At the same time, the increase in the efficiency of the financial cooperation between the North-Western territories and the federation is hampered by the strong inter-regional differentiation according to the level of per capita fiscal capacity of incomes (from 41.5 thousand rubles in the Pskov Oblast to 83.3 thousand rubles in Saint Petersburg in 2011).

The coverage of current and capital expenditures with own revenues  
of the consolidated budgets of the NWFD regions, %\*



\* Calculated on the basis of the RF Treasury accounting report on the execution of budgets of the RF subjects and local budgets, and also on the basis of the Rosstat data.

The limiting factor is the recent years' increase of the budget deficit in the NWFD subjects: its amount in the Republic of Karelia, the Arkhangelsk, Vologda and Novgorod oblasts exceeds 15% of the volume of the own revenues<sup>5</sup> (tab. 9).

It should be noted that the reform of inter-budget relations still hasn't solved the problems hindering the implementation of such fundamental principles of fiscal federalism, as the independence of budgets, the compliance of the assigned expenditure commitments with revenue powers, as well as the uniformity of budget sufficiency of different territories. Particular importance is attached to the problem of optimizing tax and non-tax inflows in the budgets of different levels.

<sup>5</sup> According to Article 92.1 of the RF Budget Code, the deficit of the budget of a constituent entity of the Russian Federation must not exceed 15% of the total amount of budget revenues regardless of the volume of gratuitous receipts.

The distribution of taxes should guarantee constitutional autonomy to the regions, simultaneously enhancing the authorities' responsibility for carrying out the active economic and financial policy. As the experience of developed states proves, under a stable market economy, the tax distribution of budget revenues virtually allows the formation of sustainably independent budgets taking into account the financial capacities and requirements of the territory.

For all the complexity of the situation, in the conditions of fiscal risks, it should be recognized that the sphere of improving inter-budgetary interaction between regions and the federation has actual reserves:

1. *The expansion of the regional authorities' powers on the management of their revenue base* that will promote the implementation of initiatives and will become the first step toward the decentralization and strengthening of the

Table 9. The amount of the consolidated budgets' deficit in the NWFD regions \* (in % to the own revenues)

NWFD Subject	2006	2007	2008	2009	2010	2011
Murmansk Oblast	0.0	0.0	0.9	7.7	0.0	0.0
Leningrad Oblast	0.0	0.0	0.0	8.6	0.0	0.0
Novgorod Oblast	0.0	0.0	6.7	10.3	<b>20.3</b>	0.0
Kaliningrad Oblast	0.0	0.0	1.0	0.0	11.2	0.1
Republic of Karelia	9.1	6.9	2.0	<b>20.1</b>	2.2	0.6
Saint Petersburg	0.0	0.0	5.7	2.6	4.1	1.1
Republic of Komi	0.0	0.0	1.1	3.0	2.4	2.5
Pskov Oblast	0.0	0.0	0.0	6.5	5.3	2.8
Arkhangelsk Oblast	0.0	0.0	12.1	<b>21.7</b>	<b>15.1</b>	12.8
Vologda Oblast	0.0	0.1	0.0	<b>23.1</b>	<b>18.7</b>	<b>18.1</b>
NWFD	0.0	0.0	3.7	6.2	3.5	1.9

\* Calculated on the basis of the RF Treasury accounting report on the execution of budgets of the RF subjects and local budgets, and also on the basis of the Rosstat data

political system. Thus, providing the authorities of the subjects of the federation with the rights of the regional taxes management will contribute to the improvement of their collection and strengthening the budget's revenue base.

2. *A clear distinction of spending powers* between the federal and regional authorities in accordance with their *revenue sources*.

3. The adoption of measures in the sphere of tax policy, directly or indirectly promoting the attraction of additional revenues in the regional budget:

- ✓ transfer of additional tax sources to the regional level;
- ✓ introduction of a progressive taxation scale for individual income tax and sumptuary tax;
- ✓ simplification of tax reporting, etc.

4. *Optimization of preferential treatment policy*, which consists in the abolition of inefficient federal tax concessions and development of a mechanism compensating the loss of revenues that the regional budgets suffer due to the provision of benefits under the federal law.

5. *An inventory of the remaining unfunded mandates and their provision with funding sources*. We believe that this requires a more clear definition of the goals and directions of

subventions and methods of determining their amount. All this gives the opportunity to restrict on a legal basis the amount of government powers transferred to the regional level.

6. *Improvement of the transfer mechanism*, consisting in the transition from the target-oriented transfers to modular transfers<sup>6</sup>.

7. Improvement of the policy of regions' stimulation:

- ✓ by expanding the list of the recipients of incentive grants for the progress achieved in improving the quality of budget management;
- ✓ by encouraging the regions to create and implement innovation projects.

No doubt that the implementation of all the proposals stated above could to a certain extent mitigate the negative consequences of the existing threats to the system of inter-budget relations between the regions. In this regard, the legal framework should be established at the federal level, maximum efforts should be undertaken at the regional level to increase the budget's revenues and optimize the expenses in order to enhance the financial stability of the territories.

<sup>6</sup> We consider that the essence of a module transfer lies in the provision of financial resources in the framework of a consolidated subsidy or subvention, these resources are gratuitous and non-repayable, but they can be directed to the funding of certain objectives.

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## Creation of the conditions for self-development of the Northern territories: budget aspect

*The article analyzes the reasons for and consequences of the low level of financial self-sufficiency in the Northern regions, it describes the approaches to the improvement of budget and tax regulation mechanisms in order to increase budgetary self-sufficiency in the territories and enhance their self-development. In addition, the article substantiates the proposals for increasing the share of tax revenues in the regional and municipal budgets and improving the redistribution of budget funds.*

*Fiscal policy, financial independence, self-development of the Northern territories.*



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The RF subject's self-development capabilities are to a considerable extent determined by its financial self-sufficiency and independence. Financial self-sufficiency is based on a high economic potential, forming the spacious revenue base of the territory, which is the source of the RF subject's own funds.

The Northern regions, possessing a diversity of natural-resources, have the largest enterprises of ferrous metallurgy, oil and gas and mining industry, energy sector, etc., their production

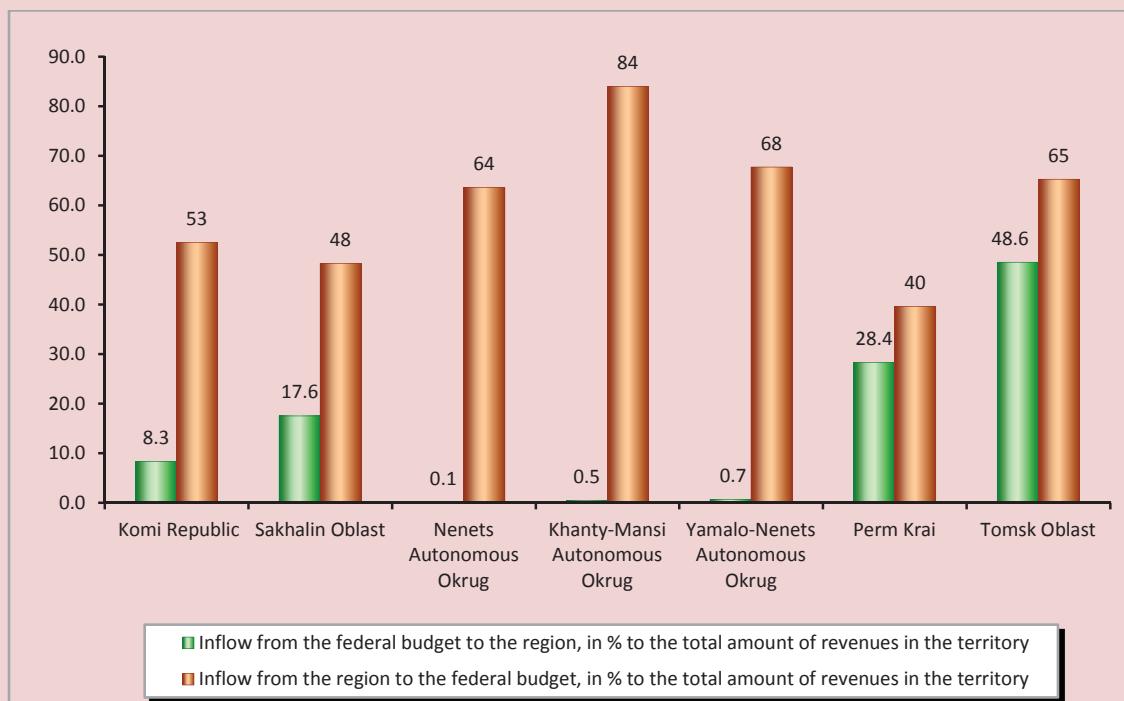
provides for about 11% of Russia's national income and accounts for 23% of total Russian exports. The Northern territories submit over 32% of taxes, levies and other obligatory payments to Russia's budgetary system (*tab. 1*).

About a half of the Northern regions in RF have become donors of the federal budget: 9 regions in 2008, 11 – in 2009, 7 – in 2010 (*fig. 1*). In 2011, the Irkutsk and Tyumen oblasts and Krasnoyarsk Krai joined the ranks of the 7 donor regions that obtained this status in 2010.

Table 1. Taxes, levies and other obligatory payments transferred  
by the Northern regions to Russia's budgetary system [2]

Year	Million rub.	In % to the outcome for Russia in general
2006	1 931 166.8	35.4
2008	2 648 014.1	33.2
2009	1 935 271.8	30.6
2010	2 475 941.5	32.1

Figure 1. Donor regions in 2010.



Consequently, we may assume that the donor regions (as well as other Russia's Northern subjects in case of creating favourable conditions there) possess significant revenue potential, which determines the opportunities for the territories' development at the expense of their own funds.

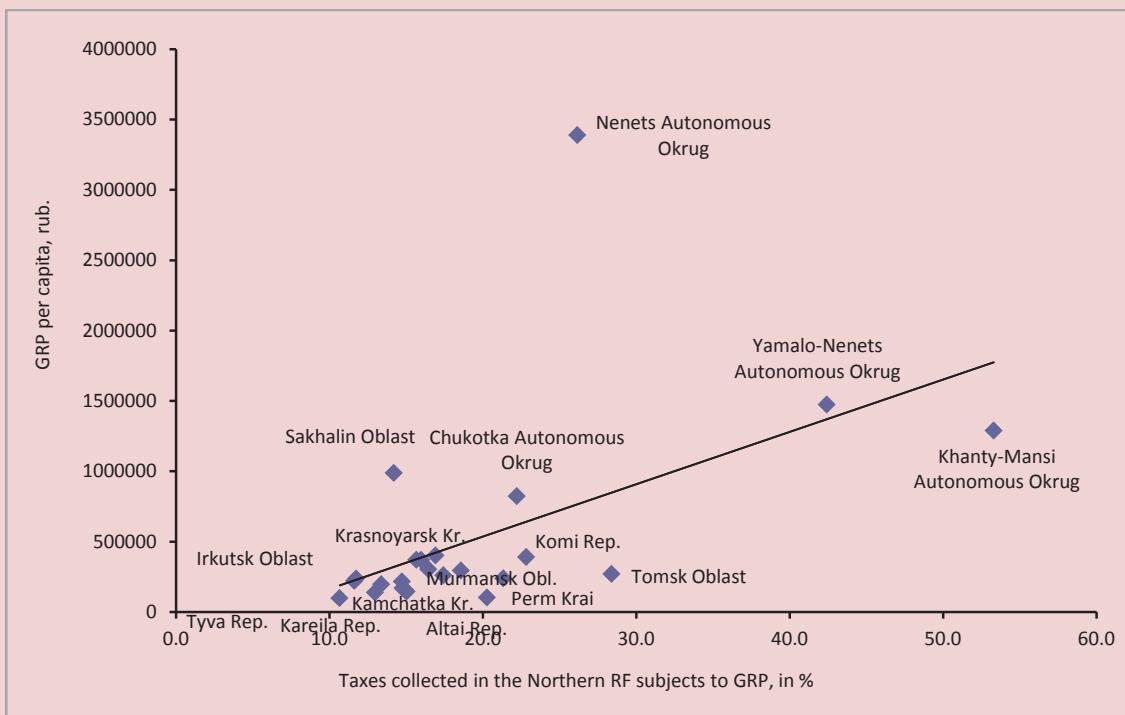
Meanwhile, the research shows that, at present, the tax potential of the Northern regions is not used sufficiently due to the flaws in the current taxation system. For instance, the gaps in legislation allow the tax base of large enterprises to be brought outside the regions, providing the shifting of taxes from one region to another.

As a rule, the territories with a high economic potential, can collect more tax payments as compared to economically underdeveloped regions. However, it is not always like that in practice. It can be illustrated, in particular, by the activities of such RF subjects as the Nenets Autonomous Okrug, Yamalo-Nenets Autonomous Okrug and so on. (fig. 2). Despite

the fact that they have the highest volume of GRP per capita among the Northern regions, the volumes of tax payments, which they transfer to the budgetary system, are understated and comparable with the contributions of the regions with a low economic potential. Correlation ratio calculated for the volume of taxes collected in the Northern RF subjects to the GRP and the value of per capita GRP was 0.51. This proves that the correlation of the indicators is positive, however, the regions' capabilities to transfer tax payments are not being implemented in full.

Probably, the recently adopted Law "On introducing the amendments to certain legislative acts of the Russian Federation in connection with the improvement of principles of price determination for taxation purposes" No. 227-FZ will prevent big companies from the illegal shifting of their tax base outside the territory and from tax evasion and will promote the accumulation of large volumes of own funds in the regional budgets.

Figure 2. The scattering of Northern subjects of the Russian Federation according to the volume of taxes collected on the territory to the value of GRP per capita in 2010



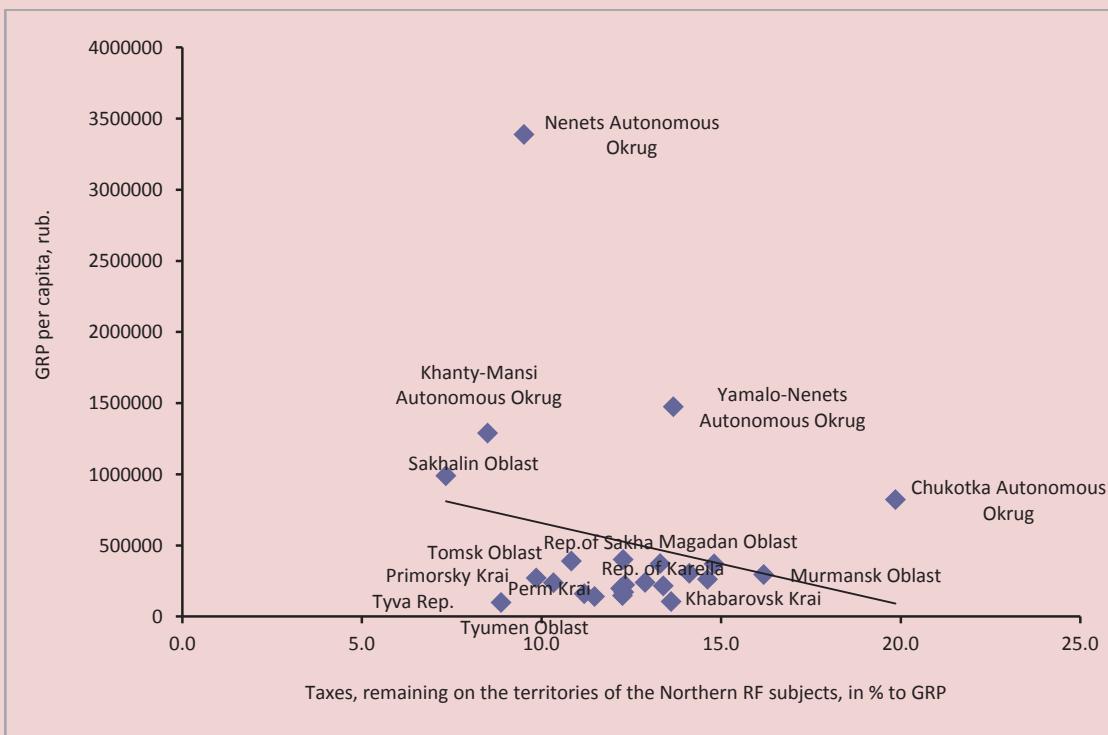
Besides, the shortfall of taxes to the budget system is also connected with the existing differences between the regions in the amount of applied rates, exemptions, the ratios of taxable to non-taxable incomes, provision of deferments, installments and investment tax credits to enterprises. In addition, the inefficient fiscal performance in the Northern regions takes place due to the low efficiency of administration procedures conducted by tax authorities.

Furthermore, amendments to the tax legislation are made not in favor of the Northern regions concerning their tax self-sufficiency. In recent years there has been a significant reduction in the list of local taxes, and the status of some taxes has been transferred from regional to federal. In this regard, it can be argued that the current system of Russian fiscal legislation initially implies the low level of regional and local budgets' own revenues.

This is proved by the correlation between the amount of taxes, remaining in the Northern regions after the transfer of the legally established part of tax payments to the federal budget, and the value of per capita GRP. The correlation coefficient calculated for the analyzed indicators has a negative value (-0.21). This testifies to the fact that the economic potential of the developed Northern regions doesn't contribute much to the budget system of these territories; i.e. a large part of the taxes, levies and other obligatory payments by leading enterprises is taken to the federal budget (fig. 3).

The negative correlation between the volume of taxes collected in these subjects and GRP and the value of GRP per capita in the Northern regions was observed from the beginning of 2006, when the new provisions of the Budget and Tax codes entered into force and it has been preserved up to the present time. That is, until 2006, most part of tax

Figure 3. The scattering of Northern regions of the Russian Federation according to the ratio of the volume of taxes remaining there to GRP and the value of GRP per capita in 2010



revenues remained in the regions, and today, as the statistics show (*tab. 2*), over 50% of tax revenues collected in the Northern territories, are transferred to the federal level.

The low level of tax payments remaining in the territories is compensated by non-repayable transfers from the federal centre. And the poorer the region, the greater is the share of federal transfers in the budget revenues (*tab. 3*). In these respect, federal transfers become the main source of fulfilling the social obligations of the authorities at the sub-federal level.

The current system of budget funds redistribution between the levels of the budgetary system can't be considered an optimum one, because it leads to the increase in the number of Northern regions where fiscal capacity does not reach the average Russian level. The share of such Northern subjects amounted to 55% in 2009, while in 2010 it was 62%

(*fig. 4*). This group includes not only the economically underdeveloped Northern subjects of the Russian Federation, but also the most developed regions (the Murmansk and Irkutsk oblasts, the Perm and Krasnoyarsk krais), including donor regions (the Tomsk Oblast, the Komi Republic).

Ultimately, the conducted policy will result in a situation, when the economically developed RF subjects have the low level of population's living standard. So, in the regions, where the value of GRP per capita is higher than the national average level (the Tomsk and Murmansk oblasts, the Krasnoyarsk Krai and the Komi Republic), the ratio of wages to the subsistence level does not reach the average Russian indicator (*fig. 5*), and the share of population with monetary incomes below the subsistence level is much higher than the national average level (*fig. 6*).

Table 2. Revenues transferred to the federal budget by the Northern subjects of the Russian Federation [2]

Year	Million rub.	In % to the total volume of territory's revenues
2006	1 262 043	65.4
2008	1 667 214.5	62.9
2009	1 052 202.6	54.4
2010	1 415 011	57.2

Table 3. Distribution of the RF Northern subjects according to the share of transfers (except for subventions) in the total volume of consolidated budgets in 2010

Intervals		RF Subjects
Under 10	4	Khanty-Mansi Autonomous Okrug, Yamalo-Nenets Autonomous Okrug, Krasnoyarsk Krai, Perm Krai
10–20	6	Republic of Karelia, Murmansk Oblast, Nenets Autonomous Okrug, Khabarovsk Krai, Irkutsk Oblast, Tomsk Oblast, Republic of Komi
20–30	5	Arkhangelsk Oblast, Sakhalin Oblast, Zabaykalsky Krai, Amur Oblast, Tyumen Oblast,
30–40	2	Chukotka Autonomous Okrug, Primorsky Krai
40–50	3	Republic of Sakha (Yakutia), Magadan Oblast, Republic of Buryatia
50–60	2	Kamchatka Krai, Altai Republic
60–70	1	Tyva Republic
Over 70	–	–

Source: author's calculations based on the information-analytical report "On the socio-economic situation and the execution of the budgets of the subjects of the Russian Federation that are fully or partially considered as the Northern territories" for the relevant years. Available at: <http://www.severcom.ru>

Figure 4. Budget sufficiency of the Northern subjects of the Russian Federation in 2010, rub./pers.

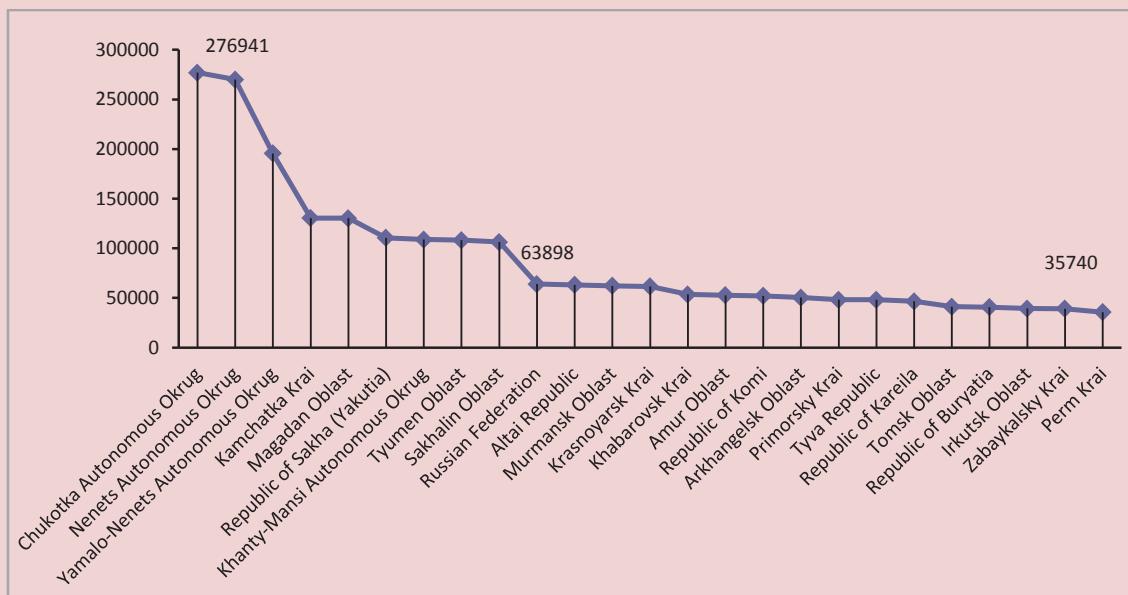


Figure 5. Ratio of accrued wages and the subsistence level in 2010, fold

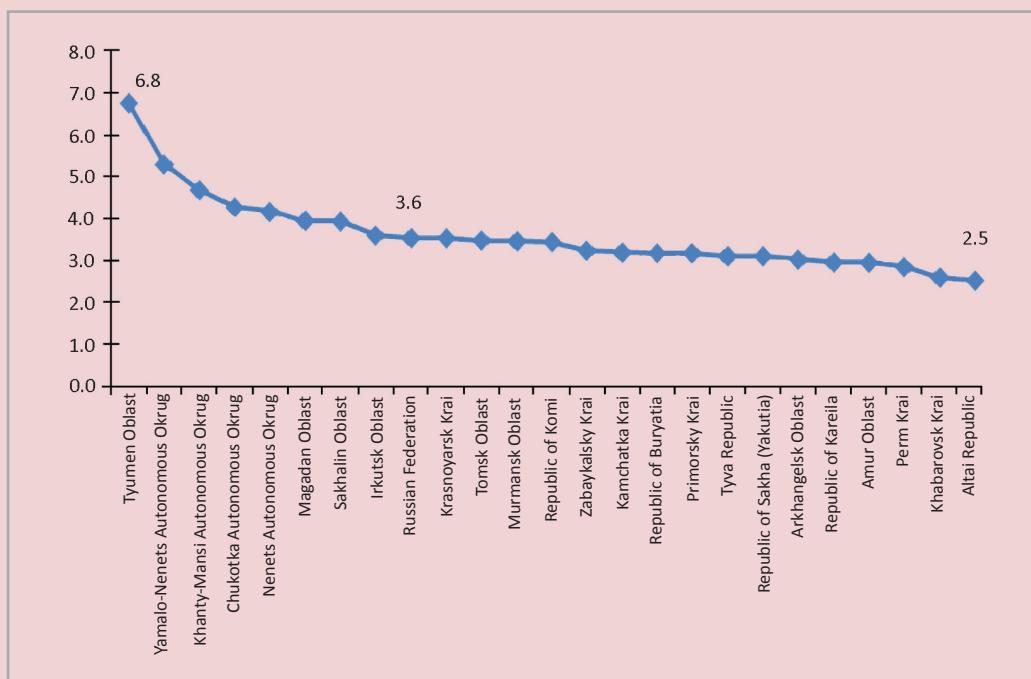
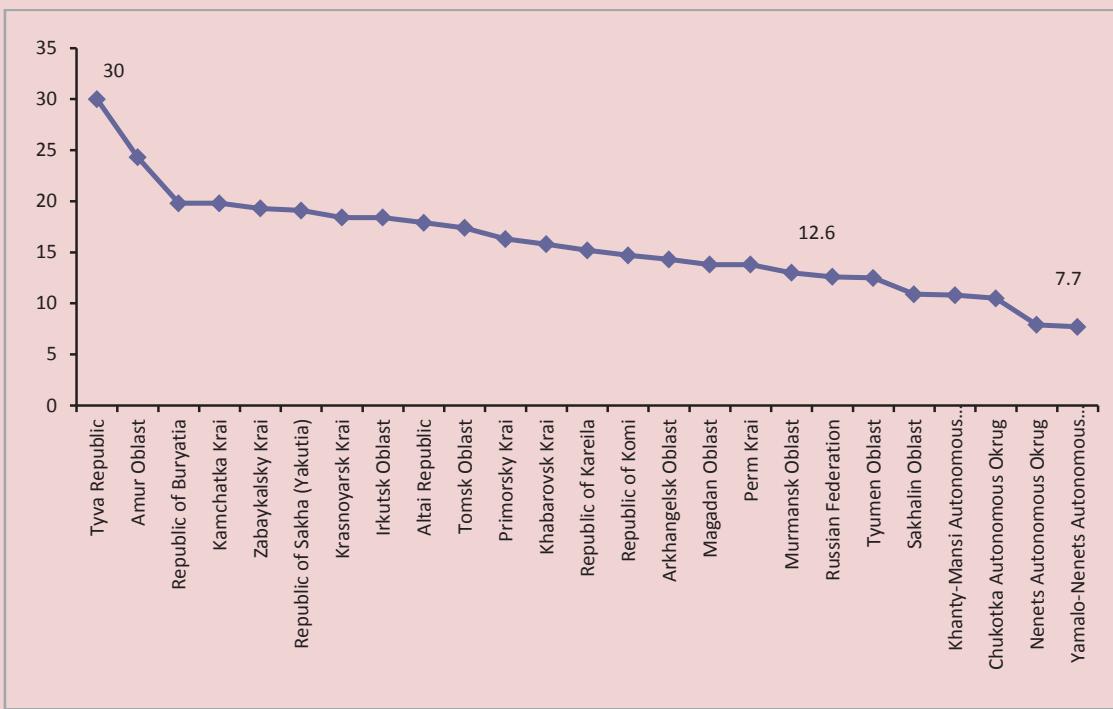


Figure 6. The number of population with monetary incomes below the subsistence level in 2010 (in % of the total population)



Summing up the above, it can be noted, that the state policy in the sphere of fiscal relations leads to the discrimination of economically developed and initially financially wealthy territories. They are provided with lower budget revenues in comparison with the regions having a low earning power, which negatively affects the population's living standard and hampers the development of such territories at the expense of their own funds.

In this connection, it becomes necessary to adjust the system of inter-budget regulation to raise the level of tax self-sufficiency by providing the regional and local authorities with the rights to introduce additional taxes on their territory, as well as by changing the proportions of tax deductions from the regulatory tax sources in favor of the RF subjects.

The first approach is not envisaged by modern Russian tax legislation. But even if it were possible, then the introduction of new taxes would make the tax system even more complicated and cause the increase of tax pressure on business entities.

The implementation of a new approach to the division of federal taxes between the centre and the regions will not affect the business sector negatively. In particular, many experts propose to divide VAT between the federal and regional levels. So, A.B. Gusev and M.A. Shilov assume that one of the most powerful tax instruments promoting subsidies for the regions is VAT and its fullest inflow to the federal budget. The experts point out that, actually, VAT directed to the federal budget by the regions' enterprises, is a demand tax in the RF subject. At the same time, it might be that the federal centre doesn't have anything to do with the region's demand itself [5].

International experience also shows that VAT and its analogues, as a rule, work in favor of regional rather than federal budgets. In Germany, which is a federation, the VAT revenues are distributed almost equally between the federal budget and the budgets of the lands: 50.5% goes to the federal budget, 49.5% – to

the budgets of the lands. Austria conducts a similar fiscal policy. In Canada, some regions receive VAT, and some – sales tax [1].

The viewpoint of D.A. Tatarkin and Ye.N. Sidorova also speaks in favour of using VAT as the source for the lower levels of the budgetary system. Analyzing the experience of Germany, Austria and Australia, they conclude that the distribution of VAT between the levels of the budgetary system will enhance transparency and objectivity of the territories' budget sufficiency equalization by reducing the volumes of counter financial flows [3].

Tax theory, which considers taxes from the viewpoint of their impact on economic entities, has another convincing argument in favor of VAT distribution. Direct (regulatory) taxes, which include profit tax, individual income tax and other income and property taxes, are responsible for investment and innovation processes. By changing the rates and setting privileges according to these taxes, authorities can influence the economic entities in order to enhance their investment and innovation activity. At that, the indirect (revenue) taxes (VAT, excises, customs duties, etc.) do not perform regulatory functions, they serve only as a budget replenishment source. Currently, Russian budget system is inefficient, since the balance between fiscal and regulatory taxes is disrupted: the federal budget accumulates mainly fiscal taxes (their share in tax revenues exceeds 70%), and the budgets of territories are formed mainly by direct taxes (over 90% of all tax revenues). In this respect, we point out that the revenue sources of regional budgets should include not only regulatory, but also fiscal taxes.

The experts consider various approaches to VAT distribution. The essence of the one proposed by D.A. Tatarkin and Ye.N. Sidorova consists in the fact that 50% of VAT on goods (works, services), produced (performed, rendered) in the Russian Federation, will be transferred to the federal budget. 25% of VAT will be directed to the Federal Foundation for Regions' Support (FFRS) (i.e. the original

order of FFRS replenishment, functioning since 1994, is being restored). The remaining 25% of VAT will be redistributed between the consolidated budgets of the RF subjects in proportion to the population number [3]. I.E. Umarova proposes to set the clearly fixed equal share for all the regions, or to treat the set normative with a correction coefficient, calculated on the basis of the fiscal capacity of the region's population [4]. This implies the use of a differentiated approach for the purposes of budget regulation.

Thus, it can be noted that scientists propose different approaches to VAT distribution. However, the following position is commonly recognized: the budgetary funds redistribution mechanisms should provide a significant increase in the share of tax revenues in the regional and municipal budgets, they should also take into account regional and northern peculiarities, and facilitate the development of their own tax base. Implementation of these principles will create the conditions for the formation of self-developing territories.

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# MODELLING AND INFORMATICS

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## Extended forecast of economic results: instrumental potential of the fuzzy sets theory\*

*The article proposes an approach based on the fuzzy sets theory, in which the uncertainty, being originally a factor, hindering the adoption of grounded long-term management decisions, becomes a tool for their development. At that, the uncertainty of various data, characterizing the economic indicators of the process under study in the long run, is expressed by a single indicator using the modified method of the hierarchy analysis.*

*Economic long-term forecasting, uncertainty, decision-making, fuzzy sets theory, modified method of the hierarchy analysis.*



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The issues of assessing economic results are highlighted in the works of many economists and mathematicians. In order to ensure the commensurability of diverse costs, the principle of discounting was introduced, on the basis of which the most popular method of net present value has been developed, as well as other methods ideologically close to it. It is proposed to take into account an inherent uncertainty that arises while forecasting the flow of revenues and expenses in the implementation of projects through the following: the consolidated assessment of sustainability; the calculation

of the break-even levels; the variations of the project's parameters; the project's evaluation considering the quantitative characteristics of uncertainty [1]. At that, it is recognized that these approaches are effective, when the project's key parameters have no more than 15 – 20% of variations. And in the case of long-term estimates, for example, of the economic efficiency of the development of oil and gas resources, such key parameter, as their volume may differ manifold from the actual one. From the standpoint of the above-mentioned approaches, the task of evaluating such projects

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is unsolvable, and there is no methodological research on the forecast of economic efficiency of investments in long-term projects, which would take into account the inherently high uncertainty of their implementation conditions.

The fuzzy sets theory, developed since the 1960s, has been widely used in the spheres, where it isn't expedient to apply the methods requiring a high accuracy of the source data due to the complexity of simulated processes and objects. This concerns natural, biological, and social systems in particular, in which the number of parameters and factors determining their development is so great, and the complexity of interaction is so diverse that any modeling accuracy is out of the question. The methods of the fuzzy sets theory are naturally applied in this sphere, and this has been going on for the last 10 – 30 years [7].

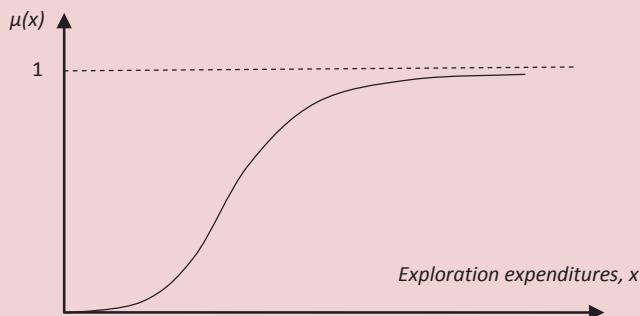
For estimating economic efficiency, a *fuzzy sets method* appears particularly suitable, which aggregates a variety of information in a uniform indicator under the conditions of low reliability of the source data [6]. The fact, that the use of generally accepted methods in such case can only give an approximate idea concerning the project's economic parameters, also leads to the idea of the priority of methods that do not require time-consuming detailed forecasting of the streams of revenues and costs, but ultimately provide the similar generalized evaluation. The present work was aimed at identifying the opportunities for using the economic parameters assessment methods on the basis of the fuzziness principle.

Conventionally, the uncertainty in the conditions of functioning and development of economic agents is considered to be a source of risk and an obstacle to the adoption of sound managerial decisions (especially in the long-term perspective, when the uncertainty is high). And this is well-grounded. But as the uncertainty is fundamentally unavoidable, we can only try to reduce it, we have to develop methods of decision-making with an eye to

this regular companion of any activities beyond the scope of immediate interest. And the question arises: if it is impossible to eliminate the negative effects of uncertainty, then can we find among its characteristics the aspects, the use of which would help in the planning of one's activities? Such positive point may consist in the identifying the heterogeneity, the variability of the uncertainty and the use of such information for assessing the options for the operation or development of an object of research. It is clear that in this case we speak not about time heterogeneity, but, for example, space or element-by-element heterogeneity (in the framework of the system under consideration).

Such an opportunity is available in the business related to the search for and exploration of mineral resources, where the aspects of uncertainty, that have a spatial character, are of a significant and often crucial importance. If you learn to assess the uncertainty and find its spatial distribution, then it would be possible to structure the uncertainty. This will provide the basis for the differentiation of information concerning the structure of the subsurface and the presence of minerals by the levels of its reliability for different parts of an area, which directly determines the risk when choosing a solution. It is proposed to assess the accuracy of the information using membership functions  $\mu(x)$  of the fuzzy sets theory [2]. When modeling the reliability, among the well-known models of membership functions, the function  $\mu(x) = 1 - e^{-kx^2}$ ,  $x > 0$ ,  $k > 0$  (fig. 1) (where the x-axis measures the expenditures on the exploration of the territory) most adequately describes the non-linear approximation of geological models of the structure of the earth entrails to the actual situation according to the expansion of its exploration. The problem of scaling the membership function is solved on the basis of the author's modification of the analytic hierarchy process developed by T. Saaty [5].

Figure 1. Standard graph of the membership function for the modeling of reliability of geological constructions



The implementation of the proposed approach requires the skill of expressing numerically the uncertainty (or its opposite – validity) of the level of knowledge on the oil and gas bearing capacity of territories and the ability to register the spatial distribution of these resources. The next important step in making sound decisions concerning the choice of optimal directions of exploration work, capable of reducing the uncertainty to an acceptable level, will be the calculation of their cost estimates. Methods based on the fuzzy sets theory have been also developed for this purpose. The modeling of the certainty index is carried out by means of the membership function [2]. The most adequate to the task at hand was the S-shaped function, similar to the one above. Numerically, the uncertainty index was calculated in each elementary cell of the map in accordance with the 4-component model of the hydrocarbon deposit [3], when it is viewed as the result of the implementation of the following conditions:

- geometric (reflects the depth of layers in the subsoil and the possibility of existence of a trap);
- porosity and permeability (indicates the presence of container rocks and their permeability);
- presence of insulation (detects the presence of impermeable layers, keeping the oil and gas fluid in the trap);
- presence of the fluid in the depths.

In the cells, where the wells have been drilled, the value of the membership function is the maximum, and in the rest of the cells it decreases in accordance with the function of accounting the informational impact, that is as follows:  $f(x) = \frac{1}{1 + k \cdot x^2}$  (fig. 2), where the parameter  $k$  ( $1 \leq k \leq 3$ ) determines the speed of decreasing informational influence, depending on the distance  $x$ .

The obtained maps of the validity index distribution (fig. 3) can essentially serve as a working tool for selecting the exploration direction and decision-making by, for instance, comparing “white” and “light gray” areas on the validity map with the forecasts of their exploitability.

The evaluation of the amount of funding required for the additional exploration of the territory or its part, possessing the major exploratory interest, up to the level enabling the sound decision-making will contribute to a more balanced approach to the planning of geological exploration activities. The numerical value of this validity level is determined in accordance with the membership function (see fig. 1). It can be seen that in the area of an inflection point, the ordinate of which is equal to  $1 - e^{-0.5} \approx 0.4$ , with the increase in the volume of exploration works, the validity is increasing most rapidly, and then it abruptly slows down.

Figure 2. The function of accounting the informational impact

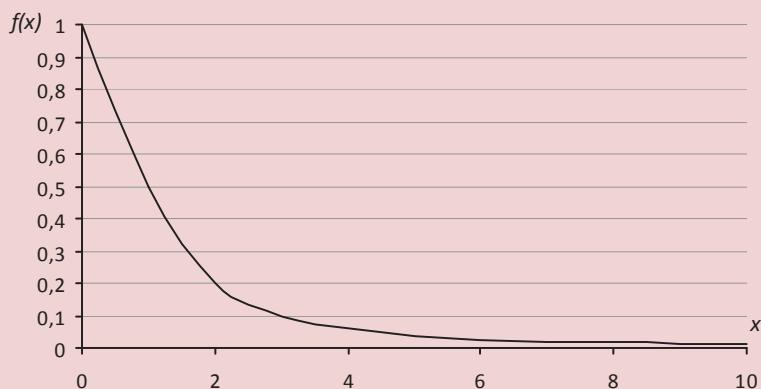
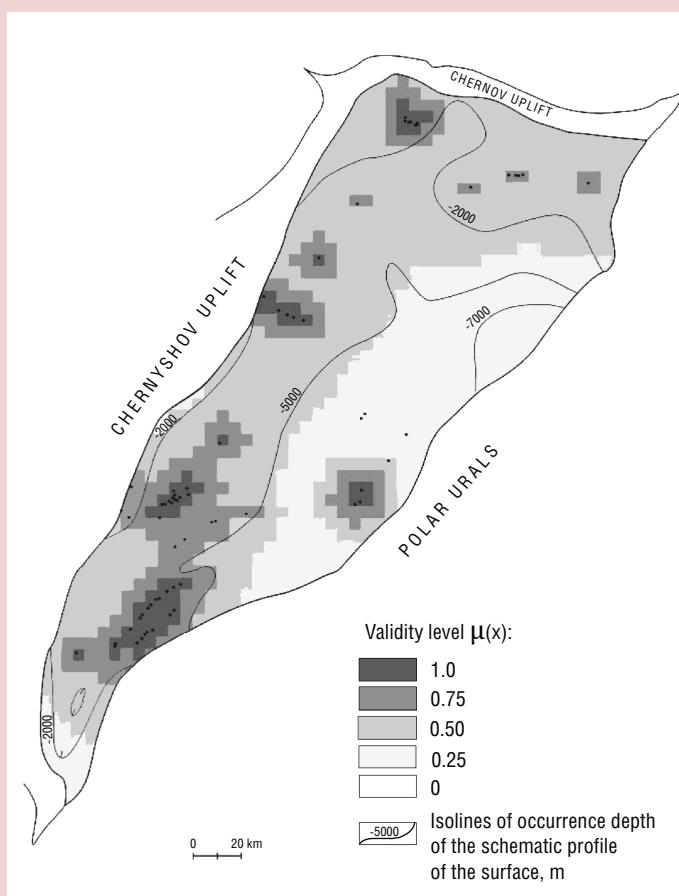


Figure 3. Schematic map of the validity index for the search of hydrocarbon deposits (the case of the Timan-Pechora oil-and-gas province) [4]



Therefore, from a practical point of view, it is expedient to limit the validity value at 0.7 and consider it the threshold of information sufficiency (for complex areas its value may be increased, but not more than 0.8) [4].

The validity of the models of constructing and evaluating the prospects for oil and gas content of the territory under exploration is calculated for each elementary cell of the territory – the arithmetic average of the

Hamming distances for each component of the model of the oil-gas field is calculated:

$$d(A, B) = \frac{1}{4} \sum_{i=1}^4 |\mu_A(x_i) - \mu_B(x_i)| ,$$

where  $\mu_A$  and  $\mu_B$  are the values of the membership function, corresponding to the appropriate level of information adequacy and the current state of exploration,

$i$  is the number of the component of the above model of the oil-gas field.

The map in fig. 3 has been created on the basis of such calculations. The transition to the value indicator of the amount of works for a detailed exploration of the territory (with the unit cost indicators for its imple-

mentation being 300 rubles/ ton of fuel oil equivalent) gives a value between 1.2 + 0.2 billion rubles.

Thus, with respect to the exploration of oil and gas, it became possible to change the uncertainty from the factor that impedes the adoption of sound managerial decisions into an instrument of making such decisions. And this approach will be useful in many industries, where there is a possibility to select the factors, crucially influencing the economic performance of a studied object or system, and to simulate the level of validity of the current knowledge concerning these factors, as well as the influence of the factors on the results by means of the fuzzy sets theory.

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# YOUNG RESEARCHERS

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## Development of Russia's agriculture as a factor promoting the solution of the world food problem

*The article reviews the current state and causes of the global food problem. It characterizes the measures of governmental support to the development of agriculture in Russia in 2008 – 2011. It also states the possibilities of increasing agricultural production output by using the potential of the country's Northern regions provided that technical and technological modernization will be carried out. The article identifies the main priorities of Russia's agricultural policy and related activities that will enhance exports of food on the world markets.*

*Food problem, state support of agriculture, opportunities for agricultural production increase; priorities of Russia's agricultural policy.*



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The food problem reached beyond national borders in the 21st century. It is of a global nature due to its humanistic importance and close relationship with the task of overcoming the socio-economic backwardness of some states on the one hand, and because of the formation of the world food market on the other hand.

It should be noted that over the last 10 years this issue was not settled, despite the increasing attention on the part of international organizations and governments of the countries to the food problem. And although the average

per capita world production of basic foodstuffs has increased, the number of people suffering from hunger has not reduced. According to the estimates of the Food and Agriculture Organization of the United Nations (FAO) it was 836 million people in 2000, and 868 million people in 2012 (*tab. 1*). In the countries of North Africa and West Asia, the number of undernourished people increased by 28%, in Eastern Asia and Saharan Africa – by 18%. Beginning from 1990, this indicator in some developing regions showed a downward trend, however, the process has stalled since 2000.

Table 1. The number of people suffering from hunger in the world, mln.

Groups of countries	1990-1992	1995-1997	2000-2002	2006-2008	2010-2012	2012 in % to	
						1990	2000
<b>World, total</b>	<b>848.4</b>	<b>791.5</b>	<b>836.2</b>	<b>850.0</b>	<b>868.0</b>	<b>102.3</b>	<b>103.8</b>
Including South Asia	267.5	269	307.9	330.1	304	113.6	98.7
Saharan Africa	165.9	188.2	197.7	217.5	234	141.0	<b>118.4</b>
East Asia	215.6	149.5	141.8	139.4	167	77.5	<b>117.8</b>
South-East Asia	105.8	86	89.6	77.4	65	61.4	72.5
Latin America and Caribbean island countries	54.4	53.4	50.8	47.0	49	90.1	96.5
North Africa and West Asia	12.4	17.9	19.5	20.3	25	201.6	<b>128.2</b>
Developed countries	15.3	17.5	15.4	10.6	16	104.6	<b>103.9</b>
Caucasus and Central Asia	10.9	9.2	12.4	6.7	6	55.0	48.4
Oceania	0.7	0.8	1.0	1.0	1	142.9	100
<b>The share of starving people in the total world population, %</b>	<b>15.8</b>	<b>13.7</b>	<b>13.5</b>	<b>12.8</b>	<b>12.5</b>	<b>-3.2 п.п.</b>	<b>-1.0 п.п.</b>

Food security indicators. <http://www.fao.org/economic/ess/ess-fs/fs-data/ess-fadata/en/>,  
The State of Food Insecurity in the World 2012. Economic growth is necessary but not sufficient to accelerate reduction of hunger and malnutrition / Rome, Food and Agriculture Organization of the United Nations, 2012. – 65 p.

This state of affairs is caused by the well-known factors. They include a manifold increase in food prices on the world markets<sup>1</sup>, the growth of the Earth's population<sup>2</sup>, the use of agricultural raw materials as biofuel<sup>3</sup>, unemployment and the reduction of people's incomes due to the global financial and economic crisis.

Only uniting the efforts of the entire world community will help to solve these problems. As for Russia, it may play quite a significant role in this process. It possesses a considerable agricultural potential: 9% of the world's arable land, 20% of fresh water supplies are located on its territory, and its share in the production of mineral fertilizers exceeds 8%. Russia is the largest exporter of grain. Over 18 million tons

<sup>1</sup> According to FAO, food prices have increased almost 8-fold as compared to the year 2000 (in comparable terms): the prices for milk – 12.7-fold, for sugar – 11-fold, for grain – 10.5-fold. The peak of price hikes falls on the period after 2008 (source: <http://www.fao.org/worldfoodsituation/wfs-home/foodpricesindex/en/>).

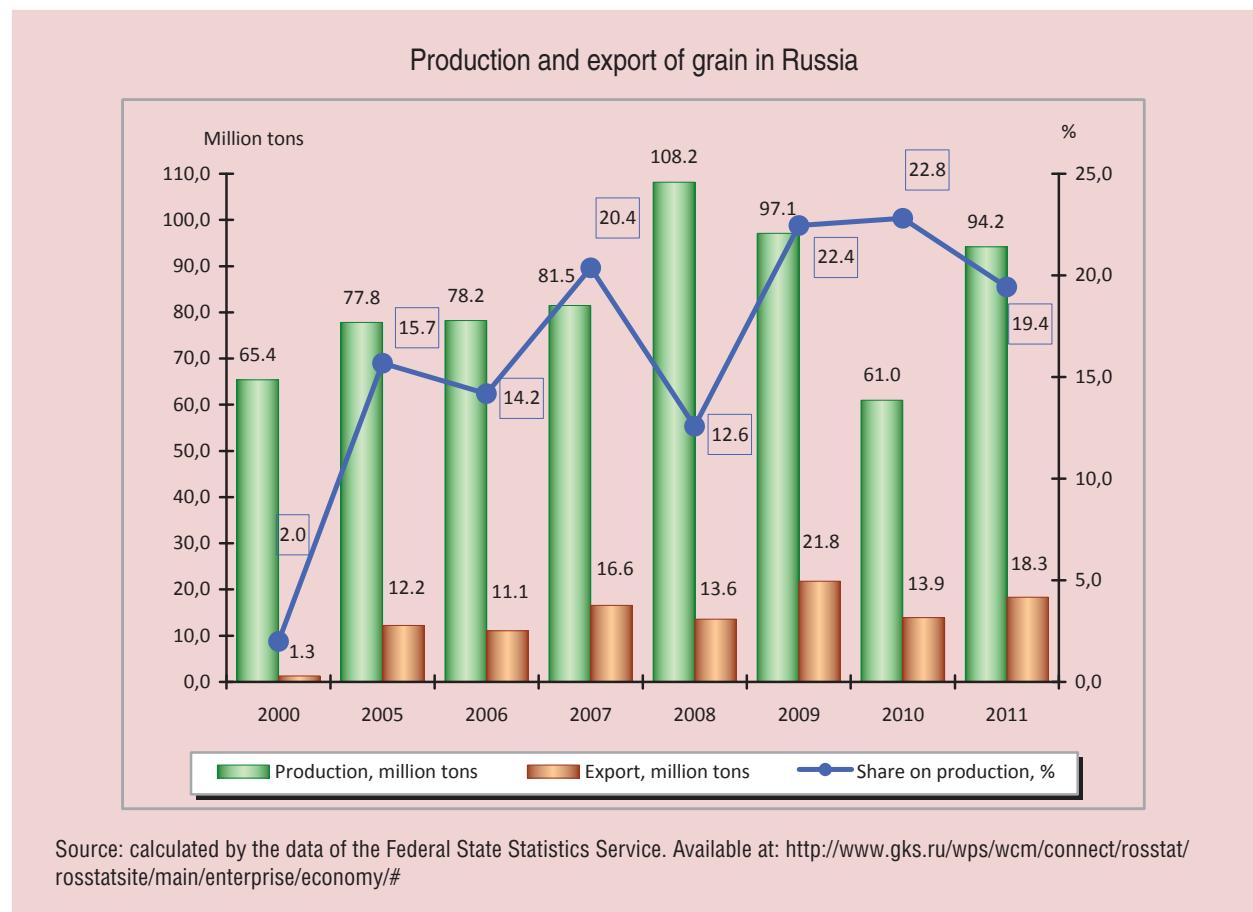
<sup>2</sup> According to the World Bank data, the world population increased from 6.1 to 7.0 billion in 2000 – 2011, or by 14%. (source: <http://data.worldbank.org/indicator/SP.POP.TOTL>).

<sup>3</sup> According to the Earth Policy Institute, the global production of bioethanol for 2000 – 2011 has increased from 4.5 to 22.7 billion gallons or 5-fold; and the production of biodiesel – from 0.2 to 5.6 billion gallons or 26-fold (source: <http://www.earth-policy.org/>).

of grain was exported in 2011, which amounted to almost 1/5 of its production volumes (*figure*). At present, the country has the opportunities for enhancing these indicators.

Indeed, Russian agriculture has not yet been able to make up for all the losses it suffered under the collapse of the USSR and the formation of a market economy. At that, the state authorities admitted the fallacy of simultaneous destruction of the old system, delays in the solution of such agro-industrial problems as the undeveloped market infrastructure, lack of conditions for introduction of modern equipment and technologies, disorder of land relations. And it should be pointed out that in recent years a considerable amount of work has been carried out in the country and its regions aimed at curbing the fatal destruction of agricultural production. In order to extend the access of agricultural producers to credit resources, the authorized capital of Russian Agricultural Bank was increased by 120.3 billion rubles in 2008 – 2011<sup>4</sup>. The authorized capital of OJSC Rosagroleasing was also increased in order to provide additional

<sup>4</sup> Source: Russian Agricultural Bank annual reports. Available at: <http://www.rshb.ru/about/invest/reports/rsbu/>



opportunities for technical modernization of production. In 2011 the decision was made to supply agricultural machinery to domestic producers with a 50% discount. In addition, the state started to compensate for the costs of legalizing the peasants' ownership of land plots.

The authorities have started to handle the problems of social development of the village more efficiently. 5.7 million square meters of housing was constructed in rural areas in 2008 – 2011, which improved the living conditions of 80 thousand families. Over 20 thousand km of gas distribution networks were laid, the construction of medical and obstetric stations, schools and other social infrastructure objects is going<sup>5</sup>.

<sup>5</sup> On the course and results of implementing in 2011 of the State programme on the development of agriculture and regulation of markets of agricultural products, raw materials and food for 2008 – 2012: national report. Moscow: Ministry of Agriculture of the Russian Federation, 2012.

At the regional level the decisions were made on the provision of specialized financial support to young professionals, who came to work in rural areas.

Of course, the implemented measures of state support to the domestic agro-industrial complex could not, for objective reasons, solve all the problems. But these measures helped maintain its financial stability, create a certain margin of safety. Therefore, some positive results have been achieved, such as the enhancement of production of the main types of agricultural products. For instance, the bulk yield of sugar beet and sunflower seeds in all types of farms in Russia has increased 3.3-fold and 2.5-fold, respectively, in comparison with the 2000 level (*tab. 2*). The production of cattle and poultry for slaughter increased by 56%, grain production – by 36%, egg production – by 20%.

The progress in the agricultural sector enhanced the level of the country's self-sufficiency concerning the main types of food and the achievement of the values of the indicators set by the Food Security Doctrine (*tab. 3*). For example, in 2011 our country satisfied its needs for grain by more than 130%, for sugar – by 127%, milk – by 80%.

Some enterprises purchased new high-performance and resource-saving machinery and equipment, which resulted in costs reduction, improving the product quality and enhancing labour productivity. According to N.V. Fedorov, the Minister of Agriculture of Russia, for the last five years more than 700 facilities for pig-breeding, about 400 – for poultry production and 200 – for the production of cattle meat have been constructed and upgraded [1].

The state programme for agricultural development for the period up to 2020 was approved in July of the current year. It is aimed at the comprehensive development of all the branches of the agroindustrial complex with the view of Russia's accession to the World Trade Organization. In order to adjust the agricultural sector to the new conditions of economic environment, Russian Government envisages a gradual transition from the provision of direct subsidies to agricultural producers to the promotion of their profitability. Starting from 2013, for example, it is intended to provide a subsidy for 1 litre of milk that conforms to the established standards of quality. In addition, there will be an increase in the volume of funds allocated for the activities comprising the so-called "green basket", i.e. information and advisory services, crop

Table 2. Production of basic kinds of agricultural products in the Russian Federation in 1990 – 2011, million tons

Product	1990	2000	2007	2008	2009	2010	2011	2011 as compared to 2000, %
Sugar beet	32.3	14.1	28.8	29.0	24.9	22.2	46.3	3.3-fold
Sunflower seeds	3.4	3.9	5.7	7.3	6.4	5.3	9.6	2.5-fold
Cattle and poultry for slaughter (in live weight)	15.6	7.0	8.7	9.3	9.9	10.5	10.9	155.7
Grain	116.7	65.4	81.5	108.2	97.1	60.9	94.2	144.0
Vegetables (grown in the open)	10.3	10.8	11.5	13.0	13.4	12.1	14.7	136.1
Eggs, billion pieces	47.5	34.1	38.2	38.1	39.4	40.6	41.0	120.2
Potato	30.8	29.5	27.2	28.8	31.1	21.1	32.6	110.5
Milk	55.7	32.3	32.0	32.4	32.6	31.9	31.7	98.1

Source: Federal State Statistic Service. Available at: <http://www.gks.ru>

Table 3. Level of self-sufficiency of Russia by the main types of foodstuffs and agricultural products required for their production, %

Product	2009	2010	2011	2011 as compared to 2009, p.p.
Grain	134.8	93.3	131.6	-3.2
Sugar	95.6	85.3	127.1	31.5
Milk and milk products	82.9	80.5	80.2	-2.7
Meat and meat products	70.6	72.2	72.8	2.2
Including: beef	69.6	69.6	69.8	0.2
pork	76.4	77.7	76.6	0.2
poultry	74.1	81.3	88.1	14.0
mutton	94.3	95.4	94.0	-0.3

Altukhov A.I. Actual problems of food supply security in Russia. Economics of agricultural and processing enterprises. 2012. No. 7. P. 11–16.

insurance, R&D, development of infrastructure in rural territories, personnel training and improvement of their professional skills, etc.

Russia possesses considerable reserves for the enhancement of agricultural production due to a more complete, efficient usage of agricultural potential in the southern as well as northern regions. The experience of the Vologda Oblast indicates that even under these harsh natural and climatic conditions (location beyond the 60th parallel, low temperatures, short summers) the production of milk, meat and eggs can be profitable if the farmers master new equipment, machinery and technology. It is worth mentioning, that so far the technical and technological modernization of production is being carried out in some of the region's enterprises.

According to the experience of the Breeding Collective Farm Named after the 50th Anniversary of the USSR (Gryazovetsky District), the loose cow housing method with milking in modern milking parlours allow for a 2.6-fold reduction of labour expenditures for the production of 1 quintal of milk, a 10% reduction of its production cost, and a 18% increase in profitability (*tab. 4*). The use of robotic milking machines gives even more impressive results: labour productivity increases 4-fold.

The leading farms of the oblast are implementing such technologies as minimum tillage, grain rolling, and procurement of fodder in polythene bags. Agricultural enterprises purchase state-of-the-art machines and

equipment, which, along with high-precision operating, allow for reducing the unit costs, labor intensity and works execution period. It is proved by the experience of the Integrated Agricultural Production Centre Collective Farm Peredovoy located in the Vologodsky District. The use of the "Rapid" complex, which simultaneously breaks the ground, adds fertilizers and sows grain, resulted in reducing the number of technological operations in the field from five to three, and also in reducing fuel consumption per 1 ha by 18% and labour costs by 27% (*tab. 5*).

The considerable volume of reconstruction and modernization works was carried out on the oblast's poultry farms as well. As a result, the production of eggs increased by 18% in 2008 – 2011 (from 510.6 to 601.5 million pieces). In order to create technologically adjoint production clusters, the region's Government together with the management company Dominion developed and launched the project "Development of the Vologda Oblast linen complex through inter-sectoral and inter-territorial integration", the main task of which is the profound modernization and technical re-equipment of all the enterprises of the production chain.

Thus, in the recent years, the agroindustrial complex has achieved some positive results. However, the macroeconomic situation remains difficult, which has a negative impact on the investment climate in the agro-industrial complex, the balance of exports and imports of agricultural products.

Table 4. Economic indicators of cow milking technologies at the Collective Farm Named after the 50th Anniversary of the USSR (Gryazovetsky District) in 2010

Indicator	In total	Including by technologies		
		Tethered housing	Loose housing	
			With milking in the milking parlour	With robotic milking
Labor costs for the production of one quintal of milk, p./ h.	1.23	1.83	0.70	0.45
Cost of milk production, rub. / kg	9.65	10.10	9.03	9.53
Profitability of milk production, %	56.0	49.0	67.0	59.0
Source: Collective Farm's own data				

Table 5. Labor and fuel costs for different grain seeding technologies at the Integrated Agricultural Production Centre Collective Farm Peredovoy (Vologodsky District)

Processing steps, machinery	Technology			
	Traditional		Using "Rapid" complex	
	Fuel per 1 ha, kg	Labour costs, p. / day	Fuel per 1 ha, kg	Labour costs, p. / day
1.Under-winter ploughing Tractor John Deere, plough "Lemken"	18.0	0.085	18.0	0.085
2.First cultivation Tractor T-150, cultivator KBM-7,2	7.3	0.05		
Tractor T-150, cultivator KBM-14,0	-	-	3.5	0.026
3.Fertilizing Tractor MTZ with the disperser "Amazone"	0.46	0.013		
4. Second cultivation Tractor T-150, cultivator KBM-7,2	7.3	0.05	8.05	0.07
5. Sowing seeding-machine "Amazone"	3.0	0.05		
Complex "Rapid"	-	-		
<b>Total:</b>	<b>36.06</b>	<b>0.248</b>	<b>29.55</b>	<b>0.181</b>

Besides, it hampers the transition of Russian agriculture to the path of sustainable development. In this connection the country's authorities, the subjects of agribusiness have much work to do for minimizing the emerging risks and enhancing participation in solving the global food problem.

In our opinion, the enhancement of agricultural producers' profitability up to the level that allows an expanded reproduction should become the top priority of the state policy in the agrarian sphere. According to the estimates, the profitability of production on the average for the sector should be enhanced to 20 – 25%. Meanwhile, even with all the kinds of state support, this indicator in Russia doesn't exceed 10% [3]. In this connection, in our opinion, support measures should be further developed, which will allow the optimal balance to be achieved between the prices for agricultural products, and resources used for their production. Only in this case, agricultural producers will be able to overcome the continuing technical and technological backwardness of agriculture of Russia as compared to the economically developed countries.

Another condition of dynamic development of Russia's agroindustrial complex is the implementation of measures to regulate the sales of domestic agricultural products. Unfortunately, many farmers and farm enterprises in Russia (especially small businesses) have no access to the market due to the imperfection of its infrastructure, increasing monopolization of trade networks and weak development of cooperation. And some private traders-speculators in the absence of competition set ridiculously low prices for agricultural products, which makes their production unprofitable and brings frustration to agricultural workers. The solution of this problem, in our opinion, requires the authorities' adoption of measures aimed at supporting the establishment and development of cooperatives.

As Ivano Barberini, President of the International Cooperative Alliance noted, only highly efficient cooperative structures will be able to enter a fairly narrow door of the global world market, they are the best enterprises with the provision of social guarantees. The justice of his words is also proved by the experience of American farmers, which shows that if the country were deprived of supply-

sale cooperative societies, its agriculture would collapse in half a year. Thus, Russia has the short-term perspective of carrying out a considerable amount of activities on the development of cooperative movement.

The growth of agricultural production and the competitiveness of the industry cannot be achieved only by introducing new equipment and technologies and establishing inter-sectoral exchange parity in the agro-industrial complex. This requires, among other things, the qualified personnel, meeting the requirements of innovation development. Present-day Russia experiences a discrepancy between the knowledge and skills provided by agricultural education institutions, and the needs of the agroindustrial complex innovation development<sup>6</sup>. In this regard, we believe that the urgency of the personnel issues in agriculture could be reduced (naturally, with the support

on the part of the RF Ministry of Agriculture) by increasing the number of students at agricultural education institutions, the number of managers and specialists of the sector, trained abroad and in the leading agricultural enterprises of the country.

In order to prevent the outflow of professionals from the agricultural sector we need to take decisive actions for the development of social, engineering, transport, household infrastructure of the village; we should also consider the issue of providing additional financial support to the workers of the sector.

In our opinion, the major efforts of the authorities should be directed to the solution of all these problems after defining appropriate measures and adequate funding. Only in this case it would be possible to ensure the country's food security and increase the volumes of food export.

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<sup>6</sup> For example, according to the Oblast Department of Agriculture, Food Stocks and Trade, in the beginning of 2012, only 54 % of household managers had a higher education, and 13% of them did not even have a specialized education. From 3793 leading specialists 2395 persons (63 %) didn't have a higher education (source: Anishchenko N.I., Ivanova M.N., Bilkov V.A. Agriculture of the Vologda Oblast on the eve of Russia's accession to the World Trade Organisation. Economic and social changes: facts, trends, forecast. 2012. No. 3 (21). P. 107 – 116).

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## Inter-regional cooperation: current state and problems of development (the case of the Vologda Oblast)

*The article proves that the rate of economic growth to a large extent depends on the involvement of the region's economy in inter-regional relations. The econometric model of the relationship between inter-regional trade and investment in fixed assets, and the gross regional product can be used to assess the contribution of inter-regional relations into economic development. The analysis of the inter-regional relations of the Vologda Oblast reveals the main problems of their development, shows the possibilities of using the mechanisms of strategic planning aimed at enhancing the cooperation between the regions.*

*Inter-regional cooperation, inter-regional trade, industrial cooperation, investment cooperation, strategic planning.*



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The present-day economic development model requires closer cooperation between Russia's regions. Integration at all the levels of their socio-economic systems is stipulated primarily by the external environment factors: market fluctuations, competition, desire to gain competitive advantages. Close interregional ties facilitate business development by providing the opportunities for cooperation and creating more efficient schemes of organizing technological processes, marketing and logistics.

In recent years, more and more attention has been paid to the issues of the inter-regional cooperation development. Thus, the formation and development of inter-regional economic relations is highlighted in the works of A.G. Aganbegyan, M.K. Bandman, P.I. Burak, A.G. Granberg, Yu.A. Fridman, R.I. Shniper, V.A. Shulga, B.M. Shtulberg and others.

The necessity of developing the inter-regional links is also confirmed by the reproduction approach to the economy management, according to which the volume and material structure of a product produced in the region is not identical to reproduction resources, realized and used in this region. The economic resources of the regional reproduction process are formed at the expense of intra-regional and inter-regional relations, and these resources are always limited. In addition, the national revenue, consumed in the region, doesn't directly depend on the volume of net production produced in the region [19]. It defines the dependence of each region on the inter-regional economic integration and sustainability of market relations.

Currently, Russia's economic development is characterized by the decline in the centra-

lization of the social and economic policy. Enhancing the role of the regional factor has been the logical consequence of the decrease of the state regulation and the crisis of national economy after the collapse of the Soviet Union.

In the times of planned economy, numerous cooperation and production relations between the republics and regions of the USSR were characterized by consistency and stability due to their prescriptive regulation by the state. The collapse of the centralized system of regional development management and economic instability had a significant influence on the territorial division of labour. A significant decline in economic activity, the close up of production facilities, the destruction of cooperation ties and technological production chains increased the closure of the regional markets.

Therefore, it can be stated that until 1999 Russia's regions established economic ties on their own. The governments of the republics, krais and oblasts signed bilateral cooperation agreements, and such types of inter-regional interaction served as links between the regions.

The establishment of the new units of the country's territorial division, the Federal Districts, in 2000 changed the situation significantly [9]. The Decree of the RF President "On the Plenipotentiary of the President of the Russian Federation in the Federal District" states that the districts are established "to ensure the realization of the constitutional powers by the President of the Russian Federation, to enhance the efficiency of activities of the federal bodies of state power and to improve the system of control over the execution of their decisions". As a result, along with a "mild" form of integration processes development (formation of various cooperative organizations), there emerged the "hard" form, which was the creation of state structures and regional executive and legislative power bodies in macro-regions.

By the end of 2002, the system of Federal Districts has been finally integrated in the relations between the centre and the regions, occupying an intermediate position. Economic functions of the Federal Districts consisted in the strategic coordination of regional development, investment activity and inter-regional relations [15].

Currently, the strengthening of inter-regional ties is continuing. Inter-regional cooperation serves as one of the priority directions of regional development, being the sphere of special interests of the federal authorities. This is due to the fact that it facilitates the rapprochement of the regional economies, the reduction of territorial disparities in the socio-economic development of the regions and the strengthening of economic ties between the regions; besides, it plays an important role in strengthening the country's federative structure and the development of the regional and, consequently, national economy as a whole [9].

Development of inter-regional economic cooperation has become an important task for the majority of Russian regions, as well as for the Vologda Oblast, which is one of the regions included into the North-Western Federal District.

The Vologda Oblast is an industrially developed, export-oriented region. It specializes in metallurgical and chemical production, forestry, machinery and equipment, meat and dairy products production (*tab. 1*). The oblast enterprises carry out the primary processing of iron ore and apatites from the northern regions of the North-Western Federal District, as well as the oblast's own forest resources and their subsequent realization in other regions of the country.

According to some researchers, the extent of involvement of the region's economy in inter-regional relations largely determines its economic growth [2, 3]. To confirm this hypothesis it is proposed to use the econometric

Table 1. Export of products from the regions of the North-Western Federal District in 2010\*

Type of production	Republic of Karelia	Republic of Komi	Archangelsk Oblast	<b>Vologda Oblast</b>	Kalininograd Oblast	Leningrad Oblast	Novgorod Oblast	Pskov Oblast	Share of the Vologda Oblast	
									in the North-Western Federal District	in Russia
Rolled ferrous metal products, thousand tons	-	-	-	<b>3845</b>	-	-	-	-	197	95.1
Steel pipes, thousand tons	-	-	-	<b>291</b>	-	-	-	-	453	39.1
Industrial wood, thousand m <sup>3</sup>	245	566	600	<b>2116</b>	-	212	217	39.7	-	53.0
Saw timber, thousand m <sup>3</sup>	28.3	40.4	20.3	<b>82.4</b>	1.1	149	77.3	3	-	20.5
Meat, thousand tons	2.4	0.03	-	<b>3.6</b>	4.5	108.6	55.2	8.8	-	1.9
Tinned meat, thousand standard cans	-	-	-	<b>52.3</b>	126442	8818	43566	292	1447	0.03
Sausage products, tons	69.9	11.3	1.3	<b>724</b>	13728	21295	7196	62574	11258	0.6
Cheese, tons	-	-	13.7	<b>53.2</b>	3.9	408	248	7435	19809	0.2
Butter, tons	4.4	-	0.2	<b>549</b>	-	401	1369	539	10117	4.2
Flour, tons	7.9	-	-	<b>43.7</b>	-	-	-	1.1	42.9	45.7
Grain, tons	281	-	-	<b>8947</b>	-	-	-	1	70	96.2
* Source: Regions of Russia. Socio-economic indicators: stat. collection. Rosstat. Moscow, 2011. P. 728 – 739.										

model of the relationship between the inter-regional trade and investment in fixed capital and the gross regional product, which provides a quantitative assessment of the impact of a limited set of factors on the region's economy. As applied to the Vologda Oblast, the model is as follows:

$$Y = 36,5 + 1,3 \cdot X + 0,9 \cdot I,$$

$$R = 0,98; R^2 = 0,96;$$

$$S_Y = 18,1; F(2;8) = 94,4,$$

where Y is the volume of the gross regional product (billion rub.);

X is the volume of inter-regional export (billion rub.);

I is the volume of investments in the fixed capital (billion rub.).

The assessment of parameters of the multivariate regression was carried out by the least squares method (*tab. 2*).

In order to assess the validity (quality) of the regression analysis, the standard error S<sub>y</sub> (18,1) was used, which gives an idea about the approximate value of the forecast error, and

the coefficient of determination R<sup>2</sup> (0,96), which shows what percentage of the Y variation is explained by the influence of the selected components (i.e., the factor indicators explain 96% of the variation of the initial function). These values have confirmed that the considered components are very strong and statistically important.

The regression coefficients allow the average change in the "response" of GRP to be estimated with the change in the volume of inter-regional export or investments in fixed capital by 1 billion rubles, if the other factors are "frozen". So, the increase in the volume of inter-regional export by 1 billion rubles at the fixed value of other parameters leads to the growth of the oblast's GRP by 1.3 billion rubles, the increase in volume of investments by 1 billion rubles – to the growth of GRP by 0.9 billion rubles.

The calculations show that the absolute increment of GRP at a possible change in the volume of inter-regional export exceeds the increment, resulting from the increase of the volume of investments in fixed capital.

Table 2. The results of application of the multivariate regression

	Standardized rate	Standard error	Coefficient	Standard error	t(8)	p-level
Free term			36.519	11.278	3.238	0.012
Inter-regional export (X)	0.449	0.193	1.317	0.568	2.320	0.049
Investments in fixed capital (I)	0.548	0.193	0.869	0.307	2.834	0.022

Figure 1. The share of export to the regions of Russia in the total volumes of supplies of the Vologda Oblast organizations, %\*



\* Source: Inter-regional commodities exchange of the Vologda Oblast: stat. collection. Vologdastat. Vologda, 2011.

This phenomenon is explained by the great dependence of the Vologda Oblast's economy on the volume of production, exported to other regions of Russia.

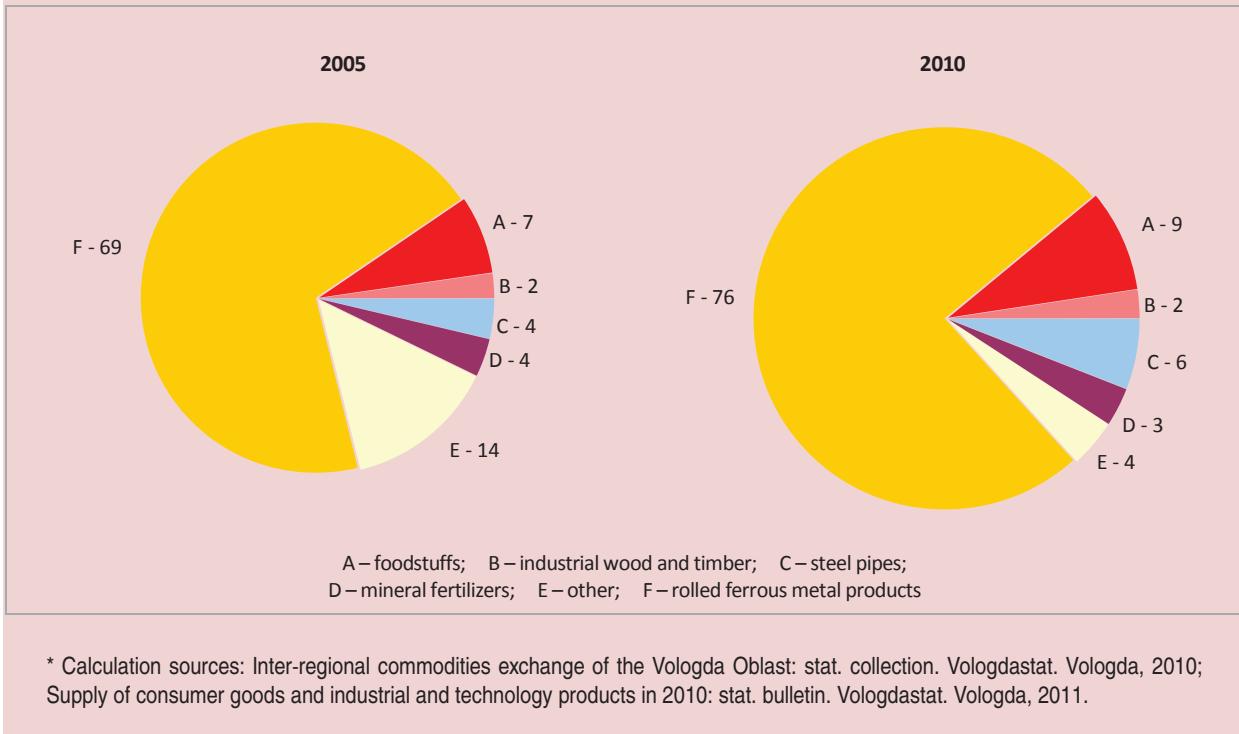
The importance of the development of inter-regional trade for the Vologda Oblast's economy is also confirmed by the fact that about a half of its production is exported to other Russian regions (*fig. 1*), mostly to the Central Federal District (44% – in 2010), the Volga Federal District (25%) and the North-Western Federal District (16%). Besides, 2/3 of the regional goods market is formed by the imports from other RF subjects, mainly from

the North-Western (in 2010 – 48%), Central (20%) and Volga (16%) federal districts.

In general, the main counterparties of the oblast, judging by its economic relations, developing for many years, include the Republic of Komi, the Murmansk Oblast, the Nizhniy Novgorod Oblast, Moscow and the Moscow Oblast, Saint Petersburg and the Leningrad Oblast, the Kemerovo, Yaroslavl and Samara oblasts, Perm Krai.

The structure of the inter-regional supplies of the Vologda Oblast is largely based on the resources and raw materials (*fig. 2*). Metal-lurgical production, e.g. rolled ferrous metal

Figure 2. Share of the groups of the goods in the inter-regional exports of the Vologda Oblast in 2005 and 2010, %\*



products and steel pipes, prevail in the export. Important export items are the products of chemical industry and timber industry complex, foodstuffs.

In the two decades of economic reforms, the development of inter-regional trade has not contributed to the improvement of the region's industrial structure concerning its balance<sup>1</sup>. The narrow range of products exported from the oblast, the basis of which is formed by a small group of goods with a low degree of processing, led to the fact that the Vologda Oblast economy is not immune to external risks.

The 2008 global economic crisis revealed the instability of the oblast's economy and had a negative impact not only on its inter-regional trade, but also, as a consequence, on its

economy on the whole (*fig. 3*). A slump in prices for the few goods, which form the basis of the Vologda export, proved that.

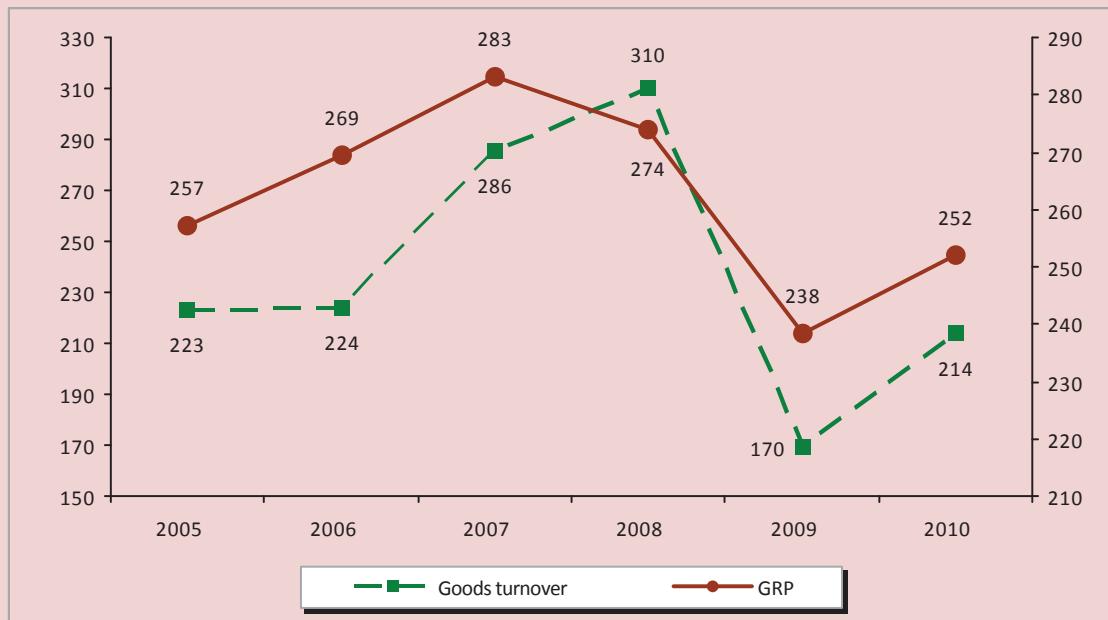
Thus, the dependence of the region's economy on the situation in the foreign markets is a factor of instability.

In order to reduce the dependence on the factors of external environment, organizations of the Vologda Oblast cooperate with those of other Russian regions. Meanwhile, the dynamics of the main indicators of the inter-regional cooperation in the 2005 – 2010 can't be considered positive. For instance, the number of joint ventures reduced significantly (by 35%), as well as the number of their employees (by 31%), the volume of investments in fixed capital (by 57%) and manufacturing (by 16%; *tab. 3*).

Only the largest joint ventures function successfully. In 2010 they engaged 8.5% of the

<sup>1</sup> Production of machines and equipment in 2010 was only 4.7% of the shipped goods of the industry, whereas metallurgical production accounted for 50.6%.

Figure 3. Inter-regional trade turnover and the gross regional product of the Vologda Oblast in 2005 – 2010, billion rub. (in the prices of 2010)\*



\* Calculation sources: Inter-regional commodities exchange of the Vologda Oblast: stat. collection. Vologdastat. Vologda, 2010; Statistical yearbook of the Vologda Oblast: stat. collection. Vologdastat. Vologda, 2011.

Table 3. Main indicators of the functioning of joint inter-regional enterprises of the Vologda Oblast (in the prices of 2010)\*

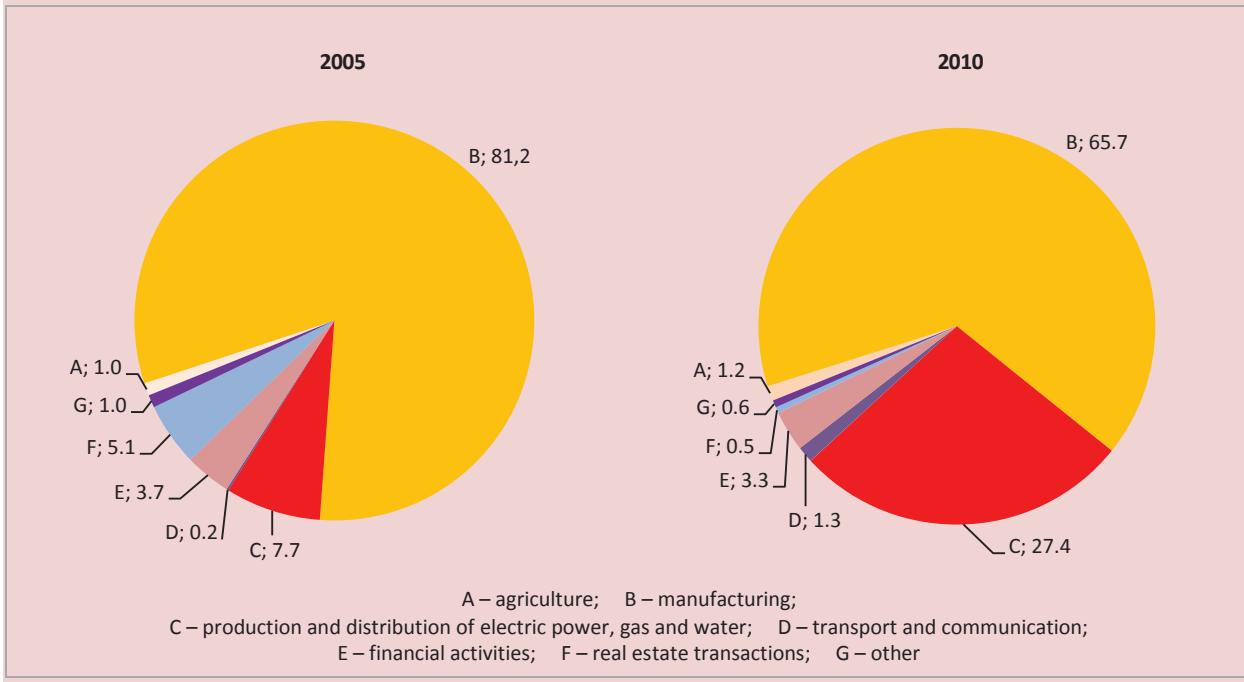
Type of products	2005	2006	2007	2008	2009	2010	2010 in % to 2005
Number of organizations. units	803	623	615	546	578	521	64.9
Average annual number of employees. thousand people	73.9	66.2	64.7	59.9	57.2	50.7	68.6
Average annual wages and salaries. thousand rubles	23.2	24.4	27.5	30.2	30.3	29.5	127.2
Investment in fixed capital. billion rubles	27.4	21.4	15.5	18.9	10.6	11.9	43.4
Basic assets. billion rubles	146.3	171.7	206.9	199.8	213.1	231.6	158.3
Volume of shipped goods. billion rubles	n/a	235.6	257.8	286.4	178.1	198.4	84.2
<i>In % to the outcome</i>							
Number of organizations. units	2.5	1.9	1.8	1.6	1.6	1.4	-1.1 p.p.
Average annual number of employees	12.2	10.8	10.5	9.8	9.6	8.5	-3.7 p.p.
Average annual wages and salaries	158.7	153.4	157.1	152.7	152.9	159.1	+0.4 p.p.
Investment in fixed capital	27.3	21.8	14.4	19.6	15.9	21.4	-5.9 p.p.
Basic assets	22.1	24.1	22.6	22.5	23.5	43.5	+21.4 p.p.
Volume of shipped goods	n/a	61.5	60.7	58.7	76.3	58.2	-3.3 p.p.

\* Calculation sources: Investment processes in the Vologda Oblast: stat.collection. Vologdastat. Vologda. 2007 – 2011; Labour and employment in the Vologda Oblast: stat. collection. Vologdastat. Vologda. 2011; Statistical yearbook of the Vologda Oblast: stat. collection. Vologdastat. Vologda. 2011.

employed population in the oblast, 43.5% of the basic funds and 58% of production were concentrated there, and their level of wages and salaries exceeded the average oblast level by 59 percent.

The main direction of joint investment projects is the manufacturing industry (in 2005 – 81%, in 2010 – 66% of the volume of investments in the fixed capital of joint inter-regional enterprises; fig. 4).

Figure 4. Structure of investments in joint inter-regional enterprises of the Vologda Oblast in 2005 and 2010, %\*



\* Calculation source: Investment processes in the Vologda Oblast: stat. collection. Vologdastat. Vologda, 2006, 2011.

There were 51 joint manufacturing enterprises, functioning in 2010. Among them 16 enterprises were engaged in food production, 12 – in machine-building, 7 – in pulp-and-paper production, 6 – in ferrous metallurgy and metal-working, 3 – in textile production, 2 – in woodworking, 2 – in chemical production.

Vologda enterprises together with the enterprises of other regions establish facilities for the advanced processing of metal, wood and chemicals on the territory of the Vologda Oblast. However, the most important direction for the oblast, the joint production of final products, isn't practically developing. At the end of 2010 metallurgical production accounted for 63% of the turnover of joint ventures, chemical – for 14%, foodstuffs production – for 8%.

Thus, the joint enterprises of the Vologda Oblast are created in the sectors producing goods with a low degree of processing.

This underlines the raw-material character of the region's economy and its passive role in the national differentiation of labour [12].

Structural adjustment of the real sector of the economy can be intensified through investment cooperation. Investments allow the production to be timely upgraded, the sphere of the enterprise's activity to be expanded, and the level of work safety to be increased.

Inter-regional investment cooperation is complicated by the fact that each region, possessing its resource potential, isn't eager to share it with other regions. Only the potential economic benefit can urge them to do it. Such an attitude is correct from the point of view of market relations. However, the region can't develop in isolation from other regions. Therefore, it is necessary to strengthen inter-regional investment ties at the macro-regional (district) level.

The Federal Districts promote the pooling of federal and regional resources, aimed at the socio-economic development of the regions; besides, they facilitate the joint decision of problems when the regions are unable to solve them on their own; they also promote the development of productive forces at the inter-regional level [18].

At the same time, the regions, different in their level of economic development, can coordinate their efforts under the Federal Districts, they can be comprehensively integrated and gain a certain economic and social effect, by addressing the issues of the territory's socio-economic development independently, without attracting significant funds from the federal budget.

At present, the process of federalization of the country requires the consideration of regions as the subjects of civil law and economic relations having their own economic interests [4]. At the same time, one should not forget that the region is an open socio-economic system which includes many interrelated links and which is connected with other regions of the country, as well as foreign states. The importance of the relations between the RF subjects for the development of sustainable federal relations leads to the necessity of their strengthening, in particular, in the investment sphere.

The Federal Law "On the investment activity in the form of capital investments" provides for the possibility of investment interaction in the sphere of capital investments between the state power bodies of the Russian Federation, the state power bodies of the subjects of the Russian Federation and local self-government bodies with the coordination of their interests<sup>2</sup>. The availability of the required investment resources remains an open issue.

<sup>2</sup> On the investment activity in the form of capital investments: Federal Law of the Russian Federation dated 25 February 1999. Available at: <http://base.consultant.ru/cons/cgi/online.cgi?req=doc;base=LAW;n=123436;dst=4294967295;rnd=0.11578548730758986;from=70033-0>

According to Rosstat (Federal State Statistics Service of Russia), the North-Western Federal District (NWFD) annually accounted for 13 – 14% of the total investments of the country in 2005 – 2010 (in general for the period – over 6 trillion rubles). The greatest volume of investments was directed to Saint Petersburg, the Leningrad Oblast and the Republic of Komi (*tab. 4*).

The Vologda Oblast in recent years has become unattractive for investments: the volume of investments in fixed capital in 2005 – 2010 dropped by 38% (the worst figure in NWFD), and the region's share in the total volume of investments in NWFD decreased from 11.5% to 5.5%.

The leading Russian rating agency Expert-RA explains the decrease in the investment attractiveness of the Vologda Oblast by the growth of investment risks (mainly because of the deteriorating economic and management components) and by the decrease of the investment potential (because of the deterioration of consumer, industrial and financial components).

Investors are mostly interested in such branches of the economy, as transport and communication, and manufacturing (mainly metallurgical and chemical), 40% and 28% of the investments, respectively, were directed there in 2010 (in 2005 – 45% and 35%; *fig. 5*).

Four of the top ten largest investment projects are funded by the investors from other regions of Russia (Moscow-based companies OJSC OGK-6 and Alliance Group, LLC Nestle Russia and Yaroslavl-based JSC TGK-2; *tab. 5*), two projects in the food sector and two – in the energy sector.

The development of the Vologda Oblast's inter-regional investment cooperation demonstrates the same skew in the structure of industry toward the production of goods with the low degree of processing. As for hi-tech industries, in particular, mechanical engineering, they remain unattractive for Russian investors.

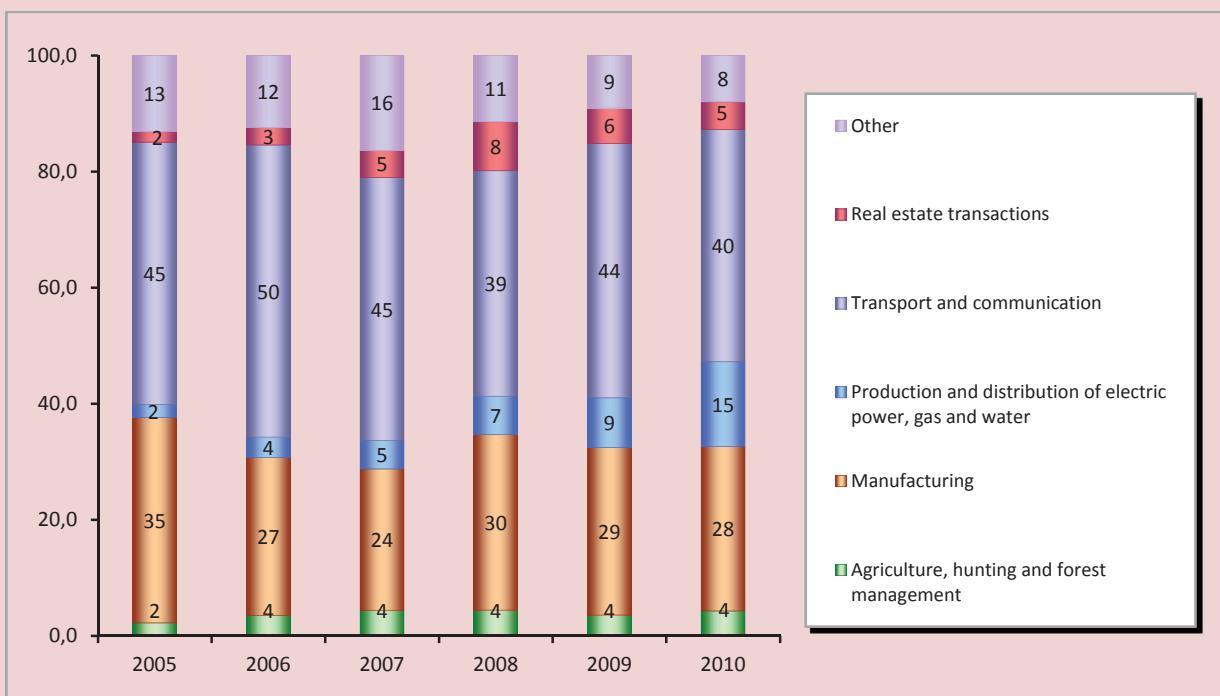
Table 4. Volume of investments in the fixed capital of organizations  
in the NWFD regions, billion rubles (in the prices of 2010)

Region	2005	2006	2007	2008	2009	2010	2010 in % to 2005
NWFD	800.1	978.5	1107.6	1174.1	992.1	1049.6	131.2
Leningrad Oblast	145.6	196.5	170.1	188.8	203.4	269.3	184.9
Novgorod Oblast	23.6	29.8	32.9	40.4	39.5	39.7	168.3
Saint Petersburg	258.4	293.8	416.9	423.1	352.5	375.0	145.1
Pskov Oblast	10.9	13.8	21.4	22.0	16.3	15.2	139.3
Komi Republic	78.1	105.3	79.2	90.2	112.5	102.6	131.4
Murmansk Oblast	33.3	37.4	35.8	54.9	44.8	35.0	105.3
Arkhangelsk Oblast	76.8	128.8	166.4	158.4	78.9	78.6	102.4
Republic of Karelia	22.2	25.0	23.2	28.5	19.4	22.3	100.5
Kaliningrad Oblast	54.9	50.7	62.3	83.7	66.0	54.6	99.4
<b>Vologda Oblast</b>	<b>92.2</b>	<b>92.7</b>	<b>96.2</b>	<b>82.6</b>	<b>59.1</b>	<b>57.3</b>	<b>62.1</b>
	<b>11.5*</b>	<b>9.5*</b>	<b>8.7*</b>	<b>7.0*</b>	<b>6.0*</b>	<b>5.5*</b>	<b>-6.0 p.p.</b>

\* Share of the Vologda Oblast in NWFD.

Source: author's calculations based on: Main indicators of development of NWFD regions: stat. collection. Vologdastat. Vologda, 2011. P. 205.

Figure 5. Structure of investments in the fixed capital of the Vologda Oblast, %\*



\* Calculation source: Investment processes of the Vologda Oblast: a statistical collection. Vologdastat. Vologda, 2011. P. 46-49.

Table 5. Major investment projects implemented in the Vologda Oblast

Nº	Project name	Industry	Implementation period	Investor	Amount of investments, billion rubles
1	Second construction stage of the Cherepovets state district power station	Energy	2009-2014	OJSC OGK-6	18,6
2	Flax complex of the Vologda Oblast	Textile	2008-2020	JSC Vologodsky Textile, agricultural producers	9,8
3	Carbamide production unit	Chemical	2008-2012	OJSC Cherepovetsky Azot	7,8
4	Combined cycle gas turbine unit PGU-110 consisting of a gas-turbine installation GTU 75 MW + heat recovery steam generator + steam turbine 35 MW	Energy	2007-2012	OJSC TGK-2	5,9
5	Cultivation of small fruit crops on the basis of industrial technologies	Food	2009-2013	OJSC Alliance Group	4,9
6	Reconstruction of existing paper manufacturing	Wood processing	2010-2016	OJSC Sukhonsky Pulp and Paper mill	4,1
7	Industrial Park Sheksna	Metal working	2006-2015	Vologda Oblast Government	2,7
8	Air separation unit	Metallurgy	2011-2012	ZAO Air Liquide Severstal	2,0
9	Development of value added production	Wood processing	2009-2013	OJSC Sokolsky DOK (Wood Processing Plant)	1,2
10	Layout of baby food production in Vologda (second stage)	Food	2011-2015	LLC Nestle Russia	1,0

Source: Major investment projects under implementation in the Vologda Oblast. Available at: <http://expert.ru/northwest/2012/25/ekonomika-severo-zapada/media/146274>

The expansion of the regional enterprises' participation in the inter-regional industrial cooperation, along with investment cooperation, depends on the results of economic reforms and, first of all, on the creation of favorable conditions for the attraction of investors and development of the industry.

The smart strategic planning of the economy, based on the principles of sustainable and innovation development and taking into account the strengthening of inter-regional economic links, is a key tool for achieving these objectives [11, 16, 17, 20].

Several attempts to create the institutional framework for the implementation of a sustainable and systemic approach to the organization and management of inter-regional cooperation processes have been made at the level of the North-Western Federal District. The strategy for the socio-economic development of the North-Western Federal District for the period up to 2020 approved by the RF Government on 18 November 2011 is

an important document defining the strategic direction of the district's regional policy and inter-regional relations. This document makes an attempt to use strategic planning for the large group of the RF subjects. The strategy is mainly aimed at creating the conditions, which will ensure rapid and sustainable economic growth in the RF subjects included in the North-Western Federal District. The document focuses on the development of the North-West as a single economic space within the framework of the single economic space of Russia.

This goal is to be achieved by implementing the set of measures aimed at the strengthening of inter-regional integration. It is expected that the stabilization of local markets, the inter-sectoral and inter-regional integration of scientific-technological and production potential, the implementation of mutually beneficial strategic inter-regional projects will have a multiplicative effect on the economy of the North-West.

The essential point of the strategy is its consideration of the fact that under the current conditions of market relations, inter-regional cooperation can not develop on the directive basis. The regions should have a clear notion of the economic feasibility of such integration. It is proposed to work out the long-term programme documents on the socio-economic development, i.e. regional strategies, as a mechanism for the coordination of interests.

However, the analysis of strategic documents of the NWFD regions showed that not all the strategies emphasize the role of inter-regional cooperation as an important factor of regional development. Only 6 of the documents contain the notion that it is possible to achieve more through the pooling of competitive advantages of the neighbouring regions, the development of inter-regional cooperation and stimulation of inter-regional integration, than by competing for external resources (the strategy for the socio-economic development of the Vologda Oblast for the period up to 2020 the issues of strengthening the inter-regional ties are barely touched upon).

In addition, the problems of strategic planning in the regions include the lack of strategic guidelines on the mechanisms of formation and regulation of the policy in the sphere of inter-regional cooperation.

Another major problem is the absence of the long-term vision, coordinated at the district level, concerning the total export capacity, as well as the improvement of investment climate and the efficient use of competitive advantages [1]. The regions' executive and legislative authorities are to form a coordinated approach to the management of integrated economic complex. The systemic problems of socio-economic development require the elaboration of special methodology of evaluating the inter-regional cooperation projects and programmes, allowing the use of modern mechanisms and principles of territorial economic management and interaction.

Thus, taking into account modern theoretical and methodological principles in the sphere of inter-regional cooperation, the results of the analysis of the Vologda Oblast's inter-regional relations, one can draw the following conclusions.

1. It is necessary to study the inter-regional economic and cooperative ties comprehensively, which is difficult at the moment due to the low degree of openness and transparency of the information on the state and dynamics of their development. The region's economic growth depends largely on the degree of involvement of its economy in inter-regional relations.

2. For the sustainable development of the regional economy and reduction of its dependence on the world market situation, the share of inter-regional export and intra-regional consumption should amount to not less than 2/3 of the total volume of supplies of production produced in the region. The export-oriented strategy to the detriment of domestic consumers is untenable [10, 14].

3. The state authorities should use all the available administrative and economic tools for the strengthening and development of cooperative relations between industrial enterprises (in different districts, regions and Federal Districts), the technological process of which is aimed at the production of goods with high added value.

4. The development of investment cooperation between the regions should be coordinated at the federal and district levels. Investment projects should be implemented in the priority sectors of the national economy in accordance with the strategies and concepts of the development of Russia and its Federal Districts.

5. Strategic documents on the regional development should include the sections, containing clearly defined and agreed directions and mechanisms of inter-regional cooperation. The interaction of the regional executive and legislative authorities should be also aimed at eliminating the barriers to inter-regional

cooperation, creation of joint projects, providing administrative support to the enterprises producing high-tech goods. The efficiency of using the mechanisms of strategic planning in the sphere of inter-regional cooperation will be enhanced by the following:

- the setting of goals, tasks and priorities of inter-regional cooperation, the promotion of public awareness of inter-regional cooperation processes and coordination of the long-term vision of the total export capacity at the district level;

- the regions' strategies should take into account the measures on the development of the inter-regional relations, a mechanism should be developed aimed at ensuring their inter-regional coordination, systematic monitoring of inter-regional cooperation processes, as well as the formation of the system of strategic priorities (based on the analysis of the essence of inter-regional cooperation), which will be fixed in the corresponding document in the framework of the regional strategic planning system.

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## Inter-municipal cooperation as a factor promoting the economic and social development

*The article deals with the concept of “inter-municipal cooperation”, it substantiates the importance of inter-municipal cooperation for socio-economic development. The article describes the basic models of inter-municipal cooperation and highlights their essential characteristics. Besides, it reveals the main problems, impeding the wide-scale usage of this institution in practice and proposes a stepwise algorithm of formation and development of inter-municipal cooperation.*

*Development of municipalities; local self-government, inter-municipal cooperation; establishment and development of inter-municipal cooperation.*



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Since 1993, when local self-government bodies started their activities, they have been facing the whole range of factors impeding their efficient functioning. Such factors include legislation flaws, resources shortage, the desire of the state authorities to shun the responsibility for handling the local issues, etc. The Federal Law No. 131 “On the general principles of organization of local self-government in the Russian Federation” was adopted in 2003 for the purpose of dealing with local issues and establishing an efficient system of local authorities. However, the reform initiated by the law hasn’t brought any significant results so far [1, 2, 3, 9]. In these conditions, great importance is attached to the search for and development of the activity guidelines for the local self-government bodies aimed at the expansion of their capabilities.

One of these guidelines is inter-municipal cooperation, which is viewed as the consolidation of material and immaterial resources of local self-government bodies of municipal entities on a mutually profitable basis for the creation of public goods or provision of public services. The widespread use of this institution contributes to the development of the territory due to the following:

1. Consolidation of actions of the local self-government bodies, coordination of their efforts. It is necessary, because the intersection points of vital issues and interests (economic, demographic, social, environmental, etc.) may go beyond administrative borders and the search for mutually acceptable solutions, the implementation of coordinated policy requires the interaction of the governing bodies of different municipal entities).

2. The combination of savings (due to the expansion of the scale of the management process and costs reduction) with the efficiency of the local self-government, responsive to the priority issues of the local community.

3. A most complete account of the interests of the territory as a whole and all its constituting municipalities.

4. Provision of a wider access of the subjects of municipal entities (primarily economic) to various kinds of resources (financial, material, labor, advanced technologies, infrastructure, etc.).

In Russian conditions, the tasks solved through inter-municipal cooperation, are important at the local, as well as at the regional and national levels. Thus, according to some experts [8], the wide-scale usage of this institution will facilitate: on the one hand, the formation of the supporting frame for the region and the country in general (more developed municipalities are maintained as the connected elements of the regional and national economic systems by different kinds of interactions), which will allow the acute problem of geo-political retention of the territories to be handled; on the other hand, it will promote the reduction of socio-economic differentiation between the territories (more developed municipal entities will stimulate the development of less developed territories)<sup>1</sup>.

Inter-municipal cooperation also promotes regional development, as the implementation of joint projects and combination of the socio-economic development potentials of the adjacent territories determine the formation of the more efficient space and the increase of the region's competitiveness [6].

<sup>1</sup> The existing imbalances in the territories' development are one of the main factors impeding socio-economic development of the regions and the country as a whole (source: Granberg A.G. Economy and sociology of space. Economic revival of Russia. 2010. No. 4. P. 53-71; Gutnikova Ye.A. The role of local self-government institution in the socio-economic development of territories. Problems of development of territories. 2012. No. 3. P. 50-57).

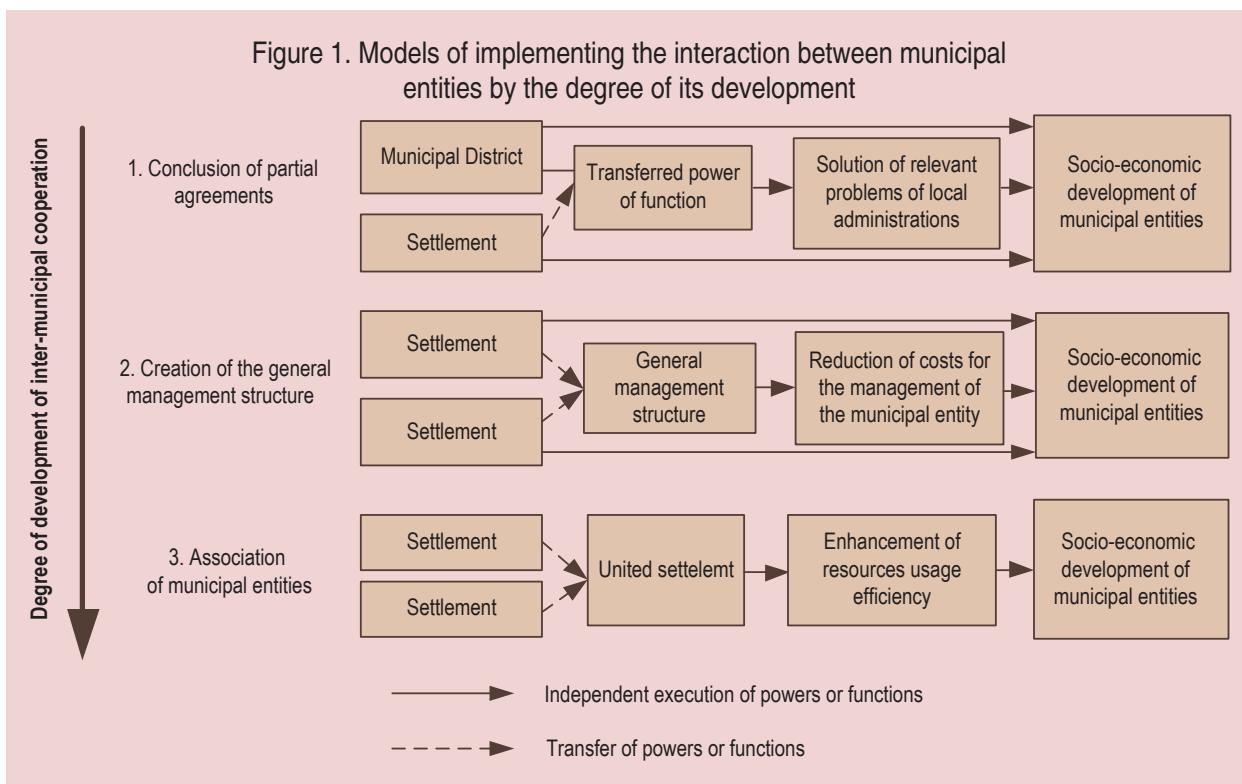
Inter-municipal cooperation in our country has been developing since 1995, with the adoption of the Federal Law "On the general principles of organization of local self-government" No.194 dated 28 August 1995. Article 10 of the law has provided the opportunity for the creation of municipal institutions in the form of associations or unions to coordinate their activities and implement their rights and interests more efficiently. The legal framework of inter-municipal cooperation was further developed with the adoption of the Federal Law No. 131 dated 6 October 2003: in order to pool the financial, material and other resources for solving the issues of local significance, paragraph 4 of article 8 envisages the formation of inter-municipal associations, the establishment of business entities and other inter-municipal organizations in accordance with the federal laws and normative legal acts of the representative bodies of municipal formations. For the same purpose, the local self-government bodies may conclude contracts and agreements.

However, inter-municipal cooperation is used insufficiently in the activities of Russian local self-government bodies. The circumstances stated above prove the necessity of the profound elaboration of the theoretical and practical foundations of implementing this institution in the region.

Summing up the experience of foreign and Russian municipal practice, we can point out the following models of cooperation according to the degree of its development (*fig. 1*).

The characteristics of the models are shown in *table 1*.

Inter-municipal cooperation can be based on the mechanisms of conciliation, and also on administrative mechanisms. In the first case, a settlement transfers some of its powers to handle the issues of local significance to another municipal formation (usually at the district level), reinforcing it with inter-budget transfers (at present, it is the most common model of interaction).

**Table 1. Advantages and disadvantages of interaction models**

No.	Characteristic of the model	Advantages	Disadvantages
1.	Conclusion of partial agreements ( <i>the municipal entity lacks the opportunity for the independent realization of certain functions or powers</i> )	An opportunity to attract qualified specialists Saving the wage fund of municipal employees Enhancement of the quality of provided services Preservation of the prerequisites for the participation of citizens in the management	Absence of the opportunity of direct management on the delegated powers Reduction of the transport accessibility of services (people have to travel long distances to the district administration)
2.	Establishment of the general management structure ( <i>the municipal entity lacks the opportunity for the independent realization of certain functions or powers, and handing them over on the agreement is impeded due to the lack of financial security of the authority</i> )	Preservation of the autonomy of the municipal formation An opportunity to attract qualified specialists Saving the wage fund of municipal employees Reduction of expenses on purchase of materials, equipment, etc. Preservation of the prerequisites for the participation of citizens in the management Pooling of resources for the solution of common tasks and their combining Expansion of the financial-economic base of municipalities Improvement of the quality of services provided to the population Development of infrastructure, including transport	Absence of the opportunity of direct management on the delegated powers (only through the head of the established institution) Complexity of legal regulation due to the absence in the legislation of the institution of inter-municipal property, the Budget Code does not allow the municipalities to unite their resources There can be inequalities in the provision of services, the distribution of funding, etc.
3.	Unification of municipal entities ( <i>the municipal entity has no prospects for independent development</i> )	Reduction of costs on administrative expenses (including savings on the wage fund of municipal employees, overhead costs, etc.) Simplification of the management system More adequate satisfaction of the population's needs Formation of municipal entities more competent in economic sphere Solution of the personnel problem	Reduction in the municipality management efficiency due to the transport remoteness of settlements Deterioration of the availability of services Underestimation of local peculiarities Reduction of the opportunities for the participation of the population in local self-government (estrangement of the power from the population, reduction of the deputy corps)

There may also be a reverse situation: it is a district that transfers some of its functions to the level of settlements<sup>2</sup>. In addition, the mutual transfer of powers is possible between municipal entities of the same or different levels.

The opportunities for implementing such a model in the municipal management can be applied to the activities of local administrations, and to some issues of local importance. In particular, architecture, housing and utilities, culture, sports, library services, legal aid and software, etc. may be the objects of agreements.

This model is implemented in some districts of the Vologda Oblast through the establishment of unified centralized agencies providing the accounting and legal support, etc. to the administrations of settlements, experiencing difficulties in these spheres. The district administration is the founder of these agencies. For example, since 2008, the functions of settlements' administration in Cherepovetsky District have been transferred to the newly established municipal budget institution Central Accounting Department. According to our calculations, in relation to the settlements, assuming that the required number of staff is one specialist per one additional function, and judging by the average salary of the municipal employee in the settlement's administration, the use of the proposed approach will result in the savings of budget funds allocated for wages and salaries that will exceed 630 thousand rubles a year in the scale of Cherepovetsky District (*tab. 2*).

Despite its advantages, in our opinion, this model cannot be considered efficient to the fullest, since the task of finding the internal reserves for the development of municipal formations is not taken into account in its implementation by the local self-government bodies.

<sup>2</sup> This mechanism is stipulated by Article 15 of the Federal Law No. 131 dated 6 October 2003 "On the general principles of organization of local self-government in the Russian Federation"

Administrative mechanisms are based on the creation of the general management framework (inter-municipal enterprise (IME), inter-municipal institution (IMI), etc.), supporting the local self-government bodies of several settlements. The main task of these mechanisms lies in enhancing the efficiency of the local self-government bodies' functioning, in the disposal of non-core assets, in the development and implementation of ways to reduce the costs for the performance of functions.

In our opinion, the positive side of this model of inter-municipal cooperation consists in the fact that it implies a combination of different variants of the realization of powers and functions. For example, a part of the functions may be carried out by the settlement's administration, another part – in cooperation with some other settlement (group of settlements), and yet another part – with another settlement (group of settlements) (*fig. 2*). Combined with the transfer of powers under agreements to the district administrations or on a contractual basis to the third-party organizations (outsourcing), this significantly expands the opportunities of local administrations for handling various issues of local importance.

The model under consideration has one more advantage – the settlement retains its status of a separate municipal entity (in comparison with joint municipalities), which provides the opportunity to plan the development of the territory with regard to its local features, to maintain close cooperation with all social institutions and structures on the territory and to respond promptly to the problems emerging in these areas<sup>3</sup>.

This model of inter-municipal cooperation involves a mechanism of return, which is, undoubtedly, an advantage. If its implementation

<sup>3</sup> Although formally, the objects of social infrastructure (in particular, healthcare) have been transferred to the regional level, the local self-government bodies still remain the first instance in solving the problems emerging in these spheres.

Table 2. Monthly savings in wages and salaries resulting from the transfer of accounting functions by the rural settlements of Cherepovetsky District to the municipal budgetary institution Central Accounting Department of Cherepovetsky Municipal District, thousand rubles

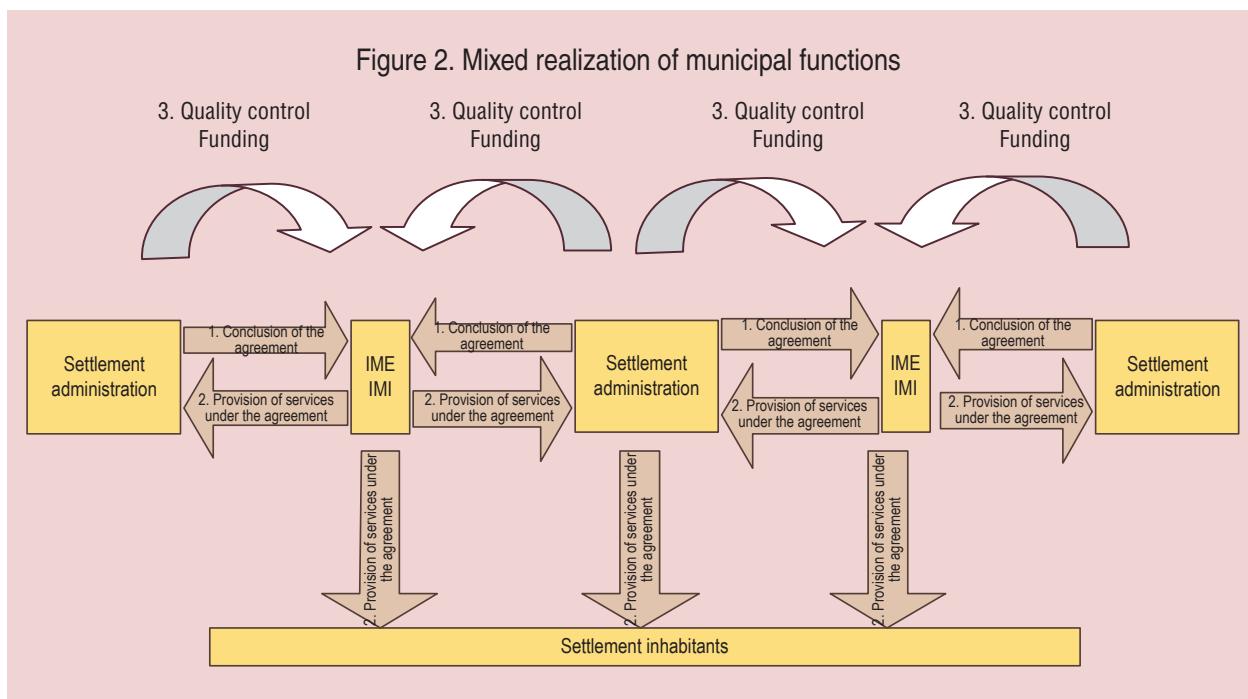
Administration of the settlement	2010	2011	2012
<i>Administration of Klimovskoye rural settlement</i>			
Cost of accounting record-keeping by the settlement	230.8	259.2	225
Cost of the services of the municipal budget institution Central Accounting Department	187.8	212	224.9
Savings	43	47.2	0.1
<i>Administration of Nikolo-Ramenskoye rural settlement</i>			
Cost of accounting record-keeping by the settlement	127.2	186	194.9
Cost of the services of the municipal budget institution Central Accounting Department	93.8	110.8	118
Savings	33.4	75.2	76.9
<i>Administration of Shchetinskoye rural settlement</i>			
Cost of accounting record-keeping by the settlement	136 (10 months)	169.7	160
Cost of the services of the municipal budget institution Central Accounting Department	78.2 (10 months)	110.8	118
Savings	57.8	58.9	42
<i>Administration of Yaganovskoye rural settlement</i>			
Cost of accounting record-keeping by the settlement	-	125.9 (10 months)	152.3
Cost of the services of the municipal budget institution Central Accounting Department	-	81.5 (10 months)	118
Savings	-	44.4	34.3
<i>Administration of Irdomatskoye rural settlement</i>			
Cost of accounting record-keeping by the settlement	-	170.7 (8 months)	222.2
Cost of the services of the municipal budget institution Central Accounting Department	-	109.3 (8 months)	118
Savings	-	61.4	104.2
<i>Administration of Malechkinskoye rural settlement</i>			
Cost of accounting record-keeping by the settlement	-	-	113.7 (6 months)
Cost of the services of the municipal budget institution Central Accounting Department	-	-	59.0 (6 months)
Savings	-	-	54.7
<b>Overall savings</b>	<b>134.2</b>	<b>187.1</b>	<b>312.2</b>

hasn't brought any results or there is no necessity of further participation in such organizations, the municipalities have the opportunity to end it.

The interaction of the territories according to this model can be considered as a transitional stage in the unification of the settlements (or an approbation stage), which gives an opportunity to evaluate the pros and cons of joint functioning. On the basis of the received information, the settlements can decide on the expediency of such an association. If cooperative functioning is obviously profitable, then one can speak about the transition to the

third model – the unification of settlements, which means the merging of independent municipal formations and the establishment of a new municipal entity on their territory.

The first and the third of the considered models are widely used in the practice of Russian municipalities and the necessary normative-legal base has been worked out for this purpose. At the same time, inter-municipal cooperation has been studied rather poorly, its opportunities are still used very little. Meanwhile, foreign countries widely use various mechanisms of inter-municipal cooperation. Their classification is shown in *table 3*.



According to the heads of local self-government<sup>4</sup>, the Vologda Oblast municipalities can develop inter-municipal cooperation in the following directions: creation of the common objects of infrastructure, for example the creation of a unified housing and communal services sector, water supply system, utilization of household waste, etc. It was stated by 50% of the heads of urban settlements, 17% of the heads of rural settlements and 25% of the heads of municipal districts, who participated in the poll. At the same time, 85%, 93% and 63% of the respondents supported the transfer of powers for their more efficient implementation; 38%, 30% and 25% supported the joint use and development of the existing infrastructure; 13%, 45% and 50% spoke in favour of attracting specialists who service a number of settlements (*tab. 4*).

<sup>4</sup> Beginning from 2007, the author conducts annual polls of the heads of local self-government of municipalities in the Vologda Oblast. 209 heads of municipal formations (almost 70% of their total number) took part in the survey in 2012: 169 heads of rural settlements, which accounts for 67% of their number in the region, 16 heads of urban settlements (72.7%), 24 heads of municipal districts (92.3%).

The practice of municipal entities has the examples of inter-municipal cooperation, which demonstrate its advantages in handling the issues of local importance. Inter-municipal economic cooperation should be pointed out in particular. Economic zones (or municipal clusters), representing the set of municipal formations on a compact territory, possessing common strategic goals and objectives and common prerequisites for development are one of the promising forms of the joint development of municipal formations as a process of convergence and interaction of economies in the different territorial systems. These zones are created on the basis of a single organizational-technological and information environment through the pooling of resources.

One of the successful examples of inter-municipal cooperation in economic sphere is the tourist destination “Lake Beloye” (the territory of Kirillovsky, Belozersky and Vashkinsky districts). Calculations show that it is possible to achieve a significant increase in revenues from tourism business by uniting the districts’ efforts in order to use their tourist potential more efficiently, and by creating

Table 3. Objectives and directions of inter-municipal cooperation

Objective	Direction
1. Economic	1.1. Preservation and development of industrial-economic and cooperative relations: - creation of joint ventures - formation of production chains - formation of a single commodity market
	1.2. Development of trade relations
	1.3. Creation, development of common links and infrastructure objects: - automobile roads - energy cooperation - communications
	1.4. Development of cargo and passenger transportation: - by river - by road
	1.5. Development of market infrastructure: - shopping centres - banks and branches - information centres - exhibition centres
	1.6. Inter-municipal projects
2. Social	2.1. Tourism
	2.2. Sports and cultural events
	2.3. Population's migration
	2.4. Cooperation in science and technology
	2.5. Information cooperation
3. Ecological	3.1. Development of ecological monitoring
	3.2. Establishment of common SPNCA*
	3.3. Control over the enforcement of environmental legislation
4. Formation and development of municipal associations and their organizational structures	4.1. Expression and protection of common interests of municipalities at different levels
	4.2. Generalization and extension of successful experience on the issues of local self-government
	4.3. Participation in the formation of the normative-legal base concerning the development of municipal entities
5. Organizational	5.1. Attraction of qualified and initiative personnel
	5.2. Coordination of branch-wise and territorial interests
	5.3. Consolidation and efficient use of scientific-technological, educational, and production-technological potential of territories
	5.4. Establishment of the territorial system of formation and use of labour force
	5.5. Provision of legal protection to municipalities

\* Specially protected nature conservation areas.

the favorable conditions for doing business and designing a new competitive tourist product in the region<sup>5</sup> (tab. 5) [10].

There are also other projects on inter-municipal cooperation in economic sphere, but almost all of them are initiated by the regional government.

<sup>5</sup> The acceleration coefficient calculated for the destination "Lake Beloye" in general is equal to 0.11 (the average value of accelerator indicators calculated for the areas included in the destination). The obtained value of the accelerator means that 1 ruble of the funds invested provides 9.1 rubles of increment in income.

One more direction of inter-municipal cooperation in the Vologda Oblast is the activities of the Council of the Heads of local self-government of municipal entities created in accordance with the Decree of the Governor of the Vologda Oblast "On the Council of the Heads of the self-government of the oblast's municipal entities" No. 1 dated 5 January 1997. The main functions of the Council include [7]:

- organization of consultations on a broad range of issues concerning the activities of the local self-government bodies;

Table 4. Distribution of the respondents' answers to the question "What directions of inter-municipal cooperation are expedient to develop in your municipality?" (in % of the number of respondents)

Answer option	Municipal districts	Urban settlements	Rural settlements
Delegation of powers for their more efficient execution	62.5	85	93
Attraction of the specialists who service several settlements (e.g. lawyers)	50	12.5	44.6
Joint use and development of existing infrastructure (roads, communications, services, etc.)	25	37.5	30.4
Development of mobile forms of servicing the population	37.5	12.5	23.9
Handling the issues of ecological safety	12.5	12.5	19.6
Creation and development of the common links, infrastructure facilities (services sphere single for the housing and public utilities; water-supply networks; wastewater disposal)	25	50	17.4
Development of certain branches of the economy (e.g. tourism)	43.8	0	16.3
Inter-municipal humanitarian contacts, interaction in the sphere of culture	25	50	15.2
Development of trade relations	12.5	25	15.2
Development of cooperation in the sphere of legislation (association for the protection of common interests at different levels)	0	0	13
Cooperation in the sphere of education (establishment of school districts)	0	12.5	9.8
Formation and development of municipal associations and their organizational structures	18.8	12.5	7.6
Joint usage of natural resources	12.5	12.5	6.5
Development of economic and production relations	6.3	25	3.3

Table 5. Forecast of the increase in the revenues of hotels and restaurants in the municipalities in proportion to the volume of capital investments

Indicators	2010	2011	2012	2013	2014
<i>Vashkinsky District</i>					
Previous-year investments in the fixed capital of hotels and restaurants	178.8	223.4	279.3	349.1	436.4
Increase in the profit of hotels and restaurants from hosting the tourists	5958.3	7447.9	9309.9	11637.4	14546.7
<i>Belozersky District</i>					
Previous-year investments in the fixed capital of hotels and restaurants	162.5	203.1	253.9	317.4	396.7
Increase in the profit of hotels and restaurants from hosting the tourists	3250	4062.5	5078.1	6347.7	7934.6
<i>Kirillovsky District</i>					
Previous-year investments in the fixed capital of hotels and restaurants	1645	2056.3	2570.3	3212.9	4016.1
Increase in the profit of hotels and restaurants from hosting the tourists	7152.2	8940.2	11175.3	13969.1	17461.4

– draft oblast laws, decrees of the oblast's Governor on the most important social and economic issues aimed at creating a mechanism of interaction between the state power bodies and local self-government bodies;

– assistance (aid) to the oblast's Governor and Administration in the elaboration and submission to the oblast's Legislative Assembly of draft oblast laws in order to create a legal base of the local self-government.

But, despite the diversity of the Council's functions, their implementation, according to the majority of the heads of local administrations, is not efficient enough (*tab. 6*).

The gaps in the organization of this direction could be filled by creating the association of the Vologda Oblast municipalities based on the unions of municipal and urban districts proposed by the author [4]. At the same time, the developed structure along with its benefits has some disadvantages. The major one, in our opinion, is the absence of a settlement level of municipal authorities.

Association of municipalities of this level has been created only in Gryazovetsky District in accordance with the decision of the District Assembly "On the adoption of the regulation

Table 6. Distribution of answers to the question “Would you evaluate the efficiency of cooperation with the Council of the Heads of municipal entities (in % of the number of respondents)

Municipal entities	Degree of efficiency	
	low and satisfactory	high
Urban settlements	93.8	6.2
Rural settlements	95.2	4.8
Municipal districts	80.8	19.2

on the non-commercial organization ‘Association of municipal entities of Gryazovetsky municipal district’” No. 44, dated 30 March 2006. The Association is the union of the settlements established to ensure the coordination of activities and interaction of the local government bodies in the district, the generalization and extension of experience on the issues of local self-government, and the expression and protection of common interests of municipalities at the district, regional and federal levels, joint development of management models and mechanisms of the socio-economic development of the region’s municipalities. The establishment of such associations is also required in the rest of the 25 municipalities of the Vologda Oblast.

However, the examples of inter-municipal cooperation are rare, and in most cases it is not documented or regulated, it bears the character of an oral agreement. The insufficient use of the interaction mechanism is conditioned by such factors as: the lack of financial resources (50% of the Heads of urban settlements, 74% of rural settlements and 88% of municipal districts); lack of experience in the organization and implementation of inter-municipal projects and programmes in the social and economic sphere (50%, 44% and 38%, respectively); lack of trained management personnel, capable of supervising these processes (63%, 28% and 50%); (*tab. 7*).

These factors cause the low efficiency of cooperation between the municipalities. According to some experts, even under command economy the inter-municipal relations were developed better than they

are now (this was expressed mainly in the production and business cooperation and greater mobility of the people). The heterogeneity of the economic space, especially the spatial dissociation of production potential, natural and labour resources, reinforced the need for complementarity of the territories and demanded intensive interaction [5].

The heads of municipalities pointed out the lack of financial resources and insufficient experience as one of the main reasons hindering the formation and development of inter-municipal cooperation. In this connection, an algorithm consisting of five consecutive stages was worked out for managing the development and implementation of inter-municipal cooperation (*tab. 8*). It is most convenient to test the proposed algorithm on the functions related to the activities of local administrations (accounting, legal support, software, etc.); as well as on the functions, which are characterized by reduction of costs through the scale effect, and the functions, which require uniform implementation standards and the benefits of which extend over the whole territory of the cooperating municipalities (transport services, cleaning up the roads, maintenance of cemeteries and waste landfills, etc.). Besides, inter-municipal cooperation is necessary in those cases, when the settlements are unable to perform any of the powers and the regional authorities refuse to take them upon themselves, due to the lack of their financial provision. First of all, it concerns the issues of housing and public utilities (water-supply networks, wastewater disposal, road clearance), emergency management and civil defense.

Table 7. Distribution of respondents' answers to the question "What, in your opinion, hinders the development of inter-municipal cooperation?" (in % of the number of respondents)

Municipal entities	Municipal districts	Urban settlements	Rural settlements
Absence of financial opportunities for any cooperation	87.5	50	73.9
Lack of experience in the organization and realization of inter-municipal projects and programmes in the social and economic sphere	37.5	50	43.5
Shortage of qualified management personnel, capable of efficient supervision over these processes	50	62.5	28.3
Absence of analytical data on the capacities and demands of other municipal entities	25	37.5	26.1
Absence of inter-departmental coordination and cooperation of all levels of power	25	12.5	25
Underdevelopment of the federal and regional legal framework in the sphere of inter-municipal cooperation	43.8	25	22.8
Inability to estimate and use the resources at the disposal of local authorities	6.3	25	17.4
Transport and infrastructure limitations	18.8	12.5	16.3
Problem of distinction between property and ownership	12.5	37.5	14.1
Lack of initiative on the part of local self-government bodies of other municipal entities	12.5	25	10.9

Table 8. Stages of organizing inter-municipal cooperation

1. Substantiation of creating inter-municipal structures	<b>Goals:</b> <ul style="list-style-type: none"> <li>✓ analysis of the initial socio-economic situation in the municipality;</li> <li>✓ revealing the factors impeding the efficient performance of local self-government bodies;</li> <li>✓ development of inter-municipal cooperation directions;</li> <li>✓ determination of the resources, problems and risks of implementing inter-municipal cooperation.</li> </ul> <b>Need for funding.</b> Special allocation of funds is unnecessary, the analysis is carried out by the district specialists.
2. Planning of the inter-municipal cooperation process	<b>Goals:</b> <ul style="list-style-type: none"> <li>✓ creation of a working team;</li> <li>✓ development of the inter-municipal cooperation project;</li> <li>✓ development of the project's efficiency criteria;</li> <li>✓ development of the project's schedule chart;</li> <li>✓ calculation of the municipality's expenditures on the participation in inter-municipal cooperation;</li> <li>✓ development of the constituent documents on the organization of inter-municipal cooperation.</li> </ul> <b>Need for funding.</b> Special allocation of funds is unnecessary, the analysis is carried out by the district specialists.
3. Organization of the discussion and coordination of the project with the deputies and population	<b>Goals:</b> <ul style="list-style-type: none"> <li>✓ discussion of the project with the population at public hearings;</li> <li>✓ discussion and coordination of the project with the deputies;</li> <li>✓ adoption of the constituent documents on the organization of inter-municipal cooperation;</li> <li>✓ introduction of amendments in the normative-legal base of the municipality (regulations, etc.).</li> </ul> <b>Need for funding.</b> Funding will be required for publishing the amendments in the legal documents.
4. Establishment of associations of inter-municipal cooperation and the implementation of the project	<b>Goals:</b> <ul style="list-style-type: none"> <li>✓ formation of the general management structure;</li> <li>✓ implementation of inter-municipal cooperation;</li> <li>✓ aimed at revealing the deviations from the goals and tasks set in the project;</li> <li>✓ carrying out the adjusting management measures if necessary.</li> </ul> <b>Need for funding.</b> Funding will be required in accordance with the concluded agreements.
5. Evaluation of the results of implementing the inter-municipal cooperation project and the adjustment of activities of the association for inter-municipal cooperation	<b>Goals:</b> <ul style="list-style-type: none"> <li>✓ evaluation of inter-municipal cooperation efficiency according to the developed criteria;</li> <li>✓ adjustment of inter-municipal structures' functioning.</li> </ul> <b>Need for funding.</b> Special allocation of funds is unnecessary, the analysis is carried out by the district specialists.

The proposed algorithm of organizing inter-municipal cooperation has some obvious advantages; however, it has its shortcomings as well. In our opinion, the main problem may emerge at the 3rd stage with the definition of the organizational-legal form of an inter-municipal association. The most convenient option (because there are several co-founders) would be the creation of a limited liability company. However, due to the weak development of the legal framework, Russia lacks the mechanism for creating a legal entity by two or more settlements that wouldn't lose their right of ownership for the property at that ("rake" of privatization, competition for the property transfer, etc.). It is therefore proposed to use the variety of association forms, such as a commercial or autonomous non-profit organization, various funds, etc.<sup>6</sup>.

Another problem is the insufficiency of institutional mechanisms in ensuring the coordination of interests of the subjects of cooperation. Finding this balance is quite a difficult task. It is necessary to provide the same approach and to the large settlements, and to smaller ones.

Thus, despite the significant potential of the socio-economic interaction between the municipalities and a wide range of opportunities that are becoming available with the introduction of inter-municipal cooperation mechanisms, its implementation is hampered by a number of circumstances. The elimination of the most significant of them will facilitate the use of the developed algorithm of organizing inter-municipal cooperation, which will contribute to the consolidation of the territories' efforts for the fullest satisfaction of the needs of the economy and population.

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<sup>6</sup> Inter-municipal cooperation in the form of an association (council) of municipalities is allowed by Article 66 of the Federal Law No. 131 dated 6 October 2003 "On the general principles of organization of local self-government in the Russian Federation". The organization and activities of associations of municipalities are carried out in accordance with the requirements of the Federal law No. 7 dated 12 January 1996 "On the non-profit organizations", applicable to associations. Article 2 of the law provides for the establishment of a non-profit organization with the organizational-legal form of the "association".

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## Essence and main components of innovation environment in higher education institutions

*The article analyzes the studies and experience of creating innovation environment in the sphere of education, it reveals internal and external components of educational environment. It describes the present-day state of higher professional education institutions, proposes a number of conditions for the establishment of innovation educational environment in universities for the purpose of its successful development.*

*Higher professional education, innovation educational environment, components of formation, designing conditions.*



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In recent years, the Russian Federation has adopted several programme documents (the project "Russian education – 2020: an education model for the knowledge-based economy", the Russian Federation state programme for 2012 – 2020 "Development of education", the federal target programme "Scientific and academic-pedagogical personnel of innovation Russia" for 2009 – 2013, the Strategy for the science and innovation development in the Russian Federation for the period up to 2015, etc.), which contain the main directions and measures for implementing state educational policy in order to create the necessary conditions for achieving quality education. These documents reveal the provisions of the education law and the ways of solving problems in education sphere.

The national education doctrine of the Russian Federation sets at the state level the

strategy and main directions for the development of education. The urgency of addressing this issue in the sphere of higher education is caused by the necessity of integration into the world educational space on the basis of the Lisbon Convention (1997) and the Bologna Declaration (1999). A new level of higher professional education development manifested itself mainly in the integration of innovation forms of education, the creation of variable teaching models, the upgrading of management strategies. In this perspective, the issue requires profound scientific consideration.

A key indicator of science development is the share of R&D expenditures in GDP. The existing wavelike dynamics of this indicator in Russia, with alternating periods of rise (up to 1.28% in 2003) and fall (down to 1.04% in 2008) is related to the change in the growth rate of expenditures on science in GDP.

Thus, the volume of expenditures on civil science from the federal budget reached 219.1 billion rubles in 2009, having increased 3.7-fold (in comparable prices) in 2000 – 2009. Russia matches France and Italy and outruns the United Kingdom and Canada according to the amount of the state budget expenses for civil science (calculated according to the purchasing power parity of national currencies) in comparison with other G8 countries. The leaders are the United States (80.4 billion dollars), Japan (29.8 billion dollars) and Germany (23 billion dollars).

For 2000 – 2009 the relative indicators have been growing: the share of allocations on civil science from the federal budget in GDP has increased from 0.23 to 0.56%, and in the federal budget expenditures – from 1.66 to 2.27%. In accordance with the Federal Law “On the federal budget for 2010 – 2012”, the value of the latter indicator reached 2.34% in 2010. Russia was inferior only to the USA by the value of this indicator among the G8 countries (2.79% in 2008).

The volume of funds, allocated for R&D by the business sector, has increased 1.5-fold for 2000 – 2009, but still it is not enough to ensure the competitiveness of Russia’s economy. The share of business in the internal R&D funding decreased from 32.9% in 2000 to 26.6% in 2009. The comparison of the structure of domestic expenditures on R&D by the funding sources shows that, on average, the contribution of business in 2008 amounted to 64.6% in OECD countries, in the EU countries it was 27 – 54.7%, and in some countries it was even higher – from 67% in the United States up to 72 – 78% in China, Korea and Japan. State funding of R&D prevail in Russia and India (66.5% and 66%, respectively), Brazil (52.9%); its share is also significant in Italy (44.3%) and France (39.4%). Meanwhile, the role of human capital in the country’s economic development remains rather insufficient, despite its constant growth.

For example, according to the human development index (HDI), which is an integral indicator, determining the level of the country’s development, Russia ranks 66 (with the value of 0.755) among 187 countries (between Libya and Grenada) as of 9 January 2012. Thus, it can be assumed that more attention should be paid to such properties in the structure of human capital, which comply with the requirements of modern production, and it should be facilitated by a more efficient education system at all levels.

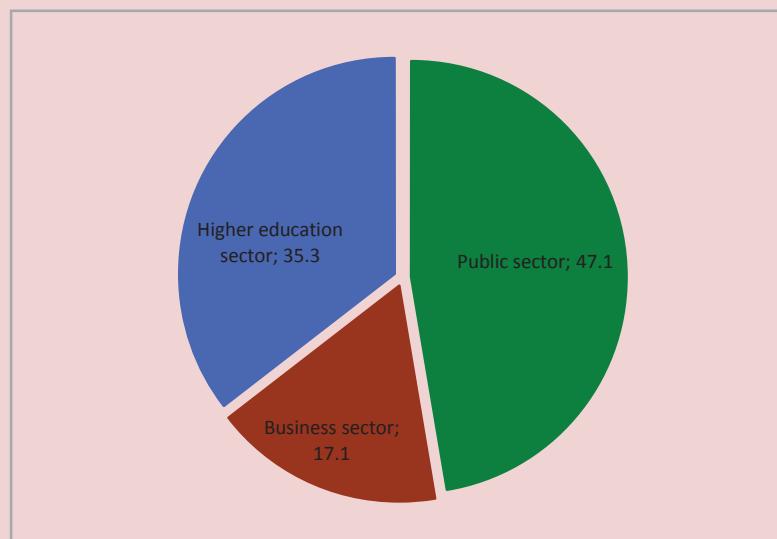
The dynamic changes are taking place in the sphere of Russian education: the emergence of innovation educational institutions, training in new specialities. For example, the number of higher educational institutions doing research (506, or 14.3% of the total number of R&D organizations), for a decade has grown by more than a quarter, which indicates the positive changes in the development of university science. The increase in in the number of experimental plants after a long-term decline should be also pointed out as a positive trend: in 2009 versus 2000, the growth amounted to 73%, and in comparison with 1995, their number has increased 2.5-fold.

However, the outdated sectoral employment pattern leads to a mismatch between the structure of personnel training and the requirements of the economy. Specialists’ salaries don’t depend on their education level, which forces them to take up jobs that do not require professional education.

The volume of financing allocated from the federal budget to scientific research in the universities in the form of funds for the maintenance of subordinate institutions is determined on the basis of the regular number of researchers in the higher education sphere.

The information and scientific communication between Russia and other countries is underdeveloped, and the links between the investors and innovation infrastructures are weak. So, one can observe the predominance of the public sector in the structure of R&D organizations in Russia in 2010 (*fig. 1*).

Figure 1. Structure of R&D organizations, by the sectors of activity (2010; in % to the total outcome)



In most countries, R&D is an integral component of the activities in universities, along with education. In OECD countries about 16.8% of the research and development expenditures are directed to the higher education sector, in 27 EU member-states – 23.1%. Selection of the priority directions of scientific-technological development reflects the best international practice of the state support of science.

For instance, in the EU such activities are related to the implementation of the Seventh Framework Programme, which aims at stimulating economic growth and enhancing the competitiveness of European economies through active investments in knowledge, innovation and human capital. Programme intended for 2007 – 2013 has a budget of 53.2 billion euros, more than half of which (60.9%) is allocated for the support of joint projects implemented by the EU member states and associate members, in 10 major science and technology spheres, largely coinciding with Russia's priorities. Over two-thirds of the funds (70.4%), allocated for support of priority directions, cover four spheres: information and communication technologies; medicine;

transport and aeronautics; nano-sciences, nanotechnologies, materials and advanced production technologies.

Russia is lagging behind the world leaders in the marketing of science and innovations; the advanced access to the global scientific information is not available to Russian scientists. The opportunities for carrying out the abroad evaluation of ideas and proposals of Russian scientists are limited, as well as their access to the world's leading scientific editions.

“Russian scientific products started to lose their authority in the global space in the 1980s, the situation was aggravated in the 1990s, and this process has been continuing in the last decade. Russia ranked 9 according to the number of publications in the world's leading scientific journals in the first half of the 2000s, however, in the second half of the decade it ranked only 14. As for the number of citations, Russia, ranking 17 in the beginning of the decade, left the top 20 in its end. The weak dynamics of the publishing activities of Russian scientists at the background of high growth rates observed in other countries, allows assuming, that in the coming years this negative trend might strengthen”.

In our opinion, the present situation, characterized by production intensification, the increase in the amount of information, lead to the necessity of enhancing the person's cognitive activity in information technology sphere, self-education, design skills, contributing to the demand in the labour market.

At the same time, Russian society and business persistently direct the educational process toward a specific economically beneficial result. However, the appropriate professional training, especially in the sphere of engineering and technology, is not provided due to the inconsistency between the material-technical and educational-production base of the higher professional educational institutions and the requirements of modern production.

Thus, the employer has objective requirements to the quality of specialists' training and the proper conditions for this training are not created. Another point is clear: the situation can be changed radically, if the qualitative development of the professional higher education system is ensured, while providing a steady, purposeful change of educational environment components for achieving a high level of professional training of universities' graduates.

Various aspects of efficient organization of educational process on the innovation basis in general have been studied and analyzed by a number of researchers. In particular, the development of the environmental approach to education, actualization of the concept "educational environment" is studied in the works of V.N. Abrosimov, T.V. Anikayeva, I.A. Bayeva, G.Y. Belyaev, L.A. Bodenko, I.V. Krupina, L.N. Kulikova, V.V. Rubtsov, L.I. Tuktayeva, I.M. Ulanovskaya, V.A. Yasvin, etc.

The authors give different assessments of the essence of innovation educational environment; the opinions vary concerning the assessment of its characteristics, structure, and formation conditions.

There are no special studies on the formation of innovation educational environment in higher professional education institutions. The works on these subject focus mainly on theoretical problems, without revealing the specific ways and content of innovation educational environment formation process.

In our opinion, the conditions for the efficient designing of educational environment and its components in the higher professional education institutions remain under-developed. The external and internal components of creating educational environment are not always clearly defined.

The external components of educational environment include:

- ✓ innovation educational environment as part of the socio-cultural, professional and educational environment;

- ✓ a set of educational and professional institutions and their respective management bodies, in cooperation with educational, scientific-industrial, professional (labour) and other associations and organizations, focused on innovation goals of advanced education;

- ✓ provision of the structural-functional model of forming innovation educational environment with regard to the individual needs of a university;

- ✓ factors, which have an indirect impact on the environment (economic situation, expectations from the received education, family composition, pre-university training, the availability of education loans, skills, etc.).

The external components of educational environment include the introduction of the Bologna process, because the very system of education in Russia has to be changed so that the country could enter the world educational space.

It is necessary to reconsider the educational process management (concerning the creation of mechanisms for the external evaluation of the quality of education with the purpose of its further recognition by foreign partners)

and its organization (change in the trajectory of students' education, introduction of the European academic grading system, curriculum review), relations between educational institutions and the world.

The development of the Bologna Declaration principles in universities is stipulated by the external environment (directives by the Ministry of Education and Science, and the desire of educational institutions to become full-fledged participants in the European educational space), which requires the implementation of a set of innovations in its internal environment.

The implementation of the Bologna Process is itself an innovation, because it brings a number of advanced changes; besides, it is of practical importance and it results in creation of a global educational space.

It should be noted that the development of the Bologna process in Russia's education sphere will reveal the measures, the implementation of which will be necessary for the acknowledgement of Russian education in other countries.

The "international mobility" in education has long become a common practice in the world. Over 570 thousand foreign students study in the United States, over 300 thousand – in Great Britain, about 150 thousand – in Australia. By 2020, according to the forecast of the British Council, the Association of Universities UK and IDP Australia, about 6 million people will have been studying in higher educational institutions outside their homelands. Thus, in the nearest 10 – 15 years, the number of students studying abroad should increase 3-fold.

Nowadays, a higher education institution provides an opportunity to study several specialties together. Each year there is an increase in the number of departments that practice a multidisciplinary approach ensuring a versatile training of students. Upon the completion of such training, qualified

specialists can find a job in the most promising sectors of economy.

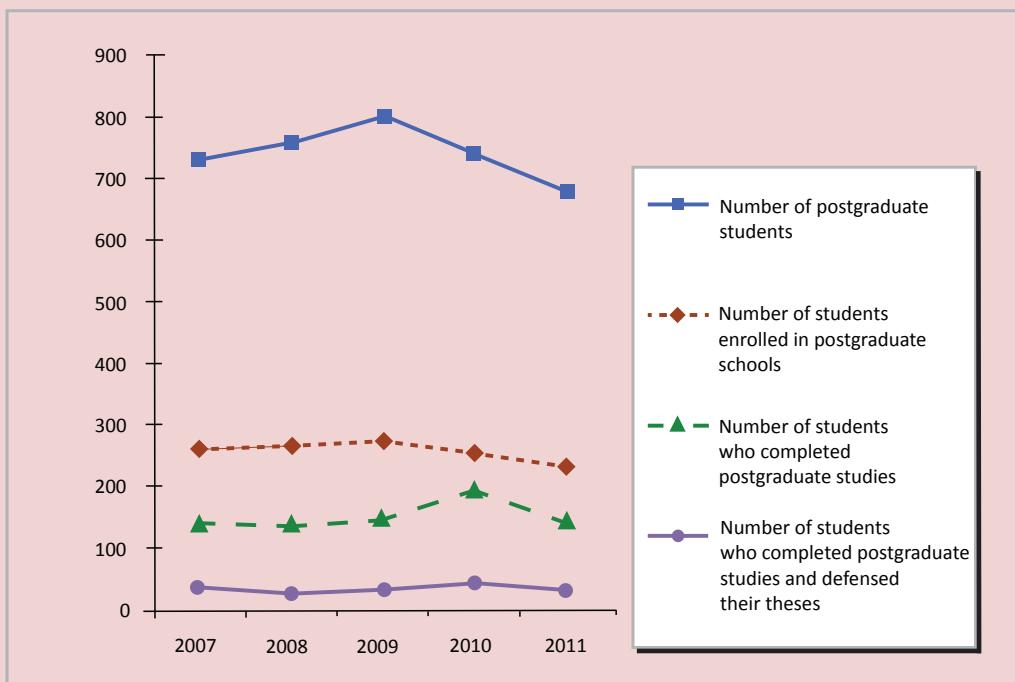
Demographic issues have a significant impact on the establishment of educational environment and its components in higher professional education institutions. For example, the statistics for the Vologda Oblast indicate the decline in the number of students for the period of 2007/2008 to 2011/2012 academic years by 11,649 people.

A similar trend has been maintained in the country in general. The number of 18-year-old people is declining, and, accordingly, the system of education should change, adapting to the new demographic conditions. According to statistics, the number of academic teaching staff possessing an academic degree in the Vologda Oblast, in academic years from 2007/2008 to 2011/2012 has decreased: Doctors of Sciences – by 27%, Ph.D – by 80%. This can't but influence the quality of education. Science has become unattractive for young people. So, for example, indicators of graduate schools performance in the Vologda Oblast show that in 2007 – 2011 the number of post-graduate students that defended their theses was about 4.5 times less than the number of those enrolled (*fig. 2*).

However the actual requirements of the economy for highly qualified scientific personnel in the conditions of its modernization remain poorly investigated (today, as well as in the future). *The table* shows the development ranking of post-graduate studies: technical sciences (273 pers.), economics (120), pedagogics (67) philology (45), philosophy (38), agriculture (26 pers.), etc. Thus, it can be concluded that due to the absence of material base for costly scientific research, such sciences as geography (-), veterinary science (-), chemistry (2), biology (9) and other have become unattractive.

Innovation development of an educational process as a sustainable system consists in subjecting all the components of this process to the common goals, or to recreate the missing components.

Figure 2. Dynamics of main indicators of postgraduate schools performance in the Vologda Oblast, pers.



Number of postgraduate students according to the spheres of science in the Vologda Oblast (at the end of the year, persons)

Sciences	2007	2008	2009	2010	2011
Total	727	756	795	735	684
by the branches:					
physics and mathematics	22	24	23	24	19
chemistry	2	4	4	1	2
biology	14	12	10	9	9
engineering	261	268	273	254	273
agriculture	21	22	21	24	26
history	23	26	34	31	27
economics	116	118	142	143	120
philosophy	30	37	43	41	38
philology	71	74	79	71	45
geography	-	-	-	-	-
pedagogics	93	90	86	70	67
veterinary	3	4	6	-	-
study of art	13	13	13	11	8
psychology	26	32	28	30	26
law	29	29	30	25	23
other	3	3	3	1	1

Innovations in universities include the changes in the purposes, conditions, content, means, methods and forms of organizing educational and management processes; these changes are characterized by novelty, they possess the potential for increasing the efficiency of the system in general or any of its components in particular; they can produce a long-term beneficial effect, which justifies the efforts and resources used for introducing innovations, coordinated with other ongoing innovations.

Methods of forming an innovation educational environment include first of all creativity, inner motivation and stimulation.

Innovation development of an internal as well as external environment of educational institutions is the most important condition for the efficient performance of higher education institutions. Thus, there is a close interaction and interdependence between the external and internal components of the innovation environment that form a system. The present education sphere is facing the tasks of development under a new mode, as well as the tasks of enhancing the quality of this process and searching for an efficient self-development path.

Our analysis shows that the internal components of innovation educational environment of universities include:

- ◆ academic teaching staff, cultural and recreational resources, legal, programme-methodological, marketing support;
- ◆ organizational structures, such as standardization services, monitoring services, centres for development of graduates' skills, centres for information technologies, etc.;
- ◆ intellectual (attraction of top specialists from the basic enterprises for teaching special subjects, participating in the state final examination, working with creative teams on the principle "professional employee of an enterprise – university professor – student", etc.);

- ◆ financial and economic support; social support of students; a network of experimental-production sites with modern industrial and technological equipment providing opportunities for students to model actual production processes; simulation equipment, equipment with remote access to management; training complexes, etc.);

- ◆ information networks, Internet, network electronic libraries, multimedia tools, the licensed system and applied software (operating systems, office and graphics packages, software development systems, databases management systems, systems of project and CASE modeling, automated engineering systems, security systems).

At present, the head and the staff of an educational establishment should have motivations and incentives to improve an educational process. It is necessary to form a new vision of goals and objectives of students' training, as well as the ways of achieving these goals and forms of education and management work.

An innovation approach to the formation of internal environment of a university enhances the capacity of teaching staff, improves the quality of educational process.

The university education which produces graduates complying with the modern requirements is possible if an innovation internal educational environment is established, which provides an educational process with the following features:

- formation of knowledge, skills and abilities in the field of software engineering;
- involvement of a greater range of students in the development and upgrading of electronic educational resources in their subject area;
- actual innovation and investment-attractive results of the students' activity on production and moral levels;
- formation of instrumental, interpersonal, systemic and specific competences.

Innovation educational environment changes the contents of education, enhances the traditional forms and stimulates the development of the new forms of teachers and students' activity, and, simultaneously, the environment itself has been developing due to the internal processes, involving both teachers and students. The formation of an innovation educational environment should result in a purposeful, regular change of its composition and structure, which corresponds to the requirements of information society.

Designing the changes in educational environment requires the development of a clear pattern of innovation transformations, defining the object, subject, goals, objectives and hypotheses. It is also important to determine the terms and stages of the experiment's implementation, the criteria for evaluating the expected results. This link allows for predicting the possible positive as well as undesirable consequences that could be originally foreseen.

The conducted theoretical analysis of the research and the studies of the experience of creating an innovation environment in education sphere allow us to point out the following:

- requirements of society concerning the quality of specialists training are becoming more strict;
- academic-teaching staff, administration and management staff of education institutions recognizes the need for modernization of educational process based on the creation of innovation educational environment and implementation of innovation projects;
- the state and society acknowledge an important role of specialists in the personnel potential of the country;
- there is a contradiction in the training system, the list of specialties, the content, form and methods of training, and evaluation of the quality of specialists' training;

– state of the material-technical and educational-production base, scientific support of education does not meet the modern state and prospects of social and economic development, which causes the aggravation of internal problems in educational system;

– lack of inflow of young teaching staff hampers the achievement of goals, especially in science-intensive and high-tech spheres;

– material base of professional educational institutions doesn't meet the requirements of modern high-tech production, information infrastructure, advanced information technologies are developed poorly;

– system of professional education is not oriented towards the consumers' demands, it trains specialists according to its own interests, which is incompatible with the new needs of the economy.

These contradictions determine the necessity of the development of conditions for the successful formation of innovation educational environment in universities. Such conditions may include, firstly, the clarification of the essence and structure of innovation educational environment and the process of its formation.

Secondly, they include the formation of innovation educational environment in universities, taking into account the technical profile, organized as a single process of development and implementation of a set of interrelated, consistently carried out target innovation projects in the framework of a single programme that unites the target, organizational-managerial and result-assessing components, which, according to "the theory of the product life cycle", (in this case, the project) provides the whole cycle from identifying the problem to evaluating the results. At that, the completion of one successful project is the beginning of implementation of the next, i.e. the sustainable development of the innovation environment in a university is ensured.

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# Index of articles published in 2012

<b>From the chief editor</b>		
Ilyin V.A. Anxious expectations	5	5-15
Ilyin V.A. Dynamics of the RF Presidents' activities approval by the region's population	4	5-16
Ilyin V.A. Expectations of the results	3	5-15
Ilyin V.A. On the difficult way to strong civil society	6	5-24
Ilyin V.A. Bifurcation of a new political cycle	2	5-13
Ilyin V.A. To the political cycle results	1	5-12
<b>State and economy</b>		
Gubanov S.S. Is the global recession possible in 2012?	1	13-21
<b>Economic policy</b>		
Ivanter V.V., Komkov N.I. Basic provisions of Russia's innovation industrialization concept	5	16-25
<b>Theoretical issues</b>		
Yakunin V.I. Post-industrialism: the experience of critical analysis	2	14-25
<b>Development strategy</b>		
Babosov Ye.M. Formation and functioning of the national innovation system	5	50-57
Babich L.V., Leonidova G.V. Private public partnership in education: a model of human capital management	1	32-42
Bochko V.S. Integrative economics – the economics of coordinated and socially oriented development	5	40-49
Collapse of the global pyramid. Interview with RAS Academician S.Yu. Glazyev	3	16-21
Didyk V.V. On the practice of strategic approach to administration in the municipalities of the Russian North	5	58-65
Didyk V.V. The North and the Arctic in the new paradigm of global development: current problems	3	30-34
Fadeev A.M., Cherepovitsyn A.E., Larichkin F.D. Sustainable development of a new extractive region in the oil and gas project activity on the Arctic shelf	1	22-31
Ilyin V.A., Povarova A.I. Budget crisis of the regions in 2013 – 2015: a threat to Russia's security	6	25-35
Gao Ping. Study on open economy development of underdeveloped regions under counter-crisis background	4	81-85
Glazyev S.Yu., 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	4	17-34
Glazyev S.Yu. Why is Putin?	2	26-31
Grinchel B.M., Antonova A.A. Measuring the dynamics of agglomerative processes in the regional economy	5	66-76
Gulin K.A. On the issue of socio-economic modernization of Russian regions	4	35-49
Ma Xuesong. Acceleration of Urbanization Process and Alteration of Underdeveloped Status	5	77-80
Moleva S.V. Development of trade relations and economic cooperation between Belarus and Russia – an important component of successful functioning of the Union State	6	51-57
Okrepilov V.V. Development of health economics for improving the quality of life	5	26-39
Perova M.B., Perov E.V. Socio-economic transformation of Russian society	4	50-62
Povarova A.I. Regional budget of 2012 – 2014: Stability is delayed	3	35-52
Povarova A.I. Socio-economic condition of the regions specializing in metallurgy: 2011 results	4	63-72
Selin V.S., Zaitseva E.I., Istomin A.V. Tax tools and state guarantees in the northern regions	2	32-42
Shcherbakov G.A. Anti-innovations as a factor of macroeconomic instability (the case of derivative financial instruments)	4	73-80
Tatarkin A.I. Development of the economic space of Russia's regions on the basis of cluster principles	3	22-29
Tatarkin A.I. Forming of the regional institutions of spatial development of the Russian Federation	6	36-50
Tazhitdinov I.A., Zakirov I.D. Management of the implementation of strategic documents of territorial development	3	53-62
<b>Russian and Belarusian academic scientific cooperation</b>		
Dedkov S.M., Egorov V.K. Scientific collaboration between Russia and Belarus at the first stage of allied relations: the restoration of a single research area	2	43-50
Shabunova A.A., Leonidova G.V., Shuhatovich V.R., Artyukhin M.I. Socio-demographic aspects of labour potential development	2	61-71
Shabunova A.A., Shakhot'ko 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	2	72-82
Uskova T.V., Selimenkov R.Yu., Asanovich V.Ya. Methodological modeling aspects of foreign-economic activity in the regions of the North-West Federal District and the Republic of Belarus	2	51-60

<b>Branch-wise and regional economy</b>			
Afanasyev D.V. The role and place of the Public Chambers in the context of civil society and social capital	6	88-96	
Bilkov V.A., Shaverina M.V., Medvedeva N.A. Intensification and innovation approach toward the dairy livestock breeding in the Vologda district	5	96-104	
Gnezdilova A.I., Tuvayev V.N., Ostretsov V.N. Studying the competitiveness of preserved milk products on the food market	5	90-95	
Ivanov V.A. Sustainable agricultural sector development of the North zone: state, factors, directions	1	43-57	
Ivanov V.A., Terentyev V.V. Problems of agri-food sector in the Pechoran Arctic region	5	105-115	
Ivanova M.N. Economic risks of agricultural organizations' activity in the Vologda Oblast in the context of Russia's membership in WTO	6	68-75	
Fauzer V.V. Monitoring of economic and social processes (the case of inter-ethnic relations)	6	97-109	
Leonidova G.V., Ustinova K.A. Lifelong learning as a condition for human capital formation	6	110-122	
Nikolayev A.Ye. Russia's defense industry modernization: learning from history	6	76-87	
Orobinskiy D.F., Shushkov R.A. Optimization of carrier vehicles for the transportation of rotted straw	5	116-121	
Ostretsov V.N., Zhiltsov V.V. The effectiveness of livestock farming mechanization	2	101-104	
Pechatkin V.V. Formation and development of clusters in Russian regions: key issues and solutions (Republic of Bashkortostan)	1	58-64	
Popova L.A., Terentyeva M.A. Topical issues of labor potential development in the Republic of Komi	6	131-138	
Romanova O.A., Lavrikova Yu.G. Industrial policy as a tool of neo-industrialization of regional industrial systems	6	58-67	
Selin M.V., Uskov V.S. The state and developmental trends of fruit and berry market in the North-Western regions of Russia	2	83-90	
Shabunova A.A., Korchagina P.S. System of values and behavioral practices as the significant factors of young people's self-preservation behavior	6	123-130	
Solntsev I.V. The role of the sport industry in the development of today's economy	6	139-150	
Sovetov P.M., Fedorkov A.I., Kabichkin S.E. Methodological aspects for the assessment of the state and use of human capital	2	91-100	
Vorontsova T.V., Gubanova E.S. Construction complex of the region: current state and innovative potential	5	81-89	
Yang Shenghai. Researches on Poverty Alleviation of Wuling Mountain Area	6	151-155	
<b>Social development</b>			
Kalachikova O.N., Shabunova A.A., Lastochkina M.A. Demographic evolution trends and prospects in Russia and the Vologda Oblast	5	122-132	
Kamenskaya E.V., Silakova M.A. Demographic trends of the Pskov Oblast	5	133-138	
Kostyleva L.V. Formation of inequality of Russia's population	5	139-149	
Kurilo A.E., Nemkovich E.G. The spiritual component of the investment process in the Republic of Karelia	2	135-142	
Lastochkina M.A. Socio-cultural types of population in the region	4	99-106	
Li Zhimeng. Anti-poverty study of ecological preservation area (the case study of Poyang Lake)	4	116-120	
Morev M.V., Popova V.I., Vasilchuk Ye.O. Expansion of subcultural movements as a result of social disunity among the young population	4	107-115	
Shabunova A.A. Social and cultural portrait of the region in the context of changes during 2008 – 2010	1	65-75	
Shestakova N.N. Mechanisms of formation and implementation of organizational and managerial component of the region's human capital	4	86-98	
Styrov M.M. Trends of social expenditures in the North of Russia	2	123-134	
Tikhomirova V.V. Current state and problems of providing targeted social welfare benefits to the population in the Republic of Komi	5	150-154	
Toropushina E.E. Policy priorities in the health protection sector of a Northern region	1	76-83	
<b>Innovation development</b>			
Kibitkin A.I., Turchaninova T.V. Assessment of the stock of orders of the executor of ship repair works on the basis of labour balance	3	92-102	
Kurikov V.M., Bessonova T.N. Substantiation of the priorities of the regional oil-and-gas complex development	1	84-90	
Mitrofanova I.V., Zhukov A.N. Megaprojecting as a tool of strategical and territorial management	3	63-73	
Neustroyev S.S. On assessing the contribution of an innovation factor and the results of the regional economic development	3	74-78	
Nikolaev A.E. Public-private partnership in the scientific and technological sphere of defense industry: Russian and foreign experience	2	105-115	
Pinkovetskaya Yu.S. Analysis of trends and development forecast of small enterprises in Russia	3	79-91	

Sherin V.A. Investigation of the connection between the statistical indicators of innovative processes and the socio-economic situation in the region	2	116-122
Sysoyeva E.A. Energy efficient lighting as a transition from incandescent lamps to light-emitting diode solutions	3	103-106
Touinova S.S. Challenges and opportunities of lifelong learning in the field of energy efficiency and new energy	1	91-101
<b>Public finance</b>		
Avetisyan I.A. The budget process as a tool for managing the public and municipal finances	1	102-114
Barasheva T.I. Creation of the conditions for self-development of the Northern territories: budget aspect	6	166-173
Pechenskaya M.A. Issues of improving inter-budget relations between the region and the federal centre	6	156-165
Pechenskaya M.A., Uskova T.V. Topical issues of the improvement of intergovernmental dealings in the system of local government	1	115-124
<b>Problems of municipal entities</b>		
Burtseva I.G., Burtsev I.N. Comparative evaluation of the economic development of underdeveloped areas in the Republic of Komi	4	132-140
Dyadik V.V. Institutional reasons for economic problems in Russia's local self-government	4	121-131
<b>Agricultural economy</b>		
Anishchenko N.I., Ivanova M.N., Bilkov V.A. Agriculture of the Vologda Oblast on the eve of Russia's accession to the World Trade Organisation	3	107-116
Ivanov V.A., Ponomareva A.S. Assessment of innovation and investment projects of municipality's development in the northern region	3	135-145
Ostretsov V.N., Gnezdilova A.I., Barashkova O.V. Quality system implementation as the basis of the stable functioning of processing enterprises	3	117-127
Tuvayev V.N., Gulyayev Ye.G. Methodology of estimating the economic efficiency of milk production technologies in the summer period	3	128-134
<b>Modelling and informatics</b>		
Sadov S.L. Extended forecast of economic results: instrumental potential of the fuzzy sets theory	6	174-178
<b>Environmental economics</b>		
Dorogovtseva A.A., Erygina A.V., Dorogovtsev A.P. The implementation of the economic control mechanism of environmental protection (in the case of water bodies in St. Petersburg)	2	143-149
Korchagov S.A., Strebkov N.N. Economic and qualimetric assessment of pine and spruce species in the Vologda Oblast	3	146-149
Peng Zhimin. Ecological Protection in Underdeveloped Areas of China (the Case Study of Hubei Province)	5	155-159
<b>Young researchers</b>		
Barabanov A.S. Funding problems of regional housing and utilities sector and the ways to solve them	5	160-170
Chapargina A.N. Influence of investment subsystem on the region's socio-economic development	1	125-132
Chekavinskiy A.N. Development of Russia's agriculture as a factor promoting the solution of the world food problem	6	179-185
Filatova O.B. Essence and main components of innovation environment in higher education institutions	6	209-217
Golovchin M.A., Solovyova T.S. Level of development of scientific and education environment in Russian regions	5	171-179
Gutnikova Ye.A. Inter-municipal cooperation as a factor promoting the economic and social development	6	198-208
Leonova Zh.K. Staff training as the most important condition for the development of small and medium businesses	5	190-197
Lukin Ye.V. Inter-regional cooperation: current state and problems of development (the case of the Vologda Oblast)	6	186-197
Ponomareva A.S. Conditions of the sustainable development of agricultural sector in the Komi Republic (the case of remote areas)	5	180-189
Vorotnikova N.S. The practice of national education financing in the second half of the XIX century – the beginning of the XX century (based on the materials of the Vologda province)	1	133-138
<b>Academic life</b>		
Kondakov I.A. Readers' rating of the journal	5	198-202
<b>Continuing the theme of the previous issue</b>		
Ivanova Ye.V. Information and advisory support of the management of sustainable development of agriculture in the northern region	4	151-163
Tuvayev V.N., Tuvayev A.V. Assessment of economic efficiency of scientific-technical progress in dairy cattle breeding	4	141-150
<b>Discussion tribune</b>		
Beznin M.A., Dimony T.M. The victory of capitalism in Russia: history and myths	1	139-142

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The proposed articles should contain the results of the studies characterized by novelty and practical orientation. They should be available in the form of presentation for a wide range of readers and meet the scientific focus of the journal (economic and sociological researches).

The article should generally include the following aspects: the purpose of research; method and methodology of work, its results and the field of their application; conclusions. The findings may be accompanied by recommendations, suggestions and hypotheses, resulting from the contents of the article. When presenting the results of sociological research in the article, it is necessary to state the following information: methods and methodology; the date, place (territory) and organization which carried out the study; the structure of total population; the type, volume and sampling error; the description of methods of data collection and analysis. This information should be arranged according to one of the following options: in the special section (paragraph) of the article; directly in the text; in the footnote. When creating tables, it is necessary to specify, whether the percentage of persons is calculated out of the number of those who answered the question, or out of the total amount of respondents. References should demonstrate the author's professional outlook and the quality of the research.

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