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

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

MAIN RESEARCH DIRECTIONS

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

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

INTERNATIONAL TIES AND PROJECTS

In order to integrate scientific activities of the Institute's scholars into global research area, every year international scientific conferences take place, which result in cooperation agreements.

Every year ISED T RAS signs cooperation agreements with different scientific establishments:

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

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

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

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

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

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

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

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

NEW PUBLICATIONS OF ISEDT RAS

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FROM THE CHIEF EDITOR

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Halfway to a fourth presidential term



Vladimir Aleksandrovich

ILYIN

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May 2015 is marked by the end of the first half of Vladimir Putin's six-year presidency. Today we can say with confidence that since 1991 there has been no such high support of the top state official for the entire period of the modern history of the Russian Federation.

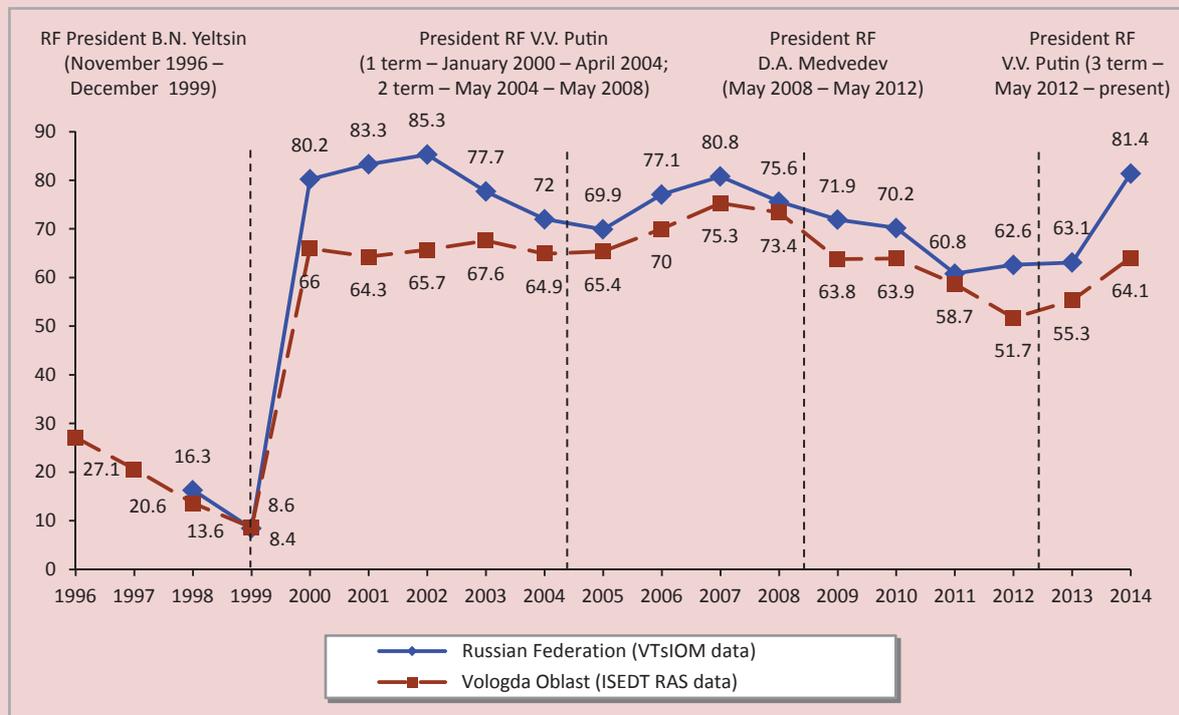
According to the data of sociological surveys using indicators of the degree of approval of the performance of the President of the Russian Federation it is possible to assess the level and dynamics of public administration efficiency in the country as a whole.

The graph (*figure*) shows that according to the surveys, the level of approval of President Boris Yeltsin in 1996 was 27%, in 1998 – 16.3% and in 1999 – 8.4%. Such estimates are understandable, because the period of B.N. Yeltsin's presidency

(1991–1999) was accompanied by a drastic reduction of all the main indicators of production in the real sector of the economy, by an unprecedented decrease in the standard of living and quality of life, in hyperinflation, in the breakdown of the budget system and money circulation. Ultimately, the so-called “shock therapy” led to a sovereign default in August 1998. The actual parameters of that economic and social disaster can be seen in *table 1*.

After Boris Yeltsin left the office of President in December 31, 1999, Vladimir Putin, who had been Prime Minister since August 1999, was elected President of Russia in March 2000. And in the first year of his presidency the level of approval of the RF President's performance by the residents of the Russian Federation reached 80%.

Assessment of the RF President's performance



Dynamics of the level of approval of the RF President's performance by the residents of the Russian Federation and the Vologda Oblast (% of the number of respondents)

Table 1. Dynamics of the main macroeconomic indicators of the Russian Federation in 1991–1998

Indicator	Year							
	1991	1992	1993	1994	1995	1996	1997	1998
Gross domestic product, in % to 1990	95	81.2	74.2	67.4	62	59.8	60.6	57.4
Industrial output, in % to 1990	92	75	65	51	48.6	44.9	45.4	43.2
Agricultural output, in % to 1990	95.5	86.5	82.7	72.8	67	63.6	64.1	55.1
Investments in fixed capital, in % to 1990	85.1	51.3	45.3	34.3	30.8	25.3	24	21.1
Real disposable incomes of the population, in % to 1990		60.9	70.9	80	67.1	67.7	72	68
Index of inflation, December to the December of the previous year, times	2.6	26.1	8.4	3.1	2.3	1.2	1.11	1.84

Compiled with the use of the following source: Livshits V.N. *Sistemnyi analiz rynochnogo reformirovaniya nestatsionarnoi ekonomiki Rossii* [System Analysis of Market Reforms of Russia's Unsteady Economy. 1992–2013]. Moscow: LENAND, 2013. Pp. 107-109.

Table 2. Dynamics of the main macroeconomic indicators of the Russian Federation in 2000–2007

Indicator	Year							
	2000	2001	2002	2003	2004	2005	2006	2007
Gross domestic product, in % to 2000	100.0	105.1	109.9	118.0	125.5	135.5	143.8	151.3
Industrial output, in % to 2000	100.0	102.9	106.1	115.5	124.7	131.0	139.3	148.7
Agricultural output, in % to 2000	100.0	106.9	107.9	107.8	110.3	112.1	115.4	119.2
Investments in fixed capital, in % to 2000	100.0	117.4	120.7	135.9	154.5	170.2	198.6	246.0
Real disposable incomes of the population, in % to 2000	100.0	110.1	122.0	139.8	155.5	192.8	220.0	247.7
Index of inflation, December to the December of the previous year, in %	120.2	118.6	115.1	112.0	111.7	110.9	109.0	111.9

Compiled with the use of the following source: Livshits V.N. *Sistemnyi analiz rynochnogo reformirovaniya nestatsionarnoi ekonomiki Rossii* [System Analysis of Market Reforms of Russia's Unsteady Economy. 1992–2013]. Moscow: LENAND, 2013. Pp. 107-109.

Vladimir Putin's work was marked by a system of political efforts aimed to strengthen the statehood, and stop disintegration processes in the country. A package of measures to improve the economy of the country was started to be implemented. In particular, export duties were restored, mineral extraction tax was introduced, which dramatically increased federal budget revenues and provided the basis for conducting large-scale social events. A sharp improvement in the economic and social situation in the country (*tab. 2*) contributed greatly to the victory of Vladimir Putin in the presidential elections in 2004.

In the next four years Vladimir Putin continued the course focused on economic recovery. And the goal was achieved. And what is more important, the real incomes of the population during V. Putin's presidency increased in 2.5 times; this fact ensured the high level of approval of the President's performance.

The second important factor in ensuring the high level of approval was Vladimir Putin's desire to pursue an independent foreign policy and foreign economic policy in the interests of state security of the Russian Federation with the use of all means available.

February 10, 2007, speaking at the Munich conference on security policy, Vladimir Putin stated clearly that the unipolar model is not only unacceptable, but also impossible in the modern world. He stressed that the entire legal system of one state, primarily, the United States, has overstepped its national borders in all spheres: in economy, politics, humanitarian sphere, and it is imposed on other countries. Vladimir Putin voiced the firm position of Russia to pursue its independent foreign policy consistent with the thousand-year historical tradition and practice of our country. This formulation of the question (especially in the U.S. political circles) was used by the West as

a pretext for resuming the cold war against Russia, which increases international tension and threatens with the outbreak of a large-scale hot war¹.

The second term of Vladimir Putin's presidency expired in 2008. He did not want to change the Constitution, which establishes a limit of two consecutive presidential terms; so he nominated Dmitry Medvedev, Head of the Administration and Deputy Prime Minister, as his successor. To win the elections the presidential candidate had only to express the intention to follow the course laid out by Putin. As for Vladimir Putin, he became Prime Minister and leader of the ruling party "United Russia".

Unfortunately, the progressive movement of the country during D. Medvedev's presidency slowed down. His commitment to liberal ideas in public administration resulted in the widening of the gap in economic development between Russia and the world's leading countries.

At the end of 2008 and during 2009 Russia's economy had to face the global financial crisis, which was much more harmful for Russia than for Western and developing countries.

The residents of Russia assessed the 2008–2011 performance of President Dmitry Medvedev significantly lower as compared to the level reached by Vladimir Putin in 2007. The total loss amounted

to 20 percentage points: from 80% of the respondents who approved Vladimir Putin's performance in 2007 to 60% of those who approved Dmitry Medvedev's activity in 2011.

As Prime Minister and leader of the ruling party, Vladimir Putin assumed full responsibility for organizing the response to the Georgian aggression in South Ossetia in August 2008 and for subsequent peaceful resolution of the conflict.

Vladimir Putin's actions were crucial in organizing Russia's recovery from the global crisis of 2008–2009. But that did not solve the main problem of the period – the shift of the real sector of the economy to the new industrialization that provides the necessary pace of modernization of the country in order to strengthen its security in all directions.

The point of no return in a unipolar world for Russia was passed after the Munich Speech of Vladimir Putin as President of Russia. Therefore, the United States of America and the so-called West did everything to ensure that Vladimir Putin was not elected President for the third term. An attempt was made with the help of various non-governmental opposition forces to organize a protest on Bolotnaya Square in Moscow in December 2011, after the elections to the State Duma; but this attempt did not give the opponents the results they desired.

After a landslide victory at the presidential election in March 2012, Vladimir Putin continued Russia's independent foreign policy; and the U.S. and its Western

¹ The issues related to the formation of a multipolar world and the place of Russia in it were substantially continued by President Vladimir Putin in September 2013 at the session of the Valdai International Discussion Club.

partners responded by sharply aggravating the situation in Ukraine, creating a hotbed of internal Ukrainian conflict and trying to involve Russia into this conflict at the official level; it would give them ground to accuse our country of aggression and apply all international sanctions to Russia.

The President of the Russian Federation manages to block the most negative options in the development of events in Ukraine in the conditions, when the ruling clans of this country have practically unleashed a civil war. Currently, after the Minsk Agreements of the Norman Quartet, the level of escalation of the conflict decreased slightly.

However, it should be recognized that after three years of the current term of Vladimir Putin's presidency, the situation in the economy and social life of the country remains extremely tense.

The program objectives of his activities as President, V.V. Putin outlined in his decrees of May 7, 2012 that were adopted immediately after the inauguration. The decrees contain a lot of target indicators, including the growth of real wages by 1.5 times by 2018, the provision of 60% of the Russian families with affordable housing by 2020, the creation of 25 million high-performance jobs, the upgrading of the army by 70%, the increase in the share of investment in GDP to 27% in 2018. The main goal of the May Decrees consists in solving the problem of substantial increase of wages in the public sector.

These targets can be achieved only on the basis of advanced economic growth. And the conditions to ensure this growth are actually becoming more and more complicated. Russia has been in a state of autonomous recession since 2009.

There is a decline in the purchasing power of the main categories of national economy – government, business, and households. The end of 2014 witnessed a rapid depreciation of the ruble, the prices of goods and services continue to increase. In these circumstances many government and commercial projects for the modernization of production, especially on the basis of modern scientific and technical achievements, are terminated. The federal and regional budgets experience great hardship.

There is a real threat to stay forever in the raw materials periphery of the world market. The escalation of international tension on the part of the countries that represent the core of the global financial system is a great burden for our country. In response to Russia's actions that satisfied the constitutional will of the population of Crimea and Sevastopol in their desire to join Russia (backed by the overwhelming majority of the Russians), the U.S. and its allies in Western Europe are expanding their political and economic sanctions against our country.

Analyzing this situation, many experts, public figures and politicians especially emphasize the low efficiency of public

administration². The main reason for this they see in the fact that in Russia there is an interpenetration of oligarchic business, officialdom at all levels and lobbyists; this does not lead to the reduction of social inequality to a reasonable level (5–6 times, as in Germany and France), but, rather, it results in the widening of this gap, which currently exceeds 16 times. The sources of

² Aganbegyan A.G. Sotsial'no-ekonomicheskoe razvitiye Rossii: analiz i prognoz [Socio-Economic Development of Russia: Analysis and Forecast]. *Problemy prognozirovaniya* [Problems of Forecasting], 2014, no. 4; Amosov A. *Mozhno li otlozhit' do 2017 g. povorot k novomu industrial'nomu razvitiyu* [Is It Possible to Delay the Shift to a New Industrial Development until 2017]. *Ekonomist* [Economist], 2015, no. 3; Belkin V.D., Storozhenko V.P. *Vykhod iz stagnatsii s pomoshch'yu uskorenogo razvitiya potrebitel'skoi sfery* [Overcoming Stagnation through the Accelerated Development of Consumer Sector]. *Ekonomicheskaya nauka sovremennoi Rossii* [Economic Science of Modern Russia], 2014, no. 1; Bogomolov O.T. *Problemy ispol'zovaniya neekonomicheskogo potentsiala modernizatsii. Institutsional'naya ekonomika otvergaet rynochnyi fundamentalizm* [Problems of Using the Non-Economic Potential of Modernization. Institutional Economics Rejects Market Fundamentalism]. *Vestnik RAN* [Herald of RAS], 2013, vol. 83, no. 8; Gubanov S.S. *Neoindustrializatsiya Rossii i nishcheta ee sabotazhnoi kritiki* [Neo-Industrialization of Russia and the Poverty of Its Sabotage Criticism]. *Ekonomist* [Economist], 2014, no. 4; Delyagin M.G. *Krakh optimisticheskikh illyuzii i otravnoi punkt ekonomicheskogo ozdorovleniya* [Collapse of Optimistic Illusions and the Starting Point for Economic Recovery]. *Rossiiskii ekonomicheskii zhurnal* [Russian Economic Journal], 2014, no. 1; Knyazev Yu. *Perspektivy vykhoda iz krizisnoi stagnatsii* [Prospects for Overcoming the Crisis Stagnation]. *Mir peremen* [World of Transformations], 2014, no. 4, pp. 14–28; *Na puti k sovremennoi dinamichnoi i effektivnoi ekonomike: doklad* [Towards a Modern Dynamic and Efficient Economy: Report]. Ed. by A.D. Nekipelov, V.V. Ivanter, S.Yu. Glazyev (25 Corresponding Members of RAS participated in the preparation of the report). Moscow: RAN, 2013; *Ot krizisnykh potryasenii i razrushitel'nykh reform – k razvitiyu: chto dolzhno sdelat' gosudarstvo, chtoby pokonchit' s krizisom v 2015 godu (Doklad Instituta problem globalizatsii)* [From Crisis Shocks and Destructive Reforms – to Development: What the Government Should Do to End the Crisis in 2015 (Report of the Institute for Globalization Problems)]. *Rossiiskii ekonomicheskii zhurnal* [Russian Economic Journal], 2014, no. 1; Polterovich V.M. *Kuda idti: dvadtsat' chetyre tezisa* [Where to Go: 24 Theses]. *Ekonomicheskaya nauka sovremennoi Rossii* [Economic Science of Modern Russia], 2014, no. 3.

this inequality are found in the outrageous violation of the principles of social justice during the “Chubais privatization”. The huge state property created by the labor and sacrifices of many generations of the Russian citizens, was distributed among the immediate environment of the federal government.

It appears that the crisis phenomena in economic, social and administrative spheres of the country can be mitigated, but they cannot be overcome without changing the dominant economic model, under which the economic and political elite at all levels is not focused on improving economic and political efficiency, and most importantly – on the increase of the level of social justice in the society.

One of the prominent expert scientists points out in this regard: **“The current Russian crisis is systemic, it arises from the mismatch between the system and the requirements to the development of the society and its inability to develop positively. It is based on a deep conflict of interests of the elite and the objectives of social progress, when part of the elite is turned into its beneficiaries. The country has built the entire process of post-socialist transformation of the society in such a way that it has not managed to avoid the formation of this deep conflict and still cannot overcome it. This situation has been evolving rapidly since the beginning of the 1990s and was fully established in the last decade and a half”**³.

³ Mikul'skii K. *Ekonomika Rossii i protivorechiya ee obshchestvennogo ustroistva* [Russia's Economy and the Contradictions of Its Social Structure]. *Obshchestvo i ekonomika* [Society and Economics], 2014, no. 12.

An authoritative political columnist M. Antonov in his article **“The New Russia and Yeltsinism are incompatible”**⁴ writes about the need to overcome a deep internal conflict in the Russian society. Using perfectly competent and evidence-based data, he comes to the conclusion that if even a bit of Yeltsinism is preserved, it will threaten Russia with serious internal turmoil.

Another expert says: **“Our country urgently needs a new course, it needs completely new personnel in the government and in the presidential administration we need to renounce the orientation exclusively on the “Yeltsin legacy” with oligarchs of the RSPD... the top official of today’s Russia is finally and irrevocably sentenced to elimination by the Western elites, who believe that Putin and no one else is the main obstacle in implementing the strategic vision of the “Washington regional committee” on the establishment of a single global**

government and the political fragmentation of Russia, required for that purpose”⁵.

We think that, taking into consideration Vladimir Putin’s life experience⁶, his 15 years of work in Russia’s senior government positions, and the high level of trust of the voters, **the President will be able to lead the country out of acute internal and external political problems to a new level of development, corresponding to the 21st century and the traditions of the “Russian world”**.

To resolve this problem, Vladimir Putin has three more years of his third presidential term and another six years of the possible fourth term – a total of nine years.

It would seem that there is still enough time, but it is a short period for serious and drastic changes in a country such as Russia.

Time is inexorably shrinking, like a magic piece of shagreen in the famous novel by Honor de Balzac.

It is time to start!

⁴ Antonov M. Novaya Rossiya i el'tsinizm nesovmestimy [The New Russia and Yeltsinism are Incompatible]. *Literaturnaya gazeta* [Literature Newspaper], 2015, no. 13 (6503), April 1–7.

⁵ Nagornyi A. Smert' tvoya za uglom: kurs dlya nezaleznoi [Your Death is Waiting round the Corner: a Course for the Independent Country]. *Zavtra* [Tomorrow], 2015, no. 13, March–April.

⁶ Vladimir Putin was born in 1952 in Leningrad. After leaving high school in 1970 he enrolled in the international section of the law faculty at Leningrad State University. In 1975–1984, he worked at the Leningrad office of the KGB, in 1984–1985 he studied at the Institute of the KGB in the specialty “Foreign intelligence”, in 1985–1990 he worked in the German Democratic Republic. After returning home in 1990–1991 he worked as international affairs assistant to the rector of Leningrad State University. In 1991–1992 he was Advisor to the Chairman of the Leningrad City Council, Chairman of the Committee of the Mayor’s Office on Foreign Affairs, in 1993–1996 – Deputy Chairman of the Saint Petersburg Government. From August 1996 – Deputy Superintendent in the Office of the President of the Russian Federation, from March 1997 – Deputy Head of the Presidential Administration (Head of the Main Control Directorate), from May 1998 – first Deputy Head of the Presidential Administration. From July 1998 to August 1999 – Director of the FSB of Russia and Secretary of the Security Council of the Russian Federation. From August 1999 – Chairman of the Government of the Russian Federation, from December 31, 1999 – acting President of the Russian Federation. In 2000–2008 – President of the Russian Federation, in 2008–2012 – Chairman of the RF Government. In March 2012 – elected President of the Russian Federation for the third term, inaugurated on May 7, 2012.

Public opinion monitoring of the state of the Russian society

As in the previous issues, we publish the results of the public opinion monitoring of the state of the Russian society conducted by ISED T RAS in the Vologda Oblast¹.

The following tables show the dynamics of a number of parameters indicating the social feeling and socio-political sentiment of the Vologda Oblast population in February – April 2015, and also on average for the last six surveys (June 2014 – April 2015). These data are compared with the data for 2013; we also present their current dynamics (December 2014 – April 2015, i.e. for the three latest waves of the survey)

Estimation of performance of the authorities

In February – April 2015, the support of the RF President's performance increased slightly: the level of approval rose from 66 to 68%, the share of negative assessments decreased from 21 to 16%. The people's estimates are better than in 2013, when the level of support of the head of state was 55%, and the share of negative characteristics was 29%.

The level of approval of performance of the Chairman of the RF Government in April 2015, compared with February, did not change either. The share of positive assessments is 56–57%, but the proportion of negative assessments decreased from 25 to 21%. For comparison: people's estimates in 2013 were worse: 49% supported the Chairman of the RF Government, the share of negative judgments was 33%.

For reference: according to VTSIOM surveys carried out April 5 and April 12, 2015 the nationwide level of approval of the performance of the RF President did not change, compared to February 2014, and it is 87.1% (the proportion of negative estimates is 7.3%). The level of support of the Chairman of the RF Government in the first half of April 2015 was 68.9% (the proportion of negative estimates was 18.2%).

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

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

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

On average for the last six surveys the level of support to the federal authorities remains higher than in 2013 and 2011.

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

Answer option	2007	2011	2013	2014	June 2014	Aug. 2014	Oct. 2014	Dec. 2014	Feb. 2015	Apr. 2015	Average for the last six surveys	Dynamics (+/-), the last six surveys in comparison with...		
												2013	2011	2007
RF President														
I approve	75.3	58.7	55.3	64.1	66.6	66.4	66.8	66.0	66.3	67.5	66.6	+11	+8	-9
I do not approve	11.5	25.6	29.4	22.3	21.8	19.3	18.5	19.7	20.5	16.2	19.3	-10	-6	+8
Chairman of the RF Government*														
I approve	-*	59.3	48.9	54.2	55.8	55.2	56.2	56.3	56.1	56.5	56.0	+7	-3	-
I do not approve	-	24.7	32.8	27.6	26.4	26.8	23.9	24.7	24.7	20.5	24.5	-8	0	-
Governor														
I approve	55.8	45.7	44.4	40.1	38.5	38.8	39.7	39.3	38.3	37.1	38.6	-6	-7	-17
I do not approve	22.2	30.5	33.2	38.9	40.9	40.1	39.6	37.0	37.4	37.5	38.8	+6	+8	+17
* Included into the survey since 2008.														

The share of the Vologda Oblast residents, who believe that the President is successful in strengthening Russia's international standing, has increased for the last two months (from 50 to 53%).

The assessment of the President's performance in coping with the remaining key problems of the country has not changed significantly: the proportion of people, who support the actions of the head of state aimed to restore order in the country is 50%, to protect democracy and strengthen the citizens' freedoms – 39%, to promote economic recovery and increase the citizens' welfare – 35%.

In general, the attitude of the Vologda Oblast residents to Vladimir Putin's activities aimed to cope with the most important challenges of Russia remains more positive than in 2011–2014.

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

Answer option	2007	2011	2013	2014	June 2014	Aug. 2014	Oct. 2014	Dec. 2014	Feb. 2015	Apr. 2015	Average for the last six surveys	Dynamics (+/-), the last six surveys in comparison with...		
												2013	2011	2007
Strengthening Russia's international standing														
Successful	58.4	46.2	45.7	50.4	53.7	50.9	52.3	50.8	50.4	52.7	51.8	+6	+6	-7
Unsuccessful	24.9	33.7	36.2	32.4	31.7	30.0	31.0	30.3	29.5	28.7	30.2	-6	-4	+5
<i>Index of success**</i>	<i>133.5</i>	<i>112.5</i>	<i>109.5</i>	<i>118.0</i>	<i>122.0</i>	<i>120.9</i>	<i>121.3</i>	<i>120.5</i>	<i>120.9</i>	<i>124.0</i>	<i>121.6</i>	<i>+12</i>	<i>+9</i>	<i>-12</i>
Imposing order in the country														
Successful	53.2	36.6	39.4	48.0	49.5	47.5	49.4	52.1	50.3	50.1	49.8	+10	+13	-3
Unsuccessful	34.0	50.0	47.5	39.1	39.5	37.8	37.8	35.1	37.3	37.5	37.5	-10	-13	+4
<i>Index of success</i>	<i>119.2</i>	<i>86.6</i>	<i>91.9</i>	<i>108.9</i>	<i>110.0</i>	<i>109.7</i>	<i>111.6</i>	<i>117.0</i>	<i>113.0</i>	<i>112.6</i>	<i>112.3</i>	<i>+20</i>	<i>+26</i>	<i>-7</i>
Protecting democracy and strengthening the citizens' freedoms														
Successful	44.4	32.4	31.8	37.5	40.1	37.6	38.2	40.7	39.5	39.2	39.2	+7	+7	-5
Unsuccessful	37.0	48.3	51.0	45.4	43.9	43.7	44.3	41.9	40.9	39.9	42.4	-9	-6	+5
<i>Index of success</i>	<i>107.4</i>	<i>84.1</i>	<i>80.8</i>	<i>92.1</i>	<i>96.2</i>	<i>93.9</i>	<i>93.9</i>	<i>98.8</i>	<i>98.6</i>	<i>99.3</i>	<i>96.8</i>	<i>+16</i>	<i>+13</i>	<i>-11</i>
Economic recovery and increase in the citizens' welfare														
Successful	47.2	30.7	31.3	34.8	35.8	35.1	33.9	37.6	34.4	34.7	35.3	+4	+5	-12
Unsuccessful	39.1	56.1	56.8	53.4	53.5	50.2	54.4	50.8	51.5	49.9	51.7	-5	-4	+13
<i>Index of success</i>	<i>108.1</i>	<i>74.6</i>	<i>74.5</i>	<i>81.4</i>	<i>82.3</i>	<i>84.9</i>	<i>79.5</i>	<i>86.8</i>	<i>82.9</i>	<i>84.8</i>	<i>83.5</i>	<i>+9</i>	<i>+9</i>	<i>-25</i>

^{*} Ranked according to the average value of the index of success for the last 6 surveys.
^{**} The indices are calculated as follows: the share of negative answers is subtracted from the share of positive answers, then 100 is added to the obtained value, so as not to have negative values. Thus, completely negative answers would give the total index of 0, and completely positive answers would give the total index of 200; the balance between the former and the latter expresses the value of the index 100, which is, essentially, a neutral mark.

The proportion of the Oblast residents who believe that the “United Russia” expresses their interests is 38–39%. Support for the KPRF is 8%, for the LDPR – 6–7%, for the “Just Russia” – 4%.

In February – April 2015 there was only a slight increase in the proportion of the Vologda Oblast residents who believe that none of the political parties reflects their interests (from 30 to 32%), but this figure is still less than in 2014 (34%) and 2013 (35%); this indicates a higher level of interest of the Oblast residents in economic and political life in the country.

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

Party	2007	Election to the RF State Duma 2007, fact	2011	Election to the RF State Duma 2011, fact	2013	2014	June 2014	Aug. 2014	Oct. 2014	Dec. 2014	Feb. 2015	Apr. 2015	Average for the last six surveys	Dynamics (+/-), the last six surveys in comparison with...		
														2013	2011	2007
United Russia	30.2	60.5	31.1	33.4	29.4	32.8	32.7	34.3	35.5	36.7	38.8	38.2	36.0	+7	+5	+6
KPRF	7.0	9.3	10.3	16.8	11.3	9.7	9.8	9.1	9.3	8.3	7.7	7.8	8.7	-3	-2	+2
LDPR	7.5	11.0	7.8	15.4	7.2	7.6	6.2	6.9	7.3	7.8	6.7	6.1	6.8	0	-1	-1
Just Russia	7.8	8.8	5.6	27.2	4.6	3.5	3.3	3.7	3.9	3.2	4.1	3.7	3.7	-1	-2	-4
Other	1.8	–	1.9	–	0.6	0.3	0.1	0.1	0.7	0.1	0.3	0.1	0.2	0	-2	-2
No party	17.8	–	29.4	–	34.9	34.4	36.0	35.0	32.6	32.7	30.3	31.5	33.0	-2	+4	+15
It is difficult to answer	21.2	–	13.2	–	10.2	11.7	11.8	10.9	10.7	11.1	12.0	12.5	11.5	+1	-2	-10

The characteristics of social mood and stock of patience for the last two months have improved.

The share of the Oblast residents, who assess their mood as “good and normal”, decreased: it was 62% in December 2015, and in April it was 68%.

The proportion of those, who believe that “Everything is not so bad; it’s difficult to live, but it’s possible to stand it” increased in February – April 2015 from 74 to 79%.

In general, the assessments of social sentiment and stock of patience in April 2015 are approximately the same as they were in 2013–2014, and they remain higher than in 2011.

However, in the last two months there were no significant changes in the people’s assessment of their own financial situation. About 52–53% of the Oblast residents consider themselves to be “poor” and extremely poor”. The proportion of those who consider themselves to have “average income” is still lower (37–38%). In general, the structure of social self-identification of the population in the early 2015 remains more negative than in 2011–2014.

The Consumer Sentiment Index (CSI) continues to decline. This tendency is observed since June 2014. CSI decreased from 76 to 73 points in the last two months, which indicates that there remain anxious expectations in the society regarding the development of economic situation in the country and people’s own financial well-being.

However, according to the results of the study, the negative trend in CSI is not consistent with positive trends in social mood, stock of patience, and support of the performance of the President of the Russian Federation. The reason is that the Consumer Sentiment Index reflects a general perception of the economic situation in the country, rather than the people’s assessments of their personal financial situation, the dynamics of which does not show negative changes (the proportion of people of “average income” and “poor and extremely poor” in the last two months has not changed and amounts to 37 and 52%, respectively).

In other words, the assessment of changes in the dynamics of personal financial situation remains more stable than the estimation of the overall economic situation in the country, and this has a decisive influence on social well-being and attitude toward the activities of the authorities.

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

Answer option	2007	2011	2013	2014	June 2014	Aug. 2014	Oct. 2014	Dec. 2014	Feb. 2015	Apr. 2015	Average for the last six surveys	Dynamics (+/-), the last six surveys in comparison with...		
												2013	2011	2007
Mood														
Usual condition, good mood	63.6	63.1	68.6	69.4	71.1	70.5	69.3	70.9	61.8	67.6	68.5	0	+5	+5
I feel stress, anger, fear, depression	27.8	28.9	26.2	24.9	23.7	25.1	24.6	24.1	31.3	26.6	25.9	0	-3	-2
Stock of patience														
Everything is not so bad; it's difficult to live, but it's possible to stand it	74.1	74.8	79.3	80.8	81.0	82.5	80.3	80.0	74.3	78.9	79.5	0	+5	+5
It's impossible to bear such plight	13.6	15.3	14.2	12.6	13.4	12.8	12.1	13.6	17.3	14.9	14.0	0	-1	0
Social self-identification*														
The share of people who consider themselves to have average income	48.2	43.1	43.9	43.2	42.0	44.1	43.5	42.3	38.3	36.7	41.2	-3	-2	-7
The share of people who consider themselves to be poor and extremely poor	42.4	44.3	46.9	49.1	48.4	49.6	49.3	51.0	53.3	51.6	50.5	+4	+6	+8
Consumer Sentiment Index														
Index value, points	105.9	89.6	90.3	87.6	90.5	87.1	84.0	82.3	75.7	73.4	82.2	-8	-7	-24
* Question: "Which category do you belong to, in your opinion?"														

In February – April 2015, the proportion of positive assessments of social mood increased in 13 out of the 14 socio-demographic groups of the population; first of all, in people aged 30–55 (from 58 to 68%) and the 20% of the poorest residents in the Oblast (from 38 to 56%).

Negative changes are observed in only one group among the 20% of the wealthiest inhabitants of the Oblast (the share of positive assessments of social mood has dropped from 80 to 78%).

In the Vologda Oblast in general and in almost all the socio-demographic categories of the population (excluding the 20% of the poorest) social mood is better than in 2007. Apparently, this is due to the beginning of Vladimir Putin's third presidential term and, in principle, with the fact that Vladimir Putin is President. It is in 2012 that the percentage of positive assessments of social mood reached the level that it currently maintains (67–69%). Up to 2012 the proportion of those who estimates their mood positively was somewhat lower (63%). This feature is observed in almost all (in 11 out of 14) the socio-demographic groups.

Social mood in different socio-demographic groups (answer option “Good mood, usual, good condition”, as a percentage of the number of respondents)

Category of population	2007	2011	2012	2013	2014	June 2014	Aug. 2014	Oct. 2014	Dec. 2014	Feb. 2015	Apr. 2015	Average for the last six surveys	Dynamics (+/-), the last six surveys in comparison with...		
													2013	2011	2007
Sex															
Men	65.9	64.5	69.1	69.9	68.9	71.3	69.5	68.8	69.7	61.7	67.4	68.1	-2	+4	+2
Women	61.7	62.0	65.8	67.5	69.8	71.0	71.4	69.8	72.0	61.9	67.8	69.0	+2	+7	+7
Age															
Under 30	71.3	70.0	72.3	75.5	75.1	76.1	79.1	76.6	76.4	71.3	73.5	75.5	0	+6	+4
30–55	64.8	62.5	67.9	69.2	69.5	71.8	70.3	68.3	69.8	58.3	67.9	67.7	-2	+5	+3
Over 55	54.8	58.3	62.1	62.4	65.4	66.7	64.9	66.1	69.1	60.7	63.7	65.2	+3	+7	+10
Education															
Incomplete secondary, secondary	58.4	57.4	57.2	60.6	62.5	61.7	63.3	65.4	67.8	54.8	62.1	62.5	+2	+5	+4
Secondary vocational	64.6	63.6	66.7	68.1	70.4	72.2	71.3	70.2	71.8	65.2	68.2	69.8	+2	+6	+5
Incomplete higher, higher	68.6	68.3	77.0	77.4	76.2	80.4	77.7	73.3	73.5	65.8	73.1	74.0	-3	+6	+5
Income groups															
20% of the poorest people	51.6	45.3	51.5	46.2	50.8	54.9	54.1	50.2	55.1	38.3	55.6	51.4	+5	+6	0
60% of the people with middle-sized income	62.9	65.3	68.7	71.9	72.3	72.7	71.5	73.5	75.0	65.2	69.2	71.2	-1	+6	+8
20% of the most prosperous people	74.9	75.3	81.1	83.3	84.8	89.0	89.6	79.0	81.6	80.3	78.1	82.9	0	+8	+8
Territories															
Vologda	63.1	67.1	73.6	75.0	76.4	78.6	80.7	75.5	75.6	66.4	72.5	74.9	0	+8	+12
Cherepovets	68.1	71.2	76.2	75.3	76.3	79.9	76.5	72.8	73.2	63.1	69.8	72.6	-3	+1	+5
Districts	61.6	57.1	59.8	61.6	61.8	62.3	61.5	64.0	67.1	58.6	63.7	62.9	+1	+6	+1
Oblast	63,6	63,1	67,3	68,6	69,4	71,1	70,5	69,3	70,9	61,8	67,6	68,5	0	+5	+5

Conclusion:

The results of the survey carried out in April 2015 indicate that the situation has improved compared to the beginning of the year in many key positions that characterize public opinion. Social mood has improved considerably (the percentage of positive assessments increased from 62 to 68%, and negative assessments decreased from 31 to 27%), the stock of patience has increased (the proportion of positive ratings increased from 74 to 79%, negative ratings – decreased from 17 to 15%), the approval of the RF President’s performance has increased (approval rating increased from 66 to 68%, the proportion of negative judgments dropped from 21% to 16%).

In addition, after declining in December 2014 and February 2015, the assessment of success of the President's actions aimed at economic recovery and growth of citizens' welfare has stabilized (35%), as well as the share of the Oblast residents, who consider themselves to have "average level of financial welfare" (37%).

For the first time in the period from October 2014 to April 2015 there was a break in the negative trend of reduction in the Consumer Sentiment Index among the people who belong to the poorest 20% of the Oblast residents according to their own assessments of their income level (over the last two months CSI in this group has increased from 59 to 63%). The same group is also distinguished by the largest increase in the proportion of positive ratings of social mood (from 38 to 56%).

As for the negative trends of recent months, it is necessary to mention the decrease in the Consumer Sentiment Index (it decreased from 76 to 73% in February – April 2015). This is an important indicator that reflects the essence of people's consumer sentiment, their forecasts for the future development of the economic situation and their own financial position. However, as the research has shown, the negative trend in CSI indicates the disturbing expectations of people, their uncertainty about the future, rather than the assessment of the real changes in the dynamics of the standard of living.

Positive changes in the dynamics of public opinion are related to the improvement of the financial situation of the population, and to the overcoming of the feeling of crisis. This is confirmed by the official statistics², and this was mentioned by Vladimir Putin during the "direct line" with the population on April 16, 2015³.

In general, the subject of the last three "direct lines" with the President clearly reflects the trends in public opinion. After discussing the issues related to international politics and national self-determination (which were the main topics of the "direct line" in 2014), the 2015 agenda is again focuses on the internal socio-economic problems; but now they are considered not in the context of the "May decrees" (as it was in 2013), but in the context of the functioning of Russia's economy under the sanctions.

The fact that public attention is focused on domestic economic issues, on the one hand, indicates their importance to the population. On the other hand, however, it proves that the society shares the viewpoint of the President about the necessity to "find better ways to manage these (*socio-economic, – editorial note*) processes by ourselves, in our own country"⁴.

² According to Vologdastat (Regional Office of the Federal State Statistics Service of the Russian Federation in the Vologda Oblast), the real disposable money income of the population in January 2015 amounted to 118.1% of those in January 2014.

³ In particular, the RF President noted: "We are faced with certain external constraints, and this affects growth rate and development; but in general, we see that the ruble is strengthening, and stock markets are rising. We have managed to prevent the increase of inflation" (Source: Stenogramma "Pryamoi linii" s Prezidentom RF V.V. Putinym ot 16 aprelya 2015 [Transcript of "Direct Line" with Russian President Vladimir Putin, April 16, 2015]. *Ofitsial'nyi sait Prezidenta RF* [Official Website of the RF President]. Available at: <http://kremlin.ru/events/president/news/49261>)

⁴ During the "direct line" in April 2015, the RF President also pointed out: "As for the sanctions, they certainly contribute to our difficulties, but still it is not the main thing" (Source: Stenogramma "Pryamoi linii" s Prezidentom RF V.V. Putinym ot 16 aprelya 2015 [Transcript of "Direct Line" with Russian President Vladimir Putin, April 16, 2015]. *Ofitsial'nyi sait Prezidenta RF* [Official Website of the RF President]. Available at: <http://kremlin.ru/events/president/news/49261>).

Systemic crisis and the choice of the way of development for Russia



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Abstract. The article considers the reasons that led to the systemic crisis in the modern Russian economy, and highlights major factors that impede the transition to the innovation type of the country’s development. The article pays special attention to the losses caused by a comprador nature of the current economic system, and in particular – by its modification focused on export and raw materials. Besides, the article substantiates the author’s viewpoint that at present our country needs an economic system, which is ready for a new and comprehensive industrialization.

Key words: systemic crisis in the economy, comprador nature of the economic system, new industrialization.

§ 1. Reasons for the crisis

When analyzing the causes of the current economic situation, it is impossible not to notice the momentous roll call of the times. As we know, in 2015, our country celebrates the 70th anniversary of the victory of the Soviet people in the Great Patriotic War. This national holiday has, of course, its ideological, political and spiritual-patriotic

moments, but here we are interested more in the economic aspect. The point is that the great Victory of our people was based on a particular, historically innovative economic foundation and was also the economic victory of a system scale. Indeed, we recall that on the verge of the Great Patriotic War our country was not quite ready for that: when the Nazi launched

their treacherous attack, the young Soviet industry had not yet managed to provide the armed forces with military equipment of a new generation. Nevertheless, the state-planned economic system of the Soviet Union allowed the country in a very brief period of time to adjust the economy to the needs of the war and bring the military-industrial potential of the country in line with the challenges of wartime.

Today there is no Great Patriotic War, but from the historical viewpoint the situation is largely similar. Indeed, at present the country faces very complex geopolitical challenges and not only with regard to Ukraine, but also around the perimeter of Russia's borders. Now we have to cope with unprecedented strategic and geopolitical challenges in the Arctic and Far East, in China, and Central Asia, in the Middle East, and the Mediterranean area. And the main problem is that the post-reform Russia's economic potential is inadequate to the challenges that we are facing. As a result, life puts before us a major and urgent question: will we be able just as quickly to adjust our economy and cope successfully with the strategic and geopolitical challenges of our time?

Certainly, such challenges in the history of our country are not the first and not the last. For more than a thousand historical period, our country has not once been subject to such fateful tests, and it always came out of them with honor – even when our opponents believed that Russia had already turned into a “hopeless” state, torn, collapsed, broken, weak, etc.

Our people have always found the strength, wit and capabilities to deal with

challenges. Undoubtedly, they will do the same today, although it does not mean that the coming trials will get sorted out by themselves or they will not require that we apply considerable effort. On the contrary, we will have to work very hard to solve current historically important tasks. But they will be solved, because, unlike in many previous periods, we now have a fairly accurate understanding of what to do and how to do it in order to move forward, and, first of all, to raise Russia's economic potential.

Thus, the main task of 2015 is to make the decisions and to implement the actions at the federal and regional levels so as to bring the economic potential of the country in line with strategic and geopolitical challenges.

There are different assessments regarding the current socio-economic situation. And we note that none of them is positive. TV, radio, scientific and analytical literature makes different conclusions about the scale and nature of the crisis: they call it stagnation, stagflation, depression, autonomous recession, a default of the raw materials export model, and systemic crisis.

Which of the specified set of expert estimates is correct as of the year 2015? Regarding the question about what has caused the crisis in the national economy, all the opinions are reduced to two basic positions. Conventionally, they can be called “external” and “internal” because one of them considers external, non-Russian causes of the crisis to be decisive (international sanctions, including sanctions related to the Ukrainian crisis, the accession of Crimea, as well as the decline

in oil prices), while the other considers domestic reasons to be the most important. In fact, two principal positions have been identified.

Of course, these opinions are disputable. The question about the nature of the crisis is not a trifle. It is extremely important for Russia to find the correct answer. If there is the right answer, there will be right actions. And vice versa, wrong notions entail wrong actions, which only aggravate the consequences of the current crisis, which are already difficult.

Again, the task of economic science is to give an accurate answer to the question, what kind of crisis we are facing and what are the reasons, external or internal, that have caused it. As it has been already mentioned, now there are two main positions, and they are opposite. To clear up what we are talking about, let us call them by their proper names: one is the comprador position and the other is the sovereign position.

It is not a coincidence that we mention the 70th anniversary of the Victory in the Great Patriotic War, because it was also a victory for the sake of our country's independence, so that it would not suffer under a "foreign yoke". During the Great Patriotic War the Soviet Union fought not only for military independence, and the preservation of political sovereignty of the state, but also for its right to choose the path and the way of its socio-economic development, so that the multinational Soviet people worked for themselves, and not for Nazi Germany or some other foreign power.

What is the essence of the comprador position? What is "comprador" from the point of view of the classical definition? Some refer this concept to the category of "abusive" words, which became common, like, for instance, "liberalism", "democracy" etc. Actually, the term has a very clear scientific content: it represents an intermediary between foreign capital and national wealth. The comprador (oligarchic) layer includes those who transform national ownership in transnational, that is, foreign, ownership, serving the interests that are foreign and alien to Russia.

There is the term "offshoring" of ownership, when the Russian property becomes an offshore, that is, non-Russian, property. Accordingly, the comprador type of economic system means that the country works not so much for itself, but rather for foreign capital; and the comprador social layer helps to adjust the national economy in favor of foreign capital. Needless to say, if the country works for foreign capital, then the country works for its own economic depletion. In the end, the country grows poor along with the enrichment of foreign states with its national resources.

Why do we have to talk about the comprador position? We still have the raw-materials exporting model. This very model is comprador in its essence. Naturally, the comprador ideologists and representatives find it completely unprofitable that the sources of the current crisis situation in the country were associated with the raw-materials exporting model, i.e. with internal factors. Therefore, they prefer to associate the slowdown of economic growth and

the so-called investment pause primarily with the decline in oil prices, i.e. with external factors, which are not and cannot be controlled by the Russian government. According to the comprador position, the raw-materials exporting model itself has nothing to do with this, and it is not at all responsible for the current difficult economic situation: they say, oil prices, international sanctions and other external factors bear the blame.

The comprador position is opposed by the sovereign position, which claims that Russia should work exclusively for itself: not for someone outside, but for its own development and enrichment, enhancement of the purchasing power of its citizens, enterprises and the state budget. It is quite natural that from the point of view of the sovereign interests of our country the crisis is caused not by the sanctions, or the foreign trade situation, but by the raw-materials exporting model that works for foreign capital.

Indeed, if the raw-materials exporting model, which serves, *inter alia*, the model of Russia's deindustrialization, the situation would be radically different. For example, it could be like that in China with its industrial exports supported by the planning and economic model of the export-industrial type. Due to this fact, the decline of commodity prices does not only affect the Chinese economy in a negative way, but, on the contrary, it stimulates the reduction of fuel and energy costs and promotes industrial growth. Likewise, judging by the statistics, we can see that when raw materials prices are reduced, the pace of industrial

production has increased significantly in the European Union, as well as in Anglo-Saxon countries. If prior to 2012, when there was a rapid speculative rise in the prices of oil, metals, fertilizers, grain and food products, the average annual growth rate of European industry was about 0.3–0.5%, then today it is 2% (in the U.S. – 3–4%), unlike that in our country, where the current pace of industrial growth is either zero, or even negative. Thus, due to the dominance of raw-materials exporting model, the decline in oil prices helps foreign industrial developed countries, but does not help Russia, just like the high prices for oil, gas, metals and fertilizers did not stimulate industrial growth in Russia in 2012–2013.

In our opinion, such a contrast asymmetry in itself should make us think about what kind of crisis we are facing, why a downward trend in the prices of raw materials is favorable for industrialized countries, but damaging to the dynamics of our economy; why in the main oil-producing countries the decline in oil prices resulted in the peak devaluation of the currency that did not exceed 13%, and in Russia it exceeded 100%; and why our internal pricing system reacts so dramatically to the exchange rate of the ruble and to its devaluation.

The fact remains: when the price of oil and raw materials fall, the advanced industrial countries rapidly upgrade their high-tech industrial capital. And what about Russia, with its comprador system? In contrast, it falls into a crisis. GDP, budget, domestic demand, capital investment, social spending, etc. are declining.

According to statistics, despite the 2–3-fold fluctuations of stock market conditions for the commodity group of products, domestic prices in the EU countries (except for Greece) have changed over the past 5 years by -0.5–0.0%. This fact indicates the controlled stability of purchasing power of the euro (that is, the national currency of the European Union).

Now the question is: what has happened to the purchasing power of the ruble during the last 5 years? It has declined, with the devaluation being almost 50%. In other words, the purchasing power of the ruble has decreased almost twofold. Naturally, for the economic science it is in itself an indicator that is sufficient to raise a basic question: what is this economic system, which leads to the collapse of the main means of circulation – the national currency? And why the euro, unlike the ruble, is the currency which is a long-term incentive to save, earn and accumulate money.

Savings in euros, despite very low interest rates, are quite rational, because the person who put the savings in euros, is quite sure that after 30 years their purchasing power will not be lower than in the moment when he/she made the savings.

Now try and apply this strategy to the ruble. Try to preserve the purchasing power in rubles for 30 years. It will not work. And it is understandable why – due to the rapid depreciation of the ruble. What does it mean? It means that the ruble is not a long-term economic stimulus.

Meanwhile, the hard currency is the first thing, which any competent economic system starts from. We have already given the example of the euro. We can also point

out the Soviet gold chervonets (10-ruble coin) after the 1924–1925 currency reform, the Soviet ruble after the 1947 currency reform, the German mark after the currency reform of L. Erhard, the post-war Japanese yen. The former Soviet ruble is the only one that does not fit into the range of the classic examples of hard currency associated with rapid economic progress or rise. It is the only currency that does not perform its system function.

From the viewpoint of fundamental economic characteristic, the main difference of the comprador economic system, and in particular, its raw-materials export modification (raw-materials exporting system by its nature belongs to the class of comprador systems), is that it is a dependent economic system. Any economy that is of a comprador nature is not independent.

No doubt, it is the economic independence of our country that can be the only starting point in dealing with very serious problems, such as high-tech development, the strengthening of political sovereignty and geopolitical standing.

However, how can we achieve economic independence of Russia, if our economic system is dependent on foreign capital? Here we have to deal with an obvious current contradiction of the most drastic nature: Russia needs independence in its domestic politics and geopolitics; but, at the same time, it is critically dependent on foreign capital in its economy. Let us say it clear: this contradiction enhances the system-wide gap between the economic base and political superstructure, and, therefore, must be eliminated.

The same context raises a very important question: if 70 years ago on the verge of the Great Patriotic War our country had the current raw-materials exporting economic system rather than the Soviet planned economic system, what would we do, would we be able to win what was then the crucial test, extremely difficult for our country?

During the war years the Soviet planning system managed to exceed the economic potential of the Nazi Reich, and did it “on the go”, in front-line battles, so to speak. Thousands of enterprises had to be evacuated from the European part; tens of millions of civilians, livestock, property, etc. had to be resettled; machines, equipment, electricity, chemical industry had to be relocated. In addition, in 1941–1942 the best European grain-producing regions were lost, but the country managed to organize grain production beyond the Urals. The trans-Ural agrarian territory, which is among the most unfavorable in terms of grain production, fed the entire Soviet Union during the war.

It is the then economic planning system that helped to solve the most difficult problems of organizing the military economy. Moreover, the quality of Soviet military equipment – tanks, artillery, planes, etc., was the best in the world by the end of the Second World War.

And if we had an export-oriented raw commodity model and unplanned comprador economic system when the Nazi came? In that case, I believe, no enterprise could have been moved from the European part of Russia to the Volga region and the Urals. Indeed, how is it possible to move

the enterprises that are left to their own devices and that work not even for private (internal) interest, but for foreign profit? Obviously, it is one of the instructive lessons of the Russian history, which is very relevant today and it really indicates the roll call of the times.

§ 2. Who is holding the commanding heights?

The main characteristic of any economic system depends on the fact, who is holding the commanding heights of the economy. The commanding heights of the economy are electric power industry, infrastructure, fuel and energy complex, agro-industrial complex, food security, scientific-and-technological security, banking system, land, and strategic enterprises. Who controls all this?

Are the commanding heights of our economy really in the hands of the state? No, they are not in the hands of our state, and even not so much in the hands of the domestic oligarchic-comprador clan, but they are in the hands of foreign capital, which has seized the commanding heights of the post-Soviet economy through oligarchic and offshore structures.

Let us give one concrete example, so that what we say would not be a hollow generalization, but a specific and clear argument. Let us have a look at our civil aviation: what percentage of the fleet is domestic aircraft? Less than 5%. Almost 95% of passenger traffic is carried out with the use of foreign machines. Here a simple question arises: whose property is the Boeings and Airbuses that Russia uses? Can we consider them to be our

property? No, we cannot, because they are all in the lease. Russian air companies only rent them from foreign owners – together with spare parts and consumables. But the aircraft fleet is also part of the commanding heights of the economy.

Or the banking system, the so-called bank payment and settlement technology, cards, protocols, standards, servers, super-computers. Who owns them? Who owns the operating systems? Who owns SWIFT? Is it ours? No, even this system is not ours, despite its operation in our territory. It is therefore hardly surprising that when the issue of the sanctions comes forward, the ultimate threat would be to block the payment and settlement infrastructure on the territory of Russia, including SWIFT. And if we had a national, sovereign payment and settlement system, would such sanctions bother us? Of course, they would not. This is the specific importance of the question “Who is holding the commanding heights of our economy?”, and the nature of the current economic system.

Based on the paradigm of the commanding heights of the economy, the causes of the crisis are identified as wholly internal. In fact, the post-Soviet Russia has been living in a state of systemic crisis from the very beginning, i.e. the crisis of the comprador economic system. Of course, with the falling prices of commodity exports, the exacerbation of systemic crisis reaches its climax that is most sensitive in the budgetary sector. So there is no reason to blame the sanctions of foreign partners of our oligarchic-comprador clan, because the crisis is systemic in nature.

Although today some economists, who support the comprador ideology (A.L. Kudrin, E.T. Gurvich, V.A. Mau, A.V. Ulyukaev, B.Yu. Titov), somehow defend the raw-materials exporting model and the comprador economic system. They stick to the opinion that the raw-materials export model can be modernized, and it is only necessary to cut or remove the share of the state, that is, to ensure that the whole rent from the export of raw materials goes to the hands of oligarchs, rather than to the state budget.

Here we see a very interesting and remarkable moment, again of the system nature. Technically the share of the state in the export-resource rent rests on export duties and mineral extraction tax (MET). It is proposed to reduce the budget share under the guise of the so-called further liberalization, de-bureaucratization and privatization.

But what does the reduction of the public sector mean? What does the abandonment of state support of domestic demand mean? It is worth noting that state support of domestic demand is carried out by indexing social spending and pensions, financing defense contracts, which give jobs to many defense enterprises, financing energy and transport infrastructure, construction of highways, for which there is always not enough money, housing construction, including that for young professionals, agro-industrial complex, etc. All the articles of budget spending from investment to social and environmental ones, provide state support to the aggregate demand.

Supporters of the comprador position interpret budgetary support to the domestic demand of the population and businesses as the “economy of demand”, which is necessary to abandon. But to leave would mean to pull out and exclude budget expenditures from support to the aggregate demand. How can they be excluded? Obviously, if we want to do away with budget expenditures, it is necessary to remove budget revenues. What revenues? First of all, oil and gas export duties and mineral extraction tax.

Indeed, the comprador clan has now opened the real budget front. If we look closely at what is the object of a serious fight, we see the following innovation – owners of oil and gas fields propose to shift from export duties and mineral extraction tax incremental income tax, which is easily brought to zero through the offshoring of income and capital. At the same time, of course, oil and gas revenues, and budgetary expenditures aimed at supporting aggregate domestic demand are reduced to zero. The state, left with an empty treasury, would have to resort to foreign loans, and in fact – to accept another external debt bondage, like that in the 1990s.

Behind all these seemingly technical issues there is actually the main system question: who will control the commanding heights of the economy, and in whose interests will oil and gas revenues be used? Therefore, the cutting edge of our economic science today is not the elimination of state support to the aggregate demand, but, on the contrary, its enhancement. Moreover, this requires cardinal support not at the

expense of redistribution of export and resource rents, but due to the fact that the fuel and energy complex initially works for the budget and budgetary revenues. Russia needs such an economic system, in which revenue is not divided between the state and private interests in the oil and gas complex, but belongs to the budget from the beginning. This system construction must be the goal of the current debate and struggle between the sovereign and comprador positions.

In January 2015 the Russian Government adopted an anti-crisis program, also called the anti-crisis plan. Of course, the list of proposed measures is not yet a plan. Rather it is a set of declarations and promises of financial investments, primarily in the same oligarchic-comprador banking sector, which deals with the withdrawal of money capital abroad. The main flaw of the government program consists not in the fact that little money is allocated to combat the crisis, but in the fact that its authors do not take into consideration what kind of crisis we are dealing with now.

The point is not what growth rate our economy is demonstrating now, but that the government expects economic growth from the raw-materials exporting model that is completely useless. Now it does not matter whether the prices of commodity exports are high or low. The specific feature of recent years speaks for itself: the raw-materials exporting model is unable to provide even the nominal growth of the budget and the economy, regardless of the level of prices for oil and gas. Oil prices can fall or rise – it does not matter

for the raw-materials exporting model. It has failed completely; it is high time to renounce it. It is useless to demand growth from this model. Indeed, it is pointless: first, to demand to revive what is already dead; second, to waste time; third, to proceed from the comprador utopia that the exporting model can be retained for another 10 years.

This approach is absolutely wrong, because it is useless to expect growth rate from the raw-materials exporting model. But the most interesting thing is that there is no need to wait, because it will still be a fictitious growth.

It is known that the 2000–2008 period is figuratively called the “fat years”, because supposedly the most impressive growth rates of the economy were achieved in this period. This view is represented, for example, by A.L. Kudrin and E.T. Gurvich in their joint article¹. The authors call the specified period “impressive”, referring to the fact that Russia’s GDP has increased in 7 times in dollar equivalent. But their enthusiastic assessment is groundless. In fact, is it the purchasing power of people that has increased in 7 times? The real value of the purchasing power of workers does not make them 7 times richer in 2008 compared to 2000.

True, in dollar terms, Russia’s GDP has indeed grown in 6.95–7 times – these are the official data. However, the sevenfold increase in dollar terms reflects nothing

but the mad inflation of the petrodollar. If we exclude it, we will get the real dynamics of the aggregate purchasing power: it has really grown, but not in 7 times, but only in 1.5 times. Taken apart from the petrodollar inflation, the illusion of the “impressive” growth in 2000–2008 vanishes into thin air.

Currently, in fact, there is a system of two dollars. The first dollar is the one that is in the internal circulation in the USA, in fact, it is by 99% a non-cash dollar circulating through electronic transactions. Its purchasing power is held very tightly. The maximum annual inflation rate in the U.S. is 2.2%. And in recent years the greatest fear of the U.S. Federal Reserve System is the reverse process of deflation.

The second dollar is external, aimed for export, for the rest of the world. Primarily, it is the petrodollar. The U.S. does not support its purchasing power, because the petrodollar deals with the resources of the rest of the world, and not American.

So, in terms of the internal dollar, the purchasing power is supported by the American goods. The purchasing power of the petrodollar is provided by oil, other raw materials and resources of the rest of the world, including Russia. the U.S. is not at all responsible for the purchasing power of the petrodollar, the country simply does not provide the petrodollar with its goods. The most important thing, with the help of which the U.S. forces the world to use the petrodollar, is the seizure of oil-producing provinces around the world, the control of maritime communications and tanker fleet, setting up puppet regimes in

¹ Kudrin A., Gurvich E. Novaya model’ rosta dlya rossiiskoi ekonomiki [New Growth Model for the Russian Economy]. *Voprosy ekonomiki* [Economic Issues], 2014, no. 12.

oil-producing countries or countries rich in resources. Recent examples are the overthrow of the regimes in Iraq, Libya and Ukraine that the U.S. considered undesirable.

All the planet's regions rich in oil are now subject to American control or involved in the struggle for American control. As for our oil provinces, the United States also has strategic plans of putting them under its direct political, economic or currency and monetary control. When people talk about the sevenfold growth of Russia's GDP in dollar terms, they actually mean the petrodollar expression and see nothing but the outcome of the import of the petrodollar inflation.

Here is another important difference between the internal and external dollar. The internal dollar has the deflator index, while the external dollar has no deflator index. It is impossible to bring GDP, expressed in dollars, to the comparable dollar volume, because there is no appropriate deflator index. It turns out that the country that has a raw-materials exporting economy is not able even to calculate the real dynamics of its petrodollar purchasing power.

Of course, there exists the method of analytical calculation. It is no accident that we name the value of real GDP growth in Russia in 2000–2008 years. It is assessed with the application of a proven Soviet method of calculation using the balance of the national economy. It serves as the most accurate algorithm and the calculations show that the real purchasing power of the population, budget and enterprises increased by not more than 1.5 times.

Certainly, we cannot speak about any impressive period, because the 1.5-fold increase is still below the twofold increase, which was discussed in 2003. But the most important thing that the real purchasing power of the society is still two times lower compared to the Soviet, pre-reform level. So far the post-Soviet capacity of the domestic market is two times lower than its capacity during the Soviet era.

From the viewpoint of fundamental factors everything is natural. In the Soviet period the capacity of the all-Union market was filled with domestic goods: planes, trains, TV-sets and machinery.

Now, unfortunately, the country has to fill its domestic market without its own goods, as in the case of airplanes and high speed trains, only on the basis of extraction of raw materials, according to the scheme: raw materials in exchange for food and equipment.

Can the domestic market under de-industrialization be larger and be filled with more goods than in the Soviet period, when industry was working at full power? Of course, it cannot. In the context of de-industrialization we just cannot rely on the ability to restore the Soviet level of saturation of the domestic market with goods, not to mention the Soviet quality of the food and industrial products.

Moreover, in the currency and monetary terms, the raw-materials exporting model guarantees a typical zero-sum game for Russia, even if we divert our attention away from the import of inflation and a huge outflow of capital abroad. When we sell oil and gas at higher prices, then we buy more

expensive cars and food. If we perform a simple analysis for the period of 2000–2014 by multiplying the volumes of export and import by the index of export and import prices, we will get a zero balance. We export as much as we import.

Let us give a visual comparison. The question is: what is heavier in physical measurement: 1 kg of nails as of the year 2000 or 1 kg of cotton as of 2015. The question is purely rhetorical, since in both cases the weight is the same.

The situation is similar with the raw-materials exporting model: in terms of physical units neither the export of oil, nor the export of gas or metals and fertilizers has increased in 7 times. It is only the inflation of the petrodollar that has increased manifold. The more petrodollar are issued by the U.S. Federal Reserve System, the higher the price for oil and the higher the petrodollar-based Russia's GDP.

But as we make the deflation of macro-economic dynamics according to all the rules, the sevenfold growth rate turns into a complete fiction. Ultimately, Russia remains only without another portion of its national wealth, and becomes pure commodity lender to foreign multinational corporations and imports inflation in exchange.

Therefore, those who understand a simple scheme of a non-equivalent exchange of the real for the virtual and fictitious, advocate for the elimination of the raw-materials exporting model, for the transition from the comprador and unplanned to a sovereign and planned economic system. This position is logical and justified: the

crisis of the comprador system is overcome by the transition to a sovereign system, and the crisis of the unplanned economy – by establishing the planned one.

However, the administrative resource is, unfortunately, concentrated in the hands of a group of economists with the comprador ideology, who stand for the idea of reliance on foreign capital and assure that the West will help us. Now they have put forward a program for modernization of the raw-materials exporting model through privatization and tax maneuvers.

However, as we have already shown, to upgrade the raw-materials exporting model means the same as to upgrade the system-wide crisis in Russia. In the best case it will mean only a continuation of a zero-sum game.

It is absurd to call for the modernization of the raw-materials exporting model, because this very model is damaging and useless for Russia. Our country needs a neo-industrial model of development, with first-class high-tech industry for processing raw materials into finished products with high added value (and not only high profit). Russia needs an economic system that will provide the country with domestic machinery, aircraft, high-speed trains, TV sets, gadgets, payment and settlement systems, basic and applied science, high technology, computer workstations. The entire strategy aimed to “have everything our own” in the commanding heights of the economy is effected on the basis of new industrialization. From this follows the fundamental conclusion that our country now needs an economic system, designed

for the planned implementation of the new industrialization of the entire domestic economy.

§ 3. The essence of the new industrialization

It is appropriate to recall briefly what the new industrialization is. It represents the second phase of industrialization, understood as a process of substitution of labor-intensive production by science-intensive or machine-intensive production.

As we know, the essence of the first phase of industrialization was the electrification of industry, agriculture, transport, housing and utilities, and social infrastructure. The primary industrialization consists, therefore, in the electrification of productive forces.

The main objectives of electrification have been mostly achieved. But we note that it is not yet completed. A number of tasks, and very large ones, are still waiting for practical solution. They are: electrification of agricultural machinery, automotive, marine and river transport, aviation, etc. Therefore, it is too early to speak about the end of even the first phase of industrialization.

It was less known that industrialization has not one, but two phases, that industrialization does not end with the electrification of workplaces and continues with their computerization and automation, up to the formation of a unified automated system of productive machines, which are mutually integrated with microprocessor-based or digital technologies.

Both phases of industrialization – the first and the second – are logically linked to one another, because there is a simple but inexorable law of their connection: you can automate only that what has been previously electrified.

Thus, neo-industrialization means the creation of computerized and automated productive forces, linked into a single automated system of machine production and distribution of material and social goods.

If the basic product of electrification is kilowatt-hour, then the basic product of neo-industrialization is a microprocessor. Accordingly, the readiness of a particular country to a neo-industrial stage of development is determined by the presence of the domestic production of microprocessors and microprocessor machinery. A country that has its own production of advanced microprocessors, is prepared to large-scale neo-industrialization in all respects: scientific-technological, technological, innovation, industrial, information, personnel, organizational and system-wide.

Therefore, various concepts of scientific and technological progress, innovation way of development, “knowledge economics”, “information society”, “new economy” or “digital society” represent only point, sometimes very superficial, sections of a neo-industrial reality, which is now emerging.

The proportion of automated workplaces, primarily in agriculture, industry, construction and power generation can serve as a simplified, but specific quantitative indicator of neo-industrialization progress. The proportion of these workplaces in the

most advanced industrial countries varies from 12 to 24% of their total number in the relevant sectors. This means that the most developed countries of the planet have indeed entered a stage of large-scale neo-industrialization.

Russia should launch large-scale neo-industrialization as quickly as possible. In other words – to form a technetronic, highly automated, fully “digitized” science-intensive production method that allows us with minimal manpower and resources to meet existing financial, social and environmental needs of people, while working in accordance with the principles of minimization of human presence, waste-free technology, resources recycling and restoration of the environment.

In addition to Russia’s lagging behind in the neo-industrial development, the situation in the Russian economy is complicated by deindustrialization.

Deindustrialization in Russia has its reason, which lies in the disintegration of the mining and manufacturing industry. In turn, their disintegration is supported by the export-commodity economic system based on the rule of oligarchic property in the resource and infrastructure sector of the national economy.

Of course, there are no alternatives of neo-industrialization. The neo-industrial stage of development is equally necessary for Russia like the stage of electrification.

And, of course, it is not about the formal or verbal acknowledgement of the need for a new industrialization. It is important to develop and practically implement specific government solutions, adequate to

the requirements and prospects of neo-industrial development.

One of the prime and fundamental requirements has already been named: it is the organization of the automated production of advanced microprocessors and microprocessor devices. From the viewpoint of a neo-industrial perspective, the organization of such production is a priority in every sense of the word.

Let us note another, target priority of neo-industrial development – labor saving. Computerization and automation of workplaces entail the increase of human potential (the share of highly skilled, expensive labor force engaged predominantly in intellectual work) and labor productivity; after that labor saving increases proportionately, due to which working time reduces (in France, Germany, Switzerland, Nordic countries – to 35 hours per week or less) and leisure time increases.

The more highly qualified, more productive and more expensive labor force, the greater the incentive to replace labor-intensive production by capital-intensive, i.e., the greater the interest in neo-industrial progress. Then the production becomes a sphere that attracts science, research and development, innovation and long-term scientific and technological programs, rather than repulses all this. Thus, the process of neo-industrialization, focused on labor saving, can involve the potential of its expanded reproduction by becoming self-reproducing.

The right choice of target priorities in the reproduction aspect is crucial for economic policy. Now, for example, energy efficiency

is called one of the priorities. But can it be achieved in isolation from labor saving and without neo-industrialization? It cannot.

The high energy intensity of Russia's GDP is due to two factors: too high domestic energy prices and deindustrialization, because of which there is too little industrial value added per unit cost of raw materials and fuel.

§ 4. Economic system for the new industrialization

The practical implementation of a new and science-intensive industrialization of Russia is possible only on the basis of a new economic system, sovereign and planning-regulated.

The new industrialization will not happen on its own. It requires the recovery of all the commanding heights of the economy in the sovereign ownership, the vertically integrated form of organization of our national economy and planned methods of concentration of human, material and financial resources in the priority directions of development. Only if such system conditions and prerequisites are established, the domestic economy will rise, develop and grow.

We present the formula of the real economic growth that is achievable only on the basis of the neo-industrial economic model:

$$E = (Y_{t+1}/i - Y_t)/K_t; \quad A = K_t/Y_t; \quad (1)$$

$$g = 100\% \times (Y_{t+1}/i - Y_t)/K_t \times K_t/Y_t; \quad (2)$$

$$g = 100\% \times E \times A \quad (\text{in comparable prices}), \quad (3)$$

where:

E – efficiency of capital investments;

g – economic growth rate;

A – share of accumulation;

i – inflation level;

Y_{t+1} – GDP in current prices;

Y_t – GDP of the previous year;

K_t – accumulation fund.

According to the above ratios, economic growth rate is directly proportional to the efficiency of capital investments and to the share of accumulation, and inversely proportional to the deflator index. The first part of the formal record means that the difference between GDP in current prices, adjusted by the deflator index, and the GDP of the previous period divided by the value of the accumulation fund, expresses the efficiency of capital investments. Accordingly, the proportion of capital investments in GDP means the share of accumulation. In the final record, which is the shortest, the values are taken in comparable prices; that is why the formula for economic growth is reduced to the efficiency of capital investment multiplied by the share of accumulation. Here we see the internal and fundamental parameters that should be an object of planning control and management.

Let us substitute the actual values of the parameters in this formula: the efficiency of capital investments – 2.5% per year at the inflation of 7%, the share of accumulation – 20%; with inflation being 16% the efficiency of accumulation becomes negative and is equal to -3%. Taking into consideration these

values, the real range of macroeconomic dynamics is from 0.5 to -0.6% per year, i.e. within arithmetic zero. This is the true efficiency of the comprador economic system from the viewpoint of economic growth.

There is another aspect connected with the fact that inflation exceeds the efficiency of capital investments. Let us take a domestic investor who invests 100 rubles and receives 2.5% in the form of investment yield, while inflation is 16%. What is his real income? It is negative and is equal to -13.5% as calculated per 100 rubles. At the same time, the deposit rate abroad is 1–2%. It seems a very low percentage. But let us compare it to our terms and ask a question, what is better: to lose 13.5% in Russia or to gain 1–2% abroad? What would a domestic investor prefer? Undoubtedly, the withdrawal of his funds abroad. This option will be the main one under the comprador economic system that allows neither for any regulation of cross-border movement of capital, nor for the planning and regulatory mechanism to reduce production costs or eliminate de-industrialization.

We present only one elementary calculation, but it shows quite clearly why the amount of capital investment in our economy is reducing. Needless to say that without investment there is no development and no future. Russia's GDP under the current system conditions tends to decrease, because the comprador economic system does not include methods of planned impact on key driving forces of economic growth, which are the efficiency of capital investments and the share of total accumulation.

In addition, the target function is also inadequate. Indeed, what should a new, sovereign and planned economic system maximize? Let us take GDP or final demand, from the point of view of its most important internal parts. There are three of them: wages, or the interest of the employee; profit, or the interest of the owner; and the state budget, or the interest of the total, social capital.

$$Y = v + s + f, \quad (4)$$

where

v – wages;

s – profit;

f – state budget.

What element of the three does the economic system need to maximize: profit, wages or budget? In order to answer this question, it is necessary to analyze system-wide impact taking into account the maximization of each of these elements. Then some very interesting features can be found. In particular, the maximization of profit in the Russian conditions means the minimization of wages and budget. The “output” is a rich oligarch, a poor worker and an impoverished state.

$$[AX + (s \rightarrow_{max})] + (v + g) \rightarrow_{min}, \quad (5)$$

where

AX – intermediate output;

s – profit (derived from intermediate production, and not from final production, as is the case with vertical integration);

v – wages;

g – state budget.

Let us now return to the current geopolitical status of the country. The question is, does the situation when the workers and the state are poor suit our political and geopolitical tasks? No, it does not.

Therefore, any economic system that aims to maximize profit, deliberately contradicts the challenges that the country is facing. Meanwhile, the principle of maximum profit with its marginal efficiency of capital is the main dogma and the sacred cow “economics”. All the suggestions of comprador ideologists proceed from the fact that we need to work for profit. But then who will work for wages and for the state budget? They offer us to leave a wide target function of the economic system subordinate to a narrow and comprador function, i.e. private profit. Actually, the formula of the economic system adequate to our economic and geopolitical challenges is quite different:

$$AX + [(v + f) \rightarrow_{max} J + (s \rightarrow_{min})], \quad (6)$$

where

AX – intermediate output;

v – wages;

f – state budget;

s – profit.

According to this formula, the domestic economic system should be radically restructured and adjusted to the maximization of wages and the state budget while minimizing private profit. In fact, this is how it is possible to overcome the systemic crisis. It can be done only with the use of a radically new, sovereign and planned-regulated economic system.

The system transition that we describe and that is objectively required once again is at odds with the doctrines and postulates of the ideology of the free market, because, it turns out that it is high-paid labor rather than cheap labor that is the competitive advantage in the framework of the neo-industrial economic model. The priorities are high wages, a strong and rich state that is able to control the efficiency of capital investments and the share of domestic savings.

The paradigm of the new industrialization in the system aspect implies a revolution in our views. A specially organized economic system with new organizational forms and methods of planned management is the one that is suitable for the new industrialization. A vertically integrated form of organization of the national economy becomes the leading form. It makes it possible to establish the economy of its diversified corporations, with no less degree of centralization and concentration of industrial capital, than in the largest foreign multinational corporations.

So, the system alternatives are clear: either a disintegrated “economy of demand”, or a disintegrated “economy of supply” or an integrated economy of its diversified corporations, that is, vertically integrated chains of value added. “Economy of demand” means a raw-materials exporting model with the government support of aggregate demand. But today it is impossible to maintain such option even if we wanted to, because the raw-materials exporting model has ceased to replenish the state budget. Since 2013, the demand has to be supported by spending gold and currency reserves, and

the rate of their depletion is such that they will be enough only for 44 weeks, less than a year.

In any case, the resource of the raw-materials exporting model is exhausted. As for “economy of supply”, it implies the elimination of state support of aggregate demand and the maximum deregulation presented under the guise of de-bureaucratization and another “liberalization”. In fact, “economy of supply” covered the call for a step backward to the chaos and lawlessness of the 1990s.

The comprador pseudo-liberals have a surprisingly asocial way of thinking: they consider the raising of the retirement age to be an anti-crisis measure. It turns out that for Russia to overcome the crisis in the economy, it is imperative to increase the retirement age. The country needs neither investments nor organizational revolution to shift from disaster and anarchy to inter-sector interaction; it also does not need skilled labor, or automated workstations: it is sufficient to have elderly pensioners, when men retire at the age of 65, rather than at 60, and women – at the age of 60. How does the increase in the retirement age ensure the growth of labor productivity and reduce unemployment? They do not even think about that, as well as about the years that pensioners are left to live and about the quality of their life.

It is clear that such an awkward, anti-social and non-economic measure does not only solve, but also exacerbates the systemic crisis. However, this measure is advocated by the above-mentioned economists, who have the administrative resource. They are looking

in the wrong direction, they are actually on the wrong side of history. The real future of Russia is seen in a vertically integrated economic system, or integrated economy of diversified corporations.

In conclusion, let us once again return to the formula of the real economic growth. The deflator index is inversely proportional to the growth rate. What is the meaning of this correlation? The outcome is obvious. For the sake of the genuine economic recovery of Russia it is necessary to ensure that the purchasing power of the ruble remain stable for at least two five-year periods, to avoid the depreciation of the ruble, to make it an incentive for savings, accumulation and earning for a minimum term of 10 years.

It is just a fantastic requirement for a comprador economic system. And when pseudo-liberals talk about the free market, which is supposedly small, then they become as absurd as the Native Americans with their wild notions that glass beads are more expensive than first-class gold. What kind of commodity-money circulation can we talk about, when the purchasing power of the ruble as a medium of exchange, annually falls by 20–30%? Since the early 1990s there has been no basic payment incentive to accumulate and earn money; now there is only one incentive for the majority of people, and it is to get the ruble and immediately spend it in order to avoid inflation losses. And pseudo-liberals, who cannot ensure the stability of the purchasing power of the ruble for at least 10 years, even dare to argue about the market. We will not mention the well-known classical notions that the market is

expanding only along with with the division of labor, that the industrial production of tools, machinery and equipment is the most important in the division of labor, and the comprador economic system has eliminated this link, having ruined its own manufacturing industry and the production of machine means of production, i.e. group "A". As a result, the division of labor, the capacity of the domestic market, and the purchasing power of the ruble are cut off.

History has never known such a fact that the transition to the market was implemented through the elimination of commodity production and national currency. In our opinion, it is high time to end all speculations concerning the market and free competition.

The system-wide crisis in Russia requires a change of economic system: instead of a comprador and unplanned system we need a sovereign and planned system. It is the only way to get a neo-industrial economic model that ensures the success of the new industrialization of our national economy. And we must act quickly, because time is ticking away.

Accordingly, the main strategic priority is to replace the oligarchic-comprador and decentralized economic system by the state-corporate and centralized and planned system. In order to implement this cardinal system modernization it is necessary to do the following specific activities:

- nationalization of commanding heights of the economy: land, fuel and energy and mining complex, infrastructure monopolies, foreign trade, banking sphere;

- vertical integration of ownership of mining and manufacturing industries and applied science within the national inter-industry corporations, specialized in the production of innovative and high technology products of final demand;

- formation of a powerful state and corporate sector as the core of the entire Russian economy;

- creation of a new system of national and corporate planning, the target function is the productivity of labor, and which provides coordinated interaction between the state, vertically integrated corporations, and small and medium enterprises for the continuous improvement of the purchasing power of the population, primarily of the working population;

- organization of the financial-banking system based on national plans for domestic accumulation, capital investments and providing loans to industry as well as export-import plan;

- integration of production relations between corporations and enterprises on the principle of the system "just in time";

- transition to the system of wage management and labor productivity on an hourly basis, with reference to the hourly rate of the subsistence minimum, pensions, scholarships, social benefits and payments; the hourly system will connect labor remuneration with the results and labor productivity, and will ultimately enhance the interest of the state and workers in efficient work, encourage them according to the results, rather than costs;

- computerization of payments and settlements, with consequent reduction of

the share of cash circulation; this will make it possible to adjust the measure of labor and consumption, to use progressive taxation, to limit the scope of corruption among civil servants, to raise the level of social justice in society;

- standardization of production capacities, products and technologies, from the products of consumer demand, primarily food products; the abolition of the state standard for consumer products was a strategic mistake, resulting in a dramatically increased mortality due to mass consumption of counterfeits, surrogates, expired, defective and unhealthy food; as long as there are no strict standards, it is necessary to restore the Soviet system of state standards on food and other consumer goods without delay;

- development and implementation of the national plan for neo-industrialization of Russia's productive forces, so that our country would have its own production of critically important high technology, beginning with the production of advanced microprocessors and technetronic engines; it is only the smoothly functioning production of technetronic means of production, and a high-tech automated machine-building complex that will allow our country to achieve technological independence.

We have listed specific measures that are entirely consistent with the strategic priorities of Russia's neo-industrial development.

A state-corporate economic system instead of a comprador economic system; a planned-industrial policy instead of

monetarism; a neo-industrial and vertically integrated model instead of an exporting model – this is how it should be.

Our country has reached a turning point. And the problem is not that the country is in a systemic crisis; the problem is how to set Russia on the right path of development, on the path that ensures the increase of Russia's economic potential, its military and industrial power and makes it work for itself and not for foreign capital. What has to be done and how, what economic system should be the basis – all this has been scientifically substantiated and defined. But the system-wide change is not made easily.

Accordingly, it is necessary for our society to understand, consolidate and support the sovereign and planned economic system. We can find the right way only if the majority acts together. If only one person goes along the right way, then it will result in the increasing split in the society. Meanwhile, we need social consolidation, and it involves a clear understanding of who is pushing the country forward, and who is pulling it back under the guise of progress, and also in whose interests the ideas and suggestions work.

It is only the neo-industrial development that can lead Russia forward, to the progress, but it is possible to go this way only through the sovereign ownership of the commanding heights of the economy. Based on them, our people survived and won the Great Patriotic War; based on them, we will surely reach new achievements and victories in the modern world.

A new stage of Russian history: trends, specifics and prospects



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Abstract. The article discusses the trends and specifics of public sentiment in Russia in the 1990s–2010s; it analyzes key events of the recent years that led to the understanding of the present stage of social development as a new era of the post-Soviet period.

The authors consider the interaction between the society and authorities, the role of scientific knowledge in the improvement of public administration efficiency, the development civil society, and also several promising opportunities and current issues of social science.

The article presents the experience of sociological research carried out by ISEDT RAS at the regional level.

The authors discuss key factors that determine the efficiency of interaction between the society and authorities and the success of Russia's further development.

Key words: society, authorities, public administration, sociological knowledge, public opinion monitoring, post-Soviet period.

G.V. Osipov in the article headlined “Do not miss this chance!” published in the annual report “Sociology and economics of the current social reality. Social and socio-political situation in Russia in 2013” by ISPR RAS writes that, after a long, almost 15-year period of waiting, a “new, resurgent” Russia has finally made its transition to a new age – “bright and life-asserting”¹.

What are qualitative differences of this new era from previous periods of post-Soviet history? What are its fundamental characteristics? Can we still speak of a “new phase” in the life of Russia, or the social trends that have emerged in recent years are only a temporary transformation forced by the intricacies of geopolitical events?

Of course, these and many other questions present not only scientific, but also practical, interest, because leading scientists, including Russian researchers (G.V. Osipov, A.V. Yurevich, M.K. Gorshkov, J.T. Toshchenko, etc.), point out that currently economic growth and prosperity of any state depend to a great extent on intangible factors connected with public consciousness, attitude and behavior. It is the subjective factor that “plays a significant and increasingly important role among the factors that determine the content and direction of the changes in the world and

in our country”². It is especially important for Russia, on the background of emotional elation following the events of 2014, and on the eve of the 70th anniversary of the Victory in the Great Patriotic War.

Along with the development of the world civilization and new achievements in science and technology the role of non-economic factors becomes more and more significant, and this process will obviously continue in the future. Accordingly, the issues that we outline in the beginning of the article, eventually, lead to, perhaps, the main and purely practical question: if we are talking about a “new stage” in the life of Russia, then what will determine the success of this stage and a smooth and efficient transition to the next stage?

To answer this question, we need to find out when a “new phase” of post-Soviet Russian history began. But first let us make two methodological digressions, which, in our opinion, are essential for the proper understanding of the author’s viewpoint and explanation of the information base on which we form our conclusions and hypotheses.

First, we specify that there is no and cannot be any clear date or exact time period of the “new stage” of Russian history. We are talking about the trends in social consciousness, and they are not formed simultaneously. Certain circumstances that will be explained further and various events in the life of the

¹ Osipov G.V. Ne upustit' predostavivshiisya shans! [Do not Miss This Chance!]. *Sotsiologiya i ekonomika sovremennoi sotsial'noi real'nosti. Sotsial'naya i sotsial'no-politicheskaya situatsiya v Rossii v 2013 godu* [Sociology and Economics of the Current Social Reality. Social and Socio-Political Situation in Russia in 2013]. Moscow: ISPI RAN. P. 17.

² Toshchenko J.T. *Sotsial'noe nastroyenie – fenomen sotsiologicheskoi teorii i praktiki* [Social Mood – a Phenomenon of Sociological Theory and Practice]. *SOTSIS* [Sociological Studies], 1998, no. 1, p. 32.

country form a new phase exclusively in their entirety, providing a complex effect on the transformation of social consciousness and behavior. This can take years, and sometimes even decades.

Second, the article uses the results of opinion polls carried out at the federal and regional levels. These results, rather than official statistics, reflect the trends in public sentiment. The dynamics of public opinion nationwide was analyzed with the use of the research findings of VTSIOM and Levada-Center, the leading Russian centers. We characterized public sentiment in a particular region on the basis of the results of a sociological monitoring carried out by the Institute of Socio-Economic Development of Territories of RAS (ISEDT RAS) since 1996³. Under the current Russian conditions characterized by a deep and complex differentiation of territories by level and quality of life of the population, cultural specifics, etc., we believe it is extremely important to analyze the dynamics of public opinion at the federal and regional levels simultaneously. It makes the research itself systemic in nature, and

³ The public opinion monitoring is carried out by ISEDT RAS in the Vologda Oblast since 1996 once every two months. The volume of a sample population is 1500 people aged 18 and older in the cities of Vologda and Cherepovets, and in eight districts of the Vologda Oblast (Babayevsky District, Velikoustyugsky District, Vozhegodsky District, Gryazovetsky District, Kirillovsky District, Nikolsky District, Tarnogsky District and Sheksninsky District. The representativeness of the sample is ensured by the observance of the proportions between the urban and rural population, the proportions between the inhabitants of settlements of various types (rural communities, small and medium-sized cities), age and sex structure of the oblast's adult population. The method of the survey is a questionnaire poll by place of residence of respondents. Sampling error does not exceed 3%.

the conclusions made according to the research results are more comprehensive and accurate.

The methodology of sociological research conducted by ISEDT RAS meets all the requirements that are necessary for obtaining quality and timely sociological data on public opinion trends in the Vologda Oblast. This, in particular, is proved by close cooperation between the Institute and the state authorities that show a growing interest in the opinions of the Oblast residents. The research has been carried out in the monitoring mode for nearly 20 years, with an emphasis on dynamic changes of perception of social reality by representatives of different socio-demographic categories of the Vologda Oblast population⁴. This allows us to speak with confidence about the unique opportunities for studying transformation processes in the regional community, comparing them with dynamic changes in the Russian society, which are recognized by leading scientific institutions of the country⁵.

⁴ The public opinion monitoring carried out by ISEDT RAS provides the data on more than 20 socio-demographic categories of the population, divided, in particular, by gender (men, women); age (under 30, 30–55, over 55), educational level (secondary and incomplete secondary, secondary vocational, higher and incomplete higher), assessment of one's own income (20% of the poorest people, 60% of the people with middle-sized income, 20% of the most prosperous people), the area of residence (8 districts and 2 cities), and also by marital status, occupation, etc.

⁵ Taking this opportunity, we would like to express our gratitude to the research team of ISPR RAS and personally to G.V. Osipov for their help and guidance not only in creating the system of sociological research of ISEDT RAS, which is still in demand and continues to develop, but also in the formation of Russian social science in the Vologda land.

So, when has a new phase of Russian history started? What events have allowed us to speak about a new era of the post-Soviet period?

G.V. Osipov points out: “Until the spring of 2014 the Russian Federation has only formally entered the twenty-first century. In reality, from a geopolitical perspective, we were still in the twentieth century”⁶. Indeed, for Russia 2014 became a year that was rich in events, and, perhaps, one of the most crucial periods in the entire 20-year post-Soviet history. The events of 2014, the most important of which, no doubt, is the accession of Crimea and Sevastopol to the Russian Federation, have shown that “identity with the Russians that involves the identification of oneself with the country and its people and that is in the basis of the Russian civilizational project has been deeply rooted and has become widespread in the minds of the population, although it was in a “sleep”, latent state”⁷.

The speech of the President of the Russian Federation in Munich on February 10, 2007 became one of the first crucial events that led to a new stage in the life of the Russian society and laid its foundation. Vladimir Putin’s speech became the

⁶ Osipov G.V. Ne upustit’ predostavivshiysya shans! [Do not Miss This Chance!]. *Sotsiologiya i ekonomika sovremennoi sotsial’noi real’nosti. Sotsial’naya i sotsial’no-politicheskaya situatsiya v Rossii v 2013 godu* [Sociology and Economics of the Current Social Reality. Social and Socio-Political Situation in Russia in 2013]. Moscow: ISPI RAN. P. 17.

⁷ Gorshkov M.K. “Russkaya mechta”: opyt sotsiologicheskogo izmereniya [A “Russian Dream”: the Experience of Sociological Assessment]. *Sotsiologicheskie issledovaniya* [Sociological Studies], 2012, no. 12, p. 10.

“prologue to the launch of Russia’s independent foreign policy resulted in the Syrian triumph, when Russia for the first time in recent history managed to stop the aggression of the world leader, the United States, against a sovereign country”⁸.

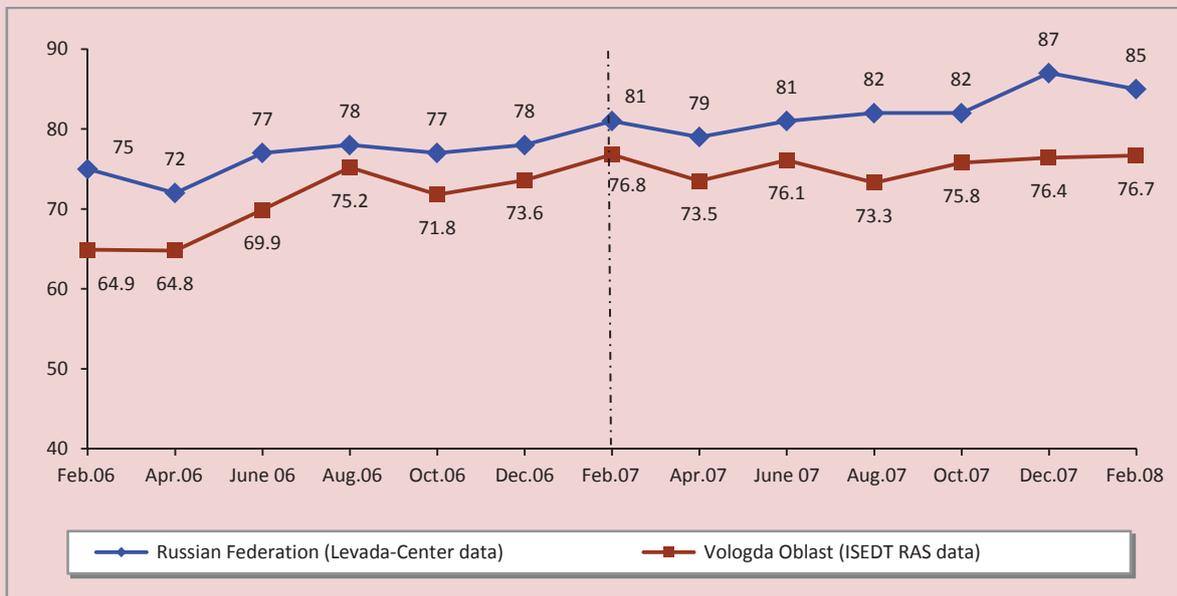
Russian President’s speech in Munich can, without exaggeration, be called historic. “Never before in the past decades has the Russian leader made such a clear and adamant statement concerning the image of the future in international politics. All the previous statements on this subject were very ambiguous. This time, President Vladimir Putin not just commented on the current events or voiced Russia’s opinion on some issue; he demonstrated the will of Russia as a global geopolitical power to participate in shaping the future world order”⁹.

Vladimir Putin’s Munich Speech laid the foundation of the national idea, which is, perhaps, the main characteristic of the new, modern stage in the life of the country. At that time, however, the Russians did not fully perceived and realized the conceptual character of the RF President’s speech,

⁸ Stepanov A.D. Rossiya i mir vstupayut v novuyu epokhu, v kotoroi ot nashei strany budet zaviset’ mnogoe [Russia and the World are Entering a New Era in Which a Lot will Depend on Our Country]. *Informatsionno-analiticheskaya sluzhba “Russkaya narodnaya liniya”* [Information-Analytical Service “Russian National Line”]. Available at: http://ruskline.ru/news_rl/2013/09/20/valdajskaya_rech_putina

⁹ Dugin A.G. *Ekho “myunkhenskoi rechi”*. *Prezident Putin vstupil na put’ geopoliticheskoi revolyutsii* [Echo of the Munich Speech. President Putin has Embarked on the Path of Geopolitical Revolution]. Available at: <http://oko-planet.su/politik/politikrus/230532-aleksandr-dugin-eho-myunkhenskoy-rechi-prezident-putin-vstupil-na-put-geopoliticheskoy-revolyuicii.html>

Figure 1. Dynamics of the level of approval of the performance of the President of the Russian Federation by the residents of the Russian Federation and the Vologda Oblast (% of the number of respondents)*



* The graph presents the data for the periods: January 2006 – February 2007 and February 2007 – February 2008, i.e. for the 6 surveys before and after Vladimir Putin's Munich Speech.

since after that there were no significant changes in the dynamics of public opinion on the performance of the President. This was partly due to the fact that in May 2008 Dmitry Medvedev assumed office; besides, for the majority of the population the essence of Vladimir Putin's Munich Speech was obscured by the onset of the global financial crisis. Anyway, we did not observe any steady and sharp increase of support to V. Putin after February 2007 either at the federal or at the regional level (*fig. 1*).

We cannot say that the starting point of the “new stage” is the beginning of Vladimir Putin's third presidential term, which was marked by a series of the May decrees, the very idea of which was certainly perceived

with optimism by the population, because the decrees dealt with the most pressing social and economic problems. After Vladimir Putin was elected President, Russia was still waiting for the new century, and was consolidating its efforts to speed up this process¹⁰.

People were waiting for the beginning of V. Putin's third presidential term. Perhaps, many of them were waiting for this since the end of his second presidential

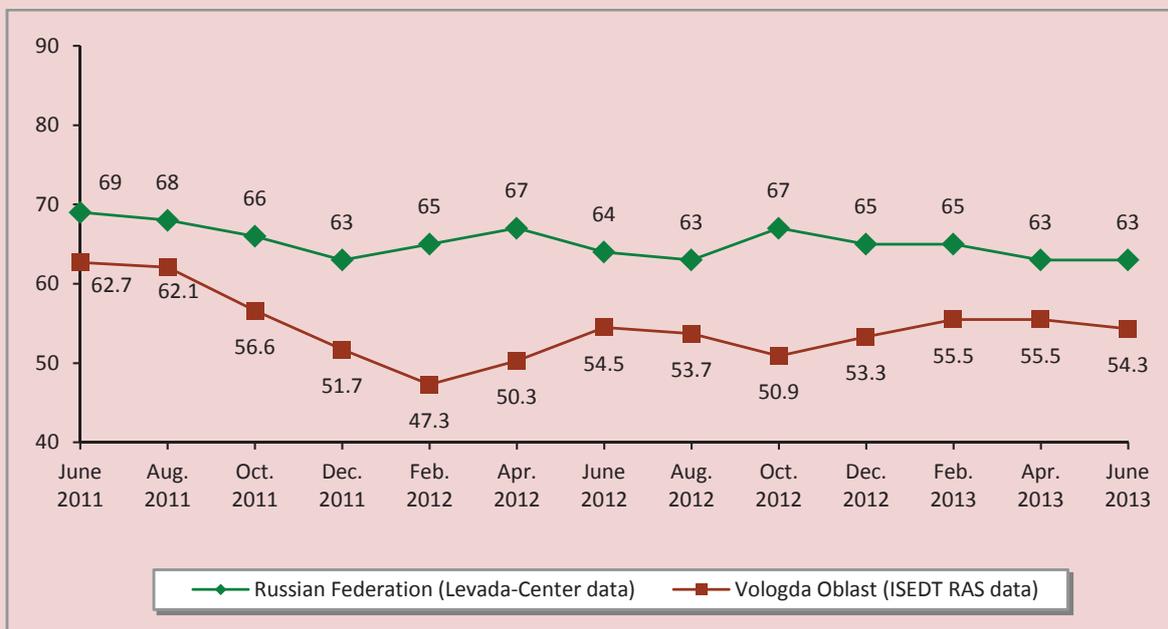
¹⁰ Osipov G.V. Ne upustit' predostavivshiisya shans! [Do not Miss This Chance!]. *Sotsiologiya i ekonomika sovremennoi sotsial'noi real'nosti. Sotsial'naya i sotsial'no-politicheskaya situatsiya v Rossii v 2013 godu* [Sociology and Economics of the Current Social Reality. Social and Socio-Political Situation in Russia in 2013]. Moscow: ISPI RAN. P. 17.

term; and the closer this point came, the stronger became the hopes of the society for significant, actual improvement of financial welfare and functioning of the social sphere. But, it turned out that the implementation of the President’s May decrees did not bring the effect desired; there emerged certain problems that have not been solved yet. For various reasons (which are all well-known and in the present context do not have to be explained) the hopes of the Russians for the country’s step forward once again were reduced to the question of how efficiently or inefficiently the problems existing in the country are solved. As a result, any upsurge of emotional state, or growth of people’s

support to the President were out of the question at the federal and regional level, after the presidential election (March 4, 2012) and the inauguration of the President of the Russian Federation (May 7, 2012) (fig. 2).

V.V. Putin’s speech at the meeting of the Valdai International Discussion Club on September 19, 2013, which was a logical continuation of his Munich Speech, became, perhaps, the key event for the “new stage” in the life of the country. The President of the Russian Federation in this very speech formulated an ideological paradigm of development, which the state is planning to follow: “It is evident

Figure 2. Dynamics of the level of approval of the performance of the President of the Russian Federation by the residents of the Russian Federation and the Vologda Oblast (% of the number of respondents)



* The graph presents the data for the periods: June 2011 – June 2012 and June 2012 – June 2013, i.e. for the six surveys before and after Vladimir Putin’s Munich Speech.

that it is impossible to move forward without spiritual, cultural and national self-determination. Without this we will not be able to withstand internal and external challenges, nor we will succeed in global competitions”¹¹.

How was Vladimir Putin’s Valdai Speech perceived in the society? It was viewed as “the first large-scale attempt by the Russian authorities to formulate a new political ideology for Russia after the collapse of the Soviet Union, and also as an attempt to consider in a critical way the values that should lie at the foundation of the new Russian identity, Eurasian world and international relations”¹². The President has proved himself as “the heir to the Russian conservative political tradition”¹³ and “the critic of the entire current model of development of Western civilization”¹⁴.

¹¹ Putin V.V. *Rech’ na zasedanii mezhdunarodnogo diskussionnogo kluba “Valdai” 19 sentyabrya 2013 g.* [Vladimir Putin’s Speech at the Session of the Valdai International Discussion Club, September 19, 2013]. Available at: <http://www.kremlin.ru/events/president/news/19243>

¹² Makhmudov R. *Valdaiskaya rech’ Vladimira Putina: kriticheskii analiz* [Vladimir Putin’s Valdai Speech: a Critical Analysis]. *Informatsionnyi portal* <http://www.12news.uz/> [Information Portal <http://www.12news.uz/>]. Available at: <http://www.12news.uz/news/2013/09/30/валдайска-речь-владимира-путина-кри/>

¹³ Stepanov A.D. *Rossiya i mir vstupayut v novuyu epokhu, v kotoroi ot nashei strany budet zaviset’ mnogoe* [Russia and the World are Entering a New Era in Which a Lot will Depend on Our Country]. *Informatsionno-analiticheskaya sluzhba “Russkaya narodnaya liniya”* [Information-Analytical Service “Russian National Line”]. Available at: http://ruskline.ru/news_rl/2013/09/20/valdajskaya_rech_putina

¹⁴ Akopov P.E. *Valdai posle Myunkhena* [Valdai after Munich]. *Gazeta “Vzglyad”* [Newspaper “Outlook”], September 20, 2013. Available at: <http://vz.ru/politics/2013/9/20/651345.html>

Moreover, the conceptual nature of the President’s Valdai Speech was pointed out not only in Russia but also abroad (“Putin delivered his speech not in the Parliament of the Russian Federation, not in front of politicians and not on TV, but at the meeting of the Valdai Club, where the goal is to improve Russia’s image in the international arena”¹⁵).

However, despite the conceptual importance of the President’s theses, they will never become a turning point for the country until they resonate with the hearts and minds of the people or at least the most representative socio-demographic groups. Perhaps, this could happen in the Soviet period¹⁶, but at present the population actively participates in the interaction between the authorities and society (one of the few positive “legacies” of the post-Soviet period). Vladimir Putin’s Munich Speech is an excellent proof that if the society is worried about economic problems, then ideology fades into the background.

The scientific and political community immediately noted the conceptual character of Vladimir Putin’s Valdai Speech.

¹⁵ *Avtory “Pereloma” komentiruyut valdaiskuyu rech’ Putina* [The Authors of *The Breaking Point* Comment on Vladimir Putin’s Valdai Speech]. Available at: <http://www.rodon.org/society-131007122213>

¹⁶ In particular, commenting upon Vladimir Putin’s Valdai Speech, V. Tretyakov, one of the authors of the book “The breaking point”, said: “The President’s speech is not a report of the General Secretary of the CPSU. In the Soviet times each such report was seen as a crucial document, the work of the party and the life of the country were “adjusted” to suit the report. But currently we have democracy, which, however, is more like anarchy”. Available at: <http://www.rodon.org/society-131007122213>

Figure 3. Dynamics of the level of approval of the performance of the President of the Russian Federation by the residents of the Russian Federation and the Vologda Oblast (% of the number of respondents)



* The graph presents the data for the periods: October 2012 – October 2013 and October 2013 – October 2014, i.e. for six surveys before and after the Valdai Speech of Vladimir Putin.

As for the Russian society in general, it required some time to realize it; and a sequence of events in 2014 (Olympic Games, Ukrainian crisis) served as a “catalyst” for this realization. This is evident in the dynamics of public attitudes toward the performance of the President of the Russian Federation (*fig. 3*). Nevertheless, the essence of the “new stage” of Russia’s history and its foundation were laid in September 2013.

It is noteworthy that the rates of positive trends in the approval of the President have significantly increased after September 2013 in all socio-demographic categories of the population.

For the period from October 2012 to October 2013, i.e. for twelve months before Vladimir Putin’s Valdai Speech, the maximum growth of the level of approval of the President’s performance amounted to ten percentage points (this was noted only among the poorest 20% of the Oblast residents). Positive changes were noted in 7 out of 14 categories of the population¹⁷, while positive dynamics was absent in 7 categories.

For the period from October 2013 to October 2014, after the RF President

¹⁷ In accordance with the methodology of the study, the sampling error does not exceed 3%, so that changes by less than 3 percentage points was not taken into account.

Table 1. Dynamics of the level of approval of the performance of the President of the Russian Federation in different socio-demographic categories of the Vologda Oblast population (in % of the number of respondents)

Category of population	Oct. 12	Dec. 12	Feb. 13	Apr. 13	June 13	Aug. 13	Oct. 13	Dec. 13	Feb. 14	Apr. 14	June 14	Aug. 14	Oct. 14	Dynamics (+ / -)	
														Oct. 13 to Oct. 12	Oct. 14 to Oct. 13
<i>Sex</i>															
Men	47.7	49.2	53.1	54.3	53.5	53.1	48.1	52.5	55.4	58.7	65.5	63.4	62.9	0	+15
Women	53.4	56.6	57.5	56.5	54.9	56.8	59.3	61.1	56.6	66.1	67.5	68.8	69.9	+6	+11
<i>Age</i>															
Under 30	50.8	50.1	55.6	56.6	48.1	50.9	53.4	52.7	53.0	61.1	63.4	68.8	67.9	+3	+15
30–55	48.2	54.3	53.0	53.5	57.7	57.3	54.1	56.5	54.9	62.4	67.3	61.8	67.3	+6	+13
Over 55	55.1	54.5	59.5	57.9	53.6	55.1	55.1	61.6	59.8	64.7	67.7	71.4	65.5	0	+10
<i>Education</i>															
Incomplete secondary, secondary	47.1	44.2	52.0	50.1	51.6	51.1	47.5	55.8	51.9	58.1	60.0	60.0	56.2	0	+9
Secondary vocational	51.8	54.8	55.9	57.1	55.2	54.2	54.3	58.1	58.0	62.1	68.6	68.7	72.4	+3	+18
Incomplete higher, higher	53.5	59.9	58.6	59.7	56.3	60.1	61.4	58.2	58.8	69.2	72.0	70.6	73.1	+8	+12
<i>Income groups</i>															
20% of the poorest people	40.7	36.6	40.9	43.4	52.8	47.0	50.7	62.7	46.1	48.9	54.6	59.7	57.3	+10	+7
60% of the people with middle-sized income	53.0	55.1	59.2	58.2	53.9	54.3	54.4	56.4	57.9	64.4	69.4	67.0	69.0	+1	+15
20% of the most prosperous people	59.3	66.0	63.9	64.9	60.8	66.7	60.8	64.6	69.4	72.6	77.7	78.0	76.8	+2	+16
<i>Territories</i>															
Vologda	54.0	53.4	51.5	54.7	51.1	54.1	52.7	55.2	53.1	61.0	66.6	65.3	65.2	-1	+13
Cherepovets	61.5	63.2	64.1	61.4	65.3	62.8	63.8	65.0	66.8	73.2	74.4	77.8	81.3	+2	+18
Districts	44.3	48.3	53.1	52.8	49.9	51.5	49.8	54.1	51.8	58.1	62.3	60.7	59.8	+6	+10
<i>Average for the Oblast</i>	<i>50.9</i>	<i>53.3</i>	<i>55.5</i>	<i>55.5</i>	<i>54.3</i>	<i>55.1</i>	<i>54.3</i>	<i>57.3</i>	<i>56.1</i>	<i>62.8</i>	<i>66.6</i>	<i>66.4</i>	<i>66.8</i>	<i>+3</i>	<i>+13</i>

delivered his speech at the meeting of the Valdai International Discussion Club, the maximum increase in the approval of V. Putin's performance was 18 percentage points (among the persons with secondary vocational education and the residents of Cherepovets). Obvious positive changes were noted in all the socio-demographic groups. In 10 out of the 14 groups the support to the head of state increased by more than 10 percentage points (*tab. 1*).

It is important to point out objective circumstances, which predetermined that Putin's Valdai Speech would become, if not the beginning, then, at least, one of the most important events in the formation of a new phase of the Russian history. For the first time it was the time factor, which, as it turned out, decides if not everything, but, at least, very much: if the 2007 Munich Speech of the President of the Russian Federation was followed by

the global financial crisis, then after his Valdai Speech public attention was focused on the Olympic Games, the accession of Crimea and Sevastopol to Russia, the oppression of Russian-speaking population in Ukraine; and even the policy pursued by the U.S. and its supporting countries fit perfectly into the vision of the world order that was outlined by President Putin in September 2013.

The idea of the revival of the “Russian world” and restoration of Russia’s status as one of the main centers of a multipolar world order has found considerable support in the Russian society, and not only because the President’s Valdai Speech was followed by events which brought together various strata of the population, and united people with different opinions around the figure of the head of state. No less it was affected by the past Russian history, namely:

a) the fact of existence of the Soviet Union;

b) the fact of its collapse, followed by a period of the “turbulent 1990s”;

c) the fact of a nearly 10-year period (2000–2010), when the society was recovering after the radical break of ideological direction of development and socio-economic transformations.

The Soviet Union provided the modern Russian society with the memories of social protection mechanisms of the state that were actually working, with the outstanding achievements in science, sport and art. Indeed, it is not a coincidence that even nowadays the most important movies for an average Russian remain those that belong

to the Soviet (not Russian) cinema; they have even become part of national holidays.

The Soviet Union gave the modern Russian society an opportunity to compare two completely different periods, and the choice of the Russians is more and more often not in favor of the post-Soviet Russia¹⁸.

The 1990s have shown that the Western democracy is alien to the Russian people and unacceptable for them. The same can be also said about the values of the Western world and its form of government.

Although it seems that the period of 2000–2010 has not brought such large-scale transformations into the Russian history as the previous eras, it was, in fact, also very important. It provided the Russian society with an opportunity to adapt to changing conditions, to understand them, to realize what the people really want, and, finally, to accumulate the critical mass in anticipation of change and in the willingness to revise the established (or, rather, not established) system of values.

¹⁸ Although this has its disadvantage: if the changes that took place in the 1990s would provide the Russian society with the best specimens of the Western experience to solve social problems, rather than what has ultimately happened, then perhaps today the Russians would have a broader view of the events – when assessing the existing state of affairs in the country and their lives, they would make comparisons not only by looking back, but by looking around, i.e. not only along the line of “USSR – Russia”, but also along the line “Russia – Europe”. Is this the fault of the reformers of the 1990s? Or was the collapse of the USSR one of the goals of the United States? Or both? It does not matter in the context of this article. We would like to emphasize the fact that today, an average Russian assessing his/her life will surely add: “It used to be different” and under that “used to be” he/she will mean exclusively the Soviet period.

The stabilization of the political and economic situation in the country, growth of the standard of living, termination of disastrous trends in the demographic situation – all this has blocked the acute problems that threaten national security (we do not use the word “solved”, but “blocked the acuteness”). The satisfaction of vital needs was followed by the growth of the needs of a higher level: better quality of life, social justice, national identity, confidence in the future.

Thus, the three above-mentioned circumstances and the three periods in the history of post-Soviet Russia have led to the fact that by the late 2000s the Russian society has formed the needs for the following:

- a) strong state power;
- b) the feeling of pride for Russia;
- b) intangible, spiritual values.

It is the mechanism of implementation of these three kinds of needs that was outlined in Vladimir Putin’s Valdai Speech.

Therefore, we can and must speak of a new stage in the Russian history. It has its own specific characteristics that distinguish it from other stages of the post-Soviet period. The question is how long it will last and what it eventually will lead to... The new stage in the Russian history has its own distinctive features.

1. Strong state power.

Studying the specifics of “Russian dream”, the specialists at the Institute of Sociology of the Russian Academy of Sciences have come to the conclusion that an ideal model of state structure, in the opinion of the Russians, is based on three

“pillars”: social justice, equal rights for all, and the strong state that cares about its citizens¹⁹.

Several scientists (Yu.V. Kosov, A.L. Andreev, and others) believe that the tendency toward authoritarian leadership style is a feature of the Russian mentality. In part we agree with that. Historically Russia has always gravitated toward autocracy; in this regard, the very institution of the presidency possesses an element of tradition, being in this way somewhat similar to the monarchic form of government. Due to this feature, the Russian system of government differs from Oriental despotism, or Western democracy²⁰. Moreover, the political consciousness of the people attaches the prime importance not to how the country is governed, but to the leader it is governed by. In other words, it is not the leader that fits into the system, but it is the system that adapts to the leader. Such Russian system of democracy does not resemble that of Washington or Berlin; but, ironic as it might be, it is the only effective and actually working institute for modern Russia²¹.

¹⁹ Gorshkov M.K. “Russkaya mecha”: opyt sotsiologicheskogo izmereniya [A “Russian Dream”: the Experience of Sociological Assessment]. *Sotsiologicheskie issledovaniya* [Sociological Studies], 2012, no. 12, p. 7.

²⁰ Zuikov A.V. Institut prezidentstva v Rossii: konstitutsionnaya model’, sovremennye realii i perspektivy razvitiya [The Institution of the Presidency in Russia: the Constitutional Model, Current Realities and Prospects]. *Konstitutsionnyi vestnik* [Constitutional Herald], 2008, no. 1(19), p. 171.

²¹ Tret’yakov V.T. *Doklad na kruglom stole “Institut prezidentstva v Rossii: pravovye osnovy i rol’ v modernizatsii obshchestva” 8 iyunya 2011 g.* [The Round Table Report “The Institution of the Presidency in Russia: Legal Basis and Role in the Modernization of Society”, June 8, 2011]. Available at: <http://education.law-books.ru/index.php?page=kruglyj-stol>

We can have long discussions about the separation of powers, dwelling on the peculiarities of their mutual deterrence and balance, but we will always keep in mind that our country has a constitutional institution, which stands above these democratic “games” and, in fact, defines the vector of development of modern Russia²².

Opinion polls carried out by ISEDT RAS clearly demonstrate that mental specifics of the Russian society that are expressed in high level of trust in the institutions “traditional” for Russian mentality – the government and the Church (primarily, the head of state), has not disappeared over the past 15 years.

In this respect, the personality of Vladimir Putin, no doubt, plays an important role in the attitude of the population toward the head of state (judging by the decrease in the level of trust in the President during the period when this post was held by Dmitry Medvedev, from May 2008 to May 2012; *tab. 2*), but even at this time people’s trust in the President was higher than in all other state and public institutions.

Mentality is one, but not the only reason why the Russian society favors a strong state power. As a feature of a new stage in the Russian history, it originated due to, let us put it mildly, certain unsuccessful actions of Russian reformers in the 1990s.

²² Sil’vestrov S.N. *Doklad na kruglom stole “Institut prezidentstva v Rossii: pravovye osnovy i rol’ v modernizatsii obshchestva” 8 iyunya 2011 g.* [The Round Table Report “The Institution of the Presidency in Russia: Legal Basis and Role in the Modernization of Society”, June 8, 2011]. Available at: <http://education.law-books.ru/index.php?page=kruglyj-stol>

According to some scholars, the assumption that the liberal reforms in the 1990s failed due to mentality-related reasons is absolutely inconsistent; it is proved by the experience of Japan, South Korea, China, Taiwan, Malaysia and other Asian, South American and some African countries²³. Peoples of different cultures and mentalities demonstrate outstanding achievements in economy. Therefore, it is of crucial importance that the specifics of national mentality are not an obstacle to achieving socio-economic progress²⁴.

The discrediting of democracy and the creation of actual prerequisites for authoritarianism are the main socio-political results of the activities of the Russian reformers²⁵. The process democratization that was launched on unprepared foundations, caused, as was to be expected judging by the past experience of several countries, sharp disparities in all the spheres of the society. In these circumstances the principle of “everything

²³ Simonyan R.Kh. *Est’ li osobyi “russkii put’”? (polemicheskie zametki)* [Is There a Special “Russian Way”? (Polemical Notes)]. *Sotsis* [Sociological Studies], 2013, no. 7, p.139.

²⁴ Yadov V.A. *Sovremennaya teoreticheskaya sotsiologiya kak kontseptual’naya baza issledovaniya rossiiskikh transformatsii: Kurs lektsii dlya studentov magistratury po sotsiologii. Izd. vtoroe, ispravl. i dopoln.* [Modern Theoretical Sociology as a Conceptual Framework of the Research on Russian Transformations: a Course of Lectures for Master’s Degree Students in Sociology]. Second edition, revised and supplemented. Saint Petersburg: Intersotsis, 2009. 138 p. Available at: http://www.isras.ru/index.php?page_id=1330&id=1393¶m=http://www.isras.ru/files/File/Publication/Sovremennaya_teoret_sociol_2009_Yadov.pdf

²⁵ Simonyan R.Kh. *Est’ li osobyi “russkii put’”? (polemicheskie zametki)* [Is There a Special “Russian Way”? (Polemical Notes)]. *Sotsis* [Sociological Studies], 2013, no. 7, p. 143.

Table 2. Level of trust in the state and public institutions (in % of the number of respondents)*

Institution	2000	2003	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	Average for 2000–2014
RF President	57.1	64.3	57.7	62.0	60.3	65.2	51.6	56.8	50.5	45.7	47.0	57.0	56.3
RF Government	42.7	42.7	38.0	42.1	41.9	60.2	46.7	52.4	47.4	39.6	40.4	48.3	45.2
Federation Council	28.3	34.9	30.4	34.3	34.9	47.6	35.9	38.1	35.5	32.3	34.6	40.2	35.6
State Duma	23.0	27.9	27.1	27.9	29.5	42.0	33.5	33.5	32.0	30.5	31.6	35.2	31.1
RF Public Chamber**	n.a.	27.3	27.3	28.1	29.9	32.8	29.1						
Vologda Oblast Government	31.3	31.9	32.8	37.7	40.6	48.6	34.9	41.0	36.6	34.6	37.8	37.4	37.1
Local Government**	n.a.	n.a.	n.a.	26.6	32.3	40.9	33.1	35.6	33.9	29.3	32.7	35.1	33.3
Vologda Oblast Public Chamber**	n.a.	24.8	25.7	25.4	29.2	29.4	26.9						
Police	27.2	25.7	27.1	29.0	28.3	36.5	33.1	32.7	32.1	29.3	33.7	35.4	30.8
Federal Security Service	34.2	34.9	35.6	35.3	34.2	43.8	34.3	36.0	35.8	33.2	37.5	36.4	35.9
Court	31.6	31.3	36.9	35.5	32.1	41.3	35.1	37.4	35.8	36.1	39.3	36.9	35.8
Procuracy	30.9	28.8	34.3	33.3	31.1	40.9	34.8	36.1	35.4	33.9	40.1	38.5	34.8
Army	37.0	30.9	25.9	29.6	28.7	37.8	33.5	34.5	34.1	31.3	37.5	37.8	33.2
Trade Unions	28.4	24.7	27.9	27.4	28.6	35.9	28.1	29.9	30.0	25.6	27.8	26.6	28.4
Church	42.3	45.9	46.5	42.9	44.8	51.9	44.9	47.0	47.5	41.4	43.9	44.7	45.3
Public organizations**	n.a.	n.a.	n.a.	20.0	24.4	32.6	23.8	26.7	26.7	26.5	26.8	25.5	25.9
Political parties, movements	20.4	10.6	17.4	16.0	17.8	17.6	26.8	20.0	22.8	22.8	20.9	20.2	19.4
Mass Media	30.2	21.6	27.3	30.4	31.0	27.5	35.2	28.7	29.2	28.7	29.5	28.0	28.9
Directors, CEOs	19.6	24.1	23.6	26.5	23.6	30.5	22.5	22.8	22.3	25.1	27.5	21.9	24.2
Banks, entrepreneurs	12.4	19.5	20.6	22.6	21.3	26.6	20.3	21.5	20.4	21.3	23.4	18.8	20.7

* Ranked according to the average value for 2000–2014.
** The answer options “RF Public Chamber” and “Vologda Oblast Public Chamber” are included in the survey since 2010; The answer options “local government” and “public organizations” – since 2006.

which is not forbidden by law is allowed” has played the same role, as it had played in the French Revolution. The state did not have a sufficient legal framework to prevent the surge of corruption and domestic crime²⁶.

²⁶ Kalina F.V., Kurskova G.Yu. Sotsiologiya zakonodatel'stva i pravotvorcheskii protsess [Sociology of Law and the Law-Making Process]. *Yurisprudentsiya* [Jurisprudence], 2003, no. 1. Available at: http://pravorggu.ru/2004_2/15kalina-kurskova-sotsiologiya_zakonodatelstva_13.shtml

The fact that liberal forces do not gain much support in public opinion is clearly evidenced in the results of sociological surveys (studying the electoral preferences of the population), and official statistics (the results of elections after 2000). According to VTSIOM, the proportion of Russians who support right-wing parties (“Yabloko”, “Soyuz pravykh sil” (The Union of Right Forces)), since 2000 has not exceed 7% and 9%, respectively, and

Table 3. How successfully, in your opinion, does the President of the Russian Federation cope with the following problems..? (in % of the number of respondents)

Indicator	2000	2003	2005	2007	2008	2009	2010	2011	2012	2013	2014	Dynamics, 2014 +/- to	
												2000	2013
<i>Strengthening Russia's international standing</i>													
Successful	42.3	44.9	47.9	58.4	55.1	49.5	49.9	46.2	43.1	45.6	50.4	+8	+5
Unsuccessful	30.9	30.1	33.8	24.9	23.7	30.4	29.3	33.7	37.9	36.2	32.4	+2	-4
<i>Imposing order in the country</i>													
Successful	31.4	37.5	41.9	53.2	48.2	39.1	41.1	36.6	35.4	39.4	48.0	+17	+9
Unsuccessful	49.2	45.1	45.1	34.0	34.2	43.5	42.5	50.0	50.7	47.5	39.1	-10	-8
<i>Protecting democracy and strengthening the citizens' freedoms</i>													
Successful	23.5	29.9	33.6	44.4	39.9	36.7	36.3	32.4	28.8	31.8	37.5	+14	+6
Unsuccessful	43.8	42.4	47.0	37.0	35.9	41.5	42.6	48.3	52.3	51.0	45.4	+2	-6
<i>Economic recovery and increase in the citizens' welfare</i>													
Successful	25.6	29.6	35.1	47.2	36.7	31.6	33.5	30.7	28.5	31.3	34.8	+9	+4
Unsuccessful	52.9	51.4	50.8	39.1	46.0	52.4	51.6	56.1	57.9	56.8	53.4	+1	-3

Source: ISEDТ RAS public opinion monitoring.

since 2005 – only 2%. According to ISEDТ RAS data, the share of the Oblast residents, whose interests are expressed by the party “Yabloko”, for the same period has not exceeded 5%. According to the Central Election Commission of the Russian Federation, at the elections to the State Duma in 2003, 2007 and 2011, the right-wing parties gained less than 4% of votes, and their candidates at the presidential elections in 2000, 2004, 2008 and 2012 gained not more than 8% of votes²⁷.

Thus, the demand for strong power in the Russian society is a logical consequence of “fatigue” that the population feels due to economic instability and distrust in the state. Strong power was needed in the early 2000s, and this remains relevant today as well. It is no coincidence that the activity

²⁷ Data of the Central Election Commission of the Russian Federation. Available at: <http://www.vybory.izbirkom.ru/region/izbirkom>

of President Putin aimed to restore order in the country and strengthen the international position of Russia has always been assessed higher than the defense of democracy and strengthening of civil liberties (*tab. 3*). And it is no coincidence, that one third of the Russians respect Joseph Stalin, although three years ago this attitude was expressed only by 21% of the respondents; 45% of the Russians believe that the sacrifices made by the Soviet people in the Stalin era were justified by the great goals and the results achieved in the shortest possible time (in 2012 there were 25% of those who thought that way); the idea of erecting a monument to Stalin in 2010 was approved by 24% of Russians, and in 2015 – by 37%²⁸.

²⁸ Vse bol'she rossiyan polozhitel'no otnosyatsya k Stalinu [More and More Russians Have a Positive Attitude towards Stalin]. *Vedomosti* [The News], March 30, 2015. Available at: <http://www.vedomosti.ru/politics/articles/2015/03/31/vse-bolshe-rossiyan-polozhitelno-otnosyatsya-k-stalinu-levada-tsentr>

What is the main feature of strong power today? Why do we consider it an attribute of the new stage? Indeed, we all know that strong power and an outstanding leader, and authoritarian (and sometimes even totalitarian) form of government was a common thing in the Russian history.

The reason is that strong power today is not only a single ideological concept at all the levels of public administration, not just a single clear strategy of action, but it is also the unity with public opinion. In other words, strong power can not but pay attention to the needs of the society that made it legitimate. The people begin to play an increasingly prominent role in public and political life. The power of the authorities today has a qualitatively different foundation compared to, for example, the Soviet period or tsarist Russia, and this is a specific sign of a new stage of the post-Soviet history, with which its second and third attributes are closely linked – the effectiveness of public administration and the relevance of intangible factors in development.

2. Public administration efficiency.

At the meeting on the implementation of the decrees of May 7, 2012 the RF President Vladimir Putin outlined the strategy for changes and the target guidelines of state policy to be achieved by 2018. The President pointed out: “The overall objective of this work is to create new and higher standard of living for the citizens of the Russian Federation, primarily by substantially improving the efficiency of public administration and the

state’s performance”²⁹. In his subsequent speeches, the President has shown his commitment to implement the outlined strategy, despite negative processes going on in the global economy and the unstable international political situation.

The goal to enhance the efficiency of public administration is an attribute, which stems directly out of the demand for a strong state power. Its origins come not only from the reforms of the 1990s, but from the period of “stabilization” of the 2000s; these origins include the lingering unresolved key problems of the country: dependence of the Russian economy on raw material resources, lack of competitiveness of domestic producers, high level of population differentiation by income level, low level of development of civil society, etc.

The oligarchic and corrupt power “vertical” created in the 2000s was a major obstacle to successful and closer cooperation between Russia and advanced countries of the West. The activities of this vertical lead to the redistribution of major resources from the groups focused on the modernization of the society to the top that strives for limitless personal enrichment. Under these conditions, the modernization of the Russian society involves not only and not so much the development of new technologies, but the formation of a strong,

²⁹ Putin V.V. Rech’ na soveshchanii o khode ispolneniya ukazov Prezidenta 7 maya 2012 goda [Speech at the Meeting on the Implementation of the Presidential Decrees of May 7, 2012]. *Ofitsial’nyi sait Prezidenta RF* [Official Website of the President of the Russian Federation]. Available at: <http://www.kremlin.ru/news/18039>

competent legal and legitimate authority capable of radical democratization and strengthening of key public institutions³⁰.

However, it would be wrong to say that in all other periods of the Russian history the state did not care about improving the efficiency of management. In different times this care took different forms. The specificity of the present stage consists in the fact that now it is much harder to implement this care, because the society itself participates in the assessment of this work as an active and, perhaps, the principal, subject. 2014 has shown that the state and society in Russia are not opposites, but partners in the common goal of developing their country³¹.

Satisfaction of the population becomes the main sign that shows the performance efficiency of state power. During the “direct line” with the population in April 2013, Vladimir Putin pointed out: “It is necessary to make sure that all the leaders of any rank: in the presidential structures and in the Government feel and understand that ordinary citizens are closely watching the results of our work and give their assessments thereof. It is necessary to be guided by the opinion of the citizens... Our general efficiency and competitiveness, no

³⁰ Materialy IV Vserossiiskogo sotsiologicheskogo kongressa “Sotsiologiya i obshchestvo: global’nye vyzovy i regional’noe razvitiye” [Proceedings of the 4th All-Russian Sociological Congress “Sociology and Society: Global Challenges and Regional Development]. *Ofitsial’nyi sait Rossiiskogo obshchestva sotsiologov* [Official Website of the Russian Society of Sociologists]. Available at: <http://www.ssa-rss.ru/files/File/congress2012/part3.pdf>

³¹ *Doklad o sostoyanii grazhdanskogo obshchestva v Rossiiskoi Federatsii za 2014 god* [Report on the State of Civil Society in the Russian Federation for 2014]. Available at: <http://www.oprf.ru/documents/1151/>

doubt, depends on the degree of people’s trust in the actions of the authorities”³².

The increased role of public opinion in assessing the effectiveness of government is largely associated with the third attribute of the new time – the relevance of intangible factors of development.

3. Relevance of intangible development factors.

After the 20-year period of the post-Soviet Russia and all the twists and turns that the Russian society went through during that time, it is impossible to speak of Russia as a totalitarian country, and of the President of the Russian Federation as the top person of the state, who possesses unlimited power and slights public opinion (this exactly what the Western mass media often try to do). It is not even possible to restore a strict power vertical characteristic of the Soviet period, because “we have abandoned the Soviet ideology, it is impossible to return it”³³, “the post-Soviet stage in the development of Russia, as well as in the development of the whole world, is completed and exhausted”³⁴.

³² Stenogramma “Pryamoi linii” s Prezidentom RF V.V. Putinyom ot 25.04.2013 [Transcript of “Direct Line” with Russian President Vladimir Putin, April 25, 2013]. *Rossiiskaya Gazeta* [Russian Newspaper]. Available at: <http://www.rg.ru/2013/04/25/stenogramma-site.html>

³³ Stenogramma vystupleniya V. Putina na zasedanii mezhdunarodnogo diskussionnogo kluba «Valdai» 19.09.2013 [Transcript of V. Putin’s Speech at the Session of the Valdai International Discussion Club]. *Rossiiskaya gazeta* [Russian Newspaper], September 19, 2013. Available at: <http://www.rg.ru/2013/09/19/stenogramma-site.html>

³⁴ Putin V.V. Rossiya sosredotachaivaetsya — vyzovy, na kotorye my dolzhny otvetit’ [Russia Muscles Up — the Challenges We must Rise to Face] *Izvestiya* [News], January 16, 2012. Available at: <http://izvestia.ru/news/511884>

Vladimir Putin's frequent statements that public opinion today is the main indicator of public administration efficiency; the "direct line" with the President; his meeting with representatives of science, which indicate his interest in their opinion; the relevance of sociological knowledge and, accordingly, the reviving domestic sociology, which "over a short period of time has been developed in all the regions of our country"³⁵; the intensification of various forms of interaction between the representatives of regional and municipal authorities and the population; the increased status of public organizations (Public Chamber, All-Russia People's Front, etc.) – these are the signs of a new time and the evidence that today the society is one of the main subjects that make Russian history.

The desire of the President of the Russian Federation "to change Russia qualitatively, to feel people's mood and support, to be on the same wavelength with these sentiments, to unite them and to make breakthroughs that the society expects of him"³⁶ was one of the motives and prerequisites for the institutional formation of the All-Russia People's Front.

³⁵ Osipov G.V. Vystuplenie na IV Vserossiiskom sotsiologicheskom Kongresse "Sotsiologiya v sisteme nauchnogo upravleniya obshchestvom" 2 fevralya 2012 g. [Speech at the 4th All-Russian Sociological Congress "Sociology in the System of Scientific Management of Society", February 2, 2012]. *Press-reliz IV Vserossiiskogo sotsiologicheskogo kongressa* [Press Release of the 4th All-Russian Sociological Congress]. Available at: http://www.isras.ru/index.php?page_id=1665

³⁶ Migranyan A.M. Narod i lider nashli drug druga [The People and the Leader have Found Each Other]. *Gazeta "Izvestiya"* [The News], June 12, 2013. Available at: <http://izvestia.ru/news/551898>

The relevance of intangible development factors as a feature of a new phase of the post-Soviet Russia consists not only in the consequences of the collapse of the Soviet Union and penetration of Western democratic notions into the system of spiritual and moral values of the Russians. The underlying cause of enhancing the role of public consciousness and behavior in the matters related to the economy and form of government lies in the fact that this is the natural course of evolution. The regime, which is totalitarian in its essence (no matter what name it "hides" behind), cannot manage a complex and highly developed society, unless there are individual circumstances of force majeure, which are often temporary (e.g., war). As the complexity of social relations increases and the progress in science and technology moves forward, the public consciousness of the people also changes and the number and quality of people's questions to the government increases, and this is not a specific feature of Russian society, but, rather, the natural course of human development.

4. National identity.

While analyzing the key attributes of the new stage of Russia's history, we would like to emphasize the fact that due to the growing need for the sense of national pride and the need for national identity, the government has started to solve the problems of a low level of development of civil society and social atomism that were characteristic of the post-Soviet period until 2014.

It is interesting that many elements of civil society in Russia, strange as it may seem, existed in the late Soviet era: we had created huge reserves of social capital; otherwise, millions of people would not have taken to the streets. We had so many elements of civil society in the late authoritarian era: from clubs of amateur singers to Moscow kitchens, Economic and Mathematical School at the Moscow State University since 1968 and so on. Here, those were the places, where social capital was produced³⁷.

Quite a lot has already been said about the problems of civil society and low level of development of social capital after the collapse of the Soviet (E.G. Yasin, V.K. Levashov, A.A. Auzan, R.S. Menyashev, etc.); a lot of studies has been carried out (ISEDT RAS, ISPR RAS, NRU HSE, etc.).

There are many works on the phenomenon of social atomism (S.G. Kara-Murza, V.I. Zhukov and others), which can lead to large-scale consequences: “decreasing the level of self-identification of people to elite groups, corporations, friends, family, reducing their interests to selfish purposes of minor communities weakens the integrity of the society. They cease to be the cells of a single state mechanism. In public opinion the very concepts of “state”, “fatherland” as the ultimate guarantors of sustainable development and satisfaction of the needs

³⁷ Auzan A.A. *Obshchestvennyi dogovor i grazhdanskoe obshchestvo* [Social Contract and Civil Society]. Available at: <http://polit.ru/article/2005/01/11/auzan/>

become worthless, and the citizens no longer feel responsible for their fate”³⁸.

We will not focus on the analysis of these grave consequences of the collapse of the USSR, which were disastrous for the country’s development; however, we consider it important to note that in 2014 there emerged real opportunities to overcome them. The results of sociological research carried out by ISEDT RAS show that in 2014 there was almost a 2-fold increase in the proportion of people who believe that today Russia has “more harmony and cohesion than disagreement and disunity”; the proportion of people who are willing to unite for ideological reasons increased significantly (*tab. 4*).

The trends of overcoming social atomism and growing civil consciousness are the clear evidence of strengthening national identity resulting from the consolidation of the Russian society around the ideas put forward by Vladimir Putin at the Valdai forum in 2013, and “triggered” by the development of the geopolitical situation in 2014. The development of these positive trends, emerging only in 2014, largely determines further success of the country’s moving toward “moral and economic recovery”³⁹.

³⁸ Chuguenko V.M., Bobkova E.M. *Novye tendentsii v issledovanii sotsial'nogo samochuvstviya naseleniya* [New Trends in Research on Social Well-Being of the Population]. *Sotsiologicheskie issledovaniya* [Sociological Studies], 2013, no. 1, p. 23.

³⁹ Osipov G.V. *Ne upustit' predostavivshiisya shans!* [Do not Miss This Chance!]. *Sotsiologiya i ekonomika sovremennoi sotsial'noi real'nosti. Sotsial'naya i sotsial'no-politicheskaya situatsiya v Rossii v 2013 godu* [Sociology and Economics of the Current Social Reality. Social and Socio-Political Situation in Russia in 2013]. Moscow: ISPI RAN. P. 12.

Table 4. Data of the opinion polls showing the overcoming of social atomism and the development of civil society (in % of the number of respondents)*

Indicator	2011	2013	2014	Dynamics (+ / -) 2014	
				to 2013	to 2011
In your opinion, is there more harmony and cohesion or disagreement and disunity today? (in % of the number of respondents)*					
<i>In our country</i>					
More harmony and cohesion	14.2	14.1	28.9	+15	+15
More disagreement and disunity	61.1	59.5	44.1	-15	-17
It is difficult to answer	24.7	26.4	27.0	+1	+2
<i>In our Oblast</i>					
More harmony and cohesion	19.3	15.9	26.9	+11	+8
More disagreement and disunity	55.6	54.4	44.7	-10	-11
It is difficult to answer	25.1	29.7	28.4	-1	+3
<i>In the your place of residence</i>					
More harmony and cohesion	24.1	28.4	39.1	+11	+15
More disagreement and disunity	51.5	44.3	34.3	-10	-17
It is difficult to answer	24.4	27.3	26.6	-1	+2
<i>In your immediate circle</i>					
More harmony and cohesion	46.9	52.1	61.4	+9	+15
More disagreement and disunity	29.3	23.2	18.3	-5	-11
It is difficult to answer	23.9	24.7	20.3	-4	-4
The proportion of people who are willing or not willing to unite with others if their ideas and interests coincide (in % of the number of respondents)*					
Are willing to unite	47.1	43.0	54.6	+12	+8
Are not willing to unite	25.2	19.9	15.1	-5	-10
* The question is asked since 2011.					

Thus, a strong state power that is guided not only by its own interests, but also by public opinion; the importance of factors associated with social consciousness and behavior, rather than material factors; overcoming key challenges of the 1990s and 2000s, not only in the material (improvement of the standard of living), but in the intangible (bridging social atomism, the growth of civil activity) perspective – these, in our view, are the

key attributes of modern Russia. These are the signs that allow us to speak about the period of the 2010s as a new stage in Russia's development.

They do not arise only out of the rise of patriotic sentiment on the background of the "Ukrainian events". They are not even explained by the fact that during the last 20 years they were taking shape in the Russian society under the yoke of entirely different problems connected with the

satisfaction of the basic need for national (and personal) security, and economic (and financial) stability. The modern period is deeply rooted in the mental specifics of the Russian people; as for all the other factors, they act only as a catalyst, turning out in the same place at the same time, largely because of a simple coincidence.

What can this new phase lead to? The consequences of the events of 2014 (in the first place – the accession of Crimea to the Russian Federation), according to G.V. Osipov, “can be crucial for our country, and they can be marked either by a new moral and economic recovery, or by the depression of disappointment and the deepest decline of everything”⁴⁰. We share this opinion. There arises another question: what will be the determining factor in the country’s progress toward prosperity?

Given the above mentioned characteristics of the new stage and their deep roots, we presume the key factors are the following:

1. Shifting priorities from foreign policy to domestic issues.

According to the results of the sociological surveys, the foundation of a new stage, which is the merger of the state and the society on the basis of a common “ideological” vector, is not solid. The Russian society was long enough preparing to changes, it was an evolutionary process. Therefore, in general, the Russian society has the very willingness to shift to a new stage in its development, and this willingness is quite strong.

⁴⁰ *Ibidem.* P. 12.

However, we believe that the events of 2014 (Ukrainian conflict, accession of Crimea to Russia, etc.) have made this process revolutionary, rather than evolutionary. Over the last 15 years, the society seems to have been “longing” to feel a sense of pride for their country, especially in the international arena, and when such success has appeared, there came a certain state of “euphoria”.

The problem is that all these successes are not managed exclusively within the country. They are all based on things that do not depend on Russia alone; that is, they make the Russian society dependent on external factors. In reality, all the current talk of a “new phase” are associated with the feeling of patriotism, national identity, ideological confrontation between Russian values and the values of Western civilization.

However, the main issues that worry the Russian society are internal. They were and are as follows: the standard of living and quality of life, elimination of social inequality, achievement of social justice, fight against corruption, improvement of the efficiency of social institutions, accessibility of “ordinary” citizens to their services, solution of the most pressing domestic problems.

These lingering issues have been unresolved already for many years; this fact was largely the cause of the “euphoria” after the events of 2013–2014. However, without addressing internal problems the positive trends in public opinion are “unstable”, to put it mildly.

As the people really felt the effects of the deteriorating economic situation in the second half of 2014 – early 2015 (which was caused partly by economic sanctions, partly by the consequences of a prolonged budget crisis in the regions), the agenda in the public opinion has changed immediately. The Russian mass media started talking about an increased level of anxiety among the people⁴¹, and also about the fact that the Ukrainian conflict, which still evokes the feeling of patriotism in the Russian people, in the public opinion gives way to economic problems and to the behavior of the Russians in the crisis conditions⁴².

By the end of 2014 there has been a notable increase (from 43 to 53%) in the proportion of the people who consider the situation in the country to be tense and critical. When estimating the directions of social changes in the country over the past year, the Russians formed two groups comparable in quantity and pointing out changes for the better (45%) or for the worse (43%). At the same time, when we compare the results of surveys in different years, we note an increasing polarization of opinions on this issue among the population, which

⁴¹ Bol'shinstvo rossiyan gotovo ne est' zapadnye produkty radi velichiya Rossii [The Majority of Russians are Ready to Give Up Western Food for the Greatness of Russia]. *Moskovskii komsomolets* [The Moscow Komsomol Member], January 28, 2015. Available at: <http://www.mk.ru/politics/2015/01/28/bolshinstvo-rossiyan-gotovo-ne-est-zapadnye-produkty-radi-velichiya-rossii.html>

⁴² Ot redaktsii: V soznanii rossiyan Krym otstupayet pod natiskom krizisa [Editorial: Crimea in the Minds of Russians is Retreating under the Onslaught of the Crisis]. *Vedomosti* [News], January 30, 2015. Available at: <http://www.vedomosti.ru/opinion/news/38844121/krizis-protiv-kryma>

indicates a growing differentiation of the actual situation among the representatives of different social groups⁴³.

As for the people's expectations concerning the future of the country, they can be characterized as reservedly alarming: nearly half of the respondents agree that the country will experience difficult times; a quarter of the Russians believe that the country will be developing successful, and a similar proportion does not expect any fundamental changes in the country's development. Moreover, the Russians feel such anxiety with regard to the situation not only in Russia but also in the world. The social context of transformations going on in the country is reflected in the contradictory socio-psychological condition of the population. A little more than half of our fellow citizens assess their emotional condition as positive, and almost half of the Russians by the end of 2014 had negative socio-psychological feeling (a quarter felt anxiety, every one in five persons experienced apathy, annoyance, and more seldom – exacerbation)⁴⁴.

According to ISED T RAS, in the second half of 2014 there was a break off in the positive trend of public opinion concerning important indicators such as social mood and approval of the performance of the President of the Russian Federation; and in early 2015 there was a significant

⁴³ Rossiiskoe obshchestvo v kontekste novykh realii (tezisy o glavnom): informatsionno-analiticheskoe rezyume po itogam obshchenatsional'nogo issledovaniya [Russian Society in the Context of New Realities (Theses about the Most Important Things): the Information-Analytical Summary of the Findings of a National Survey]. *IS RAN* [IS RAS]. Moscow, 2015. P. 3.

⁴⁴ *Ibidem*. P. 4.

deterioration in self-evaluations of financial position (increase in the share of people who consider themselves to be “poor and extremely poor”), social mood, stock of patience. The situation improved in April 2015, but it is still unknown how sustainable these changes will be (*tab. 5*).

In the modern age of high technology and virtual networks people have the opportunity to compare the level and

quality of life in different countries. Some people (and their number will only increase) do it on their own, without relying on the mass media that sometimes act as a kind of filter. Others come to the same conclusion, but a bit later, when the lack of proper management decisions in the right direction causes an actual decline in the standard of living and the inability to meet the basic social needs.

Table 5. Dynamics of key indicators of public opinion from February 2014 to April 2015 (% of the number of respondents)*

Answer option	Feb. 2014	Apr. 2014	June 2014	Aug. 2014	Oct. 2014	Dec. 2014	Feb. 2015	Apr. 2015	Dynamics (+/-), Apr. 2015 to...		
									Feb. 2014	June 2014	Feb. 2015
Level of approval of the RF President's performance											
I approve	56.1	62.8	66.6	66.4	66.8	66.0	66.3	67.5	+11	+1	+1
I do not approve	29.3	25.4	21.8	19.3	18.5	19.7	20.5	16.2	-13	-6	-4
Social mood											
Usual condition, good mood	65.1	69.3	71.1	70.5	69.3	70.9	61.8	67.6	+3	-4	+6
I feel stress, anger, fear, depression	27.1	24.9	23.7	25.1	24.6	24.1	31.3	26.6	-1	+3	-5
Stock of patience											
Everything is not so bad; it's difficult to live, but it's possible to stand it	79.8	81.3	81.0	82.5	80.3	80.0	74.3	78.9	-1	-2	+5
It's impossible to bear such plight	12.3	11.1	13.4	12.8	12.1	13.6	17.3	14.9	+3	+2	-2
Social self-identification											
The share of people who consider themselves to have average income	44.2	43.1	42.0	44.1	43.5	42.3	38.3	36.7	-8	-5	-2
The share of people who consider themselves to be poor and extremely poor	46.9	49.1	48.4	49.6	49.3	51.0	53.3	51.6	+5	+3	-2
Consumer sentiment index											
Index value, points	91.5	90.3	90.5	87.1	84.0	82.3	75.7	73.4	-18	-17	-2
Protest potential											
Index value, points	15.9	17.7	18.4	22.4	19.7	18.9	20.7	20.0	+4	+2	-1
* The table presents the data for the period from the beginning of 2014 to April 2015. It provides an assessment of changes in the data of the latest survey (April 2015) to the initial period (February 2014) and to the period when there was an interruption of the positive trend of approval of the President's performance and the improvement of social mood (June 2014).											

The results of recent surveys (from June 2014) show that public opinion on all the key aspects will not and should not be based solely on ideology, victories in the information war with the U.S. and on optimistic views of the future of Russia as the center of a multipolar world. Figuratively speaking, we can use it to win the war, but we cannot use it as a foundation of peace.

The presence of lingering unsettled problems brought to nothing the consolidation of Russian society after the speech of the President of the Russian Federation in Munich in 2007. For the same reason, the beginning of Vladimir Putin's third presidential term has not become the starting point of a new phase in the life of the country. Today Russia may fall into a similar "trap", if the authorities do not focus their attention on the main social issues that comprise internal, first of all, socio-economic, problems of the country.

2. Improving the effectiveness of management decisions by taking into consideration the opinions of leading Russian scientists, as well as the opinions of managers of a lower "link" in the structure of public administration.

The second factor that affects the sustainability of positive trends in social development is closely linked to the first one. What is necessary for effective solution of the most pressing internal problems in the country? Today, the best representatives of domestic economic and social sciences (R.S. Grinberg, V.V. Ivanter,

A.D. Nekipelov, S.Yu. Glazyev, S.S. Gubanov, G.V. Osipov, M.K. Gorshkov, etc.) propose the answer to this question in the form of very specific and clear measures, and the algorithm of actions; but their recommendations are not always used as the basis for management decisions. The policy of extreme liberalism pursued by the government, and the withdrawal of the state from the spheres of economic and social policy do not generate the necessary request from the state, first of all, to the Russian Academy of Sciences, to carry out research into the social environment and objective analysis of changes in the society at the national and regional levels⁴⁵.

G.V. Osipov points out that "the new century, according to the forecasts and conclusions of futurology, should be the century of the triumph of scientific worldview and show the world the qualitatively new principles and approaches to the organization of a society striving toward the unification of the global community, to the management of each individual state and society. It is known that the global scientific community names the twenty-first century "the century of social sciences". Yet, to be honest, it is not represented sufficiently in global information networks; and, most importantly, public, corporate and private investors do not show enough willingness

⁴⁵ Ilyin V.A., Shabunova A.A. Sotsiologicheskoe izmerenie effektivnosti gosudarstvennogo upravleniya [Sociological Assessment of Public Administration Efficiency]. *Ekonomicheskie i sotsial'nye peremeny: fakty, tendentsii, prognoz* [Economic and Social Changes: Facts, Trends, Forecast], 2014, no. 2 (32), p. 20.

to finance social and humanitarian research and promote their findings in everyday top management practices”⁴⁶. Thus, raising the status of scientific knowledge in the process of managerial decision-making is not just a necessity for Russia; it is the spirit of the times in the entire global community; therefore, the one who is the first to understand, accept and implement this, will be the winner.

Furthermore, only scientific knowledge, as a foundation of lawmaking, is able to prevent getting into a “trap” of imitation, which J. T. Toshchenko calls one of the main causes of social apathy, distrust in the authority, low electoral turnout and the general anomie of the society⁴⁷. In modern conditions, when much in life depends on ideology, national identity and patriotism, it is very important to avoid “substitution of activity for imitation at all the levels of social organization – federal, regional and local, in many organizations and even with regard to individuals”⁴⁸.

The same can be said about the fact that federal authorities do not always listen to the opinions of heads of the RF subjects, and regional authorities do not always take into consideration the problems that

⁴⁶ Osipov G.V. Ne upustit' predostavivshiisya shans! [Do not Miss This Chance!]. *Sotsiologiya i ekonomika sovremennoi sotsial'noi real'nosti. Sotsial'naya i sotsial'no-politicheskaya situatsiya v Rossii v 2013 godu* [Sociology and Economics of the Current Social Reality. Social and Socio-Political Situation in Russia in 2013]. Moscow: ISPI RAN. P. 9.

⁴⁷ Toshchenko Zh.T. Novye liki deyatel'nosti: imitatsiya [New Images of Activity: Imitation]. *Sotsiologicheskie issledovaniya* [Sociological Studies], 2012, no. 12, p. 35.

⁴⁸ *Ibidem*. P. 23.

the heads of municipalities speak about⁴⁹. Significant differentiation of the subjects of the Russian Federation in the socio-economic, territorial, historical, cultural, moral, demographic, and other aspects has long been one of the key issues that hinder the effectiveness of management decisions made at the federal level.

More than once has the President of the Russian Federation stressed the importance of the regional and municipal levels of government (“I think the most important task is to clarify the general principles of local self-government organization, develop strong, independent, financially sustainable local authorities”⁵⁰).

The lower the level of public administration in the overall structure of the power vertical is, the closer its representatives are to the real concerns of the population. And, most importantly, it is the lower levels of power that have greater opportunities for the development of various forms of

⁴⁹ The report of E.S. Savchenko at the meeting of the State Council on September 18, 2014 can be an example of such a situation. In his report the Belgorod Oblast Governor set out a clear mechanism of the new model of economic growth, asked the Government to renounce some of the myths that have been ingrained in the consciousness since the 1990s, and also to make a list of projects focused on import substitution, and more importantly, to provide them with a new mechanism of support (source: Savchenko E.S. Doklad na zasedanii gossoveta [Report on the Session of the State Council]. *Ofitsial'nyi sait gubernatora Belgorodskoi oblasti* [Official Website of the Belgorod Oblast Governor]. Available at: <http://www.savchenko.ru/events/2821.html>).

⁵⁰ Poslanie Prezidenta RF V.V. Putina Federal'nomu Sobraniyu RF ot 12 dekabrya 2013 g. Stenogramma [The Address of the President of the Russian Federation V.V. Putin to the Federal Assembly of the Russian Federation of December 12, 2013: Transcript]. *Informatsionno-pravovoi portal "Garant"* [Information and Legal Portal “Garant”]. Available at: <http://base.garant.ru/70534308/>

interaction between the society and public administration bodies, which is especially important taking into consideration the specifics of the present stage, which we have mentioned above.

For the President of the Russian Federation the annual “direct line” (a live television phone-in) is one of the main forms of direct interaction with the public; as for the governors and heads of municipalities, they can use such forms of communication with people much more often; and they can focus their attention on the residents of more remote and economically weak areas; and the subject of discussions can include the most common issues, the resolution of which is important for social perception and social well-being.

Thus, the scientific community has direct answers to the most important questions that affect the standard of living and quality of life of the population, address the most pressing issues that define the “agenda” of public opinion. These responses should be heard and taken into account in development management decisions. Then they will become a contributing factor to the further progressive development of the country.

3. The quality of sociological knowledge.

If the work of government should be focused on the satisfaction of social demands⁵¹ (as reflected in the May 2012

⁵¹ Bartsits I.N. Konstitutsionnaya demokratiya – eto svobodnye vybory plynus internetizatsiya vsej strany [Constitutional Democracy Means Free Elections Plus Internetization of the Whole Country]. *Sotsis* [Sociological Studies], 2013, no. 9, p. 116.

decrees of the President⁵²); if public opinion becomes one of the main criteria of public administration efficiency and, finally, if national security primarily depends on the level of social tension within the country, then sociological science, which accumulates knowledge about society, its mental characteristics and current trends of social consciousness, perception and behavior, becomes the main tool providing the link between the population and authorities.

“The scientific understanding of individual and collective social behavior, which leads to their control, is most likely, the most pressing challenge that humanity is facing today”, writes G.V. Osipov, citing the opinion of Nobel laureate Dutch economist J. Tinbergen. “Hence, it follows that in this situation only the social sciences and humanities, whose object of research is people, their social actions and social reality created by them, can introduce scientific rationality in multi-directional, spontaneous and irresponsible actions of an individual, to bring them to a common denominator, eliminating and neutralizing global threats, which hang over mankind like the sword of Damocles”⁵³.

⁵² Ob osnovnykh napravleniyakh sovershenstvovaniya sistemy gosudarstvennogo upravleniya: ukaz Prezidenta RF ot 7 maya 2012 g. № 601 [About the Main Directions of Improving the System of Public Administration: the Decree of the President of the Russian Federation of May 7, 2012]. *Informatsionno-pravovoi portal “Garant”* [Information-Legal Portal “Garant”]. Available at: <http://base.garant.ru/70170942/#ixzz3YDD9ERG3>

⁵³ Osipov G.V. Ne upustit’ predostavivshiysya shans! [Do not Miss This Chance!]. *Sotsiologiya i ekonomika sovremennoi sotsial’noi real’nosti. Sotsial’naya i sotsial’no-politicheskaya situatsiya v Rossii v 2013 godu* [Sociology and Economics of the Current Social Reality. Social and Socio-Political Situation in Russia in 2013]. Moscow: ISPI RAN. P. 11.

Accordingly, the situation in the country largely depends on the quality of sociological knowledge – its reliability, depth, and timeliness. And the quality of sociological knowledge depends upon the solution of fundamental problems that currently exist in domestic sociology and are highlighted at the all-Russian sociological forums⁵⁴ and in scientific articles⁵⁵.

⁵⁴ For example: Rezolyutsii I IV Vserossiiskogo sotsiologicheskogo kongressa [Resolutions I of the 4th All-Russian Sociological Congress]. *Ofitsial'nyi sait Rossiiskogo obshchestva sotsiologov* [Official Website of the Russian Society of Sociologists]. Available at: <http://www.ssa-rss.ru/>; Zhukov V.I. Sotsiologiya v sovremennoi Rossii: doklad na Uchreditel'nom s"ezde Soyuzsotsiologov Rossii [Sociology in Modern Russia: the Report at the Constituent Congress of the Union of Sociologists of Russia]. *Sotsis* [Sociological Studies], 2007, no. 12, pp. 8-13; Osipov G.V. Vozrozhdenie sotsiologii v Rossii: doklad na Yubileinoi nauchnoi sessii RAN 26 marta 2008 g. [The Revival of Sociology in Russia: the Report at the Anniversary Scientific Session of the Russian Academy of Sciences, March 26, 2008]. *Ofitsial'nyi sait Instituta sotsiologii Rossiiskoi akademii nauk* [Official Website of the Institute of Sociology of the Russian Academy of Sciences]. Available at: http://www.isras.ru/?page_id=699; Gorshkov M.K. Rossiiskaya sotsiologiya v postsovetsoi Rossii: sostoyanie i problemy razvitiya: doklad na Vserossiiskoi nauchno-prakticheskoi konferentsii "Obshchestvo i sotsiologiya v sovremennoi Rossii" (13–15 noyabrya 2014 g., g. Vologda) [Russian Sociology in Post-Soviet Russia: State and Problems of Development: the Report at the All-Russian Research-to-Practice Conference "Society and Sociology in Modern Russia" (November 13–15, 2014, Vologda)]. *Materialy Vserossiiskoi nauchno-prakticheskoi konferentsii "Obshchestvo i sotsiologiya v sovremennoi Rossii", posvyashchennoi XX godovshchine prazdnovaniya Dnya sotsiologa v Rossiiskoi Federatsii* [Proceedings of the All-Russian Research-to-Practice Conference "Society and Sociology in Modern Russia", Devoted to the 20th Anniversary of the Sociologist's Day in the Russian Federation]. Vol. 1. Vologda: ISERT RAN, 2015. Pp. 10-17.

⁵⁵ For example: Osipov G.V. O roli nauchnogo znaniya v upravlenii sovremennoi sotsial'noi real'nost'yu [On the Role of Scientific Knowledge in the Management of Modern Social Reality]. *Ezhagodnyi doklad ISPI RAN "Sotsial'naya i sotsial'no-politicheskaya situatsiya v Rossii: analiz i prognoz"* [Annual Report of ISPR RAS "Social and Socio-Political Situation in Russia: Analysis and Forecast]. Doklad "Sovremennaya sotsial'naya real'nost' Rossii i gosudarstvennoe upravlenie. Sotsial'naya i sotsial'no-politicheskaya situatsiya v Rossii v 2012

These problems include:

- insufficient authority of the sociologist;
- the need for greater involvement of social scientists in addressing the most acute problems of society through the creation of new communication channels and platforms of interaction with government officials, public entities, and civil society;
- significant gap between fundamental theoretical knowledge and its practical application;
- underdeveloped mechanism of social expert assessment of the laws adopted;
- lack of a unified system approach in the development of sociological research at the regional level; coordination of sociological research on the federal and regional levels;
- improvement of the quality of sociological education, etc.

Today the solution of these and many other problems of domestic sociology largely determines the quality of the relationship between the state and society at all the levels of government; it also determines how well the authorities understand actual problems that the population faces. Therefore, if we do not

godu" [Report "Contemporary Social Reality of Russia and Public Administration. Social and Socio-Political Situation in Russia in 2012]. Vol. 1. Moscow: ISPI RAN, 2014. Pp. 6-11; Toshchenko Zh.T. Vremya Akme – sotsiologicheskim issledovaniyam 40 let [Time of Acme – Sociological Research Celebrates Its 40th Anniversary]. *Sotsis* [Sociological Studies], 2014, no. 7 (363), pp. 3-7; Ilyin V.A., Shabunova A.A. Sotsiologicheskoe izmerenie effektivnosti gosudarstvennogo upravleniya [Sociological Assessment of Public Administration Efficiency]. *Ekonomicheskie i sotsial'nye peremeny: fakty, tendentsii, prognoz* [Economic and Social Changes: Facts, Trends, Forecast], 2014, no. 2 (32), pp. 18-35.

want “to miss this opportunity”, today it is very important to use the mechanisms that actually exist and can be used to systematize social research.

For example, much depends on the status of the Russian Academy of Sciences, which can play the role of an “independent institute, which coordinates sociological research, enhances support to promising regional scientific schools and young scientists, and the search for new ways to include the results of Russian sociology in the global science”⁵⁶. The Federal Law “On strategic planning in the Russian Federation”, which was welcomed by many scholars (E.V. Zhirnel’, O.S. Sukharev, A. Vasserman, M. Delyagin, etc.), can become an important tool that can help “embed” sociological knowledge in the system of public administration; in fact, it is “a necessary step for the formation of a unified system of strategic planning that covers the federal, regional and municipal levels”⁵⁷.

Modern sociological science does not claim to become a support to the management system. We are talking about the integration of sociological knowledge in the structure of the legislative process. The integration of sociology and social sciences

in the “culture of power” will make it possible on the basis of specific studies to identify key areas and means of implementation of socially significant goals, to provide a scientific justification, to forecast the consequences of decisions, to assess the implemented measures in accordance with clear criteria of effectiveness⁵⁸. Through the generalization of international and domestic practice sociology offers the clear regulation of legislative activity, the consolidation of which at the legislative level “will make it possible not only to improve the system of legislation, but also to create a new type of state governance on the basis of scientific knowledge. This will make it possible to move from a “method of patching holes” to preventive management based on a system legislative level”⁵⁹.

Thus, the above-mentioned features of modern Russia allow us to speak about the period of 2013–2014 as the beginning of a new phase in the life of the Russian society.

The theory on creative destruction developed by economist Joseph Schumpeter can be applied to the modern understanding of state management in Russia. The essence of the theory is as follows: something new appears very rarely, usually there is some rearrangement, recombination of

⁵⁶ Ilyin V.A., Shabunova A.A. Sotsiologicheskoe izmerenie effektivnosti gosudarstvennogo upravleniya [Sociological Assessment of Public Administration Efficiency]. *Ekonomicheskie i sotsial'nye peremeny: fakty, tendentsii, prognoz* [Economic and Social Changes: Facts, Trends, Forecast], 2014, no. 2 (32), p. 30.

⁵⁷ Uskova T.V., Chekavinskii A.N. Zakon o strategicheskom planirovanii v Rossiiskoi Federatsii: dostoinstva i nereshennye voprosy (ekspertnaya otsenka) [Law on Strategic Planning in the Russian Federation: Advantages and Unresolved Issues (Expert Evaluation)]. *Ekonomicheskie i sotsial'nye peremeny: fakty, tendentsii, prognoz* [Economic and Social Changes: Facts, Trends, Forecast], 2014, no. 4 (34), p. 64.

⁵⁸ Osipov G.V. Istoricheskaya missiya rossiiskoi sotsiologii: problemy i perspektivy [Historical Mission of Russian Sociology: Problems and Prospects]. *Materialy Vserossiiskoi nauchno-prakticheskoi konferentsii “Obshchestvo i sotsiologiya v sovremennoi Rossii”, posvyashchennoi XX godovshchine prazdnovaniya Dnya sotsiologa v Rossiiskoi Federatsii*. [Proceedings of the All-Russian Research-to-Practice Conference “Society and Sociology in Modern Russia”, Devoted to the 20th Anniversary of the Sociologist’s Day in the Russian Federation]. Vol. 1. Vologda: ISERT RAN, 2015. P. 19.

⁵⁹ *Ibidem*. P. 24.

factors within the existing paradigm in the development⁶⁰. Historically developed mental characteristics, the legacy of the Soviet era, transformation processes in the post-Soviet period, and the events of 2013–2014 became recombined factors in the new stage of the Russian history.

The inevitable future changes of social reality necessitate the transition to the new system of society management, which implies the rejection of the traditional method of trial and error and the adoption of socially important government decisions on the basis of a comprehensive scientific analysis and mathematically precise and accurate calculations⁶¹.

The Ukrainian crisis has not yet become the thing of the past, but public consciousness is moving on. Today, in early 2015, the society and the state are focused on solving domestic economic problems, on the

improvement of the quality of life regardless of the situation on the international arena. This is clearly evidenced by the issues raised during the “direct lines” with Russian President Vladimir Putin in 2013–2015: after discussing the issues related to international politics and national self-determination (which were the main topics of the “direct line” in 2014), the 2015 “agenda” again focuses on the internal socio-economic problems, only now they are considered not in the context of the “May decrees” (as it was in 2013), but in the context of the functioning of the Russian economy under the sanctions.

The society shares the view of the head of state about the necessity to “find better ways to manage these (*socio-economic*. – *Author’s note*) processes by ourselves, in our own country”⁶², and it allows us to look into the future with confidence and optimism.

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⁶⁰ Shumpeter J.A. *Teoriya ekonomicheskogo razvitiya* [The Theory of Economic Development]. Moscow: Progress, 1982.

⁶¹ Osipov G.V. Ne upustit’ predstavivshiisya shans! [Do not Miss This Chance!]. *Sotsiologiya i ekonomika sovremennoi sotsial’noi real’nosti. Sotsial’naya i sotsial’no-politicheskaya situatsiya v Rossii v 2013 godu* [Sociology and Economics of the Current Social Reality. Social and Socio-Political Situation in Russia in 2013]. Moscow: ISPI RAN. P. 18.

⁶² During the “direct line” in April 2015, the RF President also pointed out: “As for the sanctions, they certainly contribute to our difficulties, but still it is not the main thing” (source: Stenogramma “Pryamoi linii” s Prezidentom RF V.V. Putinyom ot 16 aprelya 2015 [Transcript of “Direct Line” with Russian President Vladimir Putin, April 16, 2015]. *Ofitsial’nyi sait Prezidenta RF* [Official Website of the RF President]. Available at: <http://kremlin.ru/events/president/news/49261>).

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On the role of investment in the socio-economic development of territories



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Abstract. The modern stage of Russia's socio-economic development is characterized by the lack of budgetary resources to finance both strategic and current tasks. The situation is exacerbated by the introduction of political and economic sanctions, the significant fluctuations in oil prices and the ruble exchange rate, the growing mistrust on the part of business, followed by the increase in capital outflow. These circumstances predetermine the search for the ways to solve the socio-economic problems.

The studies of leading Russian and foreign scientists prove that investment plays a major role in ensuring sustainable economic growth and solving the problems of territorial development. Moreover, the recently increasing impact of large companies on the country's development and the low budget lead to the necessity to attract private investment resources for regional development.

In this regard, the authors analyze the investment activity in Russia, present the countries' rankings by the state of investment climate and disclose the successful experience of business' participation in socially significant regional projects.

The periodicals and Internet resources comprise an information base of this study. To achieve this goal the authors use system and integrated approaches, general scientific research methods (comparative analysis, generalization and comparison), table and graphical methods of information processing.

The results of the research help prove the need to attract private investment in distressed areas and provide the Vologda Oblast authorities with the recommendations that can be applied in other regions. The work describes the promising priority projects of the region. Their implementation will contribute to the restoration of positive investment growth. The authors suggest the directions to amend the federal legislation in order to stimulate investment activity of enterprises and, therefore, enhance the role of business in regional development.

Key words: investment, private resources, socio-economic development, economic growth, enterprises, projects, public-private partnership.

In the conditions of slowing economic growth it is very important to find the tools of the integrated solution of socio-economic problems. The studies of leading Russian and foreign scientists (A.G. Granberg, M.A. Gusakov, V.A. Ilyin, V.N. Lazhentsev, V.N. Leksin, V.V. Okrepilov, P.O. Pchelintsev, V.E. Rohchin, V.S. Selin, A.I. Tatarkin, A.N. Shvetsov, J.S. Mill, R. Harrod, R. Solow, R. Campbell, and K. McConnell, J. Galbraith, J. Hobson, W. Eucken, M. Porter, O. Williamson, F. Hayek, O. Hart and others) prove that investment plays the main role in ensuring sustainable economic growth.

In particular, the works of P. Romer, R. Lucas and S. Rebelo present the endogenous models of long-term sustainable growth of the economy depending on the sources of economic growth and investment targets.

The models to accumulate physical capital presuppose that technologies and knowledge embodied in physical capital become public goods and boost labor productivity in the whole economy due to the innovation dissemination.

R. Lucas, assuming that the continuous economic growth is possible due to investment in human capital, creates the model, according to which investment in human capital is more productive than investment in physical capital. The research in the origin of technological progress and the patterns of emergence and implementation of innovation helps elaborate the models, which represent two main sectors involved in the STP formation: the sector (ideas) of production and knowledge accumulation, the sector of goods (things) production – the means of production and the final product. The ideas serve as a tool to produce goods with higher added value and, consequently, they are a more significant factor in economic growth [18].

The most complete definition of economic growth is given by Nobel Prize winner S. Kuznets: “Economic growth is a long-term increase in the economy’s ability to meet increasingly diverse needs of the population by means of more efficient technologies and appropriate institutional and ideological changes”. The study of the theoretical and methodological framework

allows us to conclude that the economic growth is the key driving force for the country's socio-economic development. Hence, the federal authorities should focus on it. In addition, the growth means a distinct vector of growth within certain fluctuations in its rates, having positive values.

The development involves not only the positive values of growth, but its absence or even decline, which, however, should overlap the positive values of growth [13, 19]. So, the concept of economic growth is much narrower than the concept of economic development. The growth is expressed in the quantitative increase in the volume of production and the creation of prerequisites for future growth, when the development involves the social sector (rise in the welfare of the population).

Regional and local budgets are used as the main sources of socio-economic development of territories. They are characterized by the inconsistency between revenues and expenditures. The sustained rapid growth of the economy requires the annual investment in fixed assets in the amount of 30% of GDP instead of the current 22–23% [12].

The RF Minister of Finance A.G. Siluanov stated at the Saint Petersburg International Economic Forum: “At a low growth rate of the economy we are strained to the limit: production is ensured to full capacity, unemployment is at a low level, to accelerate the economic growth private investment is required” [16].

Lack of budgetary resources for comprehensive socio-economic development

of territories is exacerbated by the transfer of social infrastructure from major economic structures to municipalities.

However, big business can act as an equal partner of socio-economic development of the territories. Russian corporations, being city-forming enterprises, play an important role in socio-economic development of the territories.

They increase revenues of the regional budgets and incomes of the population, create jobs, influence the environment and develop infrastructure [14]. So, in order to ensure sustainable growth and development of the economy, it is necessary to actively attract investment in physical and human capital.

Let us note that foreign companies pay much attention to private (ethical) investment [21]. Private investment, representing one of the types of capital investment, are forming from the funds of private, corporate companies and organizations, citizens, including both own and borrowed funds.

In Russia this type of investment is underdeveloped, as evidenced by the results of the countries ranking, according to the degree of ethical economy development (*tab. 1*) [11].

The conclusions from different sources can be radically different. For example, according to the Doing business study, conducted annually by the World Bank, in 2014 Russia ranked 92nd among 189 countries participating in the study by the investment attractiveness (for comparison: in 2013 – 112, in 2012 – 120, in 2011 – 124 and in 2007 – 96).

Table 1. Ranking of the countries according to the degree of ethical economy development

Rating	Country	Rating level
Very high	Austria, Denmark, Finland, Germany, Netherlands, Norway, Switzerland, UK, Sweden	9–11
High	France, Spain, Portugal, Brazil, Canada, Italy, Japan, Luxembourg, South Korea	6–8
Average	Australia, Belgium, Czech Republic, Hungary, China, India, Chile, Greece, Indonesia, New Zealand, Slovakia, Slovenia, Taiwan, USA	3–5
Low	Iceland, Ireland, Mexico, Philippines, Romania, Russia, Singapore, Colombia, Malaysia, Peru, Thailand, Turkey, UAE, Argentina, Bulgaria, Costa Rica, Hong Kong, Israel, Pakistan, Poland, Saudi Arabia.	0–2

At the same time, the United States Trade Representative (USTR) estimates Russia’s investment climate as unfavorable. The American experts believe that the measures taken by the Russian authorities are insufficient.

The expert report argues that foreign entrepreneurs are scared of complicated investment legislation, high levels of corruption, distrust in the Russian judicial system and weak protection of the rights of the company shareholders [10].

However, in accordance with the 2014 “World Investment Report”, published by UNCTAD (United Nations Conference on Trade and Development), Russia ranges the 3rd by the volume of received foreign investments in 2012 and 2013 (79 and 51 billion U.S. dollars, respectively; *fig. 1*).

Despite the high growth of foreign direct investment in 2013, the year of 2014 was rather ambiguous due to a number of factors negatively affecting the country’s economy.

- Slowdown in consumer demand due to the large debt load of the population (according to the Central Bank, the credit load per employee amounted to about 3.7 average monthly wages) [1].

- Significant fluctuations in oil prices in 2013, which created high risks for investors.

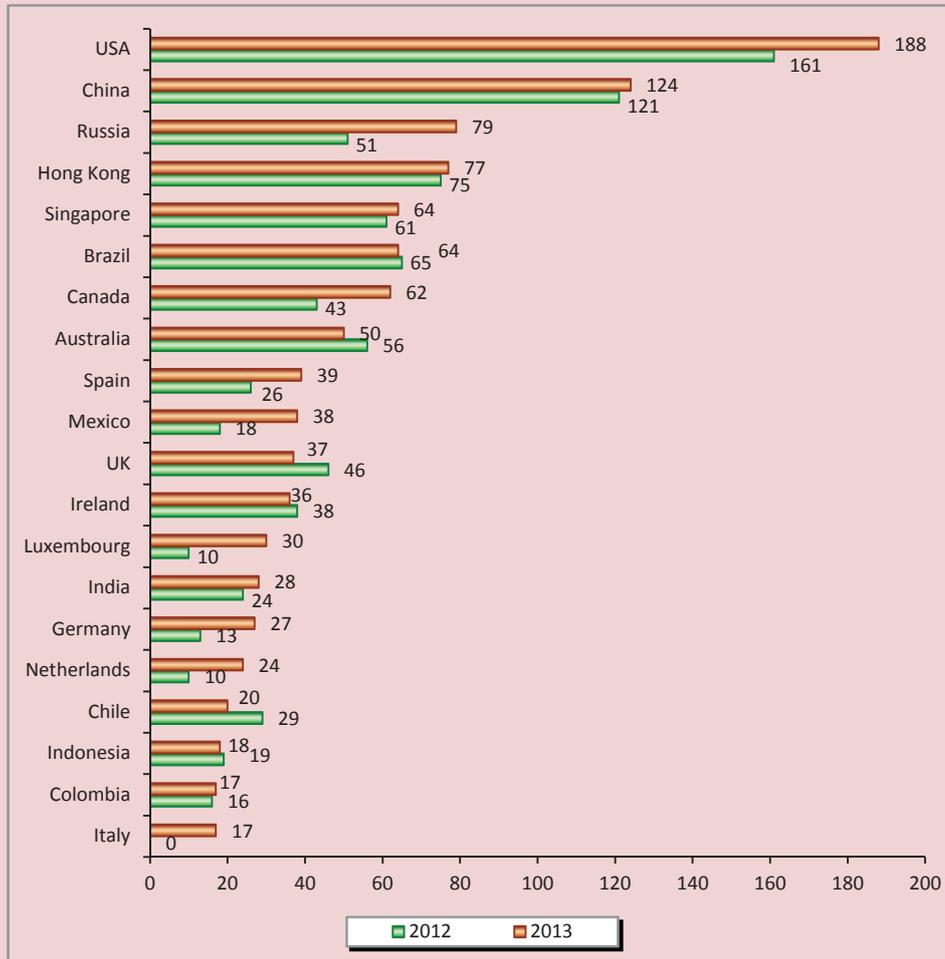
- Complexity of doing business. Despite the fact that Russia at the end of 2013 rose to 92nd position from 112th in the Doing Business ranking, the practices had not changed significantly. Moreover, there was a downward trend in the rating, integrating the data by 10 items, particularly protecting investors, resolving insolvency and lending [22].

- Introduction of political and economic sanctions against Russia.

As a result of the negative impact of these factors the country’s investment attractiveness has declined significantly, as evidenced by the data of international consulting companies. Thus, according to one of them (A.T. Kearney or Kearney Foreign Direct Investment Confidence Index), in 2014 Russia was not included in the group of 25 world countries, most attractive for the investors, although in 2013 it ranked the 11th.

As for the situation inside the country, in 2013 there the positive trend of investment growth, observed in 2010–2012, changed into the negative. At year-end there was a reduction in investment compared to the previous year both in the whole country and in the Northwestern (22.9%), Ural (1.8%), Siberian (9.5) and Far Eastern (19.5%) Federal districts (*tab. 2*).

Figure 1. Inflow of foreign investment in 2012-2013, billion U.S. dollars



Source: UNCTAD, World Investment Report 2014.

The decline in investment in the NWFD subjects was caused by the completion of the construction of the gas pipeline “Ukhta – Torzhok”. The largest decrease was recorded in 2013 in the Vologda Oblast, where capital investment in economic development was lower by 61.3% (49.5 billion rubles) than in the previous year (fig. 2).

The decline was related to the launching of the gas turbine power station and the new modern complex of urea production in OJSC “PhosAgro” (Cherepovets).

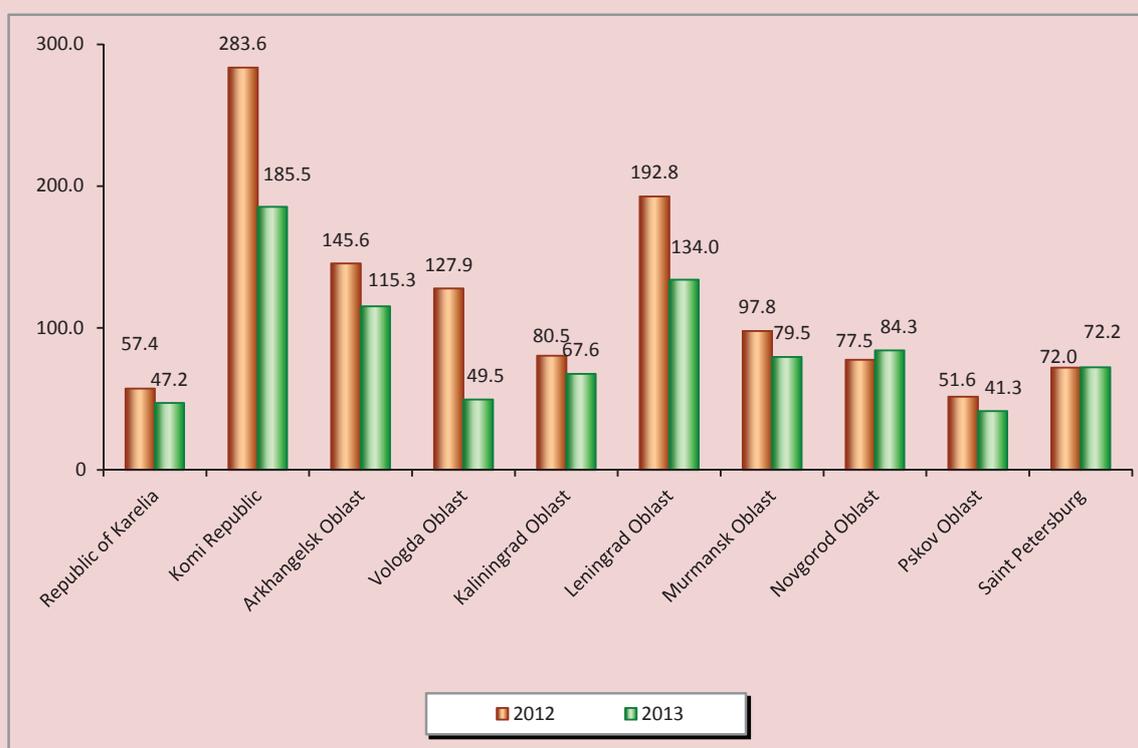
Undoubtedly, this fact affected the distribution of investment in the region. If before 2012 the maximum amount of investment was allocated to transport and communications, in 2013 the situation

Table 2. Investment in fixed capital, thousand rubles per capita (at 2013 constant prices)

Federal district	2000.	2005	2008	2010	2011	2012	2013	2013 to 2012, %	
								2000, %	2012, %
Russian Federation	34.8	55.9	88.0	78.4	86.8	92.6	92.4	265.1	99.8
Central Federal district	34.8	53.3	79.8	66.8	71.6	80.8	84.8	243.8	105
Northwestern Federal district	31.1	71.7	105.2	98.7	108.6	113.0	87.1	279.9	77.1
Southern Federal district	29.3	37.7	69.7	79.6	87.8	94.3	102.5	349.9	108.7
North Caucasian Federal district	21.4	37.3	34.1	37.4	38.6	43.3	44.6	208.3	102.9
Volga Federal district	28.0	43.0	67.1	59.4	65.4	71.6	74.9	267.3	104.6
Ural Federal district	73.4	94.9	153.5	143.7	164.1	174.6	171.4	233.5	98.2
Siberian Federal district	18.5	35.7	62.5	60.8	70.6	78.9	71.4	385.3	90.5
Far Eastern Federal district	28.3	77.7	105.6	145.5	184.1	162.2	130.5	460.6	80.5

Compiled by the authors on the basis of the sources: *Investitsii v osnovnoi kapital na dushu naseleniya* [Investment in Fixed Capital per Capita]. Available at: http://www.gks.ru/bgd/regl/b14_14p/lssWWW.exe/Stg/d03/23-02.htm; *Indeks fizicheskogo ob'ema investitsii v osnovnoi kapital* [Index of Physical Volume of Investment in Fixed Capital]. Available at: http://www.gks.ru/bgd/regl/b14_14p/lssWWW.exe/Stg/d03/23-03.htm

Figure 2. Investment in fixed capital in the Northwestern Federal district, thousand rubles per capita (at 2013 constant prices)



changed markedly: 20.4% of its volume was directed to production and distribution of electricity, gas and water, 18.6% – metallurgical, 10.0% – chemical production and 3.9% – agriculture (*tab. 3*). The reason is the following: the major investment projects in 2013 were implemented in these industries (*tab. 4*).

We can but notice that the region continues to carry out other large investment projects [2], which determined the positive

growth dynamics in the structure of financing sources in 2013 (*fig. 3*).

The experience of business organizations participation in solving social and economic problems in the Vologda Oblast can be applicable in other regions. It is critical to develop public-private partnership as an effective mechanism to attract private investment resources for the implementation of socially significant regional projects [15].

Table 3. Distribution of investment by kinds of economic activity in the Vologda Oblast (% to the total)

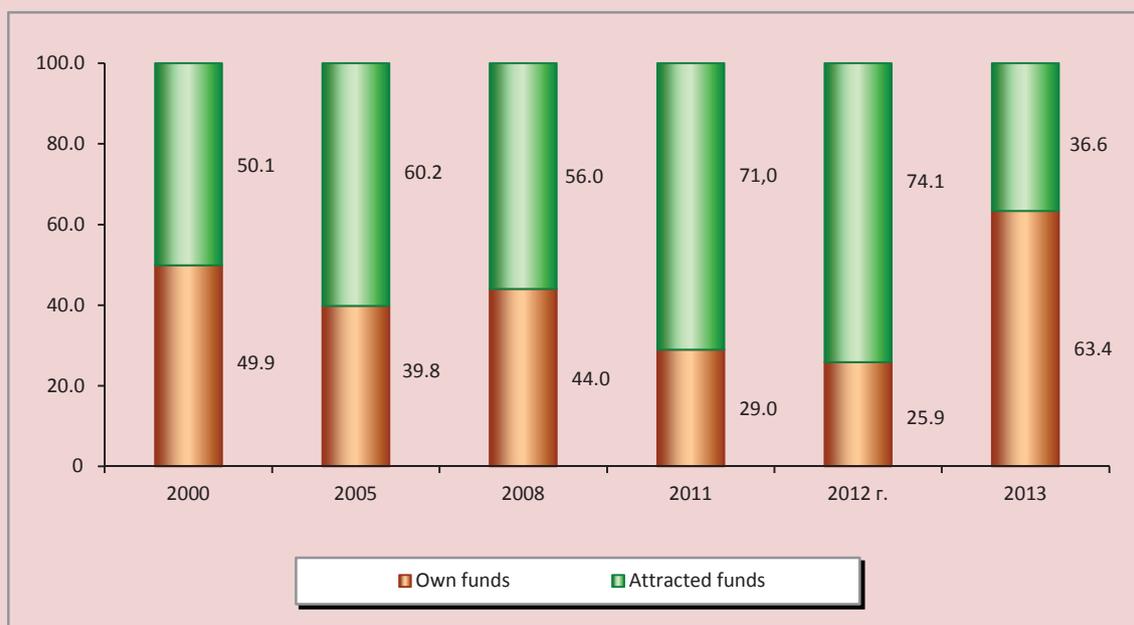
Structure	2000	2008	2011	2012	2013
Total	100	100	100	100	100
Agriculture, hunting and forestry	5.9	4.4	2.8	1.7	3.9
Manufacturing:	40.3	30.0	21.1	16.8	36.6
manufacture of other non-metal mineral products	-	1.3	0.6	0.7	1.2
metallurgical production and production of finished metal products	18.5	16.6	...	3.6	18.6
production of machinery and equipment	1.7	0.5	0.3	0.2	0.6
chemical production	4.0	6.5	8.8	6.6	10.0
Production and distribution of electricity, gas and water	4.9	7.1	9.4	6.7	20.4
Construction	1.5	1.3	0.2	0.4	0.6
Wholesale and retail trade; repair of motor vehicles	1.6	1.2	0.5	0.8	2.4
Hotels and restaurants	-	0.9	0.2	0.1	0.2
Transport and communications	30.1	39.9	60.3	68.0	22.9
Financial activities	0.7	0.6	0.5	0.4	1.1
Operations with real estate, rent and provision of services	0.3	9.3	2.3	2.4	6.1
Public administration and defense security; social insurance	0.7	0.9	0.2	0.3	0.4
Education	2.1	1.0	0.4	0.3	1.4
Healthcare and social services	3.3	1.5	0.5	1.2	2.4
Other public utilities, social and personal services	3.5	1.9	1.6	0.7	1.2

Sources: Investitsionnye protsessy v Vologodskoi oblasti: statisticheskii sbornik [Investment Processes in the Vologda Oblast: Statistics Digest]. Goskomstat [Federal State Statistics Service]. 2003, p. 40.; Investitsionnye protsessy v Vologodskoi oblasti: statisticheskii sbornik [Investment Processes in the Vologda Oblast: Statistics Digest]. Territorial'nyi organ Federal'noi sluzhby gosudarstvennoi statistiki po Vologodskoi oblasti [Territorial Body of Federal State Statistics Service of the Vologda Oblast]. 2010, pp. 33-34; *Ibidem*. Pp. 37-39.

Table 4. Largest and most significant investment projects in the Vologda Oblast in 2013 [3]

Project	Volume of investment, billion rubles	Number of jobs created, people
Construction of Gazprom Neft filling stations (29 stations) in the region (2013–2017)	2.4	550
Upgrade of 200 boiler plants in the region with the participation of OAO “Gazprom”	5.0	No data
Modernization of the Vologda CHPP (OAO “TGC-2”)	6.0	46
Construction of electric grid complex objects of OAO “FGC UES”	5.4	No data
Reconstruction of existing paper production in LLC “Sukhonsky PPM” (2011–2019)	4.1	300
Construction of two plants for processing of wild berries, vegetables, fruits and mushrooms (LLC “Vologodskaya yagoda”)	6.0	619 permanent + 3000 seasonal
Construction of a new energy efficient ammonia production facility with the capacity of 220 tons/day (760 thousand tons a year) at OJSC “PhosAgro” (2013–2017)	30.0	300

Figure 3. Distribution of investment in fixed capital by financing sources in the Vologda Oblast, %



Compiled by: Investitsionnye protsessy v Vologodskoi oblasti: statisticheskii sbornik. [Investment Processes in the Vologda Oblast: Statistics Digest]. *Territorial'nyi organ Federal'noi sluzhby gosudarstvennoi statistiki po Vologodskoi oblasti* [Territorial Body of Federal State Statistics Service of the Vologda Oblast]. 2014, p. 32; *Ibidem* p. 28.

In particular, the Cherepovets Steel Mill OAO Severstal has completed the investment project to reconstruct No.7 Coke Oven Battery which will reduce the environmental load due to the construction of the ecological objects complex.

In 2013 the first phase of sawmill LLC “Harovsklesprom” was launched; the amount of investment amounted to more than 1.2 billion rubles. Its social orientation and environmental friendliness are distinctive features of the project, since the complete processing of bark and sawdust helps supply heat to one of the districts in Kharovsk [2. 3].

The FosAgro nitrogen and phosphorus complexes are characterized by gradual investment in the construction of new chemical plants and the increase in output of products with high added value. The realization of these and other projects together with the use of capacities of the gas transmission system will facilitate the creation of the gas chemical complex, improve the use of natural resources and reduce the industry’s dependence on import of polymeric materials.

The successful implementation of investment projects depends on the effective activity of regional authorities and local administrations. They should be interested in attracting private investment, because in the conditions of competition for limited resources investment is a tool to create new jobs, broaden the revenue base of regional and local budgets and, ultimately, enhance the quality of life.

The Vologda Oblast has the following conditions to maintain favorable investment climate:

- there is the Investment Council under the Governor of the Oblast and JSC “The Vologda Region Development Corporation”;

- there is the law “On state regulation of investment activity in the form of capital investment on the territory of the Vologda Oblast and on amending certain laws of the oblast” of May 8. 2013. no. 3046-OZ (edition of June 4. 2014);

- the separate section “Strategy of investment policy” was added to the “Strategy for socio-economic development of the Vologda Oblast for the period up to 2020” (approved by the Vologda Oblast Government decree of June 28. 2010. no. 739).

However, these tools are not sufficient to enhance the measures maintaining favorable investment climate. The fact is that in accordance with the Decree of the RF Government “On approval of the lists of indicators to measure the effectiveness of activities and methods for determining the target values of indicators of the assessment of efficiency of Executive authorities activities to create favorable conditions for entrepreneurial activity (up to 2018)” of April 10. 2014. no. 570-p, the target values of the indicator “investment in fixed capital” in 2014–2018 are set for each RF subject as a target value for the previous period, increased by 0.5 percentage points

This indicator decreased in 2013. A similar situation is observed in Russia as a whole: at the end of 2013 investment in fixed capital decreased by 0.2%.

So, according to the RF socio-economic development scenario presented by the Ministry of Economic Development, the decline in investment attraction is caused by the structural factors (reduction in Gazprom's investment) and the growing mistrust on the part of business, followed by the increase in capital outflow.

The increasing decline of investment in fixed capital reached 4.8% in the first quarter of 2014 [17]. Investor sentiment is aggravated by the growing uncertainty concerning future events and the ruble exchange rate dynamics.

The changed foreign policy hinders enterprises to raise funds on external markets. The lack of resources to finance investment projects and the reduction in demand for investment due to rising uncertainty and deteriorating expectations are among the main negative factors that determined economic performance in 2014.

The positive growth of investment (by 2.4% as average) is expected to be achieved in 2015 at the expense of sectors, such as transport, trade, financial activity, operations with real estate. etc. [17] However, it will be difficult to attain the goal due to the rising economic uncertainty.

Vologda Oblast Governor Oleg Kuvshnikov claims in the report "Investment climate and investment policy of the Vologda Oblast for 2015" that in the

current year investment is to increase by 2% due to the launch of the following major investment projects.

1. The project to open a pig farm CJSC "Shuvalovo" (25 thousand heads of cattle) in Gryazovetsky District. The total investment amounts to 500 million rubles, of which almost 400 million rubles are borrowed funds. In 2015 the volume of investment is to increase by 7–8%, in 2016 – by approximately 20%.

2. To upgrade the production of JSC "Sokol" 120 million rubles will be invested in 2015 and 125 million rubles in 2016.

3. About 110 million rubles will be spent on the reconstruction of existing LLC "Sukhonsky PPM" and about 80 million rubles – reconstruction of LLC "Harovsklesprom".

4. OJSC "PhosAgro" launches the construction of a new energy efficient ammonia production facility. The enterprise's total investment in the project implementation (2014–2017), including the construction of infrastructure, will exceed 25 billion rubles [2].

The economic development will be boosted by the implementation of investment projects, the development of new sites and territories, the formation of territorial industrial clusters on the basis of large projects and the maximum involvement of local suppliers and contractors in the projects implementation.

At the same time, it is necessary to continue promoting the activities of JSC "The Vologda Region Development Corporation" in areas, such as:

- organization and holding conferences, forums, round tables, business visits, seminars and other PR events;
- region' representation at business events in Russia and abroad;
- partnership with international, federal and regional mass media;
- filling the information space with relevant information about socio-economic development of the region and key investment offers;
- informational and organizational support of various events held in the region and beyond;
- provision of advisory services;
- signing of framework agreements with consulting companies to attract investment to the region.

In those RF subjects, which have not adopted a regional law on investment activity yet, it is advisable to introduce a legal act, stipulating:

- the main ways to protect investors' rights;
- guarantees that the state of investors will not worsen for the period of the investment strategy implementation;
- guarantee of non-abuse on the part of the executive authorities in the RF subject;
- procedure for investors to seek for protection and assistance;
- state support measures and mechanisms of its provision.

To implement investment projects and investment policy strategies not only in the Vologda Oblast, but also in other RF subjects it is advisable to carry out activities, such as:

- 1) organization of work with the federal government to attract federal funds in the region for the social infrastructure development;
- 2) work with the state monopolies to develop infrastructure potential of the region;
- 3) development of cooperation on the basis of public-private partnership;
- 4) creation of a direct communication channel between investors and regional authorities to solve urgent tasks arising in the course of investment activity;
- 5) adoption of a system of measures for the state support of the organizations implementing priority investment projects;
- 6) establishment of regional development institutions;
- 7) simplification of a procedure for state duty payment and introduction of online registration;
- 8) implementation of measures to improve tax literacy of taxpayers;
- 9) development of model administrative regulation of the procedure for building permit issuance, simplification of a procedure for the applicant, its standardization in municipalities;
- 10) creation of an online portal that will host an interactive map of investment sites.

However, only the regional authorities' activities are not enough; the action is required at the federal level. Russian President Vladimir Putin signed the Industrial Policy Law Amendments concerning tax incentives to industrialists December 31. 2014.

This package includes four types of benefits:

- investment in fixed assets (not less than 20 million rubles a year, 50 million rubles for 3 years and 200 million rubles for 5 years) is reckoned toward reduction of profit tax;
- tax holidays on profit and property taxes for new businesses;
- accelerated depreciation of fixed assets;
- reduced rate of insurance premiums for the enterprises engaged in engineering and industrial design.

According to the developers, subsidies will encourage investment in production and, consequently, tax revenues in the budget. Thus, if the costs of the measures implementation amount to 159 billion rubles, the final effect will be 2.156 trillion rubles of additional yield.

It is important to note that the tax incentives offered by the Ministry of Industry and Trade will work for a very limited range of companies.

First, they set a high barrier for participation. The industrial enterprise must be new and the amount of the minimum investment – 20 million rubles a year.

As a result, the average business, which theoretically reacts to opportunities faster than others, stands aside.

Second, these measures are limited to profit and property taxes. But it is well-known that there is no property tax for new equipment in the Russian Federation and no one will agree to lower real estate tax. In

2015 local authorities are to transfer to the assessment of real estate, according to the cadastral value, and in the future this tax will become one of the basic. As for profit tax privilege, new businesses, interested in benefits, have no profit, that is why tax is not imposed.

Third, the situation is unclear with reduced insurance rates for the enterprises operating in the field of engineering and industrial design. After all, the goal is to promote the whole industry, but not any particular sector [9]. It is necessary to cut social contributions and calculate the rates beneficial for business. Nowadays social contributions are, in fact, the biggest tax for businesses, labor tax.

The public organization “Business Russia”, including entrepreneurs from 77 regions, has the following alternative proposals:

1. It is necessary to reduce the VAT rate from the current 18% to 12%. First, the same VAT rate is observed in Kazakhstan, and all the production that could “be transferred” to Kazakhstan (especially from neighboring Russian regions), was transferred due to lower social contributions and VAT rates and a package of tax incentives for new businesses. Second, gray schemes are used to sidestep the VAT payment. According to the various estimates, 30–50% of the total funds will be “white”.

2. It is required to give preferences to reinvested profit into production, that is, to tax the profit that the company reinvests at 10 or 5%.

3. It is necessary to diversify the insurance premiums depending on the age of a worker and the labor productivity in order to encourage the creation of new productive jobs. If a person works at a high-performance workplace, produces a lot and gets a high salary, he/she should be imposed tax not by a progressive, but regressive scale. As for age, it is necessary to encourage businesses to employ young people (for example, aged under 30 to pay social security contributions at a reduced rate). According to the “Business Russia” Tax Committee Chairman, it is necessary to introduce a monthly social deduction, taxed at 0%, equal to subsistence minimum for an adult person plus subsistence minimum for each dependent who is under care of an employee. The poor will not have to pay contributions.

4. It is advisable to follow the recommendations of the Ministry of Industry and Trade regarding the accelerated depreciation of fixed assets. Allowance for depreciation gives enterprises the right to regulate first profit. The equipment acquisition represents the real costs of fixed assets renewal [9].

Probably, the implementation of these measures and the amendment of the federal legislation will encourage the implementation of the Presidential decrees, aimed at creating a favorable investment climate, increasing the paces and sustainability of socio-economic development.

The compliance of the Russian norms to regulate economic activity with global norms is one of the most important tasks

to improve the country’s investment climate and boost its investment attractiveness. It is necessary to adjust Russian accounting in accordance with the international standards. Potential investors will assess the performance and the balance sheet figures of Russian enterprises more accurately when cooperating with them.

To stimulate the inflow of private investment it is required to introduce special financial incentives, including government co-financing of basic infrastructure, provision of loan guarantees, extension of the territories having the special economic regime, backing interest rates for their development, equipment acquisition and provision of lease incentives.

In addition to the financial incentives, to attract investment to the Russian Federation the state should focus on the improvement of the processes of interaction with investors and support the active promotion of products on domestic and foreign markets.

The elements of the system to improve investment climate in Russia should be the following: first, the national rating of investment climate in the regions; second, the tools to motivate regional authorities and the development of these tools; third, the mechanism to exchange best practices based on dialogue between business and authorities [8].

Thus, taking into account the stated above, we can propose the measures to improve conditions for investment activities in the Russian regions (*tab. 5*).

Table 5. Measures to improve conditions of investment activity in the RF regions

Factors of investment climate	Indicators	Suggestions for investment climate improvement
Legislative support of investment activity	Taxation level. Tax benefits. Government guarantees. Investment tax credit. Guarantee of legal equality for all investors.	It is necessary to legally recognize tax exemptions for profit tax for enterprises and organizations, engaged in real investment, including those participating in PPP projects. The cost of debt servicing, including the repayment of the primary loan, should be taken into account in order to reduce a taxable base of profit tax.
Development of market infrastructure	Availability of banking services; insurance of investment risks; insurance of construction and installation; leasing; consulting services.	It is necessary to develop a system of long-term credit provision and investment risks insurance. In the framework of investment and industrial policy one should provide for a mechanism to compensate the investment component of interest credit rates on loans, aimed at the implementation of real projects, including PPP.
Availability of real estate	Transparency of tenders. Order of land title registration. Availability and adequacy of office space. Possibility of obtaining land titles.	It is necessary to form a unified information system of available real estate, simplify and make transparent the system to distribute land for the implementation of real projects in industry and infrastructure.
Development of engineer infrastructure	Transport. Road. Electricity. Water supply and Sewerage. Connection. Availability of the construction of new infrastructure facilities; engineering, approval, operation permit.	It is necessary to simplify the procedure to approve the design, construct and obtain the permit for new infrastructure facilities operation, primarily in the field of energy supply.
Availability of skilled personnel	Adequacy of administrative and economic personnel, engineering staff and skilled workforce.	It is necessary to provide a comprehensive program of staff training for the implementation of real projects at all levels of the RF educational system: – at the level of secondary education– encourage career-guidance, actively develop technical schools and technical high schools, focused on training highly qualified workers, including builders, introduce mandatory certification of construction laborers. – at the level of secondary professional and higher professional education – promote interaction with enterprises and organizations of the real sector, increase the number and duration of mandatory production practices, open branches organizing production practices of students of secondary and higher vocational institutions.
Information infrastructure	Availability of relevant information. Accuracy of the information significant for investors.	To create an information portal, providing reliable, relevant and adequate information to all users, interested in the realization of investment projects, including PPP; provide a broad PR, according to new laws and regulations, determining the conditions of investment activity implementation.
Administrative factor	Speed required for obtaining permits and approvals. Level of corruption.	To take measures to reduce the corruption impact of on investment, maximize control over compliance with the deadlines and the procedure to obtain permits.
Compiled by: [20].		

It should be noted that in the modern conditions, when the budget funds are insufficient and the additional sources of funding are required, private investment serves as one of the types of extra-budgetary investment in infrastructure development, addresses specific socio-economic problems, expands the range and improves the quality of services, forms new points of growth, contributes to the increase in the level of socio-economic development of the region.

However, this is not possible without transparent, mutually beneficial mechanisms of government-business cooperation,

reviewing existing stereotypes of business structures' conduct and methods of their participation in the territorial development.

The authorities should show political will and business should elaborate a new approach to understanding of its role in social investment and become more interested in the territorial development. Only in this case we can speak about a new stage of development of the Russian model of investment, which will create comfortable conditions for business operation and will improve the efficiency of budget funds, used to ensure sustainable development of the regions.

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Employment strategy of the Russians



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Abstract. During the crisis it is especially important to choose a correct employment strategy. Every employee uses an employment strategy, as he/she selects the direction of long-term employment consciously or intuitively. The choice of strategy is determined by a number of factors shaping the person's attitudes: health, character, upbringing, education, social environment, institutional environment. The employment strategies of the young people newly entering the labor market differ from labor strategies of workers. Young people do not have such experience and can plan their life "from scratch". The Soviet specialists, people who started their career in the planned economy, have their own features of employment strategies. The article describes employment strategies of the Russians.

Key words: employment strategy, the youth, workers, Soviet specialists, health, education, institutional environment.

This article presents the results of the research focused on the complete classification of labor strategies of the Russians. Most research on this topic was conducted at the turn of the century and during the last ten years the scientific community has lost interest in this topic. Hence, there are no relevant scientific works. Meanwhile, Russia is constantly experiencing institutional

and socio-economic changes: the education reform, several economic crises, development of the system small enterprises support, etc. They limit the range of employment strategies. The scientific novelty of this study is as follows: first, employees are divided into 2 groups: those who first enters the labor market (young people) and constantly working;

employment strategies of Soviet specialists, characterized by some specific features, are singled out in a separate group; second, the attempt was made to create a complete list of fundamental employment strategies.

We understand the employment strategy as a conscious choice of the direction of long term employment made by an employee. There are factors determining the ability of people to choose some optimal employment strategy.

1. Health. The presence of diseases limits the choice of employment strategies. Disability has a severe impact on the choice of work. It is especially difficult to determine the employment strategy for lifelong disabled people. To get a job, they have to show their will and determination.

2. Innate character features. The character features, such as persistence in achieving goals, diligence and ability to perceive information, promote career planning, i.e. reasonable choice of employment strategies. People with this character understand what they want to achieve in life since childhood and strive to achieve it.

3. Upbringing. Upbringing can compensate a lack of inherent character features. Parents bring up children, but sometimes the life circumstances have a strong impact on the character formation. Overcoming life difficulties, people form their character.

4. Education. The level of education is one of the key parameters that determine the choice of an employment strategy. Secondary education limits the possibility

to obtain an interesting, well-paid job; post-secondary education gives an opportunity to continue education at university or apply acquired knowledge in production and make a working career. Finally, higher education provides an interesting, well-paid job and career prospects.

5. Social environment. Social environment influences the formation of people's world perception. It forms the general level of culture and value orientations of a person, thus, affecting the choice of an employment strategy. Quite often children choose work occupations of their parents, as they are familiar with them from childhood. There are well-known families of military officers, artists, doctors, musicians; a young man who has grown up in the family, which has small business, can set up new or continue family business easier, etc.

6. Institutional environment. It defines a set of alternatives that are available to a person, imposing severe restrictions on the choice. The labor market, where the employment strategy is implemented, determines the demand for some professions, which do not always coincide with person's desires.

As a result, the choice of an employment strategy is influenced by many factors, which form some rational attitudes of a person. Attitudes can be either material, such as maximization of income, or idealistic, such as the choice of interesting work. If the choice were only rational, for example, in order to maximize revenue,

then we would have no musicians, actors, scientists and other low-paid workers.

In practice, both approaches are combined and the labor strategy is chosen depending on the predominance of one or another attitude of an individual. Thus, the choice of an employment strategy is the comparison of acquired attitudes with the possibilities of their realization.

We will distinguish employment strategies of young people, i.e. people born after the 1992 economic reforms and the relevant socio-political transformation and newly entering the labor market¹, and adult persons, i.e. people who have joined the labor market long ago.

Employment strategy of the youth

The young people differ from other actors of the labor market, as they can choose any employment strategy. They do not feel the burden of past mistakes. Their common feature is susceptibility to influence of the external environment, i.e. television, radio, social media, electronic games, etc. Their parents got the first work by assignment; today's young people do not have state guarantees of employment. They have to enter the labor market after we present graduation and promote themselves.

We present young people's definitions of good work (*tab. 1*).

Table 1. Distribution of young people answers to the question: "What requirements should the work meet to satisfy you?"*

No.	Answers of respondents	Number of answers	%
1.	Well-paid	1525	84.9
2.	Interesting for me	1141	63.5
3.	With good work conditions	521	29.0
4.	Providing opportunities for professional growth	466	25.9
5.	Diverse, creative, initiative involving	293	16.3
6.	Useful to society	255	14.2
7.	Prestigious	236	13.1
8.	Leaving plenty of time for other activities (recreation, family, study)	235	13.1
9.	Providing an opportunity to make a career quickly	228	12.7
10.	Not tiring	111	6.2
	TOTAL	1769	100.0

* VTSIOM sociological research "Youth of the new Russia: lifestyle and value priorities" was carried out in 2007, 1769 young people were surveyed in 12 regions of Russia, cities of Moscow and Saint Petersburg.

¹ Let us consider young people aged 17–29 as the youth, as is done in most studies. In other cases we will specify the age.

² The respondents could choose multiple answers, so the number of responses exceeds the number of respondents.

For the absolute majority of young people the work should be well-paid (84.9% of the respondents²). The attitude that that without material prosperity it is impossible to make own life has become the dominant factor promoted by the external environment. Interesting work (63.5%) is the next most frequent answer.

Consequently, the image of future work looks like an “interesting job”. Let us note that all the employees in Russia would like to have such work. Other responses are less frequent. So, for 29% of the respondents their work should be comfortable (with good conditions) and for 25.9% – it should ensure professional growth. Interestingly, not so many young people demonstrate hedonistic mood: for 13.1% of the respondents the work should leave much time for other activities and for 6.2% – it should not be tiring.

The answers to the question: “What do you think, what helps get a good job primarily?” give an idea about the way to have good work (*tab. 2*).

The most popular answer reveals that young people understand the high importance of education. This corresponds to the number of young people seeking to enter higher education establishments after school. However, more than half of the respondents believe that the path to a good job is laid through contacts and acquaintances. Therefore, young people can build their employment strategy without good education or enter prestigious institutions in order to obtain the “degree”, as they rely on contacts and acquaintances to get a good job. The number of the respondents, considering hard work and study as a way to success, only slightly exceeds the number of the respondents,

Table 2. Distribution of young people’ answers to the question: “What do you think, what helps get a good job primarily?”

No.	Answers of respondents	Number of answers	%
1.	High qualification, knowledge	1143	63.6
2.	Contacts and acquaintances	945	52.6
3.	Readiness to work hard	561	31.2
4.	Specialty that is now highly valued	555	30.9
5.	Initiativity, entrepreneurial attitude	513	28.6
6.	Discipline, diligence, responsibility	491	27.3
7.	Ability to get along with authorities	367	20.4
8.	Other	15	0.8
	TOTAL	1769	100.0

relying on good connections. People, willing to work hard, are those who seek for receiving a highly-valued degree.

Based on the preferences in the choice of grounds for getting a good job, we can define the basic employment strategy youth.

Deliberate professionalism. According to this employment strategy, young people choose future profession quite early and consistently pursue their ambition: get proper education and acquire necessary competences and skills. Professions, chosen by young people, require good eight year educations: six years for basic education and a master's degree and two years for second higher education.

Usually the positions, occupied by people with such training, provide them with a good salary and career growth. However, sometimes it is enough to have only basic education and, for example, know foreign languages in order to use this strategy successfully. There is quite a large group of young people who use this strategy without getting higher education. There are popular work occupations, which do not require higher education: mechanics, operators, seamstresses, etc. They provide an acceptable level of wages and satisfy the need for self-realization. To get such jobs, it is enough to go to a college.

Professionalism. Unlike the previous strategy, young people are not sure about future profession. Without any purpose, they go to a college, for example, "for the company", or following the advice

of parents, or as it is close to home. They believe that good education will help them become successful on the labor market and they are ready to work hard to get it. They can change their work occupation and, accordingly, the university, when they understand what profession they want to receive.

The first two labor strategies are implemented by young people who consider high skills and knowledge as a way to get a good job. Sometimes they receive second higher education in foreign universities, thus becoming more competitive to be employed in foreign companies operating in Russia. Usually they behave actively on the labor market, searching for a job that would satisfy their ambitions.

According to the results of the departmental monitoring carried out by the Ministry of Education and Science of the Russian Federation, in December 2012 best employed were graduates of engineering departments, such as "Aviation and Space-Rocket Engineering", "Marine Engineering", "Energy, Power Engineering and Electrical Engineering" and "Metallurgy, Engineering and Metal-Working Manufacturing". The share of the graduates, unemployed in this field, does not exceed 5%. The possibilities to get a job after getting a degree in Economics are completely different. As for the field "Humanities", only 53% of the graduates could get a job place, "Education and Pedagogy" – 48%, "Social Sciences" – 45% [1].

Protectionism. This employment strategy is used by young people who rely on contacts and acquaintances. Sometimes to get protection it is important to get a particular degree, that is why they go to a certain university or college; sometimes only a degree is required. Some private institutions do not provide quality education, but they see to it that a graduate has a degree. This youth category is provided with a job place in advance. They find it difficult to change it, even if they do not like it, as they are not psychologically ready to search for new jobs.

Stable career. This is the strategy, pursued by the young graduates, preferring a stable career with gradual implementation of life plans. In most cases they work in public organizations, consistently passing the way from the lowest to managerial positions. Usually the budget enterprises provide their employees with a variety of additional social services (health, recreation, child care, etc.) that can serve as a bonus to small salaries.

Own business. In accordance with this strategy, young people are eager to create their own business. This often occurs when their relatives or the inner circle do business, and young people begin to learn business under their supervision. The studies show that education, better higher, is required to manage a small enterprise [2]. Secondary education is enough for individual entrepreneurship. Some young people start their business studying at the

university, for example, providing services for installation, checkout and maintenance of computers. More often young people under 25 become heads of small enterprises under the supervision of experienced people. This helps avoid fatal mistakes that lead to bankruptcy.

Survival. This employment strategy is characteristic of young people who are forced to start their career early for some reason, for example, feed themselves or their dependent relatives. Without education, they have to get the worst-paid jobs. Quite often the orphanages' leavers use this strategy. Unfortunately, to change this employment strategy is almost impossible, at least until the circumstances change.

Players. These group members perceive life as continuation of a certain computer game. They change jobs easily, sometimes due to quarrelsome characters, sometimes wanting to try as much as possible in this life. They focus on social networks, where they live, and the real life is somewhere outside of their attention. They live in anticipation of a big win and believe that they will be lucky in the end.

Apathy. This employment strategy is selected by the youth who chooses not to work. Having the opportunity to receive money from relatives and friends, they try not to work. And if they are employed, they do everything to have them fired. The infantile attitude to work is caused by a number of factors: improper upbringing;

desire for a beautiful life, formed in adolescence under the influence of social networks, television and clan ambitions; deviations in the psyche, etc. Often such young people become alcoholics and drug addicts. Sometimes this period lasts a long time (up to the age of 40 longer), i.e. until the sources of money are run out. Not necessarily the family of such young people should be wealthy; on the contrary, they can pull money from elderly parents-pensioners and be unfair to people who love them.

Finally, all young people who do not use the previously described strategy can be attributed to the group of “**undecided**”. This is a group of young people who have no conscious labor strategies. Usually these people do not take pains in studying, and they are called weak learners or middlings, depending on the abilities. They leave schools, colleges or even graduate from universities without understanding where to work. Entering the labor market, they use different search strategies [3], but work out of necessity or are not satisfied with their work. Perhaps, gradually, they can develop their own employment strategy, but early in life they drift along, not knowing where they can come to.

It should be noted that young people working at state-owned enterprises, more often work in their specialty: 70% of the employed at state-owned enterprises and only half of the employed at private

enterprises claim that their work corresponds to the specialty specified in the diploma. A quarter of young people who have got special training never work in their field. The greatest number of employees who do not work in their specialty is observed among young entrepreneurs (53%), young employees in the service sector (45%), workers at enterprises, mines, construction sites (43%). Young people living in big cities work in their specialty more often than those living in medium and small cities or rural settlements. Young people who have started their career while studying at the university or college find jobs in their specialty and adapt to it faster [4].

Most young people, before finding a job place, have a period of unemployment. This also applies to high school graduates not admitted to universities and graduates of universities and colleges. To a lesser extent this applies to graduates who have received engineering degrees. *Table 3* presents the results of the monitoring, carried out by the Ministry of Education and Science of the Russian Federation, in relation to the 2011 engineering graduates, seeking assistance in employment agencies.

As the table shows, the largest number of engineering graduates goes to employment agencies in the Siberian Federal district and the Far Eastern Federal district, and the lowest number – in the Central Federal district and the Northwestern Federal district.

Table 3. Number of the 2011 engineering graduates seeking assistance in employment agencies

Federal district	Number of applicants to employment agencies, %	Number of recognized unemployed, %
Central	2.72	1.47
Northwestern	2.95	1.57
Southern	6.54	3.84
North Caucasian	6.15	4.98
Volga	3.50	1.91
Ural	4.56	2.33
Siberian	8.37	4.74
Far Eastern	7.03	4.23
TOTAL in Russia	4.37	2.47

Employment strategies of employees

The citizens, who have started their career, also have their employment strategies, which are well described [5, 6, 7]. The labor market has been recently developing rapidly to increase requirements to the level of employees' professionalism.

In terms of the labor force quality, the labor market can be divided into the market of skilled and low-skilled jobs. Skilled jobs, as a rule, can be occupied by the workers with higher and secondary special education. This is administrative staff, engineers, employees with high and medium qualifications. This group has a relatively high level of wages and certain guarantees stable employment. Unskilled jobs require no special training and qualification. They are for workers without education and work experience, i.e. employees in the service sector, laborers at construction sites, etc.

They are characterized by lower wages and job security.

The typology of the occupational structure of labor force supply can be performed in the following groups [8]:

- work occupations of highly skilled, creative and intellectual labor characterized by growing demand;
- mass work occupations of interdisciplinary application characterized by stable demand: demand in these workers is determined by the economical trends;
- unattractive work occupations of heavy, low-skilled manual and unhealthy labor that do not meet socio-cultural and psycho-physical requirements of the modern workforce; they are still characterized by sharp shortage and low quality of the labor potential;
- work occupations, the demand for which falls due to structural and technological restructuring, and free workers need retraining and re-qualification;
- undervalued and underpaid work occupations.

There are major employment strategies of the Russians.

Career growth. This strategy is more common among work occupations requiring high qualifications. An employee consistently goes through all the stages of professional development. For this strategy, an employee should constantly enhance his/her professional level: read special literature, develop new methods, participate in conferences, undergo training aimed at improving skills. This strategy can be implemented at one enterprise due to the change of a job place.

Salary maximization. The employees using this strategy pursue material success. They can improve their skills, but can change the place of work and the work occupation easily, if they seem it favorable. There is a variation of this strategy, such as the strategy to maximize income without great effort. People practicing this strategy want to work in accordance with their duties and obtain the highest possible salary, but are not ready to take pains to raise their professional level.

Combining jobs. This employment strategy is a variation of the salary maximization strategy, as it is aimed at receiving additional revenue. This strategy is mostly used by the employees of creative (liberal) occupations: journalists, artists, actors, etc. This can also include scientists who teach and accountants who can keep accounts of several enterprises.

This strategy is successfully used by the professionals who have the opportunity to

work at home, such as designers, architects, programmers, etc. They can and can not have a permanent place of work.

Stability. This employment strategy is preferred by the workers interested in stability. High wages, though desirable, are not necessary; to have a stable job place is essential. They can change a job if they feel that the new job will be more stable. For the sake of stability they can abandon personal and professional interests and even lower their status. This strategy is used by people who have been unemployed for quite a long time. People of pre-retirement age are more inclined to use it, as they find it difficult to compete with the youth on the labor market, despite their great experience.

Labor minimization. A small number of employees use the strategy, which does not coincide with the theory of rational behavior of an “economic man”. Such “workers” ready for anything, only to do nothing or the minimum possible work. They do not care about a low salary level. It is rational if the income from additional work (for example, when combining jobs) is much higher than that at the main job. Or if an employee uses this strategy pursuing hedonistic goals, trying to free as much time as possible for hobby. However, sometimes the labor minimization is a consequence of stand in life.

Own business. This strategy is mostly used by the employees who have worked in the specialty for some time and have gained some professional experience. They use the acquired experience when opening

their own business. The desire for self-actualization and financial situation improvement is the main stimulus of this employment strategy. Let us note that not everybody succeeds. Approximately one third of the newly formed small businesses go bankrupt after the first year of operation. If the company become insolvent, the owners can be employed at some other enterprise and after some time start their own business. Quite often people who have lost their jobs start business and become forced entrepreneurs. There are programs to combat unemployment (for example, financial support to employment agencies) and programs to set up business.

Forced work. People use this employment strategy against their will. They are forced to take any, even low skilled work to feed themselves and their family. This situation occurs in depressed regions with high unemployment or as a result of personal circumstances. Quite often use this strategy is used by orphanage leavers, single mothers, families with the dependent (disabled children, sick parents, etc.), the old-aged unemployed.

Planned unemployment. Having the opportunity to earn money, the unemployed get registered at employment services and receive unemployment benefits. At the same time, without informing the employment service, they have temporary jobs. If the wages at the temporary work are high enough, the unemployment benefit is perceived as a bonus from the state. After the completion of the benefit period,

they easily find work and after some time everything is repeated again [9]. This strategy is characterized by the frequent change of jobs.

Employment strategies of the Soviet specialists

The consideration of labor policies of the Soviet intelligentsia (teachers, doctors, scientists and engineers) is interesting and important because they stepped from one economic system to another: from planned to market economy. People who got higher education in Soviet times and jobs in accordance with the distribution comprised the Soviet middle class.

They started their career in the Soviet Union during the planned economy, when there was artificial shortage of labor, collectivism was much more important than individualism, the beginning of career was characterized by similar income for everybody and high salary was not considered as a core value. First of all, work should be interesting. The degree of social protection was very high; it was almost impossible to dismiss employees for incompetence, they were protected by the Labor code and trade unions.

The 1992 economic reform changed the institutional environment. As a result, the non-payment of wages on time became commonplace, the inflation reduced purchasing power sharply and the proper wages indexing lacked. The Soviet specialists had to adapt to the changes in the institutional environment [10]. However, the large group of professionals did not

give up the usual strategy even in those conditions³. Work satisfaction, attachment to the staff and the existing way of life and rejection of the new rules of social organization are interviewee's motivations not to change habitual employment strategies. These strategies are often associated with overcoming circumstances and environmental resistance.

We can distinguish four situations, when the former (Soviet) employment strategies can be preserved:

1. High professional qualification of a "Soviet specialist". In such a situation (not very widespread) an employee is in demand on the new labor market, his/her knowledge and professional skills are required by the state or non-state sector, the salary is timely indexed, the social status is not only not reduced, but can be increased.

2. Support of the family. Some members of the household, earning enough, give a chance to others not to make significant changes to working practices.

3. Presence of broad social networks. Their importance in the Soviet society is difficult to overestimate [11]. In the new conditions of the dominance of the economic exchange integration social networks are becoming more important.

³ The research results are presented according to the materials of the CSTI and University Magdeburg joint project, conducted in 2000, aimed at investigating changes in the organization of everyday life of 6 mass professions representatives (military officers, doctors, engineers, scientists, teachers, government officials). 90 interview was taken, 15 for each group. The interviewees were under 40, had higher education, continued working in the specialty received in Soviet times and lived in Saint Petersburg.

"Soviet specialists", having extensive networks, use their "connections" to find a prestigious job, obtain loans, free medical care and additional earnings. Networks help to cope with a variety of problem situations. They are used most successfully where there formal institutions are ineffective. The presence of the significant network resource, when, for example, leaving the armed forces, can help not only find work immediately, but also choose the most acceptable among several offers.

4. Stubborn conservatism. People, adhering to this strategy, do not want to sacrifice the customary way of life for the successful adaptation to new institutional conditions. They can not accept the new rules and literally survive by self-restraint, as they are not ready to change the volume and nature of work.

Not all "Soviet experts" were ready to involuntary restraint. Many people had to flexibly add (develop) their employment strategies. The desire to adapt to new institutional rules led to increased employment and widespread job combining.

This form of labor behavior was inherent in the Soviet period. But then it was severely restricted by the state and was less relevant for the Soviet middle class, which had social guarantees from the state. After the Soviet Union collapse and the transition to market economy secondary employment (job combining) became rather popular [12].

There are 3 forms of secondary employment of “Soviet specialists”:

- 1) development of new, in-demand activities in addition to the main job;
- 2) increase in the volume of work at the workplace;
- 3) self-employment.

The first form is used by “specialists”, who managed to find a job “on the side”: they are engineers, making money on the side, repairing household appliances, scientists guarding parking lots, military officers being carriers, etc. “Often the main work, which is mainly a place to store a work book, assumes a secondary nature by a number of indicators (for example, in terms of profitability, cost, time, value), hence, secondary employment essentially becomes the main” [13].

The second form of job combining is popular among people, trying to maintain an acceptable standard of living based on the increase of labor amount at their work place. For example, teachers take more “hours” or doctors work in several shifts.

Self-employment is typical for people who, not finding other opportunities to earn money, turn their hobby into economic activity. So, a female engineer of defense

companies sews and knits in her spare time. She sells the results of her work and thus provides a subsistence minimum for the family. Often people catch fish, gather mushrooms for sale, etc.

Gardening in the first half of 1990s was the brightest example of the self-employment strategy. Almost one third of the Russian cities inhabitants, owning a country property, tried to make up the lack of a family budget by saving on fruits and vegetables that can be grown in kitchen gardens. Instead of increasing professional activity people become involved in the production of agricultural products.

“Soviet specialists” use free time to get additional income. There are many variants of using free time, and they can not be systematized.

Institutional changes did not encourage “Soviet specialists” to replace paradigm quickly and lead to the employment strategy rationalization and the economic behavior change. This is related to social psychology, which is much more inactive than economic transformation. If the new economic was established by means of the adoption of the legislative act, ten years later most respondents still stuck to idealistic employment strategies.

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The priorities of the energy infrastructure modernization in rural areas of the Komi Republic



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Abstract. The article presents the problems of development and modernization of energy infrastructure priorities in rural areas of the Komi Republic. For the most part of rural population the achieved level of energy supply is the necessary minimum for the needs, and it has the low parameters of the energy and economy efficiency. The main directions of the rural energy supply modernization should be: the gas supply system development, the electric grid capacity growth and the construction of the modern small energy technologies (small central heating and power plants, modular boiler plants, efficient solid fuel boilers).

Key words: Komi Republic, rural settlements, integrated energy supply, energy infrastructure, level of development, efficiency, modernization.

Power supply in the rural settlements of the Komi Republic is much more inferior to that in the cities in terms of availability and cost of energy services. The problem of modernization of rural energy supply in the Republic is acute due to the significant depreciation of the equipment, the large number of inhabitants for whom energy supply is costly (more than 110 thousand people), and also due to the need for budgetary subsidies (almost 6 billion

rubles for 4 years [1]). In this regard, regional studies of the issues of rural energy development are relevant because they focus on systematizing economic and power conditions and choosing modernization priorities.

This article presents the specifics of development of energy infrastructure (EI) in the rural settlements of the Komi Republic, and identifies modernization problems and priorities.

After analyzing EI in the rural areas [2] it was possible to identify the main shortcomings of its development: the low level of gasification gas network, the presence of areas with decentralized power supply, the high share of inefficient heat supply. Taking into account the specifics of the structural organization of energy supply in the rural settlements of the Republic, we have defined the six levels of development of energy infrastructure – from the zero to the fifth level, each of them is characterized by a certain set of elements (*table*).

The assessment of this indicator for the Republic’s settlements allowed us to carry out economic mapping (*figure*), which shows the territorial differentiation of the energy supply conditions and which can be used as information basis for regional planning.

The higher the level of development, the more developed the system of energy supply, the higher its development potential

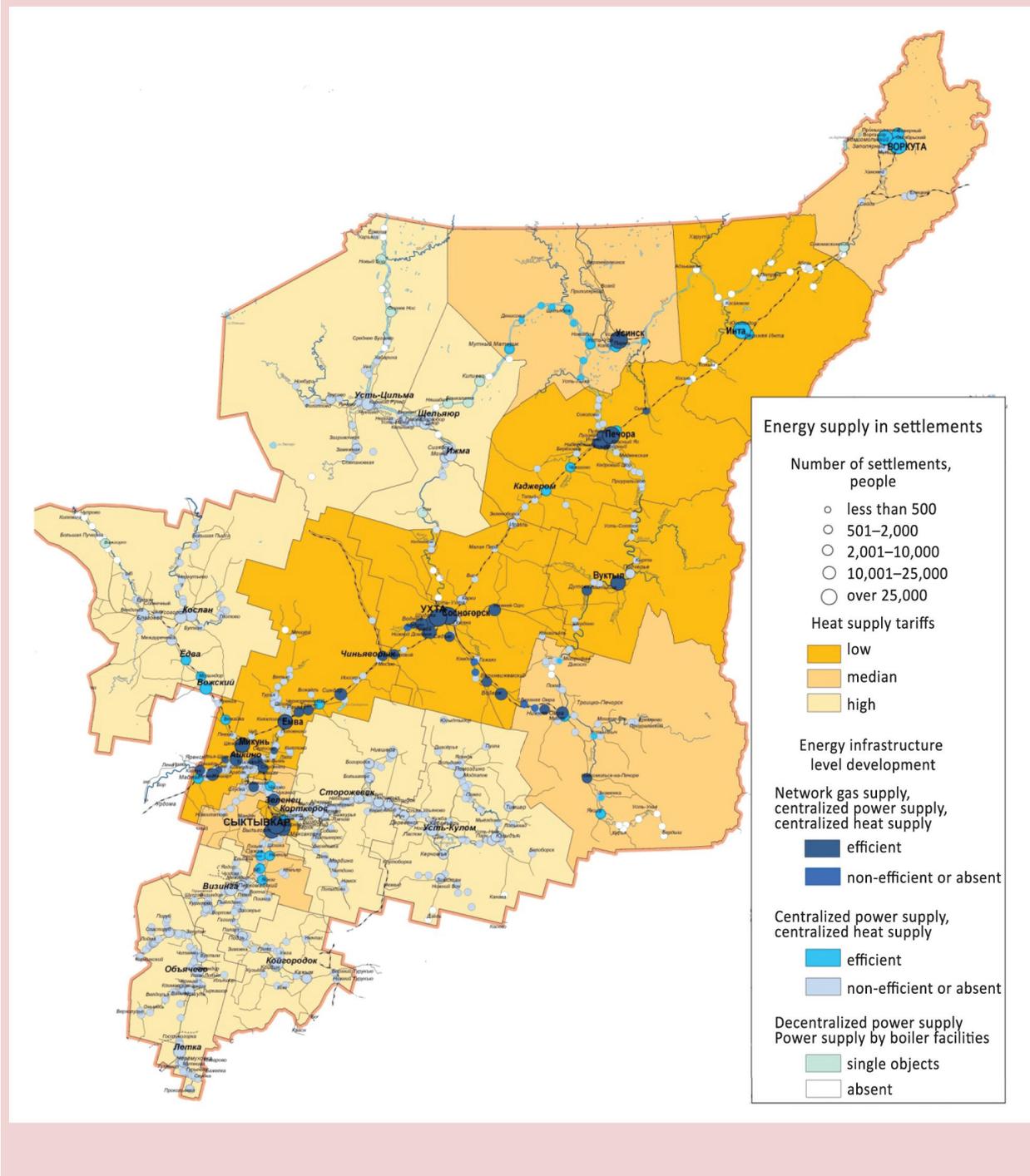
and production efficiency. We understand the potential as the summary characteristic of system features such as the degree of integration of energy services provision, the availability of opportunities for structural development, and the diversification of technologies. Comparative effectiveness reflects modern price terms: the advantages of gas generation, the high cost of decentralized power supply and local heat supply with small load and remote delivery of fuel. The overall assessment of the development of EI in the rural areas in general in the Republic leads to the following distribution:

– 97 rural settlements with the total population of 63.7 thousand people have a relatively high potential of EI (level 4 and 5), they comprise 34 gasified and 63 non-gasified settlements situated close to the Republic’s energy and transport centers, which have a relatively efficient integrated power supply of consumers;

Distribution of rural settlements by level of development of energy supply, 2012

indicators	Levels of development of energy infrastructure in settlements					
	0	1	2	3	4	5
Number of settlements, units	52	15	521	63	9	25
Population, thousand people	3.5	7.2	133.3	30.0	2.5	31.2
Components of energy supply system						
Network gas supply					+	+
Power supply:						
- centralized			+	+	+	+
- decentralized	+	+				
Heat supply:						
- efficient				+		+
- inefficient			+/-		+/-	
Key:	+	available,	+/-	available or absent,		absent

The territorial differentiation of the energy supply conditions



– the average potential of the energy infrastructure is typical of the majority of rural settlements (521) with the total population of 133.3 thousand people – these are the settlements remote from the Republic’s energy and transport centers that have centralized power supply, but their heat supply is very expensive, since it is provided by small boiler facilities or by those that use only furnace heating;

– 67 rural settlements with the total population of 10.7 thousand people have the low potential of energy infrastructure; these are the rural settlements located in the most peripheral areas of the Republic; they have costly decentralized power supply provided by diesel generators, with or without heat supply, and high costs of fuel delivery.

Consequently, the majority (70%) of the rural population lives in rural settlements, in which the level of development of EI is not higher than the second; this level satisfies the minimum necessary needs, but the energy and economic efficiency of energy supply remains very poor. The priorities in planning the energy sector modernization should include the selection and implementation of optimal technological solutions to replace the inefficient heat supply and the expensive decentralized power supply. The prospects of development of EI in the rural areas are related to the further gasification and power grid construction, and to the large-scale upgrading of local energy sources based on modern technology.

Gasification. The development of gas distribution system is of paramount importance in the formation of energy infrastructure, in ensuring quality, efficient and environmentally friendly energy supply. But in the medium term, it is not planned to expand significantly the zones of network gas supply in the rural areas of the Republic (according to the schemes developed by OAO Gazprom Promgaz). This is impeded by the remoteness and low density of energy load, which result in extremely high unit costs to the distribution system. The projects of the most complete gasification of consumers in rural settlements are implemented most often, if these settlements are already partially connected to the gas supply network and which are subject to financial support provided from the budget.

Further development of gas supply in the Republic is connected with the construction of the Bovanenkovo-Ukhta-Torzhok main gas pipeline, the two strings of which are planned to be put into operation in 2016. The main gas pipeline in the Komi Republic goes through seven municipalities and includes the districts of Vorkuta and Inta, thus creating an opportunity for their subsequent gasification.

Autonomous gasification with the use of liquefied natural gas (LNG) or liquefied petroleum gas (LPG) is a possible option for the development of high-quality energy supply in remote settlements. Gas in the LNG option is liquefied at a mini plant located near the pipeline, then it is delivered by special vehicles to the place of its use.

The gas is kept in liquid form in cryogenic insulated tanks, and before it is used it goes through the regasification system and is directed to industrial facilities and residential buildings via local networks. When gasification is based on the use of LPG, the fuel is delivered by trucks and stored in tanks under pressure (gas tanks). Currently, the settlements that do not have network gas supply use imported LPG, mainly in cylinders, as fuel for household purposes. Norms of consumption are established for the population, limit values are established for the prices, and budget subsidies to compensate for the loss of income are allocated to the suppliers. But even if the prices of LPG are preferential for the population, the costs to the consumers are much higher in comparison to network gas supply.

Widespread use of liquefied gas as fuel for boiler facilities is limited by its high cost. Prices for liquefied gas (LNG and LPG) not less than 3 times exceed the cost of network natural gas in energy-comparable measurement; and the fuel component of the cost of heat energy production is more expensive, accordingly¹. Therefore, the use of liquefied gas in heat supply systems in rural settlements should be viewed primarily as an expensive, but more competitive and environmentally friendly alternative to boiler facilities that work on fuel oil.

The competitiveness of LNG, as compared to the option of development of

network gas supply, according to the estimate [3], can be achieved only if settlements are located very far from the source of gas supply (more than 0.5–1.2 thousand km) and if the volume of gas consumption is small (5–25 tons/year); and if the distance does not exceed 200 km, then the integral costs of setting up a standalone LNG-based gasification system are several times higher than the costs of constructing an inter-village network.

Taking into account the differences in prices, it is obvious that the introduction of autonomous gas supply technology in the rural areas of the Republic will require government support and subsidies; the further network gasification of the Republic's rural settlements will require the same measures. Competitive advantages of alternative options should be assessed taking into consideration the development of a scheme of gas supply of the Republic and the complex energy supply schemes for municipalities.

Local energy sources. The share of inefficient capacities in the total performance indicators of heating plants in rural areas (with production costs exceeding the limit rate of the tariff) reaches 61% (218) of their total number and 46% (352 Gcal/h) in the total installed capacity. The well-grounded choice of the best technological solutions to replace more than 200 outdated boiler facilities in 134 rural settlements of the Republic and the implementation if these solutions is a priority in planning the modernization of heat supply [2].

¹ See: <http://www.gazpromlpg.ru/index.php?id=184>.

Currently, according to JSC Komi Heating Company², the rural areas of the Republic are planning and implementing the projects for the construction of new modular boiler facilities; several boiler plants are being reconstructed so that they could work on gas or coal rather than on fuel oil; obsolete boilers are being replaced, small inefficient boiler facilities are being shut down and replaced by electric heating systems. The number of inefficient boiler plants for the last 4 years has decreased by 47 units; 32 unprofitable boiler facilities have been closed[1].

However, it should be noted that the shift from small boiler plants to electric heating is not a cost-effective and energy efficient solution. The heat supply organization explains this solution by the decrease in damage, but at that the actual cost of heating to consumers (or the need for budget subsidies) can increase. Electricity is the most expensive energy source with low production efficiency and high transmission losses, and its use for heating is the most energy-wasteful and expensive heating option: at the cost of electric power being five rubles per kW*h the production of one Gcal of useful heat will cost six thousand rubles (if the efficiency of electric heaters is 98%, excluding the cost of amplification of electric grids and heat losses in heated rooms), and the utilization efficiency of primary energy of the fuel will not exceed 30%.

² <http://komitk.ru>

In general, the rates and coverage of modernization in the heat economy of rural areas remain low and insufficient for making qualitative changes in the situation that concerns heat supply efficiency. The reason for this lies in the limited investment resources generated from the tariffs. The comprehensive upgrading of heating systems requires the replacement of a large volume of obsolete boiler equipment and worn-out networks with their modern counterparts or alternative technologies.

In the conditions, when there are many similar objects that require reconstruction, it is important to elaborate in details the solutions for choosing really efficient modernization projects or replacing heat-and-power equipment. It is necessary to form the fundamental concept of reconstruction based on a thorough and comprehensive analysis of the composition and characteristics of the existing boiler facilities, options of solid fuel burning and types of mass-produced domestic boilers [4]. When planning the modernization of heat supply systems it is necessary to pay considerable attention to identifying the reserves of energy efficiency of consumption and reducing excessive losses in networks, which in some rural settlements reach 50% of heat generation (according to the statements of the branches of JSC Komi Heating Company).

Given the magnitude of the task of developing efficient heat supply in rural areas, we can point out that it would be reasonable to organize target program-based

management of modernization process for the system of energy infrastructure in order to establish systemic interaction between the authorities and business, to coordinate the processes of planning, financing, budget support and project implementation. The priority directions of modernization of heat generating plants in the Republic's rural areas should be as follows: the technology of small CHP, modular boiler facilities of small capacity, efficient solid fuel boilers, generation of energy from wood waste.

Small and mini-CHP. Combined generation of heat and electricity should be carried out in order to improve energy efficiency at the objects under construction or reconstruction, which have heat output of more than five Gcal/h (according to the Resolution of the RF Government dated December 31, 2009 No. 1221). Heat sources with such capacity in the Republic's rural areas include mainly gas and fuel oil boilers that are located in the largest villages where industrial heat consumers are located. The main directions of small and mini-CHP developmen in rural areas include: the construction of small and mini-CHPs by units of 0.5–5 MW with gas turbine units (GTU), small and mini-CHPs with internal combustion engines and heat recovery, gas-producing small and mini-CHPs; the reconstruction of gas boiler facilities with the installation of gas turbine or gas-piston units; the installation of steam engines to generate electricity or drive the mechanisms of own needs when boiler plants with steam boilers are being reconstructed [5].

The competitiveness of different small and mini-CHPs depends on technological and local conditions. For instance, small and mini-CHPs with GTU are most suitable for large industrial enterprises that have significant (over 8...10 MW) electric load, their own production base, highly qualified personnel to operate the plant, and that use high pressure gas.

Some favorable prerequisites for the reconstruction of boiler houses with the installation of power generating equipment on the basis of GTU are the availability of year-round consumption of heat, the presence of a gas pipeline with the pressure not lower than 2.5 MPa or the possibility of installing a booster compressor station on site; the limitations can be as follows: the level of noise from the gas turbine units when boiler facilities are located in a residential area [5].

During the installation of power generating units in boiler facilities, the choice of installed capacity corresponding to the basic heat load of the boilers would be the most economical option.

During the reconstruction of steam-generating boilers it is efficient to use rotary steam engines (RSE) to produce electric power when the coolant's pressure falls. If the boiler facility has an unused steam pressure fall of 3–6 bar with the consumption of 6–50 tons/h, then the use of RSE allows for receiving additional electric power of 200–1500 kW [6]. Economic effect from the installation of RSE in existing industrial boiler facilities increases with the increase of boiler steam capacity [7].

It can be efficient to use mini CHPs with gas-piston units (GPU) as the main source of electric and thermal power at large agricultural facilities (greenhouses, poultry farms and cattle-breeding complexes). In the power range up to 3.5 MW GPU are more efficient than gas turbines – the unit cost is lower, as well as operating costs [8]. The advantages of new mini-CHPs with GPU in comparison to gas turbine units are as follows: the ability to work on the low- and medium-pressure gas without a supply of high-pressure gas and without gas booster compressors; a more favorable ratio of electric power to thermal power that results in the production of more electricity in a combined way; a longer (2.5–3 times) time between overhaul and a greater total working service; a short period of construction and commissioning, more economical operation at partial load. The absence of restrictions on gas pressure is particularly important for these facilities: for the units with the capacity of 1–1.5 MW the pressure of household gas is enough (less than 0.02 MPa), for more powerful units the required pressure does not exceed 0.6 MPa, which is present in any heating plant [8].

The Yaroslavl Oblast (JSC Yaroslavl Generating Company) has positive experience in the projects for reconstruction of gas boilers with the introduction of cogeneration plants. The boiler facilities with the capacity up to 3 Gcal/h use GPU that have the power up to 300 kW and are manufactured in Russia. The units operate in cogeneration to cover the year-round

needs for hot water and generate electricity for their own needs or for transferring it in the network [9]. The GTK 195 unit is mainly used; it is created on the basis of the YaMZ-240 NM2 engine, modified to work on natural gas, the electric power of the unit is 195 kW and the heat power is 330 kW, the performance coefficient of the unit is 87.3%. The project was implemented with the participation of the Russian-German enterprise Energy World – Yaroslavl. The installation of GPU in gas boiler facilities in rural areas of the Komi Republic (18 facilities) would allow for producing approximately 20 MW of additional electric power.

The modernization of decentralized power supply to remote consumers remains an important issue in the Komi Republic. During the reconstruction of existing DPPs or construction of new DPPs it is necessary to ensure full utilization of heat energy in order to use expensive diesel fuel to the fullest extent. The utilization coefficient of the heat of fuel combustion in diesel mini-CHPs is 75–85%, the production of heat – about one MW per one MW of electric power. On the basis of domestic mass-produced diesel generators it is possible to create mini-CHPs with heat recovery capacity from 200 kW to several MW, and also there exists an extensive product range of foreign equipment and the experience of its implementation in Russia.

Replacement of solid fuel boilers. The rural areas of the Komi Republic, as well as Russia as a whole, are characterized by the presence of a significant number

of coal-fueled boiler facilities of small capacity, most of which are equipped with cast-iron sectional boilers and welded steel boilers with unit capacity of up to 1 Gcal/h with manual operation. The work of such boilers is characterized by low operational efficiency (30–40%), poor environmental performance, difficult working conditions of the operating personnel. The following reconstruction measures are proposed depending on the capacity of boilers [4]: under 1 MW – the replacement of existing worn-out and obsolete boilers with new hand-fired boilers; 1–2 MW – the replacement of new boilers with boilers with mechanical stoking; over 2 MW – it is advisable to install boiler units with high temperature fluidized bed technology which makes it possible to use any type of solid fuel, including low-grade coal and wood waste.

The use of wood fuel. The Komi Republic is implementing the sub-program “The use of low-grade wood and wood waste as fuel to produce hot water, heat energy and electricity” (to the regional program “Energy saving and increase of energy efficiency in the Komi Republic (2010–2020)”). The goals set out under the Program for 2013–2016 include the development of production of fuel pellets, fuel briquettes and fuel chips; the substitution of coal for wood fuel briquettes in utility boiler facilities; the construction (reconstruction) of the power sources that use wood fuel.

The Republic is building small-scale CHPs with wood waste utilization: LLC SevLesPil is completing the construction

of mini-CHP (with 2.3 MW of electric power and 11 MW of thermal power) operating on wood waste from its primary production; LLC Bioenergy Company has started to implement the project of a small heat power plant in Syktyvkar (with the planned electrical capacity of 4.3 MW and heat capacity of 13–15 MW), which will utilize production waste from landfill sites of Syktyvkar LDK [1]. The project of Bioenergy Company is implemented with the help of allocations from the extra-budgetary fund for energy conservation, which is formed at the expense of tariff sources (911 million rubles) [10]. Unfortunately, the planned efficiency of these projects is not highlighted; the published data make it obvious that the unit cost of power is very high. The economic feasibility of investing in costly cogeneration for the single purpose of disposal of waste that is exceptionally inferior as fuel, raises doubts.

The transfer of heat-generating facilities on wood biofuel requires the regular and timely supply of the necessary amount of fuel during the year, its stable quality and price parameters (fixed price within 5–10 years, minimum transportation costs) [11, 12]. Wood fuel is burned in furnaces with stationary grates, mechanical grates, fluidized bed, swirling-type furnaces, equipment for pellet combustion [12, 13]. In boiler facilities of small capacity the most common technology is to burn on stationary furnace grates (equipment is cheaper, but the maintenance is more labor intensive and efficiency is low).

Although the installations with moving and reciprocating grates are expensive, they provide complete combustion at the variable and high humidity of wood waste, swirling-type furnaces are used for fine-fraction fuel [13, 14]. In large boilers it is recommended to use fluidized bed technology, especially for wet waste [14, 15]. In general, the lower the quality of wood fuel, the higher the cost of equipment and the more expensive heat production; as for the choice of incineration technology and boiler equipment, it depends on the humidity, type and composition of wood waste and on the capacity of the unit.

Management development tasks

Medium-term planning is carried out at the regional level and of crucial importance is the feasibility study of projects for development of EI, which proves their necessity and effectiveness, as well as addressing the issues of investment and program management. But, as a rule, the approved regional and municipal documents (regional scheme and program for development of power industry, energy conservation programs, heat supply schemes, programs for complex development of communal infrastructure systems) have no substantiation of the planned projects and measures to support their implementation. It is the lack of a necessary elaboration of project initiatives, which is one of the main reasons for their long-term delay, given the fact that they are constantly declared in a series of policy documents. Only an accurate assessment of the value of development projects, their

effects and necessary funds will make it possible to set priorities and determine the mechanism of their implementation.

In order to stimulate the processes of modernization of power supply systems at all the levels of territorial administration, it is necessary to enhance energy-economic forecasting and planning. Decision making should be based on integrated planning taking into account territorial and functional interconnections of the energy supply system rather than on the formal set of projects and proposals from energy companies (which show the existing policy documents). It is expedient to elaborate future schemes for the development of power supply in rural settlements in order to choose the best option among the available alternatives on the basis of advanced technologies.

The program management of energy development based on infrastructure significance should be carried out, primarily, with the help of public (state and municipal) investment. The Republic has a relatively large source of extra-budgetary funds, which is formed by a percentage markup to energy tariffs (energy saving fund) and which should be used with maximum efficiency for the financial support of the projects for modernization of power supply systems, first of all, communal heat supply.

It should be recognized that the establishment and operation of energy facilities in the northern undeveloped areas is objectively accompanied by increased costs; at that the commercial efficiency of energy supply is limited by tariff regulation

and isolation of markets. Such conditions cannot be attractive for private business. Therefore it is necessary to encouraging private investment in the development of

energy infrastructure in the areas with the help of measures such as subsidies, long-term contracts, special pricing terms, tax incentives, etc.

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SOCIAL DEVELOPMENT

Editorial note. This publication is part of a series of articles dedicated to the 25th anniversary of the ISEDТ RAS foundation. It presents the results of the long-term research in the formation of children's health. The study, initiated and supervised by ISEDТ RAS Director, Doctor of Economics, Professor V.A. Ilyin, is a pioneer in Russian social science. The monitoring data are reflected in the dissertation research of A.A. Shabunova (Study of children's health: monitoring method (case study of the Vologda Oblast): Ph.D. in Economics Dissertation. Moscow, 2003; Public and individual health in modern Russia: state and trends: Doctor of Economics. Moscow, 2011).

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Twenty years of children's health monitoring: organization, results, conclusions



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Abstract. Deep understanding of human potential reproduction, presenting it as a continuous cycle and reflecting the continuity of generations, is significant for the formation of health and development of children. Today's children will determine the future of Russian society. It is they who in 10–15 years will be a major part of the labor and creative population, a demographic base of the country. The research into children's problems through the prism of socio-economic development helps identify targets of the state many-sided policy. The article presents results of the long-term medical sociological monitoring on the formation of child health carried out by the Institute of Socio-Economic Development of Territories of RAS with the support of the Vologda Oblast Healthcare Department since 1995. The special monitoring study of health dynamics in real time is unique not only for the Vologda Oblast, but for Russia as well. It reveals the transformation of a personality and the dependence of these changes on direct and indirect factors.

The work's feature is that it addresses an extremely important and wide range of issues: whether man was born healthy or not, if he/she is unhealthy, then why and why he/she was born unhealthy; whether his/her health after the birth is improving or deteriorating; if health is changing, what causes the changes. The 15 year observations disclose the dynamics of child health in the conditions of transformation processes taking place in the country. If the official statistics only records certain health trends, the monitoring results allow us to talk about them at a qualitatively new level. They reveal the underlying causes of demographic processes. The conclusion is, on the one hand, obvious and, on the other hand, it can not be neglected: economic stability and orderly development of the social sphere are critical for family well-being and child health. The reverse situation leads to the destruction of the family institution, the decrease in child population and the reduction in its quality characteristics. The second conclusion, according to the study results, is that we identify risk factors for child health empirically. The obtained data are used at the legislative level and are of great interest in the scientific community. On the example of certain families we show how the child's health is affected by a lifestyle of his/her parents, conditions of education, welfare, medical activity, diet, housing conditions, environmental conditions. Nowadays all of these factors require careful attention of not only authorities, but also the parents.

The child's health monitoring also results in the further development of scientific areas and the formation of new thematic research units, such as the "Monitoring of reproductive health and behavior of the population" and the "Reproductive potential of the region" and later the "Reproduction of the population: trends and reserves".

Key words: monitoring; children's health; public policy; health factors; human potential.

History research

The preservation and strengthening of the population's health as national wealth and the factor determining the state of human potential is the critical task of society. The demographic and socio-economic situation in Russia in the late 20th – early 21st century is characterized by the intersection of two independent processes: on the one hand, demographic, characterized by active aging of the population and transition to innovative environmental technologies.

Meanwhile, the "field" of childhood, its human and social potential of is decreasing. Over the past 15 years the number of children aged 0–17 has decreased

by almost 12 million, or about one third, thereby "cutting off" the scale of the youth (18–30 years old) of the next age stage. Today's children will determine the future of Russian society. It is they who in 10–15 years will be a major part of the labor and creative population, a demographic base of the country. The study of children's problems through the prism of socio-economic development helps identify the targets of a diversified policy of the state.

In the 1980s the Russian science elaborated the idea to carry out a comprehensive monitoring of health and development of children. **Natal'ya Mikhailovna Rimashevskaya**, Doctor of Economics, Professor, RAS Corresponding

Member, Honored Scientist of Russia, suggested the need to conduct studies similar to English ones¹. The idea was realized only in May 1995 in the Vologda Oblast. The Institute of Socio-Economic Development of Territories of RAS together with the Institute of Socio-Economic Studies of Population of RAS under the auspices of the Vologda Oblast Government has been conducting a longitudinal (long-term) panel study of socio-economic and medical factors affecting health and development of children for over 20 years.

The research is aimed at revealing the impact of the environment on health and development of a child. This question is considered at two levels: how quality characteristics of the children's generation change in terms of the socio-economic situation in the country and the region and how health of children changes in the context of the family life dynamics. Family can not but experience hardships of the changes taking place at the state

¹ In the UK the first stage of the monitoring was carried out in March 3–9, 1958 and was named “national child development study” (NCDS). Seventeen thousand children born March 3–9, 1958 were selected as a study object. The main goal of this survey was to obtain reasonably accurate information about the number of children born with irregularity or dying in the perinatal period. The researchers collected maximum available information about a mother, a father of a newborn, but also about a child and his/her first week of life. The results of the first stage were used to develop the national strategy for infant mortality reduction. The second stage of the survey (NCDS – 2) included the supervision of all members of the cohort until the age of 7. The results of this stage revealed the factors influencing not only health but also various indicators of child development. The observation of children at the third stage of the survey (until the age of 14) (NCDS – 3) helped assess their intellectual potential. In 1981 when the study participants reached the age of 23, the fourth stage of the research was carried out. It reflected the possibilities of their professional skills and employability.

level. Therefore, we are convinced that the real situation can be assessed due to comprehensive information: data of the intensive monitoring and official statistics².

To achieve the goal, we have selected the longitudinal (long-term) monitoring of cohorts, which reflects all the changes in child health in different periods of life. The sample consists of all families in which children were born in May 1995 in Vologda, Cherepovets and the district centers of Veliky Ustyug, Kirillov and the urban-type settlement of Vozhega (the cohorts of 1998, 2001, 2004 and 2014 are also presented). The observation allows us to obtain real-time objective and reliable information about health and development of children and the factors that determine them.

The Vologda Oblast Healthcare Department has been interested in this project since the early stages of its implementation. Close cooperation of scientists and managers in this project has contributed to the study and influenced the management decisions.

During the monitoring its results has become more and more significant, requiring deeper interpretation. Looking back, we can say that the initial potential of the child health monitoring has been unleashed 20 years later. Today it is clear that the data identified in the research is timely, relevant and innovative. They open broad prospects for the preservation and strengthening of human potential.

² Rimashevskaya N.M. Rossiiskii genofond: kachestvo budushchikh pokolenii [The Russian Gene Pool: the Quality of Future Generations]. *Narodonaselenie* [Population], 2000, no. 4, p. 100.

We sincerely appreciate the support of those who 20 years ago saw the potential in the study, believed in our strength and took part in the monitoring.

First of all, we are grateful to RAS Corresponding Member Doctor of Economics Natal'ya Mikhailovna Rimashevskaya and the scientific staff of the Institute of Socio-Economic Studies of Population of RAS (ISESP RAS) for the idea of monitoring, its promotion and the assistance we have been receiving throughout the study period; Doctor of Economics, Professor Elena Borisovna Breeva, who has supervised the study at ISESP RAS long. We express gratitude to Director of the Institute of Socio-Economic Development of Territories of RAS Doctor of Economics Professor Vladimir Aleksandrovich Ilyin, who started conducting the monitoring in the Vologda Oblast and to date contributes to its implementation.

We thank the Vologda Oblast Government, the Department of Healthcare and personally Ph.D. in Medicine Aleksandr Andreevich Kolin'ko and Ph.D. in Medicine Elena Leonidovna Vologdina, who have been supervising the research study and promoting the use of its results at the legislative level. Of course, we express appreciation to the doctors, nurses, parents who participated in the study, gave us with an opportunity to observe their families and, hopefully, received considerable benefit from it.

We can highlight an important research achievement: the parents taking part in the study note that they have begun to look at the formation of their child's health differently. The participation in the monitoring has motivated many people to rethink their role in the upbringing of children, change their lifestyle. And, as a result, we have received many words of gratitude from real people noticing improvement in health of their children, normalization of relations with them, more favorable psychological atmosphere in the family.

Data collection methods

The longitudinal panel study of demographic, socio-economic and health factors influencing children's health in the Vologda Oblast started in May 1995³. The fifth wave of the monitoring was carried out in 2014.

To date, the study involves five cohorts of families (children of 1995, 1998, 2001, 2004 and 2014 year of birth) that expands the possibilities to identify and analyze the trends in health and development of children and the factors contributing to these processes (*tab. 1*).

³ The study included all families, in which children were born within two weeks (May 15–30, 1995). The survey was conducted in the cities of Vologda, Cherepovets, the district centers of Kirillov, Veliky Ustyug and the urban-type settlement of Vozhega. Since 2004 the study has involved 4 cohorts of families, in which children were born in the periods of May 15–30, 1995, March 1–25, 1998, 2002 and 2004 in the same settlements. The information was taken four times a year during the first year of life (infants, children under the age of 1 month, 6 months and 12 months) and then annually.

Table 1. Monitoring stages

Year of the beginning of the study	Period of the beginning of the study	Number of studied families
1995	May 15 – May 30	100
1998	March 1 – March 25	200
2001	March 1 – March 25	200
2004	March 1 – March 25	200
2014	March 1 – March 21	370

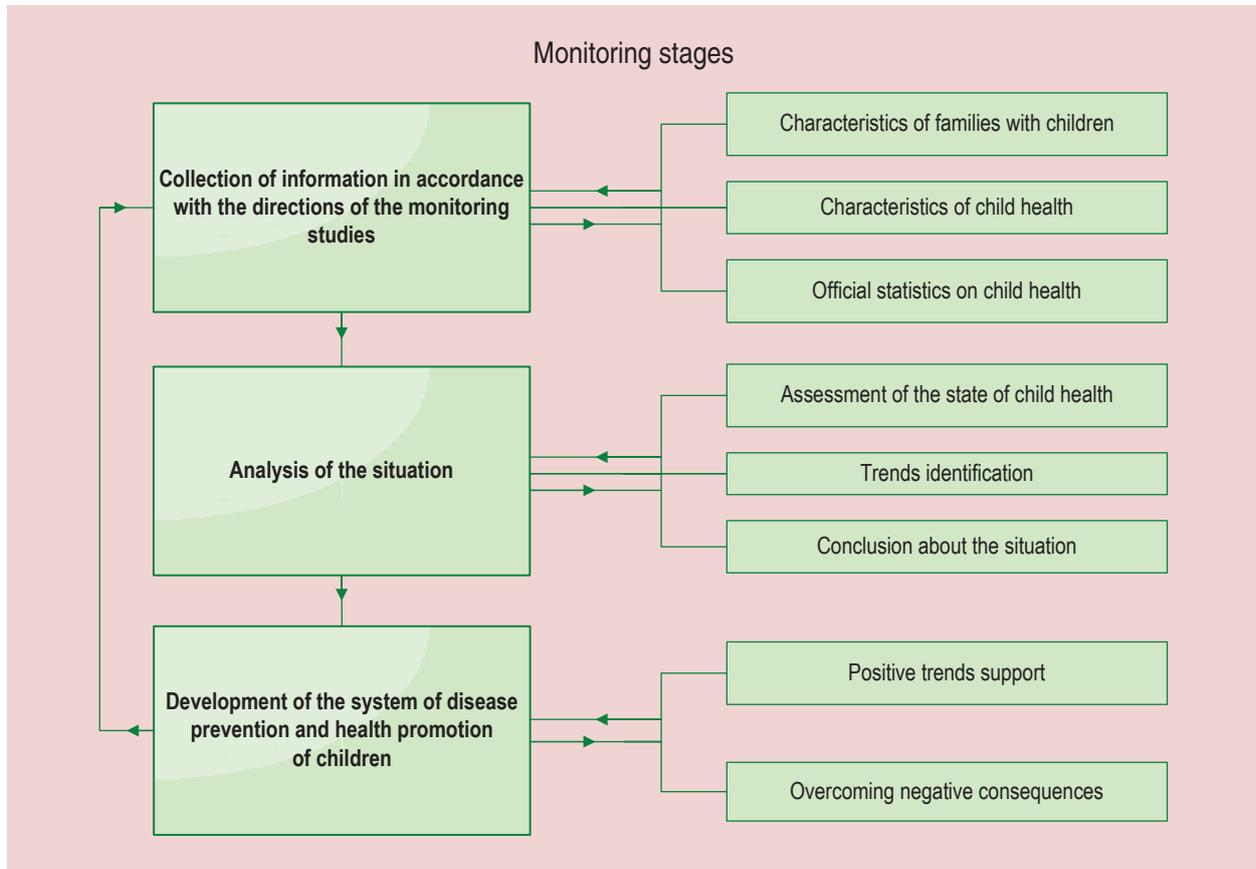
Monitoring is conducted by completing specially designed questionnaires. The research involves the use of complex tools, such as:

1. Questionnaires characterizing the features of families and households of a newborn (filled in by parents). The questionnaire includes the following main information blocks: socio-demographic (gender, age, household composition, age of parents, social class); level of family life, labor activity of child's parents (education, profession, job position, conditions and nature of work in the period before child birth, per capita income, estimated characteristics of family income); housing conditions (size of residential space, qualitative characteristics of housing and property); evaluation of environmental conditions, conditions and quality of a mother's diet during pregnancy and of a child; bad habits of parents (drinking of alcohol, smoking); medical factors: parents' self-assessment of health (presence of contraindications to the birth of a child, chronic diseases of parents, planning to have a baby, state of health during pregnancy); characteristics of pregnancy and childbirth – filled in by medical workers, according to

the documentation (the presence of deviations in health of women during pregnancy, medical activity of a pregnant woman, length and nature of childbirth, presence of additional obstetric events); assessment of health of a newborn baby by a neonatologist (weight, height, Apgar test, identified diseases, group of health – filled in by obstetrician-gynaecologists on the basis of medical documentation).

2. Questionnaires characterizing health and development of a child, life conditions at 1 and 6 months, 1, 2 and 3 years of age, etc. (the questionnaire consists of two parts: the first includes the evaluation of living conditions and development of children, filled in by parents; the second – the characteristics and assessment of child's health, filled in by local pediatricians).

3. It is very important to have information about the attitude of children towards their health, their understanding of life values. Therefore, since 2005 children have been participating in the survey in the framework of this project. Questionnaires help summarize information about self-reported health and development of children, their hobbies and interests (filled in by children aged 10 and over).



The heads of pediatric departments, pediatricians, nurses, teachers and parents help us conduct the monitoring of conditions to form a healthy generation was carried out by. The awareness of this study usefulness and the enthusiasm, shown by the experts, has contributed to the successful outcome of the experiment.

The conducted monitoring study of children’s health helps identify common structural units and their interconnections that can be used in other areas of the country with regard to regional features (*figure*).

The proposed system to carry out monitoring provides a methodological basis

for the study of direct and indirect mutual influence of territorial socio-economic development on children’s health and potential of child population’s health – economic development of the territory in the near and distant future.

Main results of the monitoring

The analyzed monitoring data indicate the declined potential of children’s health, got at birth, and the gradual health deterioration. The main critical periods of childhood are determined: the first year of life (among infants the proportion of healthy children and children with minimal risk of health loss is 60–40%, by a year it drops to 20–15%), between the

ages of 6 and 7 (the share of children with chronic diseases increases by 5–6% at average). They are associated with the most important moments of social adaptation. At the age of 12, due to the physiological characteristics, the immune system of children strengthens and the share of those having cold-related diseases decreases. However, the incidence of musculoskeletal apparatus and gastrointestinal tract diseases goes up, visual acuity goes down, i.e., the number of chronic pathologies rises. We consider particularly alarming the weakened attention of medical personnel to the category of children with Health Group 2. Often children are considered healthy only because they seldom go to the doctor.

The new research phase in 2014 showed that almost 15% of the newborns had good health (classified as Health Group 1), that is by 5–10 p.p. higher than in previous years of the study. At the same time, the share of children with functional and some morphological abnormalities (Group 2B, by 6 p.p. compared to 2004) decreased. These processes are connected, on the one hand, with the improvement of socio-economic state of the population, on the other hand, with the measures of demographic policy in the country and the region.

The gender analysis of children's health shows that girls have better health than boys. In each surveyed cohort the proportion of girls that have Health Group 1 is greater than that of boys during the observed period. At the same time, the proportion of boys who have chronic diseases, higher than the corresponding proportion among girls.

The territorial differences are vivid: according to the doctors' estimates, health of children in the cities of Cherepovets and Vologda are worse than in the districts. The proportion of children with chronic diseases in cities is by 2–4 times higher than in the districts. But this can be caused not only by better health of children in rural areas, but also by lower detectability of diseases there than in large cities. Rural areas lack pediatricians. The insufficient number of medical specialists leads to late and incomplete detection of chronic diseases in children.

The analysis helps identify the factors that have a statistically significant impact on children's health. The effects are not the same in different age periods. In early childhood the medical-biological factors and lifestyle of a mother influence children's health greatly:

- *Poor health of parents.* So, mothers of healthy children have good or excellent health in 65% of the cases and mothers of unhealthy children – only in 51%; mothers of unhealthy children more often have satisfactory health (43%) more likely than healthy people (35%).

- *Low level of hemoglobin* of women during pregnancy. Among the mothers suffering from anemia during pregnancy only 29% of children were born healthy. By the age of 1 the proportion of children with Health Group 1 decreases to 8%, by the age of 2 – up to 7% and by the age of 3 – slightly more than 1%. At the same time, among the diseases prior to or developed during pregnancy anemia had the major share (35%) in 1995–2007.

– *Maternal smoking* increases the risk of low birth weight infants with poor health; among smoking women only 3–14% of children were born with normal weight. According to the monitoring data, 27% of women smoked before pregnancy and 12% – during pregnancy.

– *Conditions of a future mother's work that do not meet sanitary standards.* In the 1995 cohort mothers of sick children more often worked in conditions of dust (12.5% against 8.8% of mothers of healthy children), elevated temperature (12.5% against 2.9%), mental stress (37.5% against 29.4%), night time (12.5% against 1.5%). This factor is widely distributed.

– *Infant feeding character* affects health not only in early childhood but also in subsequent periods. According to the monitoring, children who are breastfed up to 6 months are ill by 2 times less compared to children having artificial nutrition. However, the prevalence of breastfeeding is small in Russia: in 2008 only 41% of infants were breastfed up to 6 months and 39% – up to 1 year.

During the formation of children's health in preschool and school age, other factors are important. The environment risks and the level of family life increase, the impact of biological factors reduces. There are most significant factors, such as:

– *Weakened health of children in the first year of life* raises the risk of developing chronic diseases later. Children that do not have diseases during the first year of life, do not have chronic diseases at the age of 5, while among children, who are ill at the

age of 2, 10% have a chronic disease at the age of 5 and 30% at the age of 8.

– *Low family incomes* limit the abilities of children nutrition as well as prevention and strengthening of their health. The survey data prove that the insufficient and unbalanced nutrition of children can result in diseases, and parents can not afford necessary medicine due to financial constraints. The risk factors that lead to deteriorated health of children are concentrated in the families with low incomes. Despite the fact that in 2000–2008 wages increased, 20% of children under 16 lived in poverty.

– *Poor housing*, microclimate discomfort (cramped conditions, uncomfortable temperature, humidity, dust) involve lower resistance to environmental effects, low immunity. It is a prerequisite for the frequent occurrence of respiratory and allergic diseases. More than half of the families rate their living conditions as satisfactory in the study; however, 13–18% of the respondents indicate that they live in poor or requiring capital repair houses and apartments. The evaluation of housing conditions did not change significantly in 1995–2008.

Unsatisfactory environmental conditions in the neighborhood. So, in the 1998 cohort 33% of the children living in favorable environmental conditions and 17% – in the poor conditions had good health. On average, 28% of the children (according to their parents) live in poor or very poor conditions. The assessment of environmental conditions did not change significantly in 1995–2008.

Table 2. Prevalence of risk factors in the population

Factors	Prevalence in the population
<i>Poor health of a mother</i>	In 2014 in the Vologda oblast 8% of the women of reproductive age assess their health as bad or very bad; 43% – as satisfactory (according to the monitoring data*)
<i>Low level of hemoglobin of a woman during pregnancy</i>	33% of the unhealthy pregnant women have anemia
<i>Maternal smoking</i>	Prevalence of smoking among pregnant women increased significantly (from 3% in 1995 to 10% in 2014). In the Vologda Oblast 29% of the women of reproductive age smoke. Their share increases. (ibidem)
<i>Conditions of a future mother's work that do not meet sanitary standards</i>	In the Vologda Oblast in 2006, 26% of the women worked in the conditions that did not meet sanitary norms, while in 2000 this figure did not exceed 7% (according to the Territorial Body of the Federal State Statistics Service in the Vologda Oblast).
<i>Low family incomes</i>	About 20% of the children under 16 live in poverty. In this period the families participating in the monitoring give more positive evaluations of their purchasing power. The share of the respondents who have enough funds for all current expenses increases from 27% to 38%. The number of families, who believe that money is only enough for daily expenses, but it is difficult to buy clothes and other things, decreases from 53 to 37.
<i>Poor housing</i>	13–18% of the families participating in the monitoring live in poor or requiring capital repair houses and apartments
<i>Unsatisfactory environmental conditions in the neighborhood</i>	28% of the children (according to their parents) live in poor or very poor environmental conditions
* Monitoring of public health has been conducted by ISEDT RAS annually since 1999. The polls are held in the cities of Vologda and Cherepovets and in eight districts (Babaevsky, Velikoustyugsky, Vozhegodsky, Gryazovetsky, Kirillovsky, Nikolsky, Tarnogsky and Sheksninsky districts). The sample size is 1500.	

– *Low level of socio-hygienic literacy and health-saving activity of parents.* The analyzed monitoring data reveal the following: (a) parents' activity aimed at preserving children's health as they get older decreases; b) parents often assess children's health inadequately, their children do not follow diet and do not go to a doctor in time; however, this could prevent the development of chronic diseases. According to the medical specialists, 18–23% of the children require diet, while it is followed in 2–5% of the families.

The prevalence of the above risk factors is quite high. Only 6% of the families can be considered as healthy, the rest have these factors in various combinations.

Two risk factors are observed in more than one-third of the families, three factors – in about 20%. The highest proportion of healthy children is identified in the families where the negative effects are absent or minimal (about 30%). The highest share children with a chronic disease is in the families characterized by four (25%) and five (33%) risk factors. The risk factors are concentrated in the families with low incomes.

Using the data of the child health monitoring and other sociological studies, we assess the prevalence of identified risk factors in the population (*tab. 2*).

The obtained data indicate the formation of a specific pattern: the prevalence of risk

factors in the population leads to the deterioration of children's health, and this, in turn, determines the low level of young people's health and ultimately affects adults' health. Poor health of the parents causes poor health of children. The so-called social funnel⁴ forms and drags young cohort into it: health problems move from older age groups to children and young people.

Conclusions

The stated above show that there are no prerequisites for the significant enhancement of children's health in Russia in the short term and it is necessary to actively promote and strengthen children and adolescents' health, a basis for the formation of reproductive and labor potential and human capital at the state and family level.

In the last decade the Russian Federation has been taking some pains to maintain and improve health of the population, including children (the national project "Health; regional target programs; the Program for healthcare modernization). Nevertheless, the analysis of the causes for the decline in children's health and major risk factors indicates the insufficiency of the current measures. It is advisable to continue and modernize existing measures and develop new ones. The main directions of preventive work are the following:

1. Increased responsibility for compliance with health standards at organizations

⁴ Rimashevskaya N.M. Sotsial'no-ekonomicheskie i demograficheskie problemy sovremennoi Rossii [Socio-Economic and Demographic Problems of Modern Russia]. *Vestnik Rossiiskoi akademii nauk* [Herald of the Russian Academy of Sciences], 2004, vol. 74, no. 3, pp. 209-218.

and enterprises; betterment of legislation to improve working conditions, especially for pregnant women.

2. Raising living standard of the population as a whole, primarily, of families with children. The current state support is insufficient. It is important to increase the allowance for child care up to the level of the average wage of a mother. The benefit can be paid on a parity basis by the state and the enterprise (at the place of work of a mother or a father).

3. Greater opportunities for young families in terms of housing acquisition and housing conditions betterment due to improvement of mortgage mechanisms (the modern mechanism is not suitable for most young families raising children). Business involvement in the construction of departmental, corporate housing, perhaps, share-based with its subsequent repurchase by employees.

4. The decline in smoking prevalence among the population. Strengthening control over the implementation of legislation regulating tobacco smoking. Creation of "tobacco-free zones" in the municipalities, development of the volunteer movement among teenagers. Making explanatory videos about the impact of nicotine on mother and child's health and demonstrating them in antenatal clinics, family planning centers, in conversations with teenagers.

5. Tightening of the state control over the enterprises' observance of environmental norms. Reducing traffic congestion of highways in major cities. Wide spread of household appliances, mitigating the

impact of aggressive environment: air purifiers, water purifiers.

Single measures taken in the framework of state programs and projects are not systemic and do not give proper result. To maintain and improve health of the Russians it is necessary to develop a national strategy for the preservation of public health, suggesting a systemic problem-oriented approach to solving this task.

* * *

Further development of the scientific direction is another important result of the child health monitoring. In 2004 by the initiative and with the support of the Vologda Oblast Healthcare Department we launched the research in **reproductive health of the population**, which was based on the monitoring of the conditions of child health formation. The monitoring reveals that parents' health, in particular reproductive, has a significant impact on children's health and timely diagnosis and correction of its state and prevention help reduce the loss of public health potential. The results of this stage are presented in the monograph "Reproductive potential of the population in the region: state, trends, prospects" and

the thesis by *M.A. Lastochkina*. The works systemize and summarize the accumulated data of the child health monitoring and construct econometric models of reproductive potential of the population in the region.

In 2005 the mass survey of the population was conducted to get additional data and the study of reproductive behavior of the population in the gender aspect was launched.

In 2006–2014 the monitoring of reproductive health and behavior of **the population** continued. Its results help identify the determinants of reproductive choice and offer an organizational mechanism to regulate reproductive behavior for the formation of "new" social norms of childbearing and the creation of conditions to implement reproductive plans of the population. In 2013, on the basis of this monitoring, Ph.D. thesis in Economics was prepared and defended by *O.N. Kalachikova*.

In 2010–2015 the scientific school "Problems of socio-demographic development of territories" was created under the supervision of Doctor of Economics A.A. Shabunova. Its development has contributed to studies of public health.

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Rising necessities: controversial transformation



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Abstract. The phenomenon of rising necessities is studied in the mechanism of the dialectical development of production and consumption and is represented as a set of interrelated aspects. This is an increase in the number of needs and consumption; distribution of needs in the broader circle of consumers; changed quality of needs; complication of the consumption method; changed forms of consumption; development of intellectual and social needs.

The article shows that the process of rising necessities includes the complication of the consumption method, which leads to the formation of needs in services, and then to the emergence of social forms of consumption and services. It reveals the features and effects of this process: broad development of non-vital needs, emergence of quality and quantity hyper-consumption, demonstrative consumption and pursuit of brands; existence of antisocial needs that turns the rise in needs in its opposite; prevalence of consumer demand over income that results in “life on credit” of individuals and entire countries; unrestrained growth of needs, consumption and production respectively that give rise to unprecedented environmental pollution; hedonistic orientation of consumption, violation of dialectical connection of needs-abilities, crisis of culture and morality; formation of poly-needs that combine several components (material and non-material); accelerated development of needs in communication, entertainment and games. There are typologies of needs in entertainment. The article describes growing need in entertainment and games with the help of the broad statistics.

Key words: necessities, law of rising necessities, consumption, method of consumption, needs in entertainment.

The modern society has changed a generalized “portrait” of human needs, their characteristics, a process of consumption, its results and consequences¹. Along with some positive moments there are significant negative symptoms associated with the processes to form needs and consumption. It requires scientific analysis to register them, and if necessary, develop the recommendation to improve them. This article analyzes the process of rising necessities, in particular, the transformation of personal needs and their satisfaction at the present stage.

Rising necessities

Historically, necessities in the most general form are identified as a requirement, a need in anything, without the satisfaction of which it is impossible to manage [20].

One of the most prominent representatives of the European marketing school J.J. Lambin points out that “necessity is a need caused by nature or social life” [7, c. 118].

Today, however, the above definition does not fully reflect the essence of necessities; moreover, there are entire “industries”, focused on the implementation of needs, without the satisfaction which it is not only possible, but objectively recommended to manage.

¹ However, the production is still aimed at satisfying human needs, which occurs in the process of consumption of the goods produced. As before, the production and consumption exist in the dialectical unity: on the one hand, consumption is mediated by production; on the other hand, production without consumption becomes meaningless. The needs are satisfied and developed in constantly reproducing acts of production and consumption.

Moreover, the unresolved problems of social and personal needs, the emerged “dead-ends” of consumption have contributed to the formation of the modern crisis in the world economy.

Therefore, we believe, the theory of needs and consumption requires a rethinking and this aspect should be considered on the basis of available research results. In this regard, we should refer to the already thoroughly forgotten results of K. Marx’s analysis of the dialectic of needs and consumption, his classification of personal needs, which, in fact, has formed the basis for all subsequent classifications.

K. Marx in “Capital”, Volume I, divides personal needs into physical, intellectual and social by the *public-functional indicator*. Thus, describing the dialectics of needs development, he states: “first, the quantitative expansion of existing consumption is required; second, – the creation of new needs by disseminating already existing needs in a wider range; third, – the production of new needs, the discovery and the creation of new consumer values” [11, p. 385].

Vladimir Lenin calls Marx’s algorithm of needs development as a “law of rising necessities” [8, p. 101]. Rising necessities emerge in the process of dialectical interaction of production, consumption and needs. When the requirements are being satisfied, they are developing “...the first satisfied necessity itself, the action of satisfaction and the already acquired tool of satisfaction lead to new needs,

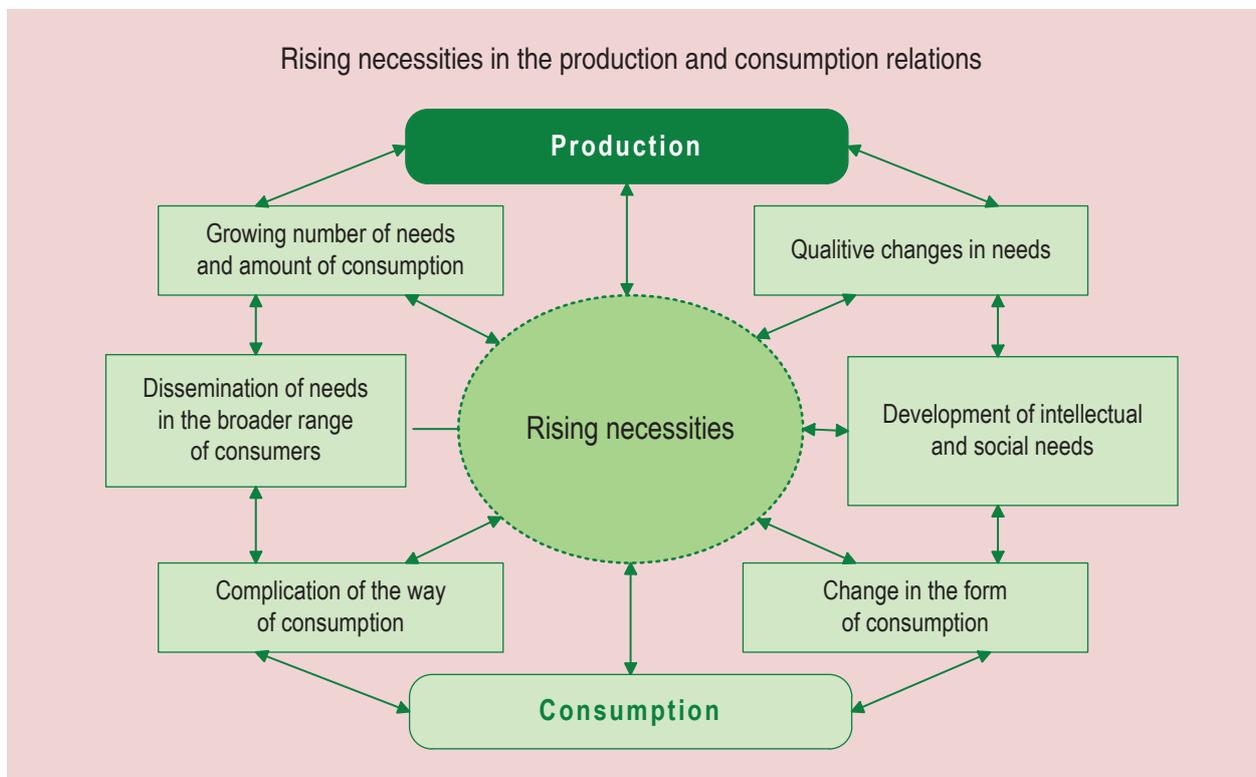
and this generation of new needs is the first historical act”, K. Marx writes [13, p. 27]. The source for needs development is a dialectical contradiction between production and needs that is resolved and reproduced with each new step in the development of living conditions of the society.

Rising necessities are implemented in the dialectical development process of production and consumption and, in our opinion, they contain a number of inter-related aspects, namely (see *figure*):

- growing number of needs and amount of consumption;
- dissemination of needs in the broader range of consumers;
- qualitative changes in needs;

- complication of the way of consumption;
- change in the form of consumption;
- development of intellectual and social needs.

The simplified understanding of rising necessities is often formulated as an increase in the number of needs, an increase in consumption, and distribution of needs in the broader range of consumers. These statements are obvious. There is even a curious confirmation in art: the American researchers have studied 5 2 art paintings created over the past millennium to identify the change in the size of tableware and amount of food. So, the size of plates has increased by 66%, food portions – by 69% and bread – by 23% [14].



Dialectics of the method and forms of consumption in the rising necessities mechanism

The way and forms of consumption are, in our opinion, key points in the economic law of rising necessities. They involve radical shifts in the division of social labor and its distribution in different areas. This is especially clear in terms of the formation and the development of material services which “grow out” of the needs in material goods.

The way of consumption includes consumption goods (what is consumed) and means of consumption, including consumption tools (with the help of what it is consumed). Furthermore, the consumption method always reflects the specificity of preparation for consumption, the nature of needs satisfaction, social and national characteristics, traditions, etc. The consumption method depends on the level of production, indicates the degree of productive forces perfection and the relations within society and is inextricably linked with the changing needs.

Material goods come into the sphere of consumption in different stages of readiness to their direct use by people to satisfy their needs. The less the product is ready for consumption, the more labor, time, material and money are required to finish off in the consumption sphere of instead of the production. The examples of such activities are the following: preparing food, making and repairing clothes, shoes or objects of cultural and community purpose by people themselves.

The more developed social production, the more developed needs of people, the harder the method to meet them and the way from production to consumption. Historically, in this case the consumers have a *need in services*, because, first, at some stage their own abilities and skills are not enough, and, second, additional conditions and resources (e.g. equipment) are required.

If the original production in the sphere of consumption was carried out in the self-service order or with the help of family members, then there appears the category of persons, turning into the wait staff due to the labor division. There is a category of professionals to provide consumer services. Thus, *the emergence of needs in services and opportunities to meet them has marked a change in the way of consumption.*

The means of consumption (material and non-material) influence the way of consumption actively. However, the material resources (buildings, structures, tools, devices, machines, tools, etc.) used in the process of preparation for consumption and the actual consumption and the material conditions that make consumption possible do not only change the way of consumption, but can cause the transformation of the necessity. Karl Marx writes: “Hunger is hunger, but hunger which is satisfied by cooked meat, eaten with a knife and a fork, is different hunger than the one when raw meat is eaten with hands, nails and teeth” [9, p. 718].

When personal needs are met, it is impossible to radically change the way of

consumption. The “concentration” of the consumption process and its transformation into organized public consumption are required. The process essence remains the same: consumption is individual; it is aimed at maintaining the physical existence of a person and the reproduction of labor forces. However, the form of this process is undergoing significant changes. The public form of consumption is used instead of individual.

Applying this approach to the analysis of, for example, needs in food, we can see that over time people become interested in the food preparation services that results in the emergence of a special branch of the service sector: catering.

This is caused by the fact that the increasing complexity and costs of consumption means, the emergence of special machines and equipment requiring special skills and the increase in requirements to food quality complicate the way of consumption and lead to the formation of the public form of consumption, such as public catering.

At a certain stage of historical development there are needs in intellectual, and social services due to rising necessities. It is education, culture, art services, etc. This kind of needs has ambivalent characteristics. On the one hand, they are secondary to the needs in material goods. “... People must, first of all, eat, drink, have home and dress, before they can engage in politics, science, art, religion, etc.” [23, p. 350]. On the other hand, these needs become relatively independent, when the “normal

public” level of satisfaction of vital needs is achieved. The more pressing needs in material goods and services are satisfied, the more opportunities for spiritual needs development people have, including, through intellectual, and social services.

However, the algorithm to form and meet the needs in intellectual and social services is the same as in the case of consumer services. At a certain stage people begin to use the services of other people to meet their own needs. Further development of the social labor division leads to the transformation of service into a special kind of activity and forms the sphere of services, which is developing rapidly nowadays. Thus, *the accelerated development of services is a natural process of rising necessities* [3].

Features of the implementation of the rising necessities law s at the present stage

At each stage of historical development the law of rising necessities is realized in different ways. Nowadays it has certain features. Unfortunately, most of them are negative:

1. The needs, which are not objectively necessary to maintain the functioning of people, are widely developing. And over time the number of these needs is growing. For example, fashion leads to mass development of necessities, which far exceed the level necessary to satisfy trivial requirements in clothing and footwear. In terms of meeting initial physical need in clothes and footwear we can speak about the development of “*quality and quantity hyper-consumption*,” which is gradually becoming the norm of life and is actively promoted by

the manufacturers. We can also talk about the development of so-called demonstrative consumption and pursuit of brands [1].

2. There are necessities of antisocial nature that hinder human development and undermine people's health. These include, for example, needs in tobacco, alcohol, drugs. In this case, rising needs turn into the opposite.

3. The desire for hyper-consumption and the excess of consumer demand over income encourage "life on credit". This refers to entire nations and individual consumers. Today the debt load of individual consumers and entire countries is a real economic threat [2]. For example, the Russians now spend 21% of revenues on disbursement of loans – that is by 2–7 times higher than in developed countries [21].

4. Modern unrestrained consumption and production, which are increased at any cost, cause enormous damage to the planet ecosystem, become a real threat to the very existence of the mankind. According to the experts, the abilities of the environment to cope with the negative effects of human activities have already exceeded by 25–30%. Sixty percent of all ecosystems are now used excessively [16, p. 28]. The growth of production and consumption results in a huge amount of waste that is constantly growing. In 2009 in Russia there was 3505 million tons of waste (in 2000 – 3036 million tons) [17].

5. Today's consumer society can be characterized as primarily hedonic, focused on maximizing comfort and pleasure. It involves the satisfaction of primitive needs,

which do not contribute to the improvement of a person him/herself. According to some researchers, this orientation reflects the crisis of culture and morality and is manifested in the mass pursuit of pleasures without regard to a reasonable extent, social, environmental and other consequences. This violates the dialectical connection of needs-abilities. During its realization the individual sacrifices and improves his/her rational needs and simultaneously develops the abilities.

6. The changed way of consumption is also manifested in the formation of poly-needs that include several components (material and non-material). There is a basic need and a set of additional necessities around it that make the process to meet a basic need more effective, comfortable, or pleasant. For example, a person goes to the retail and leisure center for a particular purchase; in this case he/she combines shopping with leisure in the cafe or restaurant, going to the cinema, a children's event in the same mall². Eating out is aimed not only at tasting delicious food but also meeting social and emotional needs. In such a case, the important role is played by the favorable impression of interior decoration, comfortable environment, politeness and professionalism of the staff, quality concert programs, etc.

² Today visiting malls has become a sort of entertainment. So, according to the "Public Opinion" Fund survey, 21% of the Muscovites go to malls without a purpose, just to spend free time. In the shopping malls the capital's residents spend their leisure time differently: 39% meet friends, 52% go to the movies, 56% visit cafes, restaurants and bars, 65% buy non-food items (clothes, shoes, household appliances), 47% buy food [22].

7. The necessities in communication, entertainment games are rapidly spreading, including those, which are satisfied due to the Internet.

What is our life? – The game! ... Communication and other entertainment!

The need in entertainment is genetically programmed into human nature. The ancient Greek satirist Juvenal (1st–2nd centuries), describing the contemporary aspirations of the Romans, wrote: “This nation long ago... has forgotten all the worries, and Rome... restlessly dreams about only two things: bread and circuses!” [24]

Today the problem of “bread” is solved for the significant share of population (unless we consider the problem of a balanced diet). Besides, other pressing needs ensuring physical existence are also satisfied. At the same time, the grown labor productivity leads to the reduced working time and, consequently, to the increased free time. So, the question arises how to use it rationally for recreation, self-education, entertainment and communication. We believe that *the significantly increased demand for games, shows and other entertainment* is one of the most striking and controversial manifestations of rising necessities today. E. Petrenko, for example, points to the growing role of emotional and mental components of consumer experience and the emergence of a new customer value – “impression” [15, pp. 13-14], which, we believe, is the main motive desire for entertainment. At the same time, the entertainment industry is growing rapidly.

Entertainment differs by its influence on physical and spiritual development of a person. There are 3 groups.

The first group includes entertainment, promoting the human development and the growth of people’s spirituality and intellect. This is, first and foremost, presupposes visiting of cultural institutions – museums, theaters, libraries, etc.; the entertainment aimed at maintaining health and physical improvement, such as physical education, sports and active recreation, etc.

The second group includes entertainment, definitely harmful to the moral and physical health (smoking, drug and alcohol addiction, etc.).

The third group includes entertainment, which can be attributed both to the 1st and the 2nd group depending on the content. Going to the cinema and public events (including sport), recreational activities and games, listening to the radio, watching TV, reading books and newspapers, using the Internet, etc., on the one hand, can promote human development but , on the other hand, can generate bad feelings and aspirations.

The dynamics of the free time spending structure, including a variety of activities, shows contradictory trends (*tab. 1*).

So, in 1986 the leading positions among all entertainment belong to watching TV (14.5 hours a week for men and 10.6 – for women), reading (5.8 and 3.6 hours, respectively) and communication (2.6 and 2.5 hours). In 2007–2008 the time for watching TV decreased, accounting for 7.6 hours for men and 6.8 for women.

Table 1. Dynamics of distribution of working citizens' free time in 1986–2008, time a week per respondent, hour.

Activity type	1986		2007–2008	
	Men	Women	Men	Women
Study	0.8	0.9	2.3	1.0
Social and religious activities	1.2	0.8	0.1	0.3
Communication	2.6	2.5	9.8	8.4
Physical education and sport	0.9	0.6	1.1	1.0
Rest in the fresh air	1.9	0.9	1.6	0.5
Amateur activities and games	0.7	2.1	2.2	2.2
Listening to the radio	0.2	0.1	0.5	0.3
Visits of cultural institutions	0.9	0.6	0.7	0.1
Watching TV	14.5	10.6	7.6	6.8
Reading	5.8	3.6	2.0	1.8
Surfing the Internet	No data	No data	2.1	0.7
Passive rest (doing nothing)	2.5	1.7	0.9	0.6
Movements	2.0	1.4	-	-
Free time – total in a week	34.0	25.7	30.9	23.5

Source: Karakhanova T.M. *Svobodnoe vremya gorodskikh zhitelei: proshloe i nastoyashchee* [Free Time of Urban Residents: Past and Present]. *Sotsiologicheskie issledovaniya* [Sociological Studies], 2014, no. 1, p. 77].

Communication increased to 9.8 hours per week for men and 8.4 hours for women, indicating accelerated development of the social needs variety. The time spent on recreational activities and games grew from 0.7 to 2.2 hours for men and women from 2.1 to 2.2 hours.

However, we believe that, in fact, the increase was more significant, as some time for communication was also dedicated to amateur practice and games in the company. Unfortunately, people spent less time on reading and visiting cultural institutions that by no means indicates growing intellectual needs. It seems that in subsequent years this trend has continued.

For example, the NRU HSE study provides the following data: today 16% of the Russians are interested in museums and

visit them, 14% know about museums, but does not visit them, and 70% (!) do not know about museums and are not interested in them [19].

Yu. Svechnikova, referring to the analysis of the sociological research conducted among students of Belgorod State National Research University, makes a disappointing conclusion: “The majority of students, namely 90% of girls and 65% of boys, do not do anything useful for physical or spiritual health, self-education or self-improvement in their free time. They spend their free time watching TV programs, which are often aimed at destroying the psyche of a young, immature person, or what is worse, they spend time in the cheerful company drinking alcohol, which is harmful to physical health”.

Twenty percent of the freshmen spend their free time on visiting amusement and entertainment establishments. As for the fifth year students, this figure reaches 60% [18].

Thus, we can conclude that the development of needs and consumption at the present stage do not lead to the formation of true rising necessities, which are understood as the pursuit of needs of a higher order. Most people do not become more spiritual and intellectual. Self-education and self-improvement, striving to become a harmonious, fully rounded personality can be considered as an exception rather than a rule. Unfortunately, there is a dominant trend to maximize short-term pleasures by meeting the lower needs in the hierarchy – people still want bread and circuses. In modern times people who are not hungry demand more entertainment.

Entertainment industry today and tomorrow

Spreading needs in entertainment stimulate the emergence and rapid development of relevant industries. Nowadays this activity sphere, in turn, begins to influence consumers by offering them new services, generating, thus, new needs in entertainment.

According to the study conducted by PricewaterhouseCoopers³, in 2013 the

³ PricewaterhouseCoopers is an international network of more than 160 companies across the world providing accounting and consulting services. The review "Global Entertainment and Media – Forecast" is published annually and contains an analysis, factors and forecasts of entertainment and media market development in 54 countries for 5 years. Thirteen major media sectors are studied, such as television, radio, Newspapers, film industry, book publishing, and the Internet.

global entertainment and media market amounted to 1.7 trillion U.S. dollars. Almost the United States of America account for 34%, Japan – about 10% and China – 7.7%. Russia's share amounted to slightly more than 1.6% (*tab. 2*). The global entertainment and media market is expected to amount to 2.2 trillion U.S. dollars at the 5% average growth rate in 2018.

In the Russian Federation in 2013 the entertainment and media market increased by 10% and amounted to 27.7 billion U.S. dollars. However, its volume was by 20.7 times less than in USA.

Nevertheless, the Russian market remains one of the most dynamic. In the forecast period the average annual growth rate is expected to amount to 9.8%, and by 2018 the market will grow to 44.3 billion U.S. dollars. The already mentioned study by PricewaterhouseCoopers also presents the data on the development of basic entertainment industry sectors in Russia in 2013 and the forecast for 2018 (*tab. 3*). It is assumed that the fastest increase is characteristic of the access to the Internet (+96%), the film industry (+65%), pay TV (+63%), radio (+61%), video games (+50%). The more modest growth is characteristic of the music industry (+39%), magazines (+28%) and newspapers (+11%). The negative growth is expected in the book publishing industry (-17%).

The very rapid growth of the Internet entails the development of all needs, which satisfaction is connected with the Internet.

Table 2. Largest entertainment and media markets in 2013–2018*

Market	Million U.S. dollars		Position		Average annual growth, % forecast
	2013	2018 (forecast)	2013	2018 (forecast)	
USA	572,874	723,733	1	1	4.8
Japan	168,862	174,690	2	3	0.7
China	130,934	219,412	3	2	10.9
Germany	112,833	123,893	4	4	1.9
UK	90,514	105,348	5	5	3.1
Italy	43,013	50,203	9	10	3.1
Brazil	42,186	68,810	10	7	10.3
Australia	36,883	43,366	11	12	3.3
Russia	27,701	44,307	12	11	9.8

* Entertainment and media markets include elements of double-counting.

Compiled by: *Vsemirnaya industriya razvlechenii i media – prognoz na 2014–2018 gody: issledovanie PricewaterhouseCoopers* [Global Entertainment and Media – Forecast for 2014-2018: PricewaterhouseCoopers Research]. Available at: http://www.pwc.ru/ru_RU/ru/entertainment-media/publications/assets/entertainment-mediaoutlook-2014.pdf

Table 3. Key sectors of the Russian entertainment industry, radio and the Internet, million U.S. dollars

	2013	2018 (forecast)	2018 to 2013, %
Film industry	1,631	2,697	165
Pay-TV	1,621	2,644	163
Video games	1,311	1,972	150
Music industry	1,327	1,841	139
Magazines	1,312	1,684	128
Newspapers	1,224	1,361	111
Publishing	1,451	1,207	83
Radio	532	856	161
Internet	6,768	13,281	196

Compiled by: *Vsemirnaya industriya razvlechenii i media – prognoz na 2014–2018 gody: issledovanie PricewaterhouseCoopers* [Global Entertainment and Media – Forecast for 2014-2018: PricewaterhouseCoopers Research]. Available at: http://www.pwc.ru/ru_RU/ru/entertainment-media/publications/assets/entertainment-mediaoutlook-2014.pdf

However, its use for entertainment is growing at a faster rate. If in 2011 19% of the respondents had a good time surfing the Internet, in 2014 their number amounted to 31%. If we add listening to music, watching movies, reading books and communication (which, in fact, are entertainment) to it, we will see a significant growth (*tab. 4*).

The rapid growth of the Internet inevitably *boosts the gaming segment*. Its revenues are rising significantly, which once again confirms our conclusion about the growth of needs in entertainment (*tab. 5*).

Since 2008 the *sector of online games* had been growing steadily and in 2013 its revenues came out at 340 million U.S.

Table 4. Do you use the Internet, and if yes, for what purposes? (multiple answers are allowed), in % to the total number of respondents

Answer options	June 2011	June 2012	June 2013	June 2014
To find the needed information	33	36	41	44
For communication	25	32	31	36
For entertainment	19	24	27	31
To follow the latest news	20	23	27	30
To find/listen to any music	16	18	21	26
To find/ watch any movies	17	19	24	26
To find/buy any goods or services	11	14	14	19
To understand what is happening in the country and abroad	10	14	16	19
To find/read any books	8	11	13	16
Other	1	1	1	1
I do not use the Internet	55	46	39	36

Source: <http://www.levada.ru/30-06-2014/ispolzovanie-interneta> [4]

Table 5. Revenues from online and mobile games in the world in 2013–2018, million U.S. dollars

	2013	2014 (forecast)	2018 (forecast)
Online games	340	406	650
Mobile games	214	258	456

Compiled by: *Vsemirnaya industriya razvlechenii i media – prognoz na 2014–2018 gody: issledovanie PricewaterhouseCoopers* [Global Entertainment and Media – Forecast for 2014-2018: PricewaterhouseCoopers Research]. Available at: http://www.pwc.ru/ru_RU/ru/entertainment-media/publications/assets/entertainment-mediaoutlook-2014.pdf

dollars. In 2014 the yield is expected to increase by 19.5% and reach 406 million U.S. dollars. According to the forecast, up to 2018 the average annual growth rate will amount to 13.8%, while the revenues from online games will reach 650 million U.S. dollars.

The *mobile games sector* had been developing fast. Its revenue amounted to 214 million U.S. dollars in 2013 and, according to the forecasts; in 2014 they will grow by 20.6% to 258 million U.S. dollars. In 2018 the revenues from mobile games will reach 456 million U.S. dollars and the annual average growth rate during the forecast period will be 16.3% [5].

The increasing desire of certain part of the society to “live effortlessly” is alarming because it reflects the general immaturity and the aspiration to escape from reality. For children games are necessary as they help understand reality and develop skills to life in the society; for adults games serve primarily as entertainment and means to get or splash out emotions. It often takes people a lot of time to play games, though this time could be spent much more productively.

Moreover, the extreme forms of gambling, such as computer game addiction, just threaten health and social well-being of an individual.

In terms of public use such games are “fruitless”: they do not stimulate the development of personality, involve the transformation of reality, create a public product or increase national wealth.

It is appropriate to recall the interpretation of free time given by Karl Marx. Free time is “*time, which we can have, is wealth*”⁴, time required “... for

education, for intellectual development, for social functions fulfillment, for social communication, for free play of physical and intellectual forces...” [10, pp. 243-244]. Today the effective use of free time is critical for the creation of a harmoniously developed personality. In this case, the true rising necessities mean the improvement of physical and spiritual needs.

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⁴ Marx K. *Teorii pribavochnoi stoimosti* [Theories of Surplus Value]. *K. Marks, F. Engel's Soch.* [Collected Works of Karl Marx and Friedrich Engels], edition 2, vol. 26, part 3, p. 265.

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Risks of poverty in the modern Russian conditions*



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Abstract. Poverty acts as an indicator of insufficiency and deficit of economic resources of the population; its boundaries serve as a demarcation line between people's adaptation to social and economic changes and their maladjustment. The construction of a socio-demographic portrait of the poor, reflecting its recent dynamics and the current state helps identify the key risks of poverty and their stability in the modern Russian conditions. It is difficult for certain social categories to adapt. The specificity of socio-economic differentiation of the population in the modern Russian society is connected with the persistence of the stratification profile defined by the unequal distribution of money income among the population groups during the period of reforms. Raised standards of living of most population in the 2000s led to the drastic reduction in absolute poverty, defined by the boundaries of income below the subsistence minimum. However, nowadays, according to the objective indicators of the income amount, the tenth part of the Russians is considered as the poor. The population's income is still insufficient; it testifies the presence of poverty risks for some categories of the population in the modern Russian conditions. The analysis of the dynamics and state of the objective sources of poverty shows that the high poverty rates are observed in small towns (with the population being equal to 50–100 thousand inhabitants and up to 50 thousand people) and rural settlements and refer to children and youth under 30, the unemployed and economically inactive population. Besides, the working poor employed in industries get low wages.

Key words: poverty, risk of poverty, the unemployed, the working poor, socio-economic adaptation, social transformation.

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The specific character of life in the modern Russian society is connected with the need to promote social adaptation to economic and institutional changes caused by the process of transforming social institutions and social structure in general.

The dynamics and instability of the market economy has a key impact on the labor and employment sphere, and on the level and quality of life; that is why the socio-economic adaptation of the population becomes very important. In these conditions the subjects of adaptation (individuals, social groups or communities) should use available economic resources in order to satisfy their own demands and interests. The volume of these resources ensures a different level of adaptability to changing conditions of life. In this situation it is necessary to consider poverty as a measure of insufficiency and lack of economic resources of a certain part of the population, which boundaries serve as a demarcation line between its adaptation and maladjustment to socio-economic changes. In this respect, attention should be drawn not only to the traditional categories of the poor, but also to the categories of the poor such as the unemployed and the working poor, belonging to the economically active population.

In the first period of the Russian society transformation (the 1990s) the socio-economic transformation led to the sharp increase in property differentiation and the significant rise of poverty.

At this time, the drop in the standard of living of the population was reflected in the decrease in the level of income and consumption, the depreciation of savings, the growth of unemployment, the increase in debt by all types of payments and other negative manifestations.

Since 2000 the socio-economic situation in the country had been gradually improving: the population's income had been growing, the unemployment and poverty had been reducing, etc. These trends presuppose the occurrence of the second stage of the Russian society structural transformation associated with social stabilization.

However, the onset of the 2008 economic crisis had adverse consequences for the dynamics of employment, the level and quality of life of the population: the average wages of employees of organizations and enterprises decreased, the amount of arrears increased, etc. This resulted in certain difficulties in the population's adaptation to changing social conditions. However, they were not so deep as in 1998, that is why the trend to reduce poverty remained.

Despite the significant decrease in poverty in the 2000s, in the Russian society still there is a problem to alleviate poverty to the level, which is natural for the market economy, and reduce poverty risks for certain categories of the population. This problem is among the most significant for the modern Russian society development. A.A. Shabunova and M.A. Lastochkina note that nowadays social inequality and

low living standards are one of the main obstacles to socio-cultural modernization of the country¹. Their overcoming helps reach higher standards and quality of life of the population.

Moreover, today the problem becomes particularly acute, as once again the Russian society faces the market economy instability, leading to the deterioration of the economic situation in the country since the second half of 2014 and the onset of the economic crisis, reflected in increased inflation, reduced real income of the population, etc. In these conditions there are poverty risks for the total population and certain categories of citizens.

In this regard it is important to monitor the poverty level, profile, structure and risks and use the scientific research results in practice of social management. In the new socio-economic circumstances it is critical to identify the main sources of poverty, their objective or subjective nature, sustainability and, consequently, key poverty risks. The identification and characterization of poverty risks in the modern Russian conditions will contribute to the scientific understanding of the socio-economic situation in the country and the definition of the specific measures to reduce poverty and boost the efficiency of social policy. These circumstances determine the relevance of the study.

¹ Shabunova A.A., Lastochkina M.A. Preodolenie sotsial'nogo neravenstva kak impul's k sotsiokul'turnoi modernizatsii [Overcoming Social Inequality as an Impetus to Socio-Cultural Modernization]. *Ekonomicheskie i sotsial'nye peremeny: fakty, tendentsii, prognoz* [Economic and Social Changes: Facts, Trends, Forecast], 2014, no. 3 (33), pp. 69.

The object of the research is poverty of the population, and the subject is poverty risks of the Russians in modern conditions. The work is aimed at identifying and characterizing key risks of poverty in today's Russia. It sets the tasks to determine the theoretical and methodological foundations for the research in poverty of the population, to describe the socio-demographic composition of the poor population, its dynamics in recent years and consider the main risks of poverty related to their social and demographic characteristics.

The theoretical and methodological basis of the study is presented in the absolute concept of poverty, according to which poverty is characterized by the minimum list of needs and resources to meet them. This understanding of poverty allows us to consider it as an indicator of scarce economic resources and socio-economic maladjustment of the population. The state statistics data on the size and composition of the poor population in Russia in 2000–2013 are the empirical base of the research. It determines the use of the statistical data analysis as the main method of research.

It should be noted that to date socio-economic knowledge has not developed a clear understanding of essential characteristics of poverty and an unambiguous approach to its measurement, ensuring the conformity of the procedure to this phenomenon. In this regard, it is necessary to clarify the nature of poverty, the main

approaches to its understanding and the key factors influencing its nature and characteristics.

The multidimensionality of poverty as a social phenomenon leads to the ambiguity of this concept definition in social science. In our opinion, various interpretations of poverty can be reduced to two approaches.

The first approach assumes a narrow understanding of the term, as it focuses on one poverty indicator – a low income (property) status, limiting the consumption of its owners. According to this approach, people are considered to be “poor if their welfare is below a certain level”². The approach is widespread in sociology, economics, social geography and other social sciences.

The second approach links the category of poverty to social exclusion. In this view, poverty is characterized by the low-income of households or individuals, the limited possibilities on the labor market, in health care and education and the insufficient protection from various socio-economic shocks³, etc. This notion of poverty is new for the socio-economic knowledge.

Regardless of the width of poverty understanding there are two main methodological approaches to its measurement: objective and subjective.

² Cited by: Litvinov V.A. *Prozhitochnyi minimum: istoriya, metodika, analiz* [Minimum Wage: History, Method, Analysis]. Moscow: KomKniga, 2006, p. 202.

³ Zubarevich N.V. *Sotsial'noe razvitie regionov Rossii: problemy i tendentsii perekhodnogo perioda* [Social Development of Russian Regions: Problems and Tendencies of the Transition Period]. Second edition. Moscow: Editorial URSS, 2005, p. 161.

The objective approach to poverty is based on the analysis of statistical indicators of living standards and the identification of the poverty line (that is, a threshold of minimum cash income/expenses and consumption of the population). It is presented by the concepts of relative and absolute poverty.

In terms of the absolute concept of poverty, the poverty line is determined by the inadequacy of their resources to meet the minimum requirements. The absolute poverty line presupposes that the minimum requirements are not satisfied due to low income.

The concept of absolute poverty suggests that the government maintains a minimum set of goods and services, most necessary for consumption; the cost of this set is a threshold or a poverty line. In turn, the statistical agencies monitor resources of the households in order to estimate the proportion of the poor population⁴.

The absolute concept that emerged in the 1900s in the context of ideas about the minimum wage was developed in the works of Ch. Booth, V. Rowntree, M. Orshansky, etc. Nowadays it is widely used in many countries (Russia, the majority of CIS countries, the USA, etc.) to determine the national poverty line, required for the social policy implementation.

⁴ Ovcharova L.N. *Teoreticheskie i prakticheskie podkhody k otsenke urovnya, profilya i faktorov bednosti: rossiiskii i mezhdunarodnyi opyt* [Theoretical and Practical Approaches to the Assessment of the Level, Profile and Determinants of Poverty: Russian and International Experience]. Moscow: M-Studio, 2009, p. 14.

The main directions for the application of the absolute poverty level in social management are to monitor the poverty rate and identify the conditions for the poor to participate in the targeted programs. To date this poverty line can not be applied to regulate the minimum wage, as, for example, in the USA, where the minimum wage has exceeded this limit. However, the absolute national poverty lines are not used in cross-national comparisons, as in this case they become relative. For it the absolute international poverty line of the World Bank is applied⁵.

In the Russian Federation the absolute poverty line is fixed by the value of the subsistence minimum. According to the Federal Law “On the subsistence minimum in the Russian Federation” of October 24, 1997 (with amendments), the subsistence minimum is understood as a value of the consumer basket, mandatory fees and charges. The consumer basket is defined as a minimum set of food and non-food goods and services required to maintain people’s health and life activity, whose value is determined in relation to the cost of the minimum set of food products. The subsistence minimum performs the function to assess the standard of living in the Russian Federation when elaborating and implementing social policies and

federal social programs, determining the minimum monthly wage and the size of scholarships, grants and other social payments set at the federal level⁶.

The advantages of using the absolute poverty line are determined by the ability to monitor changes in the scale and profile of poverty occurring over time on the basis of statistical data. The elaborated method, the standardized technique, the systematic measurement of indicators and the possibility of unambiguous interpretation of the survey results make it possible to overcome the differences in the poverty estimates characteristic of other approaches. The shortfalls to be criticized are the following: the need to adjust the minimum goods and services basket when the minimum consumption standard expands, the underestimation of hidden income and non-monetary revenue to the household budget and the necessity to ensure the representativeness of the household surveys results, etc.

In terms of the objective approach in the relative poverty concept, the poverty line is associated with the level of the population’s welfare prevailing in a particular country (region). The relative poverty line is fixed in relation to some measure of welfare for the population, in general, and is determined by the lack of resources to maintain consumption at a level accepted in a given society.

⁵ *Partisipatornyi podkhod v povyshenii kachestva zhizni naseleniya: monografiya* [Participatory Approach to Improving the Quality of Life of the Population: Monograph]. Under general editorship of N.M. Rimashenskaya, N.N. Ivashinenko. Nizhny Novgorod – Moscow: Izd-vo Nizhegorodskogo gosuniversiteta, 2013, p. 122.

⁶ Federal’nyi zakon “O prozhitochnom minimume v Rossiiskoi Federatsii”: ot 24.10.1997 g. (s izm.) [Federal Law “On Subsistence Minimum in the Russian Federation of October 24, 1997 (with Amendments)]. *Konsul’tantPlyus* [Reference-Legal System KonsultantPlus].

The relative poverty concept as an alternative to the absolute one was elaborated in the postwar period, have been actively developing since the 1970s. Its ideas are reflected in the works of P. Townsend, A. Atkinson, A. Sen, J. Mack, S. Lansley, etc. Nowadays there are two versions of this approach: “deprivation” and “median”⁷. According to the first version, first mentioned by P. Townsend, the deprivation threshold, below which it becomes impossible to maintain a common standard of living, is defined by the set of deprivations, expressed in the “natural form”.

The expert and sociological methods are used for identifying the prevailing standard of living and the deviations from it. The list of deprivations and the presence or absence of these deprivations are identified. The poverty line is considered as a certain concentration of these deprivations.

The second version of the approach presupposes that the deprivation threshold is calculated according to the ratio of average incomes of the respondents and the medians of their indicators. The complexity to realize the deprivation approach has led to a wider application of the median approach, considering the poverty line at the level of 40–60% of the median income of the population.

In the European countries the research in poverty under the relative approach is

conducted regularly and used for the compilation of national poverty lines. Russia does not conduct statistical monitoring on deprivation of the population; however, it is studied by L.N. Ovcharova, N.E. Tikhonova, A.Yu. Shevyakov and others⁸.

The approach advantages are the following: control of changes in the minimum consumption standard adopted in a particular society, accessibility of goods and services, monitoring of inequality in the society, socio-demographic composition of the poor, etc. The letter is significant for the provision of targeted social assistance. In the course of such a measurement it is difficult to make a list of deprivations and indicators of the poverty line due to the possibility of irrational consumption.

The subjective approach to measure poverty is based on the population’s assessments of their financial situation and characteristics of poverty. In the framework of this approach the poverty line reflects people’ estimates of the minimum living standard acceptable in a particular society. The survey is a key measuring tool. The subjective poverty concept, developed by the economists and statisticians of Leiden University in the Netherlands in the 1970s, is widespread in sociology today. It is a theoretical and methodological basis of research in the people’s opinions about poverty and its indicators.

⁷ Slobodenyuk E.D., Tikhonova N.E. Evristicheskie vozmozhnosti absolutnogo i otnositel'nogo podkhodov k izucheniyu bednosti v rossiiskikh usloviyakh [Heuristic Possibilities of Absolute and Relative Approaches to the Study of Poverty in Russia]. *Sotsiologiya: 4M* [Sociology: 4M], 2011, no. 33, p. 7.

⁸ Ovcharova L.N. *Teoreticheskie i prakticheskie podkhody k otsenke urovnya, profilya i faktorov bednosti: rossiiskii i mezhdunarodnyi opyt* [Theoretical and Practical Approaches to the Assessment of the Level, Profile and Determinants of Poverty: Russian and International Experience]. Moscow: M-Studio, 2009. Pp. 7-19.

There are advantages of this approach, such as the possibility to identify and consider the estimations of the minimum amount of resources required to meet vital needs of an individual, the views of the poor about the constraints that affect their quality of life, as well as the dynamics of these representations under the influence of socio-economic and socio-cultural changes.

In this respect, the subjective poverty line should match and complement the poverty line, which is set in terms of the objective approach with due regard for statistical indicators.

Under the subjective approach, based on the results of representative surveys of public opinion, the monetary and non-monetary poverty lines are constructed. The monetary poverty line includes people's responses about the minimum income, required for a household, non-monetary – self-assessments of their financial situation.

There are examples of systematic implementation of the monetary method to construct subjective poverty lines, such as surveys of the Gallup Institute in the USA, Eurobarometer of Public Opinion in the EU, etc. In Russia the non-monetary method is more widespread; it involves the construction of a specific stratification scale.

So, the stratification scale is used in the population surveys carried out by the sample program and the method “Socio-cultural portrait of a Russian region” in

the framework of the program “Issues of socio-cultural evolution of Russia and its regions”⁹. L.A. Belyaeva proposes to determine the respondents' status in terms of consumption, when they refer themselves (their family) to one of six conditionally identified strata: “the beggars” (answer – “There is not enough money for everyday expenses”), “the poor” (“The whole salary is spent on everyday expenses”), “the disadvantaged” (“There is enough money for everyday expenses, but it is difficult to buy clothes”), “the well-to-do” (“There is enough money, but to buy expensive items we have to borrow money”), “the wealthy” (“There is enough money practically for everything, but to buy a flat or a summer cottage is difficult”), “the rich” (“We can afford everything”)¹⁰.

According to this scale, two groups with low incomes and limited consumption can be considered as the poor: “the beggars” and “the poor”¹¹. The results of foreign and Russian studies show that the subjective poverty line is higher than the official

⁹ Lapin N.I., Belyaeva L.A. *Programma i tipovoi instrumentarii “Sotsiokul’turnyi portret regiona Rossii” (Modifikatsiya – 2010)* [Program and Standard Tool “Socio-Cultural Portrait of the Region of Russia” (Modification – 2010)]. Ros. akad. nauk, In-t filosofii. Moscow: IFRAN, 2010. 111 p.

¹⁰ Belyaeva L.A. *Sotsial’naya stratifikatsiya i bednost’ v regionakh Rossii (k sostavleniyu sotsiokul’turnogo portreta regionov)* [Social Stratification and Poverty in the Regions of Russia (to Build a Socio-Cultural Portrait of the Regions)]. *Sotsiologicheskie issledovaniya* [Sociological Studies], 2006, no. 9, pp. 52-63.

¹¹ Pasovets Yu.M. *Sotsial’nye resursy i ogranicheniya razvitiya regiona v kontekste obshcherossiiskikh izmenenii* [Social Resources and Limitations of the Region's Development in the Context of Nationwide Changes]. Kursk: Kurskii gos. un-t., 2010, p. 139.

one¹² and the proportion of the poor by the stratification scale, constructed by the level of consumption is higher than the level of absolute poverty¹³.

Limitations of poverty measurement in the framework of the subjective approach are largely related to people's ambiguous understanding and interpretation of the phenomenon of poverty. One individual can interpret poverty as a low income, providing a level of consumption below the poverty line; another respondent – as a lack of freedom of action and choice, when in the economic context this freedom is identified with the fairly high standard of goods and services consumption and the need to ensure appropriate means. The practice to conduct population surveys indicates that the latter interpretation of poverty is found among the well-to-do who can subjectively consider themselves as the poor. At the same time, some people who are objectively poor do not consider themselves as such, because they associate poverty with income and consumption below their own in order to compensate their psychological discomfort from the awareness of their low material status. Having analyzed the 2013 nationwide

survey, N.E. Tikhonova makes a conclusion that “the poor Russians are now trying, rather, to embellish their position than to exaggerate their own poverty ...gradually in Russia it is becoming shameful to be poor”¹⁴. The sociological studies try to neutralize the limitations of subjective measures towards theoretical and empirical interpretation of the poverty concept and standardization of methodological tools.

The combination of different approaches result in more reliable estimates of poverty, as one measures and compares poverty by income, deprivation and subjective poverty. It is not common to apply this strategy in the practice of social management (for example, in the UK for the elimination of child poverty), although its practical significance encourages researchers to conduct research taking into account national peculiarities.

The analysis of theoretical and methodological approaches to understanding and measuring poverty shows that each of them has its advantages and shortfalls and, accordingly, the use of a specific approach is determined by the tasks to solve.

We believe that to build the socio-demographic portrait of the poor, reflecting its recent dynamics and current state, identify the key risks of poverty and their sustainability in the modern Russian conditions it is possible to use the absolute poverty concept, which also underlies

¹² *Bednost' i bednye v sovremennoi Rossii* [Poverty and the Poor in Modern Russia]. Under editorship of M.K. Gorshkov i N.E. Tikhonova. Moscow: Ves' Mir, 2014, p. 21; Ovcharova L.N. *Teoreticheskie i prakticheskie podkhody k otsenke urovnya, profilya i faktorov bednosti: rossiiskii i mezhdunarodnyi opyt* [Theoretical and Practical Approaches to the Assessment of the Level, Profile and Determinants of Poverty: Russian and International Experience]. Moscow: M-Studio, 2009, p. 44.

¹³ Pasovets Yu.M. *Imushchestvennaya stratifikatsiya naseleniya Rossii i ee regionov* [Property Stratification of the Population of Russia and Its Regions]. *Regionologiya* [Regionology], 2011, vol. 77, no. 4, pp. 206-208.

¹⁴ *Bednost' i bednye v sovremennoi Rossii* [Poverty and the Poor in Modern Russia]. Under editorship of M.K. Gorshkov i N.E. Tikhonova. Moscow: Ves' Mir, 2014, p. 34.

Table 1. Proportion of the Russian population with money incomes below the subsistence minimum (in % of the total population)

1995	2000	2005	2006	2007	2008	2009	2010	2011	2012	2013
24.8	29.0	17.8	15.2	13.3	13.4	13.0	12.5	12.7	10.7	11.0

Sources: Sotsial'noe polozhenie i uroven' zhizni naseleniya Rossii. 2007: stat. sb. [Social Status and Standard of Living of the Russian Population. 2007: Statistics Digest]. *Rosstat* [Federal State Statistics Service], Moscow, 2007, p. 144; .Sotsial'noe polozhenie i uroven' zhizni naseleniya Rossii. 2013: stat. sb. [Social Status and Standard of Living of the Russian Population. 2002: Statistics Digest]. *Rosstat* [Federal State Statistics Service], Moscow, 2013, p. 92; TsBSD [Central Database of Statistical Data]. *Rosstat* [Federal State Statistics Service]. Available at: <http://cbsd.gks.ru/>.

the official statistical survey of poverty in Russia. As L.A. Belyaeva points out, despite some disadvantages, the advantages of official statistics include the widespread coverage throughout the country and the uniform methodology and methods of data acquisition¹⁵. What is more, the collection of information is systematic, thus, the data are comparable and poverty is considered in dynamics.

The Russian state statistics monitor the parameters of poverty, revealing the level, profile and structure. In addition, in recent years the method to study poverty has expanded within the state statistics. It measures not only the incomes and expenses of the poor, but also the resources available to poor households. In this case the monetary and non-monetary revenues to households are taken into account. However, as the article volume is limited, we will analyze the block of indicators that reflect the income of the poor.

As noted earlier, in the absolute poverty concept the poverty line is determined by

¹⁵ Belyaeva L.A. Material'noe neravenstvo v Rossii. Real'nost' i tendentsii [Material Inequality in Russia. Current Situation and Trends]. *Sotsiologicheskie issledovaniya* [Sociological Studies], 2007, no. 11, p. 30.

the minimum set of basic needs and the amount of resources required to meet those needs (the subsistence minimum). In Russia, the absolute poverty line is referred to as the subsistence minimum.

The subsistence minimum sets the size of the income, sufficient to satisfy basic needs at the minimum level. In this regard, we can say that the subsistence minimum characterizes the limited amount of economic resources. Their use ensures a low level of adaptability. While the level of income below the subsistence minimum is an indicator of maladjustment.

According to this content of the subsistence minimum, the population with incomes below the subsistence minimum is considered as the poor. In the official statistics this category is called as the disadvantaged; the population with incomes below the subsistence minimum by two or more times is considered as the extremely poor.

As *table 1* shows, the scale of poverty, measured by the share of population with incomes below the subsistence minimum, has decreased by 2.3 times in Russia in 1995–2013. Only the 1998 economic crisis had an adverse impact on these dynamics,

Table 2. Composition of the poor population by place of residence
(based on the sample survey of households' budgets, in %)

Place of residence	<i>The disadvantaged</i>								
	2000	2005	2006	2007	2008	2009	2010	2011	2012
City	66.0	61.4	60.8	59.6	58.0	58.1	59.8	61.2	59.6
Village	34.0	38.6	39.2	40.4	42.0	41.9	40.2	38.8	40.4
	<i>The extremely poor</i>								
	...	48.8	46.9	45.1	44.2	42.3	45.0	49.2	55.1
City	...	51.2	53.1	54.9	55.8	57.7	55.0	50.8	44.9
Village	...	51.2	53.1	54.9	55.8	57.7	55.0	50.8	44.9

as the proportion of the poor Russians increased by 4.2%; the trend towards the reduction of absolute poverty remained in subsequent years.

Meanwhile, nowadays the tenth part of the Russians belongs to the poor by the objective parameters of the income amount (see tab. 1). This indicates the need to identify the main sources of poverty and their nature in the modern Russian conditions. In turn, the specific source of poverty (for example, living in certain social conditions or individuals' unwillingness to make efforts to maintain and improve their social status) directly determines the risk of poverty, i.e. the occurrence of the unfavorable outcome for this adaptation subject (adapant).

To assess the poverty rate it is useful to analyze the dynamics and the state of the main social and demographic characteristics of the poor. We believe that the consideration of the socio-demographic portrait of the disadvantaged and extremely poor population in dynamics will disclose the sustainability of one or another risk of poverty in the modern Russian conditions.

In turn, the characterized features of this portrait as of 2012 reveal key risks of poverty. To estimate the risk of poverty we use the corresponding index applied by the official statistics. The poverty risk index value above 1 shows how many times the poverty risk for the population, grouped according to certain parameters, is higher than the poverty risk for the population as a whole. The index value below 1 indicates the lower poverty risk than the poverty risk for the population as a whole.

As can be seen from *table 2*, the structure of the poor population by place of residence has not changed significantly: among this category the share of urban population is relatively higher than the proportion of rural population: 59.6% of the poor live in cities, 40.4% – in rural settlements. The largest share of the urban population in this category (28.7% of the total poor population) lives in small towns with population up to 50 thousand people¹⁶.

¹⁶ Sotsial'noe polozhenie i uroven' zhizni naseleniya Rossii. 2013: stat. sb. [Social Status and Standard of Living of the Russian Population. 2002: Statistics Digest]. *Rosstat* [Federal State Statistics Service], Moscow, 2013, p. 109.

As for the dynamics of the composition of the extremely poor population (with incomes by two or more times below the subsistence minimum) by place of residence, by 2012 the ratio between urban and rural population changes towards increasing the proportion living in cities, although there was a lower number of the extremely poor among the urban population. As for citizens, in 2012 there was the highest share of the extremely poor in small (with the population being equal to 50–100 thousand inhabitants and up to 50 thousand people) and medium (100–250 thousand inhabitants) towns¹⁷.

The poverty risk index value for differently populated settlements shows that this risk increases as far as the type of settlement changes (from rural to urban) and the number of its inhabitants reduces. So, for small towns (with the population being equal to 50–100 thousand inhabitants and up to 50 thousand people) and rural settlements of all types the poverty risk index is above 1, which means a higher level of poverty risk for the residents of these settlements than for the population as a whole. The poverty risk value is of¹⁸ 3.07 for the residents of rural settlements with population of less than 200 people.

The changes in the composition of the poor population by sex and age group are associated with the increase in the proportion of children under 16 and some reduction in the share of persons of working age and over working age. This trend is

characteristic of both the disadvantaged and the extremely poor population (*tab. 3*).

Besides, there is a significant gender difference in the category of over working age: the number of women of retirement age is greater than that of men largely due to the increasing disparity between the number of men and women of older ages (see *tab. 3*). The share of this age group is a bit less among the extremely poor than the disadvantaged due to the alignment of pensions to the subsistence minimum and above.

According to this poverty risk index value, in 2012 the higher poverty risk is typical for children up to 16 (1.48) and young people aged 16–30 (for young men – 1.14; for women– 1.13) compared to the general population¹⁹. One of the factors behind this situation is that children and young people live in dependence. At the same time, the increased number of pupils and students of vocational educational institutions leads to the reduction in the number of young people joining the labor market and earning money on their own.

The recent dynamics of the poor population composition in relation to economic activity shows the rise in the proportion of economically active population, including those employed in the economy and the unemployed. In 2012 compared to 2005 there was a greater number of the employed in the economy (4.8% of the total poor

¹⁷ Ibidem, p. 109.

¹⁸ Ibidem, p. 110.

¹⁹ Sotsial'noe polozhenie i uroven' zhizni naseleniya Rossii, 2013: stat. sb. [Social Status and Standard of Living of the Russian Population. 2013: Statistics Digest]. *Rosstat* [Federal State Statistics Service], Moscow, 2013, p. 110.

Table 3. Composition of the poor population by gender and age groups
(based on the sample survey of households' budgets, in %)

Age group	<i>The disadvantaged</i>							
	2005	2006	2007	2008	2009	2010	2011	2012
Children under 16	21.8	21.2	21.4	22.6	23.8	25.5	26.3	27.3
Working-age population, including:	65.5	65.7	65.2	64.8	64.6	64.4	63.5	62.4
young people aged 16-30	25.6	25.6	25.3	25.6	25.6	24.9	24.2	23.4
men aged 31-59	18.7	19.0	18.9	18.6	18.7	19.2	19.0	19.0
women aged 31-54	21.2	21.1	21.0	20.6	20.3	20.3	20.3	20.1
Population over working age, including:	12.7	13.1	13.3	12.6	11.6	10.0	10.2	10.3
men aged 60 and over	3.5	3.6	3.8	3.5	3.1	2.5	2.7	2.7
women aged 55 and over	9.1	9.5	9.6	9.1	8.6	7.5	7.5	7.6
	<i>The extremely poor</i>							
	2005	2006	2007	2008	2009	2010	2011	2012
Children under 16	26.7	26.4	26.4	27.5	28.6	30.4	31.2	30.6
Working-age population, including:	64.9	64.8	64.5	63.9	63.7	62.8	61.2	61.8
young people aged 16-30	27.3	26.9	25.9	26.2	26.6	26.3	25.3	24.9
men aged 31-59	17.6	18.0	18.3	18.0	17.9	17.8	17.4	18.4
women aged 31-54	20.0	19.9	20.2	19.7	19.1	18.7	18.5	18.5
Population over working age, including:	8.4	8.8	9.1	8.6	7.7	6.8	7.6	7.6
men aged 60 and over	2.3	2.4	2.5	2.1	2.1	1.8	2.0	2.0
women aged 55 and over	6.1	6.3	6.6	6.5	5.6	5.0	5.6	5.6

Sources: Sotsial'noe polozhenie i uroven' zhizni naseleniya Rossii. 2009: stat. sb. [Social Status and Standard of Living of the Russian Population. 2009: Statistics Digest]. *Rosstat* [Federal State Statistics Service], Moscow, 2009, p. 146; Sotsial'noe polozhenie i uroven' zhizni naseleniya Rossii. 2013: stat. sb. [Social Status and Standard of Living of the Russian Population. 2013: Statistics Digest]. *Rosstat* [Federal State Statistics Service], Moscow, 2013, p. 110.

population) and the unemployed (0.4%) among the disadvantaged. This trend is also characteristic of the extremely poor population (*tab. 4*).

As for the poverty risk index value by economic activity, in 2012 the high poverty risk compared to the general population can be observed among the unemployed (2.05) and the economically inactive population as a whole²⁰ (1.09). Meanwhile, for non-working pensioners the poverty rate is

²⁰ *Ibidem*, p. 112.

lower (0.72) than for the rest; thus, at a basic level this category is supported by the state guarantees. The authorities conduct monitoring, develop and implement measures to overcome poverty²¹, which ultimately reduces the poverty rate for this social category.

²¹ Solov'ev A.K. Problema preodoleniya bednosti pensionerov – klyuchevaya zadacha gosudarstva i obshchestva sovremennoi Rossii [Alleviation of Pensioners' Poverty – a Key Task for the State and Society in Contemporary Russia]. *Ekonomicheskie i sotsial'nye peremeny: fakty, tendentsii, prognoz* [Economic and Social Changes: Facts, Trends, Forecast], 2014, no. 5 (35), pp. 153-155.

Table 4. Composition of the poor population by economic activity (for persons aged 15 and over, based on the sample survey of the households' budgets, in %)

	<i>The disadvantaged</i>							
	2005	2006	2007	2008	2009	2010	2011	2012
Economically active population, including:	60.2	60.5	61.1	61.4	63.3	64.9	65.6	65.5
- employed in the economy, of which	58.4	58.7	59.4	59.7	60.7	61.0	63.1	63.2
working pensioners	3.5	3.8	4.1	4.2	4.3	3.7	4.0	4.2
- unemployed	1.9	1.8	1.7	1.7	2.5	3.9	2.5	2.3
Economically inactive population, of which	39.8	39.5	38.9	38.6	36.7	35.1	34.4	34.5
non-working pensioners	15.0	15.1	15.1	14.3	12.7	11.9	11.6	11.7
	<i>The extremely poor</i>							
	2005	2006	2007	2008	2009	2010	2011	2012
Economically active population, including:	57.9	58.3	57.5	57.4	59.5	61.8	61.4	63.3
- employed in the economy, of which	54.8	55.1	54.5	54.3	54.9	56.4	58.1	60.3
working pensioners	2.5	2.6	2.7	2.6	3.3	2.8	3.4	3.3
- unemployed	3.2	3.2	3.1	3.1	4.6	5.4	3.3	3.0
Economically inactive population, of which	42.1	41.7	42.5	42.6	40.5	38.2	38.6	36.7
non-working pensioners	11.2	11.4	11.7	11.4	9.2	8.5	9.2	9.1

Sources: Sotsial'noe polozhenie i uroven' zhizni naseleniya Rossii. 2009: stat. sb. [Social Status and Standard of Living of the Russian Population. 2009: Statistics Digest]. *Rosstat* [Federal State Statistics Service], Moscow, 2009, p. 146; Sotsial'noe polozhenie i uroven' zhizni naseleniya Rossii. 2013: stat. sb. [Social Status and Standard of Living of the Russian Population. 2013: Statistics Digest]. *Rosstat* [Federal State Statistics Service], Moscow, 2013, p. 110.

The poverty rate for persons employed in the economy amounted to²² 0.8 in 2012; it indicates a lower level of poverty risk relative to the rest of the population. However, the small interval between this value and 1 makes the problem of the working poor. In other words, in terms of socio-economic adaptation to modern Russian conditions the employment and the working age are not self-sufficient adaptation resources. In this respect it is necessary to pay attention to other characteristics of the workforce that ensure successful adaptation to socio-economic changes, particularly the dependence of

²² Sotsial'noe polozhenie i uroven' zhizni naseleniya Rossii. 2013: stat. sb. [Social Status and Standard of Living of the Russian Population. 2013: Statistics Digest]. *Rosstat* [Federal State Statistics Service], Moscow, 2013, p. 112.

incomes of the employed in the economy on the economic activity, the form of ownership of the enterprise and the level of education.

According to the sample survey of enterprises, in 2013 the largest share of workers with low wages (up to 7,400 rubles) is concentrated in agriculture, hunting and forestry (19.3% of the number of people employed in this sector). The number of the employed in this type of economic activity with wages up to 5,000 rubles comprised 3.1% of all employed in this economy sector, in the range of 5,000–5,800 rubles – 6.2%, 5,800–7,400 rubles – 10%. Similar situation is also observed in the sphere of education, health care and social services²³.

²³ *Ibidem*, p. 99.

Table 5. Composition of the poor population in relation to economic activity and by educational level in 2012 (for persons aged 15 years and over, based on a sample survey of households' budgets, in %)

	Disadvantaged population	Vocational education level					General education level			
		Postgraduate	Higher	Undergraduate	Secondary	Complete secondary	General	Basic	Elementary	People do not have elementary education
Economically active population, including:	100	0.1	21.4	2.4	36.0	15.8	19.8	4.3	0.2	0.0
employed in the economy	100	0.1	21.8	2.4	36.3	15.8	19.3	4.0	0.2	0.0
unemployed	100	0.0	11.3	0.7	25.2	16.2	34.7	10.8	1.0	0.0
Economically inactive population	100	0.0	6.9	2.6	18.5	9.5	28.7	24.1	8.5	1.2

Source: Sotsial'noe polozhenie i uroven' zhizni naseleniya Rossii. 2013: stat. sb. [Social Status and Standard of Living of the Russian Population. 2013: Statistics Digest]. *Rosstat* [Federal State Statistics Service], Moscow, 2013, p. 111.

According to the same survey, in 2013 there was a greater number of employees earning up to 5,000 rubles at state and municipal organizations (1.3% of all employed in such organizations) than at non-state enterprises (0.7%). In general, about 1/10 of the number of employees at state and municipal organizations (10.8%) got low salary (up to 7,400 rubles). The number of employees with this level of salary is two times lower at non-state organizations (4.7%)²⁴.

Table 5 shows that more than half of the poor, employed in the economy, have professional education: 21.8% – higher, 36.3% – secondary. Considering the above facts, we can identify a greater dependence of wages on the type of economic activity and the form of ownership of the enterprise than the level of education.

²⁴ Ibidem, p. 101.

However, there is a small number of those with vocational education among the unemployed and the economically inactive population included in the category of poor people.

If we consider the poverty risk index value in terms of the level of education in 2012, the risk of poverty is lower for persons with secondary vocational and higher education, than for the general population. At the same time, the higher the level of professional education, the lower the rate of poverty: it amounts to 0.87 for persons with secondary vocational; 0.82 – undergraduate; 0.48 – higher; 0.31 – postgraduate professional education. At the same time, the poverty rate is almost by half higher for the population with basic general education (1.51), primary education (1.44) and no education (1.47) than for the total population²⁵.

²⁵ Ibidem, p. 112.

Thus, the analysis of the dynamics and the state of objective sources of poverty, the high poverty rates are registered in small towns (with the population being equal to 50–100 thousand inhabitants and up to 50 thousand people), refer to children and young people under 30, the unemployed and economically inactive population. Besides, the working poor employed in industries get low wages.

The scientific and practical significance of the study stems from the fact that, on the one hand, the results of the analysis help generate scientific understanding of the dynamics and the state of the main characteristics of poverty in the modern Russia: the level and the socio-demographic composition of the poor and the key risks of poverty of socio-demographic nature.

The analysis of statistical indicators of poverty can be supplemented by their comparison with the results of subjective poverty measurement to make the picture of poverty risks in the modern Russian conditions more vivid.

On the other hand, the findings can be used to determine the main directions and measures to reduce poverty and its risks as part of the development and implementation of social policies.

As noted by N.M. Rimashevskaya, the selection of effective measures to reduce poverty requires the data on the socio-demographic composition of poverty and its dynamics.

The indicators characterizing the change in the structure of the poor popu-

lation reflect the directions and methods to solve the problem²⁶.

In our view, the issues of poverty risk give another look at the key directions to decrease poverty in the contemporary Russian society. The attention should be drawn both to the measures for poverty reduction and poverty prevention, aimed at improving the adaptive capacity of people exposed to high risks of poverty. Thus, it is necessary to decrease poverty rates and strengthen adaptive capacities of the population living in small towns and rural settlements, children and young people, the unemployed, economically inactive population and low-income workers.

Moreover, one should take into account the relationship between the key poverty risk concentration areas: poverty of the population in small towns and rural areas and unemployment, child poverty and working-age population poverty. So, in most cases child poverty is largely a consequence of the problem of the working poor and, in fact, is a problem of families with children whose parents have low incomes.

Therefore, the reduction of child poverty depends on the solution of problems on the labor market – decrease in the prevalence of low-income employment and unemployment and increase in the efficiency of social programs to provide targeted support to families with children (benefits, maternity capital, etc.).

²⁶ Rimashevskaya, N.M. *Bednost' i marginalizatsiya naseleniya* [Poverty and Marginalization of the Population]. *Sotsiologicheskie issledovaniya* [Sociological Studies], 2004, no. 4, pp. 36-38.

Given the relationship of the poverty sources, it can be stated that the mechanism to realize the poverty reduction policy should include the consistent implementation of the following measures:

1. In terms of the reallocation of labor forces and the betterment of employment:

- restructuring of the economy and the employment, development of the institutional environment to use market-based incentives promoting employment on the regional labor markets, creation of the conditions for the expansion of self-employment and entrepreneurial initiative (improvement of the credit system, access to material infrastructure, etc.);

- identification of the sectoral and regional priorities in the development and preservation of jobs, facilitation of the reallocation of workers and optimization of the use of labor potential, promotion of the social mobility, including through inter-regional and intra-regional migration;

- identification of the economical requirements in personnel with specific skills, enhancement of the system of training and retraining of workers and the unemployed, encouragement of the professional education competitiveness.

2. In terms of the reduction in the number of low-wage workers:

- improvement of the labor efficiency and expansion of the opportunities for further employment;

- increase in the minimum wage and introduction of the smooth wage indexation mechanism.

3. In terms of the enhancement of the system to protect socially vulnerable layers of the population:

- better targeting of social benefits and benefits to the poor, refusal to provide assistance to the non-poor population, greater social payments to the poor;

- strengthening control over social assistance provision.

The economic crisis is characterized by the increased risks of unemployment, underemployment, reduction in the level of income and consumption. Current poverty can transfer to chronic, accompanied by the changes in labor motivation, the distribution of a welfare mentality. In this case the system of anti-crisis measures should include activities aimed at reducing poverty rates and enhancing the population's resources. It is advisable to apply and develop the practice of individual adaptation programs for the able-bodied population. They prohibit the individual to combine informal employment and social benefits, encourage the unemployed to find a job, exploit the working population's capacities in order to use and build their labor, educational and professional potential (education, training and retraining). The development and implementation of such programs can be effected by placement services.

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2. Belyaeva L.A. Material'noe neravenstvo v Rossii. Real'nost' i tendentsii [Material Inequality in Russia. Current Situation and Trends]. *Sotsiologicheskie issledovaniya* [Sociological Studies], 2007, no. 11, pp. 29-41.
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On the normative model of a healthy lifestyle



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Abstract. The formation of a healthy lifestyle among the educational process subjects is one of the main functions of health-saving educational space. This function can be implemented effectively only if the executive bodies in the sphere of education, other agencies, the public and the subjects of the educational process take active part in this process. Such cooperation requires a common understanding in the issues to promote health of all pedagogical process participants, but to date the concept “healthy lifestyle” has not been clearly defined and the effective and optimized pedagogical models for its formation, according to the cross-cutting principle, have not been elaborated.

The article analyzes different points of view on this issue. A healthy lifestyle is considered as a complex pedagogical technology to create health culture. Taking into account the scholars’ attitudes to the concept “healthy lifestyle” the author identifies three main components of a healthy lifestyle: health culture, health-saving activity and conditions that ensure a healthy lifestyle. The article argues that health saving needs of a person predetermine his/her health-saving activities. It reveals the main strategic sub-components of a healthy lifestyle: physical, environmental, medical, psychological and spiritual-moral activities. The work presents the normative model of a healthy lifestyle and its structure. It defines a healthy lifestyle as a model of health-saving behavior model. The author proves that the proposed normative model of a healthy lifestyle can be successfully used for the formation of health-saving educational space on the principles of inter-sectoral collaboration.

Key words: healthy way of life, healthy lifestyle, health culture, health-saving needs, physical activity, environmental activity, medical activity, mental activity, spiritual-moral, health-saving educational space.

Introduction

At the present stage different interpretations of the concept “healthy lifestyle” do not lead to the efficient formation of health-saving educational space. It is necessary to define the key concept “healthy lifestyle” that would integrate the participants of the pedagogical process to create health-saving educational space not only as a general target, but as a single conceptual system that consolidates pedagogical potential of all the participants.

Starting from the variety of views on this concept, we should move to its single normative concept that involves reduction of this concept to the model (normative) norm adopted by all actors of health-saving educational space in its uniform interpretation.

Many scientists of our time try to disclose the social nature of a lifestyle and its impact on health. However, their views on this issue as interdisciplinary differ.

Studying the essence of the concept “healthy lifestyle”, one group of scientists presents it as rejection of harmful factors and approval of factors favorable for health (Yu.A. Andreeva, E.F. Solopov, B.N. Chumakov, etc.).

According to another group of scientists, this concept is reflected in social competence, a certain culture of healthy behavior (V. Kasatkin, Yu.P. Lisitsyn, V.M. Basova, etc.).

The third group of scientists believes that a healthy lifestyle is a certain pattern,

an ideal of healthy behavior (L.N. Voloshina, I.Yu. Kokaeva, I.A. Korobeinikov, E.E. Cherpurnykh, etc.).

The fourth group of scientists suggests that a healthy lifestyle can not be the same for everybody and comes to the conclusion that a healthy way of life at the individual level should be defined as a healthy lifestyle (S.O. Avchinnikova, M.Ya. Vilenskii, L.G. Tatarnikova, etc.). However, all the above views on the concept “healthy lifestyle” have common components to elaborate the normative model of a “healthy lifestyle”.

The core

The health-saving educational space at any level is aimed at forming a healthy lifestyle of the educational process subjects, according to the principle of cooperation between specialists of different profiles. All participants of health-saving activities in the field of education should have common conceptual understanding of a healthy lifestyle.

In our view, a healthy lifestyle should be considered as a complex technology of healthy human life, which includes a number of interconnected sub-components of health-saving sub-components that require some effort for realization. It is necessary to identify the most important sub-components for maintaining and improving human health. This will simplify the conversion to a common norm of the studied concept.

L.N. Voloshina says that a “healthy lifestyle” is primarily a cultural way of life, civilized, humanistic”; she highlights the

dependence of a healthy lifestyle of people's culture [5, p. 42].

According to "the Explanatory Dictionary of the Living Great Russian Language Russian language" by V. Dahl, culture is "education, intellectual and moral" [6, p. 217]. "Dictionary of the Russian Language" by S.I. Ozhegov treats culture as "a set of human achievements in industrial, public and mental regard" [12, p. 274].

Taking into account these interpretations we can conclude that cultural means educated, achieved certain combined knowledge, skills and abilities that are realized on the basis of moral and spiritual standards of life.

This statement gives grounds to consider health culture as a total of knowledge, skills and abilities in the field of healthy living, which are implemented in society as a healthy way of life. People's Commissar of Health N.A. Semashko writes: "... Without sanitary culture there can be no culture at all; without sanitary education there can not be healthy population..." Sanitary education is understood as "a set of educational, educational, advocacy and propaganda measures aimed at preserving, strengthening, rehabilitating health and labor ability of a person and extending his/her active life" [13, p. 199]. The main components forming a healthy way of life are presented in N.A. Semashko's statements. He considered sanitary culture as an end product of sanitary education. In our view, it is health culture; without it there can be no culture at all.

In the works of V.M. Basova, L.N. Voloshina, V.N. Kasatkina, V.V. Sokoreva and others health culture is revealed as social competence in terms of health preservation and strengthening.

So, we can single out one of the main components to define a healthy lifestyle – health culture.

V.Z. Kogan emphasizes that the attitude to health is specifically manifested in actions and deeds, opinions and views of people regarding the factors influencing their physical and mental health. It can be adequate and inadequate due to its significance for people's life.

Thus, V.Z. Kogan puts forward a new approach to a healthy lifestyle and suggest taking into account the inner world of a person, its integral structure. He considers a person as a subject of health, who actively creates his/her physical, mental and social well-being, productive activity and creative longevity [8, p. 31].

Taking into account the inner world of a person, on the one hand, and active physical, mental and social well-being, on the other hand, V. Z. Kogan indicates the direct relationship of these phenomena and focuses on the fact that person's internal resources are key in his/her activity. The inclusion of person's inner potential in the formation of a healthy lifestyle seems important for the development of motivation to health-saving activities.

Thus, relating people's needs to their activities and health, we can consider their internal resources in terms of achievement of healthy lifestyle goals. Referring to this

conclusion, we can also prove that human health depends on a person – the desire and activity to be healthy; **person's needs** predetermine the inclusion in a healthy lifestyle. This is one of the important components of a healthy lifestyle that encourages a person to satisfy them through a particular activity.

According to Yu.P. Lisitsyn, a healthy lifestyle is “a human activity focused on preservation and strengthening of health”. Hence, people themselves are responsible for their physical, mental and social well-being; they possess certain knowledge, skills and abilities to preserve and promote their health; people should exercise a certain activity to achieve this goal. Thus, activity is another component of a healthy lifestyle.

According to V.K. Bal'sevich, physical activity should be considered as the “main sphere to form physical culture of a person”. “Physical culture is the first, most natural bridge, connecting social and biological in man”, he underlines [2, p. 22]. The relations between the activity and the cultural identity formation can be considered in terms of other kinds of human activity, which, like a mosaic, create person's culture. So, we can single out the method that, as an analogy, can be applied in the process to form a healthy lifestyle of the educational process subjects by training them in various types of activities.

A.I. Fedorov, S.B. Sharmanova consider a “healthy lifestyle” as a “typical set of forms and ways of life that promotes proper fulfilment of educational and labor, social

and biological functions and is the important objective of school physical education” [17, p. 12]. The scientists especially highlight the integral part of a healthy lifestyle – physical activity, an “activity of an individual, aimed at achieving physical perfection” In our opinion, physical health of an individual can be achieved due to systematic physical activity. Physical perfection is rather a goal of those involved in professional sport. Optimal physical activity in order to maintain and promote health is a useful **physical activity** of a person, which can be attributed to one of the healthy lifestyle subcomponents. Hence, physical activity should be considered as optimized physical exercises, ensuring the preservation and strengthening of health.

The desire to give up bad habits also depends on the activity of man. We believe that the process to abandon unhealthy habits is part of the environmental activity to protect person's biological systems from external harmful factors, for example, from a large amount of alcohol, food, smoking, drugs, etc.

In the dictionary “Language of Newspapers, Radio, Television” by G.Ya. Solganik ecology is defined as a “science about the relationship between plants and animals and communities among them and the environment.

For example, human ecology, cultural ecology, etc.” [14, p. 637]. The features of man's relationship with the environment are inherent in the definition. **Environmental activity** of people can be interpreted as

their activities aimed at preventing and combating harmful environmental and behavioral factors. The biological systems of people are protected.

Yu.P. Lisitsyn defines a healthy lifestyle as an activity, which is most characteristic, typical for the specific socio-economic, political, environmental and other conditions aimed at preserving and strengthening people's health. He points out that the ways to form a healthy way of life derive from the understanding of its functional structure.

The key activity is medical, i.e. the activity of people associated with their and public health and aimed at protecting, strengthening, reproducing health – positive health activity [11, p. 57] that should be nurtured from early childhood. Medical activity is divided into independent elements. This is health literacy, hygienic and unhygienic habits, visits to medical institutions for advice, following medical advice. He emphasizes that the exercise of medical activity depends largely on the general level of culture, education, attitudes, living conditions, state of healthcare, etc. Medical activity also includes the compliance with diet, physical culture and sports, attitude to smoking, alcohol, occupational health and safety compliance, etc.

In our opinion, these factors determining the way of life can be attributed to medical activity only in terms of following the doctor's advice. **Medical activity**, in our view, should be regarded as its activity

to conserve and enhance people's health in collaboration with health services and as one of the sub-components of a healthy lifestyle. Yu.P. Lisitsyn's works are significant due to the identified components of a healthy lifestyle: medical and other activities, dependency on general culture of a person and other conditions.

A.A. Korobeinikov gives another definition of a healthy lifestyle. It is a "result of reasonable and moral human behavior, harmonious unity of body and spirit, existing in harmony with the laws of nature and society. This way of life is characterized by intellectual development, spiritual and moral well-being, physical strength, psychological soundness, opposition to antisocial habits, awareness of importance of physical and moral perfection, ability to harmonized interpersonal and social relations and on this basis – maximum realization of personal potential in the core areas of activity" [10, p. 69].

This definition highlights moral and psychological components of a person's lifestyle, which, in our opinion, is very important for the study of the concept nature. To realize spiritual, moral and psychological potential people should show some activity. This activity can be caused by spiritual, moral and psychological needs. So, there are two most important health-saving subcomponents of a healthy life – **spiritual-moral and psychological activities**.

Spiritual-moral activity of man can be defined as appropriate moral actions that

satisfy spiritual needs and contribute to the preservation and strengthening of health.

In our view, psychological activity is an ability to implement actions aimed at overcoming and preventing stressful situations, ensuring the preservation and strengthening of health, as well as the harmonization of interpersonal and social relations.

A.A. Korobeinikov singles out such an important component of a healthy way of life, as **psychological soundness**. It depends on mental health of a person and has a different effect on his/her actions and different types of activities. Only psychological soundness can optimize all kinds of activities. Between human needs and corresponding activities there should exist psychological soundness, which ensures the optimization of this activity and, as a consequence, the efficiency of health maintenance. This conclusion is significant to reduce the concept “healthy lifestyle” to a single normative definition.

Having analyzed the works of V.K. Bal'sevich, V.Z. Kogan, A.A. Korobeinikov, Yu.P. Lisitsyn, A.I. Fedorov, we can single out the key sub-components of a healthy lifestyle: physical activity, medical activity, psychological and spiritual-moral activities.

L.G. Tatarnikova states that a “healthy lifestyle can not be the same for everybody, as people are natively different; therefore, to achieve a certain effect, they should behave differently”.

Hence, she concludes: “Healthy is such a style (way of life), which leads to the

desired expectancy and the quality demanded of life” [16, p. 23]. The style of behavior here can be viewed as the aggregate of individual human activities, which yields the desired results.

As there appears the concept “style of behavior”, analogous to “lifestyle”, it is necessary to understand the differences between the concepts “healthy way of life” and “healthy lifestyle”. According to M.Ya. Vilenskii and S.O. Avchinnikova, the concepts of “way of life” and “lifestyle” should not be identified or opposed. They believe that the solution to this problem lies in the definition of subjects of the discussed phenomena. The creator of life activity forms that are of social nature is a subject of a way of life. The individual is a bearer of socially typical features of life activity; besides, he/she acts as a subject of his/her own lifestyle.

Hence, a lifestyle is not an integral part of a way of life, but embodiment of the latest at the individual level. They prove that a healthy lifestyle can be interpreted as individualized variant of a healthy way of life that includes ideological, behavioral and activity-based aspects. In the context of the stated above, they define a healthy lifestyle as a new formation of a person, a product of spiritual and physical effort, a comprehensive system of vital manifestations of a personality that contribute to the harmonization of his/her individuality with the conditions of life and promote person's self-actualization [4, p. 2-7].

Assuming that this view of the concept “healthy lifestyle” coincides with ours, we will pursue to reveal the normative model of a healthy lifestyle. M.Ya. Vilenskii and S.O. Avchinnikova believe that to have a healthy lifestyle, a person has to show some effort, that is, a certain activity. The life manifestations, combined with the person’s individuality express his/her vital needs. The integral system to satisfy the vital needs promoting people’s healthy lifestyle discloses their culture. Thus, person’s culture, which indicates the needs and determines the actions, i.e. types of activities, predetermines the lifestyle. The algorithm to transform culture to a healthy lifestyle can be the basis for an individual to lead a normative healthy lifestyle in the society.

The analysis of the scholars’ views on the concept “healthy lifestyle” in terms of pedagogy, psychology and cultural studies, the study of a number of technologies of its formation lead to the following conclusions:

- all definitions of the term “healthy lifestyle” have one thing in common – the need for activity, ensuring the preservation and strengthening of health, expressed by medical, physical, environmental or any other form of human activity;
- people’s activity is forming most effectively, when it satisfies their needs;
- optimization of health-saving activity depends on the state of mental health and the extent of the need in this kind of activity;

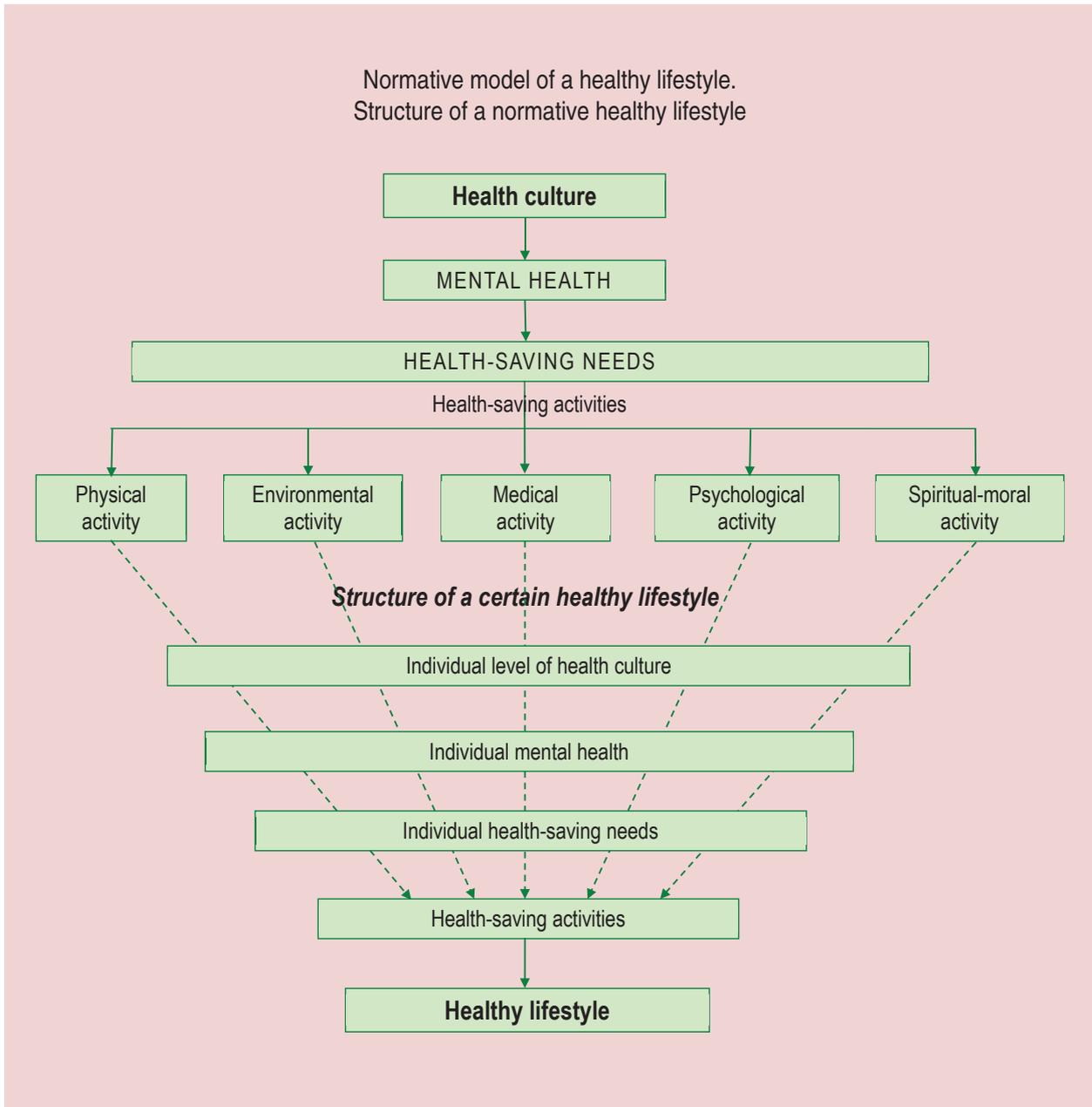
– the “cementing” basis that integrates all health-saving components can be characterized as health culture, belongs to a certain subject and is manifested through different kinds of activities.

Relying on these findings we conclude that a healthy lifestyle of an individual consists of three components: basic – health culture (prolonged needs in health-saving activities); health-saving activities (subcomponents) – physical, health, environmental, social, spiritual-moral, etc., conducted by people and closely related to their mental health; conditions that ensure the transfer of health culture to a healthy lifestyle. These components of a healthy lifestyle are interrelated and interdependent.

Health culture can be characterized as social competence in matters of health, stable necessities in healthy way of life, abilities and skills to satisfy them on the basis of health-saving activities.

The identified components and subcomponents of a healthy lifestyle can be productively used in the simulation of a model healthy-saving life activity, or, otherwise, in the development of a model healthy way of life.

The task to create such a model involves the reduction of the concept “healthy lifestyle” to the normative structure of its formation and the interpretation and its synthesis in the process of the formation of health-saving educational space (*figure*).



The normative model of a healthy lifestyle in terms of the pattern (ideal) of behavior is static. It is a comprehensive health-saving tool of an individual. This model reflects the optimized structure of a healthy lifestyle, which is realized in the form of an individual healthy lifestyle in everyday life. The proposed model suggests combing the effort of all society sectors and teaching and educating the younger generation to live a healthy life.

L.N. Voloshina considers activity as the key feature of a healthy child. She argues: “It is activity that ultimately determines health-promoting behavior and the state of health and ensures the transformation of children from irresponsible and passive objects in subjects of the health protection process who have a sense of responsibility, rights and duties” [5, p. 40].

When we speak about teaching healthy lifestyles, we mean, first of all, activities: physical, medical, environmental, psychological, spiritual-moral, which we define as basic.

As a result of the purposeful pedagogical process these activities become sustainable needs of the learner and then transfer into a healthy lifestyle. This algorithm to promote health-saving behavior can be characterized as a process of health culture formation.

Since the given activities ensure the preservation and enhancement of human health, they can also be called health-saving activities and the acquired needs – as health-saving needs. These needs can

be reasonably characterized as formed subcomponents of health culture: physical culture, environmental culture, medical culture, psychological culture, spiritual-moral culture, etc.

Taking into account the stated above, we can give a general definition: **a healthy lifestyle is a normative health-saving model of behavior, which is realized by a person in the society by means of satisfaction of health-saving needs through the appropriate optimized types of health-saving activities that are psychologically sound and ensure the preservation and the promotion of health. This way of life at the individual level is characterized as a healthy lifestyle and it expresses health culture.**

This definition of a healthy lifestyle can serve as a single normative concept for all **sectors of society** involved in the HSS formation process.

The basis for this conclusion is the following:

- this definition takes into account all the considered views of scientists on the concept “healthy lifestyle”;
- addresses pedagogical questions: what to teach pupils so that they can realize health-saving activity and what quality people acquire as a result of system pedagogical influence;
- allows all society sectors responsible for population’ health to engage in the process of healthy lifestyle formation by teaching health-saving activities: physical, environmental, medical, psychological, spiritual-moral and others;

– can become, according to the synergetic approach, a topology for the initial impact, be an attractor for the development of health-promoting activities and play a crucial role in achieving the objectives of the formation of health saving educational space.

The definition of “health”, given by WHO, presupposes that the achievement of complete physical, mental and social well-being, the prevention of diseases and

disabilities require certain knowledge about healthy life and systemic physical, medical, spiritual, environmental, social and other activities.

A person should have “health culture” and his/her life activity can be described as a healthy lifestyle.

The development of prolonged sustainable needs in health-saving types of activities should be considered as the formation of health culture.

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Rational allocation of agricultural production in the region



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Abstract. The paper proposes an original approach to determining the optimal allocation of agricultural production in the region; the approach includes the methodological substantiation of the necessity to differentiate consumers when addressing food security issues in the region. It was proposed to allocate three levels: level 1 – the provision of food to socially vulnerable layers, level 2 – the provision with food at the subsistence level, and level 3 – the provision of the total population of the region with food.

A preliminary forecast was made for each municipality; it analyzed possible changes in the number of the socially vulnerable up to 2020; in accordance with medical standards and norms of the subsistence level the volumes of food were calculated, which in turn were compared with the actual production output. The difference between the actual volume and the volume of evidence-based requirements represented the very increase in the volume of production, the achievement of which requires certain investments on the basis of capital-output ratio. After that the regional market was divided into three sub-regional markets depending on distance, number of consumers and suppliers. This allowed us to calculate the amount of transport costs based on the type and lot size of the transported product, taking into account the distance to each sub-market. As a criterion of transportation expediency we took into account the share of transport costs in the price of the product not exceeding 30%. Otherwise, it is required to concentrate the production in order to increase the lot transported or to carry out a deeper processing of the product. The proposed methodology served as the basis for choosing the most effective option of spatial location of agricultural production.

Key words: food security, agriculture, Far North, ecological production, rural development, production efficiency, agricultural policy, optimal allocation, regional market.

The rational distribution of agricultural production involves the organization of its functioning in a particular area according to the prevailing agro-climatic conditions and the transportation costs for shipping the product to the nearest market in order to use land, labor, material and financial resources most efficiently. As for agricultural production, an enterprise is interested in greater profit and the society – in solving the problem of food security.

It is necessary to manufacture the product, requiring the lowest costs in accordance with agroclimatic conditions. The transportation costs to deliver the product to the market are part of the full costs. The optimal ratio of industries is taken into account for more uniform use of resources, primarily labor, within a one year period.

For example, in the practice of the Soviet economy of the northern territories the agricultural workers, working in fields

in summer, in winter, as a rule, were busy harvesting and processing of wood used for household needs of the enterprise.

In addition, the rational allocation of agricultural production depends on the population dynamics on the regional markets, large settlements, towns and cities. It is influenced by the development of the industry and other sectors of the economy, the number of current job and the creation of new ones. So, the Komi Republic is setting up new industrial projects on oil, titanium and wood processing and planning to develop nickel ores in the longer term. The increase in the number of new jobs leads to the greater volume of consumed food. Environmentally friendly food can be produced only within a certain distance from the point of consumption.

The need to avoid depopulation is a significant factor in the territorial location of production. This requires special support of the areas with adverse agro-climatic

conditions, improvement of the living conditions in rural areas, prevention of the outflow of people employed in agriculture, improvement of the demographic structure in rural areas.

The study is aimed at determining the basic criteria applicable to justify the rational allocation of agricultural production in the region. The novelty of the work lies in the fact that this justification concerns the specific region – the Komi Republic.

For these purposes we analyze the main trends in the regional food market development, examine its sources, volumes of consumption, including their variation in per capita terms.

The optimization of agricultural production distribution on the territory of the republic should take into account the significant transportation costs associated with large distances (the length of the republic from the North to the South is 785 km, from the South-West to the North-East – 1275 km, from the West to the East – 695 km), low population density and other factors limiting the development of regional agriculture – children and the sick, including those in healthcare and education establishments (kindergartens, hospitals, schools).

Special attention should be given to the provision of quality food to socially vulnerable layers of the population.

We make a forecast for the changes in the number of population by 2020 for each administrative region [8]. Further, based on the forecast data, medical nutrition

standards and nutrition standards at the subsistence minimum level we calculate the required amount of products, primarily milk and fresh meat [5, 6]. The comparison of the actual production volume and the minimum amount help calculate the required production volumes for each district. Then on the basis of productivity we justify the increase in livestock and, considering the investment price of a cattle stall, calculate the amount of investment required for agricultural production in 2015–2017. The problem to provide socially unprotected layers of the population with quality food at the expense of local production should be solved during this period. On the basis of the forecast data we substantiate the maximum possible production volumes and the amounts of production at the subsistence minimum level. Then we calculate the required amount of investment in agriculture in the region in 2018–2020., i.e. in the period when it will be possible to solve the problem of food security of the republic's population by main agricultural products.

The study specifies the formation of 3 sub-regional markets in the Komi Republic: Syktyvkar (over 300,000 consumers), Ukhta-Sosnogorsk (about 200,000 consumers) and the market of northern cities (about 200,000 consumers).

Taking into account transport costs, we reclassify producers to each sub-market and offer the promising specialization of producers by products.

The total volume of the regional food market in current prices amounts to more

than 55 billion rubles, of which more than half – to the livestock. In 2000–2012 despite the reduction in the total number of consumers the market increased by 26%. During this period the population of the republic decreased by 21% from 1136.3 to 889.9 thousand people, however, the growth of solvent demand of the population led to greater consumption per capita: milk and dairy products by 40%, meat and meat products – 65%, eggs – by 12%, vegetables – 14% (*tab. 1*). Consumption growth was caused by food import. Thus, the share of external sources rose.

The table provides a list of products that are imported to the republic's market and, at the same time, are specialization objects of most local producers.

According to the 2012 data, the republic produced 112 thousand tons of potatoes, of which the share of commercial farms accounted for only 4.6 thousand tons (4%) and the share of peasant farms (PF) – about 3 thousand tons (2.6%). The production of vegetables amounted to 22.5 thousand tons. The share of commercial farms accounted for 4.8 thousand tons (22%), PF – 2.5%. It should be noted that in 2009–2013 the latter increased the production of potatoes by almost 2.5 times and vegetables – 5 times. Given their lack of technical equipment, it can be assumed that the promotion of positive trends requires cooperation, primarily in the storage and primary processing of potatoes and vegetables.

Table 1. Dynamics of external and internal sources of the Komi Republic food market in 2000–2012

Products	2000				2012				Consumed per capita, kg	
	Import	Local production	Total*	Share of local production	Import	Local production	Total*	Share of local production	2000	2012
Milk and dairy products, thousand tons	133.4	105.9	239.3	44	188	61.7	270.5	23	196	276
Livestock and poultry, thousand tons	41.6	14.5	56.1	26	57	20.4	71.1	27	49	81
Eggs, million units	115.3	172.8	288.1	60	120	133.3	261.3	51	241	271
Potatoes, thousand tons	0.5	268.2	268.7	99.8	2.4	112	114	98	118	56
Vegetables, thousand tons	60.6	38.6	99.2	39	64.5	22.5	87	26	84	96
Volume of the regional market in comparable prices, million rubles	18161.200	12208.600	34280.300	40	36408.000	19147.000	55 555	35		
* With regard to resources at the beginning of the year. * Includes an incomplete list of products.										

The overall trend shows a decrease in the share and significance of local producers in the provision of agricultural products, especially milk. During the study period the local commodity producers decreased the volume of production by 42%. Their share on the national market of milk and dairy products declined from 44% in 2000 to 23% in 2012 due to the decrease in production at citizens' farms.

However, the local producers' production of meat maintains the same. The proportion of own production reaches 27%. This is a significant amount that allows the authorities to regulate prices on the regional market, but does not solve the problem of food security and, in particular, the provision of quality food to vulnerable segments of the population. In addition, the rate of meat consumption per capita, amounting to 81 kg, does not reach medical standards required for the northern territories. Moreover, it is an average level of consumption, therefore, some groups of population are characterized by lower rates.

Almost 80% of the meat produced in the republic accounts for one enterprise – OJSC “Poultry Farm Zelenetskaya”, which specializes in the production of poultry and pork. This concentration significantly increases the risk of excessive dependence on the changing market conditions. Peasant farm enterprises, specializing mainly in the production of pork and beef, ensure the diversification in meat production (meat of goats, sheep, rabbits, geese, etc).

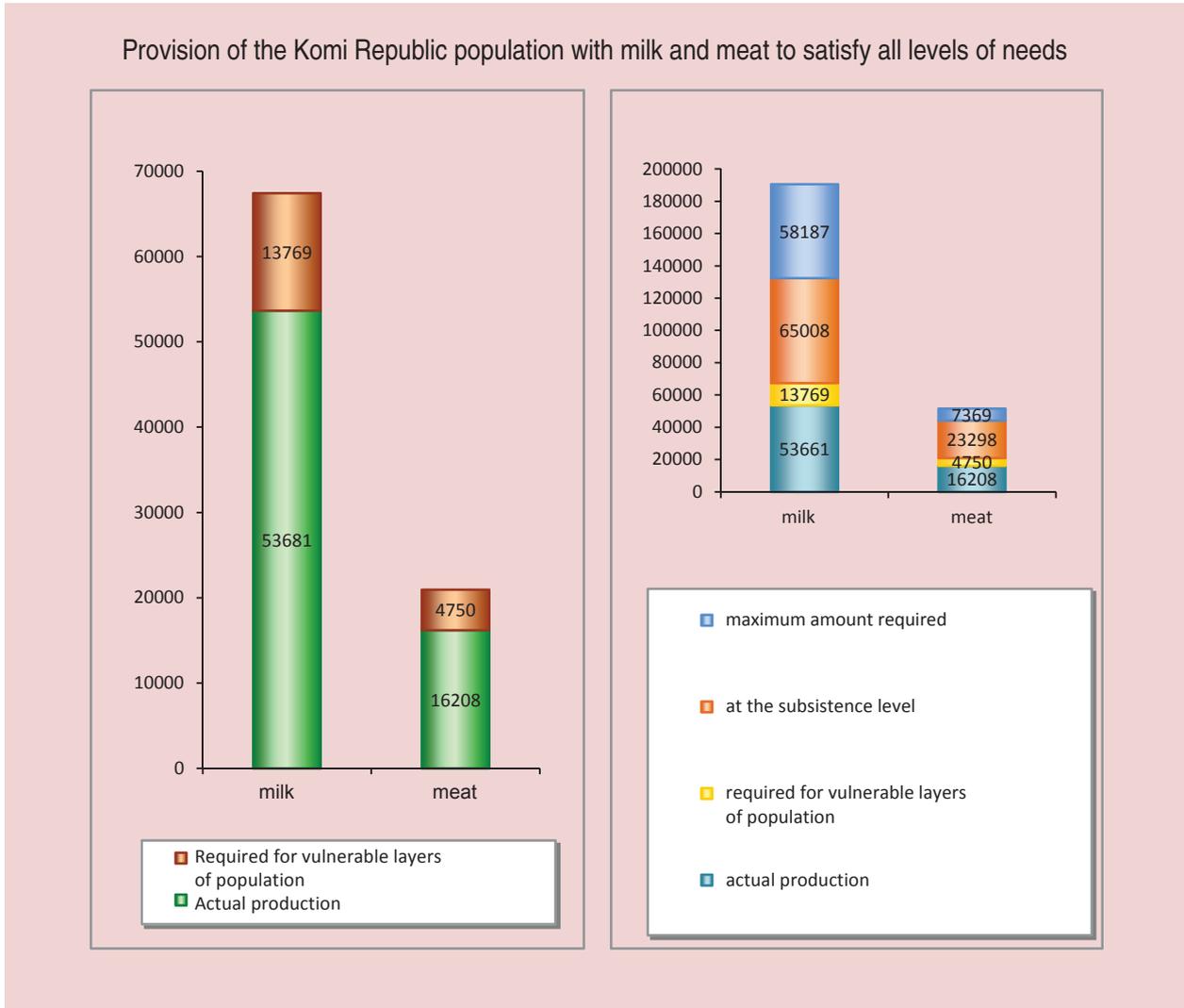
The trend analysis shows the reduction in beef production and the increase in the share of poultry meat in the consumption

structure. Two-three kg of beef is produced per 1 consumer, though, according to the consumption standards, the amount should be 25 kg (even taking into account the share of local production, 5–6 kg should be produced). The relative scarcity of beef creates the accelerated growth of prices for it. In the future it can become an attractive investment product. However, at the moment the industry development is constrained by the lack of modern equipment and the current financial support of the industry. Over 95% of beef produced in the republic is the cattle out of the reproductive cycle in dairy cattle husbandry. The republic does not raise cattle for meat.

The comparison of actual volumes of production and different levels of needs makes it possible to calculate the required volume of production and investment for each district.

In the whole republic (*figure*) additional production of 13,769 tons of milk is required to meet the minimum needs for milk. Milk productivity amounting to 5 tons is optimal, that is why additional 2,754 heads of cattle are required. Besides, it is necessary to increase meat production by 4,750 tons and livestock by 12,500 heads.

The authors believe that the task to provide the socially vulnerable layers of the population with milk and meat should be solved in 2015–2017. In 2018–2020 the government should address the problem of providing milk and meat at the subsistence minimum level and at the level of medical consumption rates for the total population. At the first stage (2015–2017) 385 million



rubles of investment will be necessary to meet the needs of socially vulnerable population for milk and 1.132 billion rubles – in meat. The second stage aimed at ensure the needs at the subsistence minimum level will require additional 2.191 billion rubles to boost milk production and 6.729 billion – meat production. To meet the maximum needs investment is required in the dairy and meat sector – 3.833 billion and 8.205 billion rubles, respectively. It should be noted that the investment amount is

presented in the lower price range, i.e. on the basis of the data of certain implemented investment projects, the total amount of which will amount to 12.038 billion. According to the Ministry of Agriculture and Food of the Komi Republic, i.e. in the upper price range, this amount of investment will be 22.451 billion rubles. So, the second stage involves significant financial investment, which is unlikely to be allocated; however, these figures are a guideline for the industry development.

Given the current specialization and the perspectives for regional agricultural development, we propose to carry out specialization on the basis of the cluster approach, stipulating the satisfaction of needs of local markets first, sub-regional markets then, the interregional market last of all.

There are following sub-regional markets:

- The first market (Syktyvkar): Syktyvkar, Priluzsky, Sysolsky, Koygorodsky, Ust-Kulomsky, Udorsky, Kortkerossky, Syktyvdinsky, Ust-Vymsky, Knyazhpogostsky districts.

- The second market (Ukhta, Sosnogorsk): Ukhta, Sosnogorsk, Vuktylsky,

Izhemsky, Ust-Tsilemsky, Troitsko-Pechorsky districts.

- The third market (Northern cities): Pechora, Usinsk, Inta, Vorkuta.

The minimum requirements for milk and meat production are substantiated for each sub-market. Of course, the level of full satisfaction is unattainable, but it shows the limits for possible growth. The justification of production volumes necessary to meet minimum requirements, needs at the subsistence minimum level and maximum requirements in the context of sub-regional markets are shown in *table 2* (taking into account the internal distribution by sub-regional markets among municipalities).

Table 2. Calculation of minimum, sub-sistence and maximum requirements for milk and meat in terms of sub-regional markets of the Komi Republic

Sub-regional markets	Factual production 2013	Minimum requirement*		Subsistence requirement**		Maximum requirement***	
		Required according to the recommended standard, tons	+ above standard, - – below standard	Required according to the recommended standard, tons	+ above standard	Required according to the recommended standard, tons	+ above standard
<i>First sub-regional market</i>							
Milk	34817	15618	+19239	45868	-11051	68981	-34164
Meat	14025.9	3436	+10589	12349	+1676	15173	-1148
<i>Second sub-regional market</i>							
Milk	14885	14469	-4838	45872	-31265	68984	-54099
Meat	1214.9	3152	-1938	12349	-11135	15173	-13959
<i>Third sub-regional market</i>							
Milk	3959	11281	-7322	34066	-30107	51231	-47272
Meat	967.6	2481	-1514	9167	-8200	11268	-10301

* The minimum requirement is calculated on the basis of the Order of the Ministry of Healthcare and Social Development of the Russian Federation "On approval of the recommendations for rational standards of food products consumption that meet modern requirements of a healthy diet" of August 2, 2010 No 593n and the demographic forecast for the number of vulnerable segments of the population.

** Needs at the subsistence minimum level are calculated on the basis of the Decree of the RF Government "On approval of the methodical recommendations for consumer basket determination for the main socio-demographic groups of population in subjects of the Russian Federation" of January 28, 2013 No. 54 and the demographic forecast for the total population.

*** The maximum demand is calculated on the basis of the Order of the Ministry of Healthcare and Social Development of the Russian Federation "On approval of the recommendations for rational standards of food products consumption that meet modern requirements of a healthy diet" of August 2, 2010 No 593n and and the demographic forecast for the total population.

These statistics indicates that on the sub-regional market of Syktyvkar the minimum demand for milk has been reached, the excess amount to almost 19 thousand tons. Surely, part of the product will meet the needs of the whole population, but the achievement of the subsistence minimum level on this market requires almost 11 thousand tons. For the second and third sub-regional markets, the deficit is even greater. On the first sub-regional market the demand for meat is satisfied by the above-mentioned poultry “Zelenetskaya”, the deficit is observed only in terms of maximum needs satisfaction (1,148 tons). The minimum requirement for meat is a satisfied in the region. On the second and third sub-regional markets the demand at all levels is not met.

The division into sub-regional markets helps analyze the trend of changes in the cost of milk production and marketing in terms of farms, belonging to one or another sub-regional market, as well as study the transport costs in terms of presented markets (*tab. 3*).

The research shows the difference in cost parameters by sub-regional markets: the expenses are higher in the northward direction. For example, the price of milk (raw material) on the third sub-regional market is by 38% higher than on the first; the difference varies by 1.5 times by production costs.

Based on the factual data analysis, the authors calculate the transportation costs and their share in the sale price depending on the distance to the subregional market.

The share of sub-regional markets' expenses on the transportation in the price of milk is calculated as follows (*tab. 4*). The authors multiply the normalized transport costs in the context of sub-regional markets (see *tab. 4*) by the average distance and then divide them by the average selling price of (raw) milk for appropriate groups of markets. As can be seen, the transportation of milk is useful when shipping 20 tons to a distance of not more than 300 km. The manufacturers that are located beyond this distance, should carry out more profound processing of products for their delivery to the sub-regional market.

Table 3. Sub-regional markets' prices for raw milk and transportation costs in the Komi Republic in 2013

Sub-regional market	Raw material, selling price, rubles/liters	Costs of goods sold, rubles/liters	Production costs, rubles/liters	Transportation costs, rubles/liters*	Distance from the manufacturer to the sub-regional market, kilometers	Normalized transport costs, rubles/kilometers
First sub-regional market (Syktyvkar)	19.21	28.01	22.60	5.2	256	0.02
Second sub-regional market (Ukhta, Sosnogorsk)	24.35	33.45	25.18	6.16	165	0.04
Third sub-regional market (Northern cities)	26.58	42.67	33.90	10.43	200	0.05

* Transportation costs also include cost of goods sold.

Table 4. Share of transportation costs in the product price
on the first sub-regional market compared with other sub-regional markets

Indicator	Distance			
	Up to 100 km	101–150 km	151–300 km	Свыше 300 km
<i>Syktvykar (milk)</i>				
Cost per 1 kg, rubles.	2	2.52	4.52	6
Price, RUB.	19.21	19.21	19.21	19.21
Share of transportation costs in the price, %	10.4	13.1	23.5	31.2
<i>Ukhta, Sosnogorsk (milk)</i>				
Cost per 1 kg, rubles.	4	5.04	9.04	12
Price, RUB.	24.35	24.35	24.35	24.35
Share of transportation costs in the price, %	16.4	20.7	37.1	49.3
<i>Northern cities (milk)</i>				
Cost per 1 kg, rubles.	5	6.3	11.3	15
Price, RUB.	26.58	26.58	26.58	26.58
Share of transportation costs in the price, %	19	24	42	56

Similar calculations are performed for the second sub-regional market. Here, unlike the first, the transportation efficiency is achieved when shipping products to a distance less than 200 km.

The efficiency of milk transportation in the northern cities is assessed (the third sub-regional market). It is reasonable to transport products to a distance of 150 km (by road transport); it can involve the use of other modes of transport, such as railway.

The authors suggest that with increasing shipments of milk the transportation costs (including cost of goods sold) will decrease by the percentage increase in traffic volume. For example, the growth in the shipment the consignment from 15 to 20 tons on the first sub-regional market (Syktvykar), the rise in its volume will amount to 33%. Accordingly, the transportation costs (including cost of

goods sold) in the third range will decrease by this value – to $(4.52 \text{ rubles} \times (1-33)) = 3.03$ rubles/kg, while the share of transportation costs in the price will amount to 15.8% instead of 23.5%. Consequently, there is an inverse correlation between the increase in shipments of milk and the transportation costs per unit of product.

As the authors suggest, transportation of primary processed products is reasonable if the share of transportation costs in the product price is not higher than 30%. Otherwise deeper processing at site or transportation of larger quantities is required. As for deliveries to the sub-regional market, it is necessary to concentrate production and sell products on the basis of the mechanism of producers' cooperation or existing commercial farms that already have recycling.

This will not only reduce transportation costs by supplying large quantities of milk, but will make local producers more reliable suppliers of the regional market and partners of large retail chains that can maintain a steady supply in accordance with the schedule.

Such cooperation is possible on the basis of commercial farms with the help of farm enterprises. The state should control pricing through the participation of its representatives in the creation of processing facilities at the expense of public investment.

In the future, two factors will have the most significant impact on food security in the region, such as dynamics of local production and reduction of the population in the republic.

If the current level and forms of state support remain unchanged, the situation with domestic food sources in the republic will deteriorate, according to our forecasts (*tab. 5*).

According to this forecast, in 2020 the Komi Republic population will reduce by

approximately 7%, milk production – by 12%, eggs – by 32%. The accelerated rate of decline in production will lead to the aggravated situation with food supply of the republic's population as a whole. In 2020 the per capita milk production will reduce by 5%, eggs – by 16%; in some municipalities the reduction will be even more significant. Judging by the forecasts, the production of meat, potatoes and vegetables will grow at a steady pace. Nonetheless, it is important to note that over 90% of the volume of potatoes and about 80% of vegetables are produced in private farms of the population, and in this case there is a high risk for sharp decline in production, because smallholders do not have a significant material and technological base and a well-functioning system of harvesting and marketing. Hence, it is necessary to strengthen the agricultural sector of the republic, and use its internal reserves rationally.

The article proposes basic methodological approaches to the rational placement of agricultural production in the region.

Table 5. Dynamics of per capita consumption of agricultural products, produced in the Komi Republic, with inertial development of the agricultural sector being maintained

Index	Total		Per capita consumption, kg (units)/years/persons	
	2013	2020	2013	2020
Population number, persons	880639	820812	-	-
Milk, tons	53661	47515	61	58
Store cattle and poultry (in live weight), tons	29464	33186	33	40
Potatoes, tons	104220	243534	118	297*
Vegetables, tons	12721	19933	14	24
Egg, thousand pieces	117149	80053	133	98

* Produced in the region per capita, but the consumption will be kept at the level of medical standards.

In particular, they involve the analysis of needs of the republic's population in the context of municipalities by basic foods. The authors take into account the level of food security, namely the level of socially vulnerable population. The state is obliged to provide these people with quality food at affordable prices and guarantee economically acceptable conditions for habitation. The authors consider the criteria of milk transportation in the context of municipal formations and sub-regional markets. They take into account transportation costs per unit of product that determine the optimal size of shipments, and those, in turn, – the required size of production concentration.

Moreover, the article substantiates required investment to meet the needs of the republic's population for milk and meat. It points to the necessity of uniform distribution of production on the territory of the republic.

The rational placement of production is the most important factor in increasing the competitiveness of local products. It depends on many conditions, including agro-climatic, economic and political, but the determining factor is demographic – nutritional requirements of different consumer groups. In the work this need is divided into 2 levels. The first level concerns socially vulnerable people (children and patients). The state is obliged to ensure access to high quality products for them. The second level concerns needs at the subsistence minimum level. In this case it is necessary to ensure the protection of consumers' economic interests by maintaining a competitive environment. The availability of food at affordable prices is one of the important conditions of habitation on this territory, which is extremely important for the Komi Republic, characterized by the significant outflow of the population.

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Execution of local budgets in 2014: tension is not decreasing



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Abstract. Vladimir Putin's "May decrees" have received the status of a national goal. On the background of decreasing economic performance exacerbated by external shocks, the implementation of these decrees has become a heavy burden for regional budgets without an adequate financial support from the federal budget. As a result, almost every Russian region has suffered losses by the end of 2014.

The fallacy of the ongoing course of budget policy has long been criticized by many leading scholars and experts; moreover, they proposed positive recommendations on the development of alternative policies. Unfortunately, the results of 2014 prove that the RF Government has not abandoned the policy of budget consolidation. On the contrary, gratuitous financial assistance to the regions is actively transformed into debt financing in the form of budget loans. However, the regional authorities can rely on this quasi-support, which is a temporary factor, only provided that the budget is deficit-free and at the expense of abandonment of spending on economic development and on the improvement of welfare of the population.

The results of the analysis of the facts indicate that the budget-related problems of the regions, arising largely from the inefficient federal budget policy, have reached the critical level. One fourth of the subjects that had a predominant share of market debt turned out to be in a pre-default state. The breakdown of public finances has affected the most prosperous regions, which is contrary to the paradigm of sustainable regional development.

The regions entered the crisis of 2014 with huge debt and budget deficit; the situation was not so grave during the financial and economic crisis of 2009. In terms of the upcoming 10% cut of federal budget expenditures [5], the subjects of the Russian Federation can hardly expect an increase in financial support. They will obviously have to adapt their budgets to the changing economic

situation. But in such conditions, when there are no opportunities to reduce investments, spending on housing and utilities and on the economy, the compensational sources can be found only in the budget sector and the existing measures of social support; such a situation will cause the reduction of domestic demand, creating not only economic but also political risks for the regional authorities.

The article analyses the execution of budgets of the RF subjects for 2014, substantiates practical recommendations for the stabilization of territorial budgetary systems and proposes measures to lead them out of the crisis.

The study is based on the official data of the Ministry of Finance of the Russian Federation [7], the Federal Treasury [8], the Federal Tax Service [9], and the Federal State Statistics Service [10].

Key words: region, territorial budget, deficit, loans, public debt, adjustment of budgetary policy.

At first glance, the execution of subnational budgets in 2014 was successful: total and own revenues¹ increased by 7–9%. However, the revenue-generating regions were the ones receiving oil rent and the federal cities². In the majority of the RF subjects (61 of 83) the own revenue growth rate was lower than the national average.

Despite the accelerated dynamics, largely influenced by the low base effect, the growth rate of budget receipts was below the inflation rate³. In real terms of both aggregate and own revenue did not reach the 2008 level (*tab. 1*).

The main factors to reduce the revenue growth were as follows.

First, it is the drop in the growth rate of industrial production and investment caused by the general recession of the Russian economy⁴ (*tab. 2*).

¹ Own revenues are revenues of the RF subjects' budgets without reimbursable revenues.

² Of the total increase in own revenues (555 billion rubles) the share of the federal cities, Khanty-Mansi Autonomous Okrug, the Sakhalin Oblast, the Tyumen Oblast, the Moscow Oblast and the Leningrad Oblast amounted to 318 billion rubles.

³ According to the Federal State Statistics Service of the Russian Federation, in 2014 the consumer price index for goods and services in Russia amounted to 111.4%.

⁴ In 2014 the increase in GDP was the lowest since 2009 and amounted to 0.6%.

In 2014 the volume of industrial production increased by 1.7% against 5% in 2011.

All federal districts, except for the Far Eastern Federal district, have been demonstrating downward dynamics since 2012.

A number of regions have not overcome the 2008–2009 industrial downturn yet. Among them there are such major industrial centers, as Khanty-Mansi Autonomous Okrug, Yamalo-Nenets Autonomous Okrug, the Chelyabinsk Oblast, the Nizhny Novgorod Oblast, the Arkhangelsk oblast, the federal cities; it indicates long-term negative trends in the economy.

Investments in fixed capital have moved into the negative zone in 2013 and in 2014 the decline accelerated from 0.3 to 2.7%. The decrease in investment activity occurred in half of the RF subjects. Hence, the investment crisis remains.

Second, it is a progressive decline in profit and, accordingly, corporate tax. In 2011–2014 the amount of economic entities' revenues decreased by 33% and corporate tax – 15% (*fig. 1*).

Table 1. Revenues of RF subjects' budgets* in 2008–2014, billion rubles

Indicators	2008	2009	2010	2011	2012	2013	2014	2014 to 2008, %
Revenues, total	6196	5924	6537	7644	8064	8165	8747	141.2 p.p.
Growth rate, %	128.0	95.6	110.3	116.9	105.5	101.2	107.1	-20.9 p.p.
In real terms**	9301	8104	8367	9112	9121	8695	8747	94.0
Growth rate, %	118.6	87.1	103.2	108.9	100.1	95.3	100.6	-18 p.p.
Own revenues	4912	4243	4980	5827	6385	6588	7143	145.4
Growth rate, %	120.3	86.4	117.4	117.0	109.6	103.2	108.4	-11.9 p.p.
In real terms**	7374	5805	6374	6946	7221	7016	7143	96.9
Growth rate, %	111.4	78.7	109.8	109.0	104.0	97.2	101.7	-9.6 p.p.

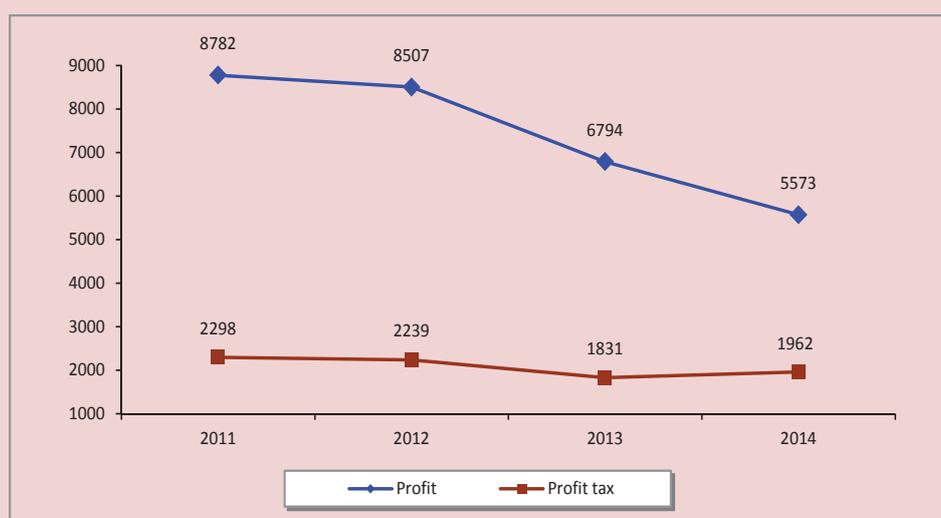
* To ensure the comparability of the dynamics all the indicators are net of the Crimean Federal district. ** The 2014 prices.
Sources: data of the Federal Treasury; the Federal State Statistics Service of the Russian Federation; the author's calculations.

Table 2. Index of industrial production and volume of investment in fixed assets in 2011–2014, % to the previous year

Federal district	Industrial production				Investment in fixed assets			
	2011	2012	2013	2014	2011	2012	2013	2014
North Caucasian	109.8	106.3	106.2	98.9	103.3	112.2	102.9	109.1
Ural	101.9	101.6	101.1	100.1	114.2	106.4	98.2	101.3
Central	106.9	105.7	101.4	101.3	107.2	112.9	105.0	98.9
Volga	109.4	104.5	101.8	102.0	110.1	109.5	104.6	98.9
Siberian	106.4	107.2	104.7	101.8	116.2	111.8	90.5	96.0
Far Eastern	109.1	103.0	103.3	105.3	126.5	88.1	80.5	94.8
Northwestern	107.7	102.6	99.8	97.6	110.0	104.0	77.1	92.4
Southern	109.5	107.8	104.4	102.7	110.3	107.4	108.7	83.2
Russian Federation	105.0	103.4	100.4	101.7	110.8	106.6	99.7	97.3

Source: data of the Federal State Statistics Service of the Russian Federation.

Figure 1. Dynamics of receipts and profit tax in RF in 2010–2014, billion rubles (the 2014 prices)



Sources: data of the Federal Treasury; the Federal State Statistics Service of the Russian Federation; the author's calculations.

In 37 RF subjects, mainly economically developed, profit tax has not reached the 2011 volumes, even without adjustments for inflation. It confirms the existence of problems in the regional economy once again (*tab. 3*). The most negative trends have developed in the regions with large metallurgical enterprises (the Belgorod Oblast, the Kemerovo Oblast, the Volgograd Oblast, the Murmansk Oblast, Krasnoyarsk Krai). In 2014 there are only 8 subjects with the predominant share of profit tax in the structure of own revenues (in 2008 there were 18 subjects).

The total increase in profit tax paid to territorial budgets in 2014 amounted to 242 billion rubles, more than 70% of this amount was provided by 6 regions (the Sakhalin Oblast, the Tyumen Oblast, the Leningrad

Oblast, the Sakha (Yakutia) Republic, Khanty-Mansi Autonomous Okrug and Yamalo-Nenets Autonomous Okrug).

The difficult financial situation of enterprises and organizations was exacerbated by the tight credit policy. In 2014 with the 8.7% average return of the RF economy the weighted average interest rates on commercial loans doubled – from 9.2 to 18.3%, and the debt of the real sector of economy increased by half and reached more than 8 trillion rubles (*fig. 2*). It is comparable to the annual volume of subnational budgets revenues.

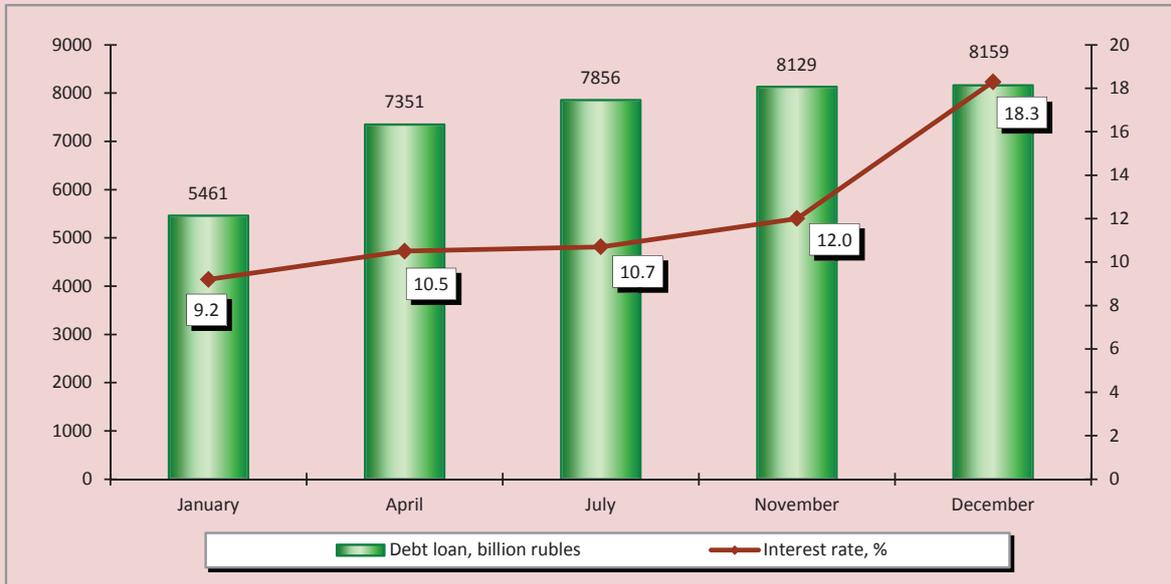
Third, it is a slowdown in the real growth rate of personal income tax (PIT) to 0.7% against 4.1% in 2013 (*fig. 3*) due to the sharp fall of real incomes and wages caused by the decline in oil prices, the devaluation of

Table 3. Profit tax receipt to the RF subjects' budgets in 2011–2014, billion rubles

Subject	2011	2012	2013	2014	2014, %	
					to 2013	to 2011
Irkutsk Oblast	30.06	39.96	29.13	29.72	102.0	98.9
Samara Oblast	36.17	45.32	39.45	35.57	90.2	98.3
Nizhny Novgorod Oblast	25.51	24.15	24.18	24.21	100.1	94.9
Tyumen Oblast	108.62	105.95	65.96	102.4	155.3	94.3
Sverdlovsk Oblast	47.25	55.57	46.36	43.74	94.4	92.6
Moscow	566.95	545.85	485.72	485.43	99.9	85.6
Perm Krai	33.99	35.48	33.06	28.52	86.3	83.9
Yamalo-Nenets Autonomous Okrug	47.08	46.29	27.28	37.81	138.6	80.3
Khabarovsk Krai	12.75	15.36	11.37	9.77	85.9	76.6
Krasnoyarsk Krai	68.98	52.54	42.59	49.7	116.7	72.1
Murmansk Oblast	16.3	10.96	11.17	11.63	104.2	71.4
Vologda Oblast	12.01	10.93	5.96	7.58	127.3	63.1
Kemerovo Oblast	35.94	24.57	15.14	19.21	126.9	53.4
Belgorod Oblast	25.6	19.2	13.58	11.22	82.6	43.8
Russian Federation	1927.94	1979.89	1719.67	1961.67	114.1	101.7

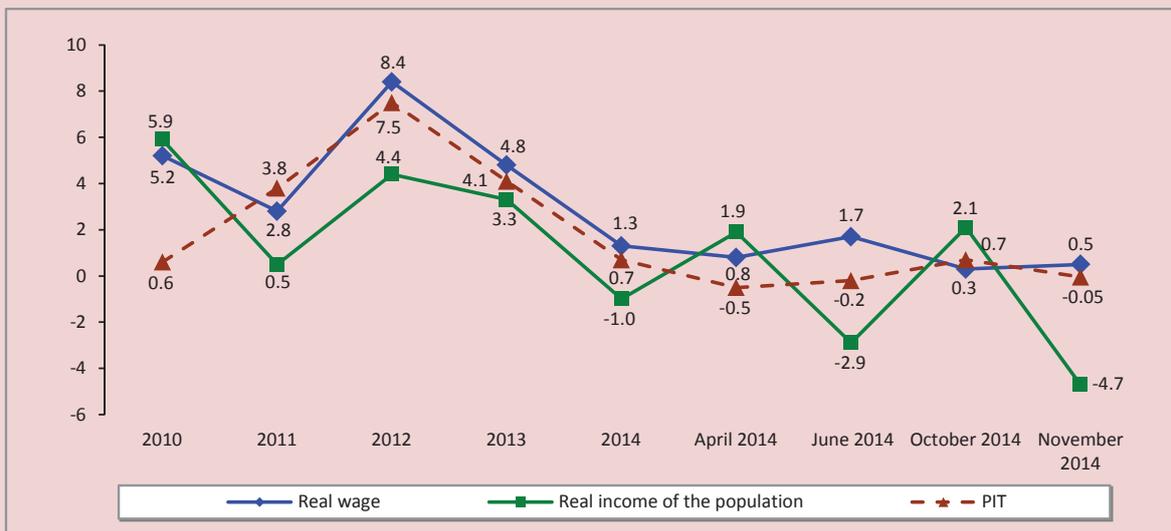
Sources: data of the Federal Treasury; the author's calculations.

Figure 2. Debt of the real sector of economy and weighted average interest rates in 2014



Source: data of the Bank of Russia [6].

Figure 3. Dynamics of real wages, real incomes of the population and receipts of personal income tax* in 2010–2014, % to the previous year



* The 2014 prices.

Sources: data of the Federal Treasury; the Federal State Statistics Service of the Russian Federation; the author's calculations.

the ruble and the external sanctions in the second half of 2014.

The majority (60%) of territorial budgets have showed negative dynamics in personal income tax. This means that not only profit tax, but also income tax have lost the role of a stable source of gain for the regional treasury.

The optimization of a network of social complex establishments plays an important role in the reduction of personal income tax revenues. The regional authorities often rely on it to raise salaries of public sector workers, solving the task set in the RF President decrees of 7 May 2012.

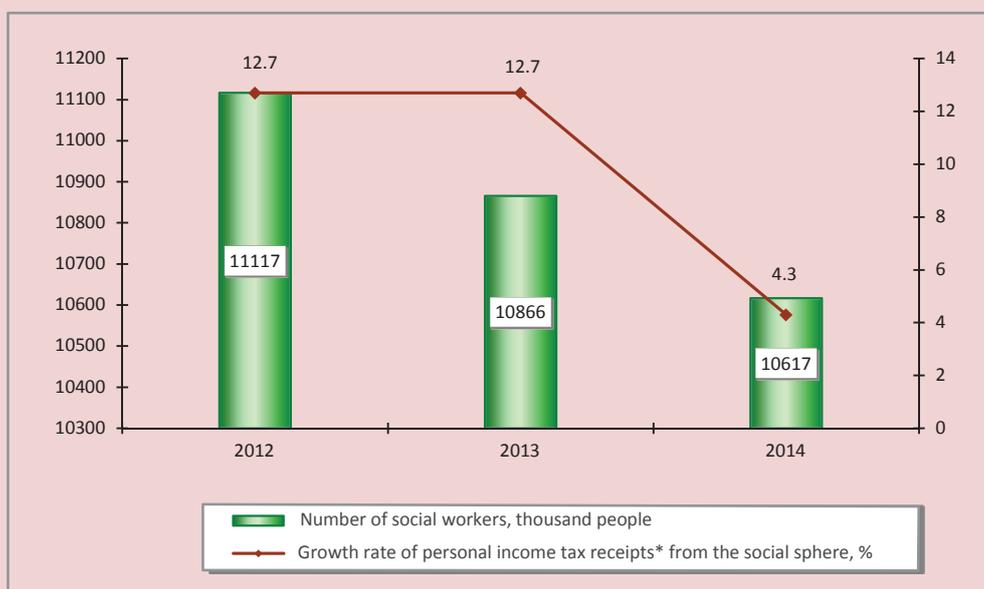
Over the past three years the number of employees in institutions of education,

healthcare and culture has decreased by 500 thousand people, while the growth rate of personal income tax revenues from these industries has decreased from 12.7% to 4.3% (*fig. 4*).

Fourth, it is a 10% decrease in the excise tax rate compared to 2013 (*fig. 5*) due to lower excise duties on diesel fuel.

Fifth, it is gradual reduction of subsidies and subventions from the federal budget. Hence, the amount of interbudgetary transfers in real terms has decreased by 414 billion rubles or by 21% compared to 2011, while the share of subnational budgets revenues generated from non-reimbursable financial assistance has declined from 21.5 to 17.7% (*fig. 6*).

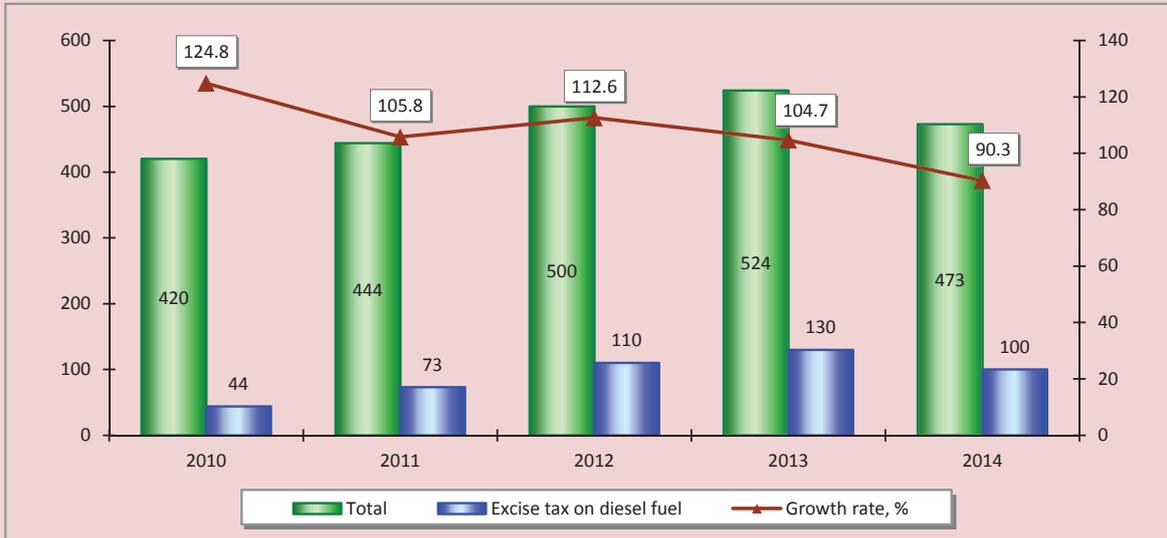
Figure 4. Number of social workers and growth rate of personal income tax revenue in 2012–2014



* The 2014 prices.

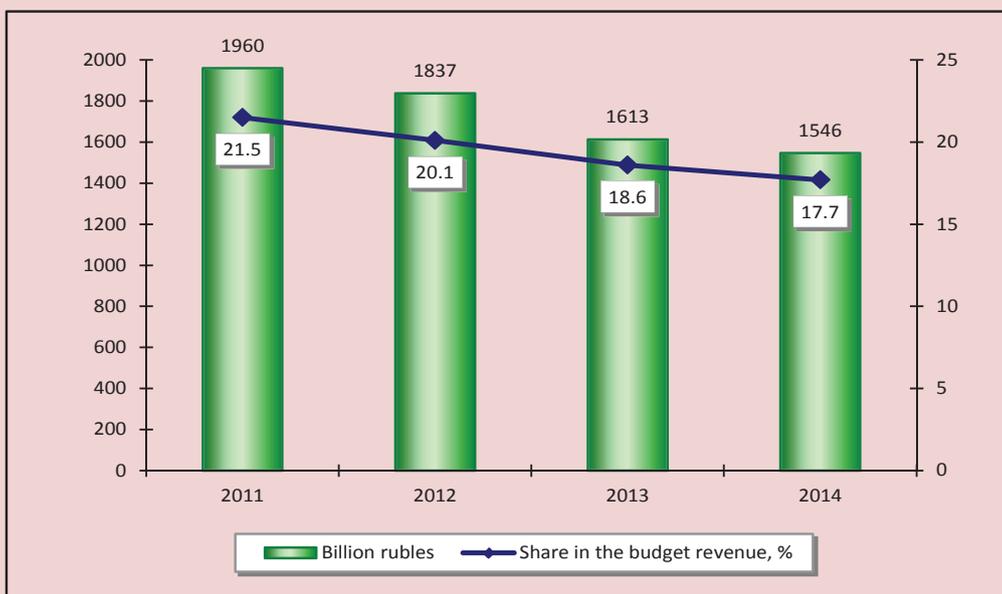
Sources: data of Federal Tax Service; the Federal State Statistics Service of the Russian Federation; the author's calculations.

Figure 5. Excise tax receipts to the RF subjects' budgets in 2010–2014, billion rubles (the 2014 prices)



Sources: data of the Federal Treasury; the Federal State Statistics Service of the Russian Federation; the author's calculations.

Figure 6. Dynamics of interbudgetary transfers to the RF subjects' budgets from the federal budget in 2011–2014* (the 2014 prices)



* Due to the changes in the budget functional classification the data prior to 2011 are not shown.

Sources: data of the Federal Treasury; the Federal State Statistics Service of the Russian Federation; the author's calculations.

There have recently been no changes in the transfer policy of the federal center, focused on the provision maximum support to the Far Eastern Federal district, depressive republics of the North Caucasian Federal district and the Siberian Federal district. The amount of interbudgetary transfers of territories has differed fivefold (*fig. 7*).

The alignment policy, as part of interbudgetary policy, has led to the marked reduction of regional polarization. In 2014 only 18 regions were self-sufficient and 63 regions had the level of budget revenue below the average even after the distribution of subsidies (*fig. 8*).

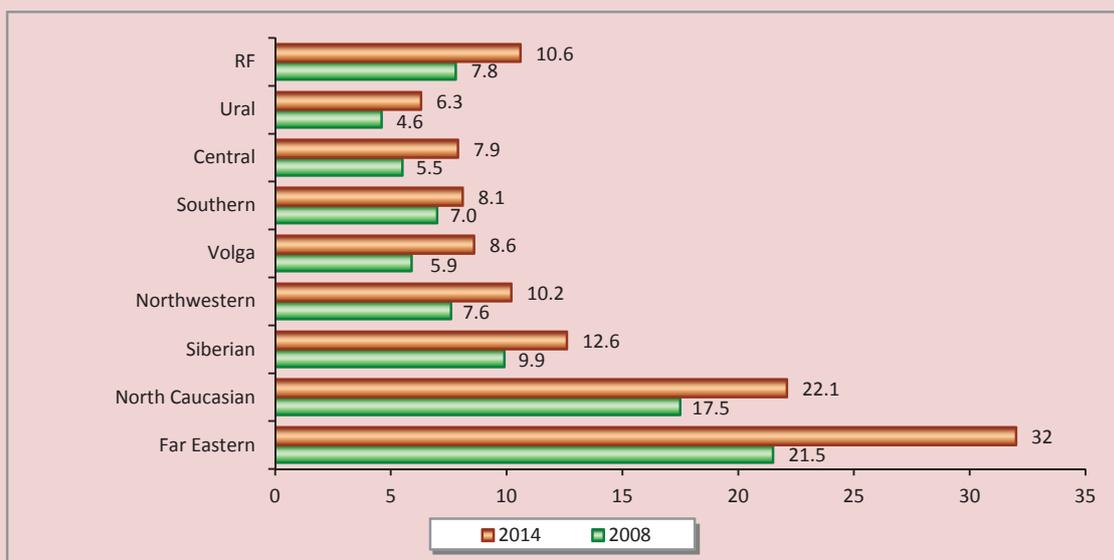
Moreover, in 2011–2014 the subjects' dependence on transfers was higher than the national average (*tab. 4*). Let us note that the share of transfers to the budgets of

the Central Federal district regions, equal to 10.5%, can be considered relative, as, except for the Moscow agglomeration, the revenue sources of other subjects of this district were ensured by federal funds by 25% as average.

It is worth mentioning that there is a decrease in the financial assistance in the form of subsidies for the implementation of federal target programs and co-financing of capital investment (*fig. 9*).

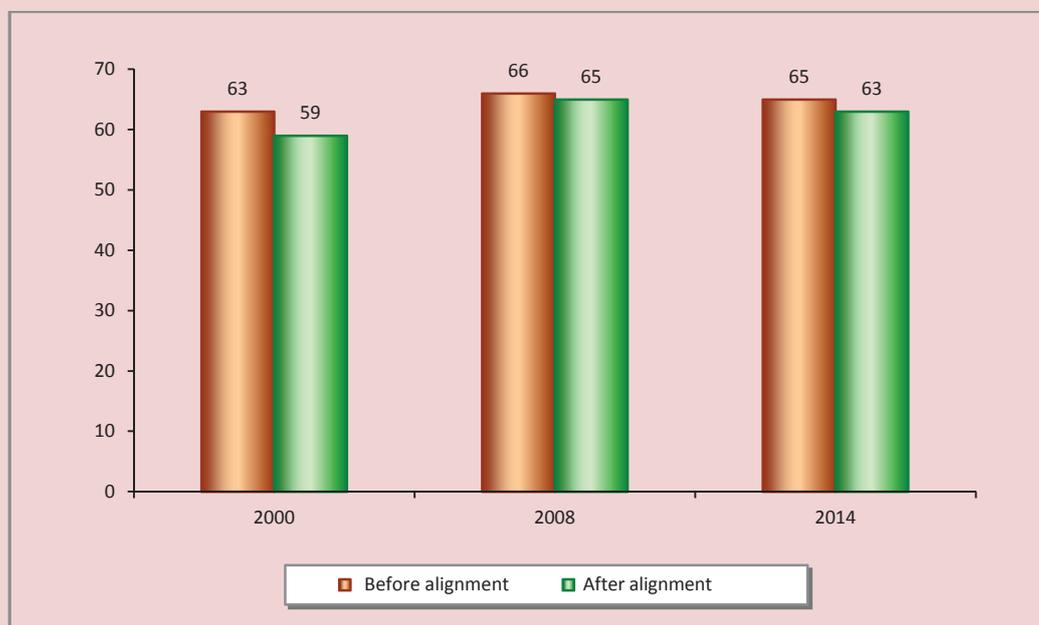
In 2008–2014 the volume of the above subsidies decreased by 93 billion rubles, or 42%, which in turn led to the reduction in capital expenditure of territorial budgets by 360 billion rubles, or 26%. Of course, this reduction of budget investment will create long-term risks to sustainable growth of taxable capacity. Half of the transfers were

Figure 7. Intergovernmental transfers to the Russian Federal districts in 2008 and 2014, thousand rubles per capita



Sources: data of the Federal Treasury; the author's calculations.

Figure 8. Number of the RF subjects with the level of budget revenue below the average



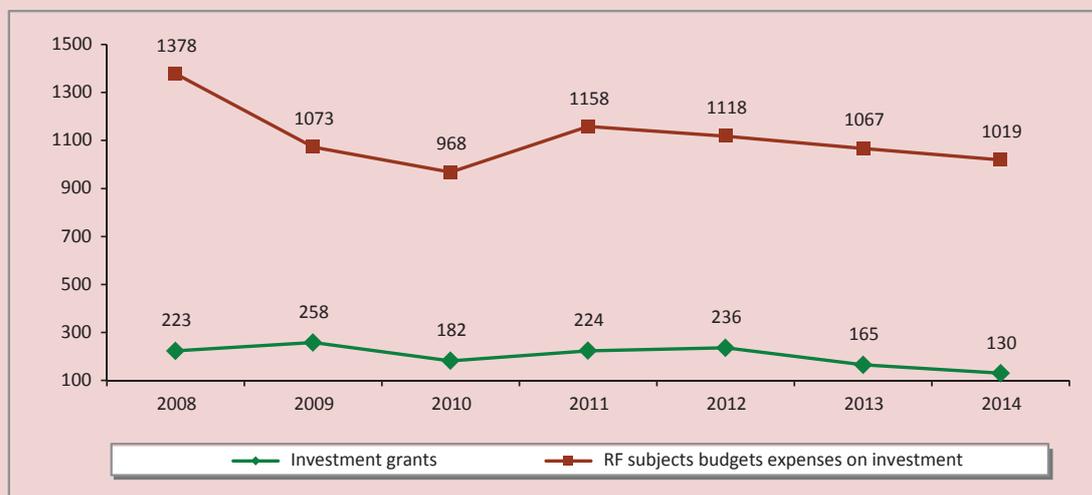
Source: the author's calculations on the basis of data of the Federal Treasury and the Federal State Statistics Service of the Russian Federation.

Table 4. Interbudgetary transfers to territorial budgets from the federal budget in 2011–2014, by federal districts

Federal district	2011		2012		2013		2014	
	Billion rubles	%*						
North Caucasian	203	65.4	212	63.9	204	60.8	213	60.8
Far Eastern	195	37.3	181	32.0	233	36.0	199	28.2
Siberian	224	25.2	213	23.3	216	23.4	242	24.7
Southern	145	29.9	146	26.8	105	20.1	113	20.2
Volga	285	25.3	264	21.8	241	19.4	256	19.5
Northwestern	149	17.1	145	16.7	135	14.9	141	14.3
Central	335	13.0	370	13.5	305	11.1	306	10.5
Ural	107	12.4	92	10.3	76	9.1	77	8.0
Russian Federation	1644	21.5	1624	20.1	1515	18.6	1546	17.7

* Share of interbudgetary transfers in territorial budgets' revenues.
Sources: data of the Federal Treasury; the author's calculations.

Figure 9. Subsidies for co-financing of federal target programs and capital investment, received by the RF subjects budgets from the federal budget in 2008–2014, billion rubles



Source: data of the Federal Treasury.

received by 7 regions⁵, which once again emphasizes the opacity of interbudgetary interaction.

Optimization was one of the directions of the budgetary policy pursued by the regional authorities in 2013–2014. It involved the reduction in the expenditure growth rate by 0.6% in 2013 and 1.7% in 2014 (*tab. 5*).

It should be noted that in 2008–2014 the share of the territorial budgets' costs, set aside for the satisfaction of vital needs of the vast majority of people in the country⁶ decreased from 45% to 38% in the consolidated budget of the Russian

⁵ The Moscow Oblast, the Kaliningrad Oblast, the Samara Oblast, the Omsk Oblast, the Amur Oblast, Khabarovsk Krai and the Republic of Ingushetia.

⁶ The share of regional budgets in the consolidated budget's expenditure on the housing and utilities sector amounts to 88%, education – 80%, healthcare – 71%, culture – 77%.

Federation. During the same period, the growth of federal spending was twice higher than that of regional budgets (*tab. 6*). It is obvious that the role of the RF subjects in the economy is becoming less important.

Our analysis of the dynamics and the structure of the territorial budgets' expenditure has revealed the following key trends:

1. Slower rate growth of the total expenditure on social services due to declined budgetary provision of education and healthcare. In 2014 the growth rate of educational activity financing time showed a negative trend for the first time. The decrease in healthcare costs for the second consecutive year is caused by the transfer of part of their funding to the territorial funds of obligatory medical insurance⁷.

⁷ Let us note that consolidated costs on healthcare increased by 4.5% in 2014.

Table 5. Dynamics and structure of RF subjects' budgets expenses in 2012–2014 (the 2014 prices)

Expenses	2012			2013			2014		
	Billion rubles	Share, %	To 2011, %	Billion rubles	Share, %	To 2012, %	Billion rubles	Share, %	To 2013, %
Expenses, total	9436	100.0	103.1	9379	100.0	99.4	9216	100.0	98.3
National issues	577	6.1	103.3	582	6.2	106.5	578	6.3	99.3
National economy	1816	19.2	115.7	1843	19.6	101.5	1759	19.1	95.4
Housing and public utilities	997	10.6	86.3	960	10.2	96.4	901	9.6	93.9
Social services, total	5760	61.0	107.6	5704	60.8	99.0	5673	61.7	99.5
education	2315	24.5	112.4	2485	26.5	107.3	2452	26.6	98.7
culture	291	3.1	103.9	307	3.3	105.5	319	3.5	103.8
healthcare	1536	16.3	108.0	1332	14.2	86.7	1297	14.1	97.3
social policy	1441	15.3	101.4	1398	14.9	97.0	1415	15.4	101.2
Servicing of state and municipal debt	84	0.9	93.4	97	1.0	115.1	122	1.3	125.3

Sources: data of the Federal Treasury; the Federal State Statistics Service of the Russian Federation; the author's calculations.

Table 6. Share of RF subjects budgets' expenses in the RF consolidated budget, expenditure growth rates by budget system levels in 2008–2014, %

Indicators	2008	2009	2010	2011	2012	2013	2014	2014 to 2008, %
Share of RF subjects budgets' expenses in the RF consolidated budget	45.2	39.3	39.6	41.3	39.3	39.8	38.3	-6.9 p.p.
Federal budget's spending	126.5	127.6	104.7	108.0	118.0	103.5	111.1	195.8
Expenses of RF subjects' budgets	130.5	100.0	106.1	115.7	108.6	105.6	104.6	147.3

Source: the author's calculations on the basis of data of the Federal Treasury.

A slight increase in spending on social policy and culture is associated with the later rise of the remuneration than in education and healthcare, in accordance with the Presidential decrees and the indexation of social support of the population.

2. Reduced assistance to the national economy sectors, which growth rate moved to the negative zone and amounted to 95.4%, while in 2012 they grew by 15.7%.

3. Steady downward trend in the expenditure on the housing and utilities sector. It

is minimization of the costs on this industry along with massive reduction of budget investment that was used by the regional authorities as a source to repay the deficit of budgetary resources required for the presidential decrees implementation. Over the past three years the housing and utilities sector financing has decreased by almost 100 billion rubles, or 10%.

4. Dynamic growth of unproductive budget expenditure – interest payments on government debt servicing – 45%.

The slowdown in growth of social spending has contributed to the decrease in the level of territorial budgets socialization. Although since 2011 the share of expenditure on the social sector has increased slightly (from 58.5% to 62%) due to the optimization of the network of budgetary institutions, but in 60 regions of the Russian Federation it has been above average.

However, in the conditions of acute debt problems the authorities of 17 regions have decided to allocate more than 30% of the budgetary resources to support the national economy and housing and utilities sectors. These regions mainly have medium-sized budgets. So, for example, the Republic of Mordovia has used 30.6% of the budget

expenditure for this purpose. The Vologda Oblast has spent 21.4% of the costs. The Vologda Oblast budget exceeds the Republic of Mordovia budget by a third, and the debt load amounts to 82% in relation to its own budget revenues, while in the Republic of Mordovia – 108.8%. This can also include the Pskov Oblast and the Amur Oblast, which budgets are smaller than the budget of the Vologda Oblast, but the debt load is high (*tab. 7*).

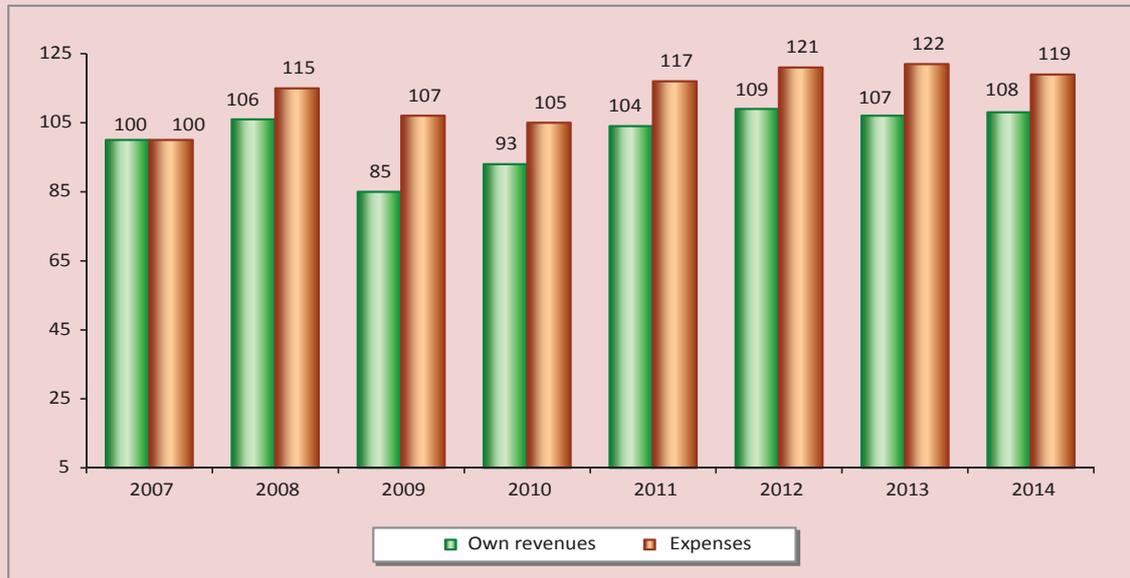
The social model of regional budgets has led to the significant growth of costs, which are not supported by their own revenue sources. Compared to the pre-crisis level own incomes in real terms increased by 8% and expenditures by 19% in 2014 (*fig. 10*).

Table 7. Expenses of the RF subjects' budgets on the national economy and the housing and utilities sector in 2011 and 2014

Subject	Expenses				Reference: public debt			
	2011		2014		2011		2014	
	Billion rubles	Share, %	Billion rubles	Share, %	Billion rubles	%*	Billion rubles	%*
Russian Federation	2285.1	29.8	2659.3	28.9	1387.3	23.8	2402.3	33.5
Chukotka Autonomous Okrug	8.5	44.9	10.4	46.5	2.3	18.9	13.5	125.1
Yamalo-Nenets Autonomous Okrug	61.1	42.0	65.9	41.3	3.4	2.9	36.1	26.9
Kaliningrad Oblast	20.5	42.1	24.7	40.0	21.6	73.0	28.2	69.5
Kamchatka Krai	18.9	35.2	22.6	35.6	6.8	37.9	7.8	33.9
Belgorod Oblast	36.9	44.1	27.1	34.2	21.4	35.5	45.3	82.9
Pskov Oblast	7.0	24.7	10.1	31.3	5.3	34.5	12.9	72.4
Kaluga Oblast	14.1	29.5	17.9	30.8	17.4	50.7	29.0	65.5
Tambov Oblast	11.7	30.5	15.9	31.9	7.4	36.6	12.6	50.8
Republic of Mordovia	13.8	33.2	13.9	30.6	21.0	133.8	30.4	108.8
Amur Oblast	15.2	27.9	19.6	30.0	12.5	40.3	30.0	81.4
Vologda Oblast	12.6	21.6	13.0	21.4	26.9	67.0	38.0	82.0

* Share of public debt in the volume of own budget revenues.
Sources: data of the Federal Treasury; the Ministry of Finance; the author's calculations.

Figure 10. Rate of the growth of own revenues and expenses of the RF subjects' budgets in 2008-2014, % to 2007



Sources: data of the Federal Treasury; the Federal State Statistics Service of the Russian Federation; the author's calculations.

Table 8. Budget deficit in the RF subjects in 2008–2014, billion rubles

Indicators	2008	2009	2010	2011	2012	2013	2014, plan	2014, fact
Balance deficit	-55	-329	-100	-35	-279	-642	-222	-469
In % to own revenues of the budget	1.1	7.8	2.0	0.6	4.4	9.7	2.5	6.6
Net deficit	-135	-379	-202	-203	-355	-669	x	-524
In % to own revenues of the budget	2.8	10.5	7.7	6.5	6.4	11.6	x	7.3
Number of the RF subjects that have budget deficit	45	60	62	57	67	77	x	74

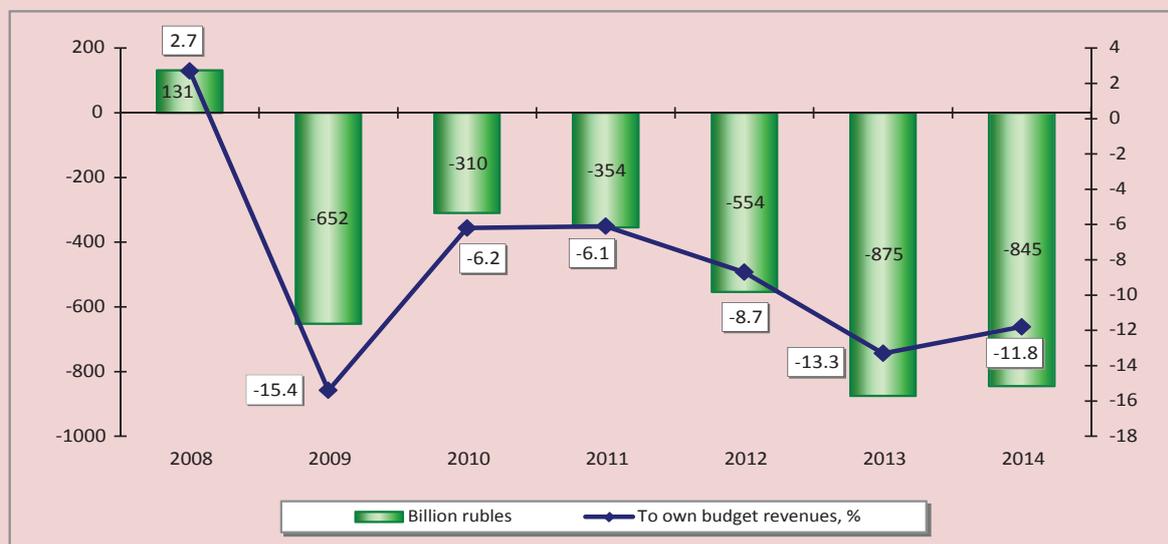
Sources: data of the Federal Treasury; the author's calculations.

As a result of faster growth of expenditure commitments 74 subject of the Russian Federation are characterized by the budget deficit, which reached 469 billion rubles in 2014, more than doubling the planned amount. Excluding 9 regions, which have positive budget balance, net deficit amounted to 524 billion rubles (tab. 8).

The regional budgets imbalance will further increase without financial assistance from the federal budget. So, in 2014 to finance the current spending⁸ the regions lacked 845 billion rubles, or 12% of own revenue sources (fig. 11).

⁸ The current expenses of territorial budgets include all the costs except capital.

Figure 11. Deficit (-), surplus (+) of the current funding of RF subjects' budgets in 2008–2014



Source: calculated by the author according to the Federal Treasury.

According to our calculations, in 2014 only four subjects of the Russian Federation (the Sakhalin Oblast, the Leningrad Oblast, the Tyumen Oblast and Khanty-Mansi Autonomous Okrug) were able to fund the expenditure, not including subventions for the execution of powers of the center, at the expense of own revenues. This list does not include rich federal cities and Yamalo-Nenets Autonomous Okrug.

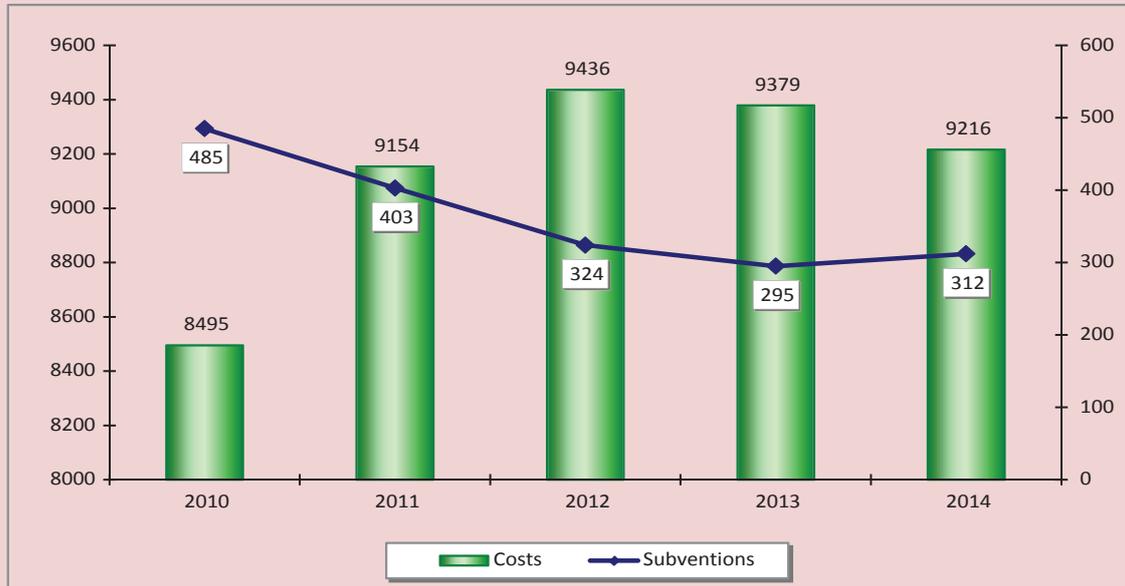
The significant level of current funding deficit, observed since 2009, shows that the regions have less resources to promote economic growth and even provide basic needs. Thereby, the fundamental principle of the RF budgetary system (the principle of balance) is violated. This is proved by the valid mechanism to separate expenditure powers, stipulating that the budget legislation is constantly amended to transfer

the fulfilment of government commitments to the regional level without adequate financial support.

In 2010–2014 due to the governmental decisions (the implementation of the RF President decrees of 7 May 2012, the formation of regional road funds, the transfer of certain functions in the sphere of forestry, etc.) the expenses of local budgets increased by 8.5% and the subventions allocated from the federal budget for the execution of powers of the Russian Federation decreased by 36% (*fig. 12*).

The rapid growth of loans disbursed to the regions from the federal budget was observed in 2014. Compared to 2013, with the 2% increase in interbudgetary transfers the volume of loans increased by six times, while their share in the financial aid structure increased from 8 to 33% (*fig. 13*).

Figure 12. Dynamics of the expenses of RF subjects' budgets and the subventions received from the federal budget in 2010–2014, billion rubles (the 2014 prices)



Sources: data of the Federal Treasury; the Federal State Statistics Service of the Russian Federation; the author's calculations.

Figure 13. Structure of the financial assistance received by RF subjects



* The parentheses specifies the share of loans in the amount of financial aid.

Sources: data of the Federal Treasury; the author's calculations.

Table 9. Loans obtained by the RF subjects in 2013-2014, billion rubles

Subject	2013				2014				
	Bank	Budgetary	Total	To budget's revenues*, %	Bank	Budgetary	Total	To 2013, times	To budget's revenues*, %
Omsk Oblast	68.6	0.9	69.5		87.4	43.2	130.6	1.9	203.7
Republic Of Mordovia	8.3	2.9	11.2	54.9	35.9	20.1	56.0	5.0	200.1
Ivanovo Oblast	8.8	0	8.8	39.1	22.3	15.2	37.5	4.3	164.2
Oblast	28.8	2.1	30.9	56.3	53.6	39.9	93.5	3.0	160.6
Kabardino-Balkar Republic	2.5	0.7	3.2	27.2	11.2	9.5	20.7	6.5	159.9
Nizhny Novgorod Oblast	61.0	4.3	65.3	54.9	114.0	55.6	169.6	2.6	136.7
Kirov Oblast	15.2	1.1	16.3	47.6	19.4	17.0	36.4	2.2	101.6
Tomsk Oblast	14.4	0.1	14.5	33.6	33.3	19.1	52.4	3.6	110.8
Republic of Karelia	8.8	1.9	10.7	48.3	12.5	12.0	24.5	2.3	109.2
Tambov Oblast	8.0	0.8	8.8	37.9	7.5	17.8	25.3	2.9	101.8
Tver Oblast	21.5	0	21.5	46.0	25.0	23.5	48.5	2.3	100.4
Russian Federation	906.0	132.3	1038.3	22.3	1225.3	769.4	1994.7	1.9	30.3

* To own revenues.
Sources: data of the Federal Treasury; the author's calculations.

The large-scale loans from the federal budget are a key factor in the growth of the total debt load of territorial budgets. The growth rates vary from 107% in the Kemerovo Oblast to 356% in Primorsky Krai. In 11 regions the bank and budgetary loans exceed the volume of own revenues (*tab. 9*), and in 9 regions the loans reach 72–97% of this volume.

In 2014 only 3 RF subjects (Saint Petersburg, Nenets Autonomous Okrug and the Tyumen Oblast) did not attract credit resources to finance the budget deficit.

Last year the authorities managed to reduce the growth rate of most burdensome commercial loans, but for the first time their nominal volume exceeded one trillion rubles (*fig. 14*).

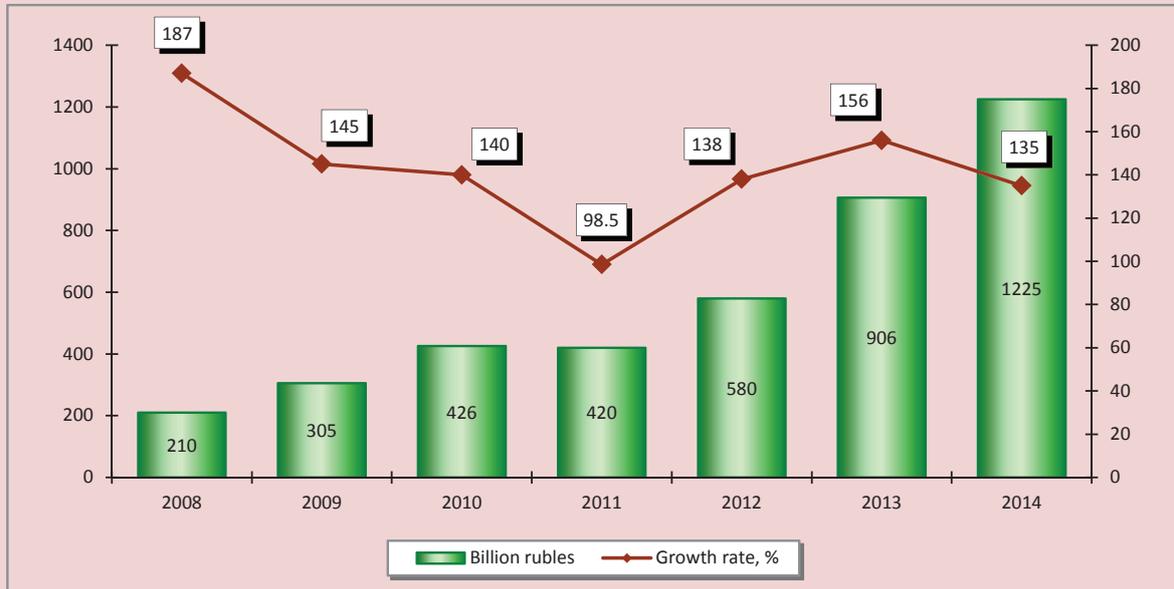
It is noteworthy that bank loans grow faster in strong regions. For example, in

the Sverdlovsk Oblast, the Irkutsk Oblast, the Tomsk Oblast and Khanty-Mansi Autonomous Okrug the attraction of commercial loans has increased by 3–7 times. Thus, there are clear risks of the aggravation of debt problems among the donors of the RF budgetary system⁹ in the near future.

In 2014 only 13 Russian regions were not borrowing. In half of the territories the share of commercial loans exceeded 50% of the total public debt. At the beginning of 2015 the regions owed 1.1 trillion rubles to banks, which is equivalent to the amount of social transfers received by certain categories of the Russians from sub-federal budgets.

⁹ According to the FTS, in 2014 Khanty-Mansi Autonomous Okrug transferred 88% of the taxes collected on its territory to the federal budget, the Tomsk Oblast – more than 70%, the Irkutsk Oblast and the Sverdlovsk Oblast, 42 and 30%, respectively.

Figure 14. Dynamics of commercial banks loans, attracted by the RF subjects in 2008–2014



Sources: data of the Federal Treasury; the author's calculations.

Wider spread of over-indebtedness has not helped ease the debt crisis of sub-federal budgets. At the beginning of 2015 the consolidated debt of RF subjects increased by 380 billion rubles, or 19%, 33.6% of their own revenues will be required for its repayment (*fig. 15*). According to the global thresholds, this debt level is not high¹⁰, but the debt structure of Russian regions consists of loans by almost 80%. Most of them are to be repaid annually, and, as a rule, at the expense of new borrowing.

The regional contrasts in the pace of the debt increase are quite substantial, although it can be noted that there is a clear trend of

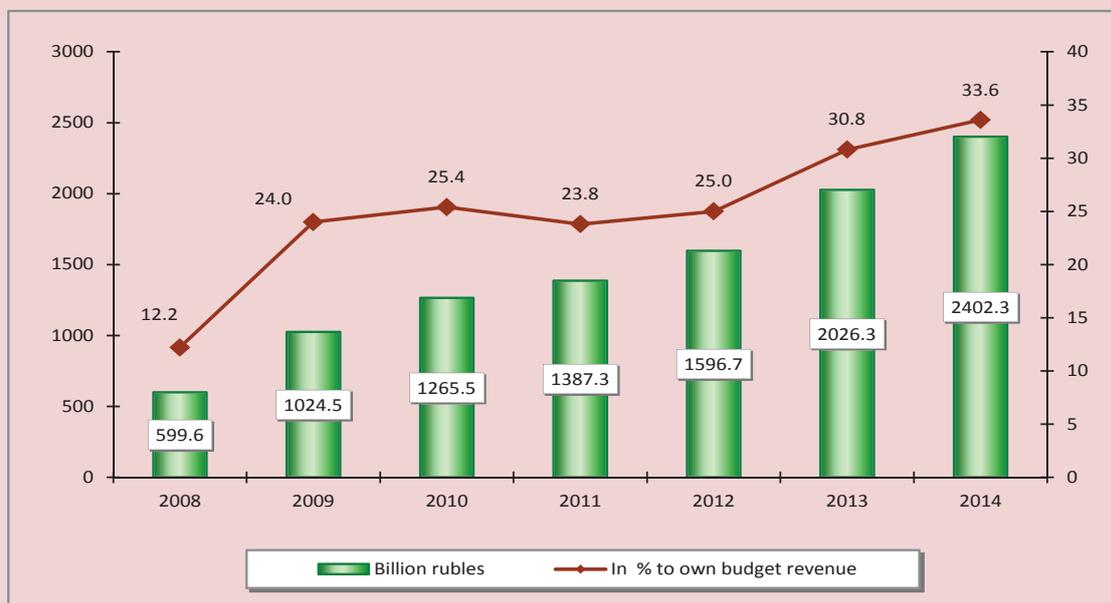
rapid growth in major industrial regions – Perm Krai, Krasnoyarsk Krai, the Irkutsk Oblast, the Sverdlovsk Oblast, the Novosibirsk Oblast, etc. This means that the deterioration of the situation with the debt burden could become a serious threat to the economic development of the Russian priority territories.

At the end of 2014 the number of RF subjects who have a 50% debt burden increased from 36 to 45. For the first time this list includes the Voronezh Oblast, the Lipetsk Oblast, the Kemerovo Oblast, the Komi Republic, previously characterized by minimal debt.

In 14 regions (in 2013 – in 8) the accumulated amount of debt exceeds 80% of its revenues (*tab. 10*).

¹⁰ For example, in certain regions of Germany and Italy the debt burden amounts to 200–300%, however, the debt structure is mainly represented by long-term debt securities.

Figure 15. Dynamics of the state and municipal debt of RF subjects in 2008–2014



Sources: data of the Ministry of Finance of the Russian Federation; the Federal Treasury; the author's calculations.

Table 10. RF subjects with a critical level of public debt

Subject	2012		2013		2014		2014 to 2012, %
	Billion rubles	%*	Billion rubles	%*	Billion rubles	%*	
<i>RF subjects with the debt level over 100%</i>							
Chukotka Autonomous Okrug	5.2	48.2	13.8	107.0	13.5	125.1	259.3
Kostroma Oblast	12.9	77.8	15.2	84.5	18.6	101.4	144.5
Smolensk Oblast	18.5	69.1	24.3	85.4	29.7	105.1	160.4
Republic of Mordovia	25.4	139.9	28.1	138.2	30.4	108.8	119.7
<i>RF subjects with the debt level over 80%</i>							
Belgorod Oblast	36.6	65.4	45.8	84.6	45.3	82.9	123.7
Republic of Karelia	12.5	52.1	16.0	72.1	21.6	96.3	173.1
Vologda Oblast	30.9	70.7	34.9	81.1	38.0	82.0	122.9
Astrakhan Oblast	18.7	64.4	21.7	63.7	27.3	84.7	145.9
Republic of Ingushetia	0.9	33.7	2.4	78.2	2.7	80.6	282.0
Republic of North Ossetia	7.5	81.7	8.5	79.5	9.8	89.3	130.4
Udmurt Republic	21.1	48.5	33.7	70.3	45.1	88.0	213.1
Penza Oblast	18.1	65.7	24.1	80.3	27.2	84.7	149.9
Saratov Oblast	43.4	73.0	51.0	85.4	55.5	88.7	127.8
Amur Oblast	16.3	47.1	24.3	68.3	30.0	81.4	184.0
* To own revenues (debt load).							
Sources: data of the Ministry of Finance of the Russian Federation; the Federal Treasury; the author's calculations.							

Figure 16. Dynamics of the RF subjects' budgets expenses on reimbursement of credit in 2009–2014



Sources: data of the Federal Treasury; the author's calculations.

Another problem in the field of debt policy that requires, in our view, the immediate solution concerns the legal regulation. The fact that the costs to repay loans, increased by 2.3 times in 2014 (*fig. 16*), are funded from own revenue sources. However, they are included, according to the RF Budgetary Code, not in the expenditure part of the budget, but in the composition of the sources to repay the deficit [1] that devalues the actual size.

According to our calculations, if we take into account the costs on loans repayment, the real deficit of regional budgets increases by 1.6 trillion rubles in 2014 and corresponds to almost a third of revenues. In 27 RF

subjects the deficit will exceed half the volume of own revenues and in 11 subjects – the entire volume (*tab. 11*). In 2013 there were 17 and 2 regions, respectively.

Thus, the dynamics of the debt load of Russian regions indicates that in the upcoming budget cycle (2015–2017) the majority of them will not be able to obtain new loans to finance economic development objectives, which, of course, will reduce their competitiveness.

The center's efforts to allocate budget loans to the regions in the short term will help repay commercial arrears, however, these measures will not solve the problem to refinance the risks and only delay it until

Table 11. Actual and real deficit of RF subjects' budgets in 2013–2014

Subject	2013					2014				
	Fact deficit		Loans repayment	Real deficit		Fact deficit		Loans repayment	Real deficit	
	Billion rubles	%*		Billion rubles	%*	Billion rubles	%*		Billion rubles	%*
Republic Of Mordovia	4.1	20.2	10.8	14.9	73.5	5.7	20.6	53.1	58.8	210.3
Omsk Oblast	9.3	15.2	66.9	76.2	125	5.8	9.0	123.6	129.4	202.0
Ivanovo Oblast	3.0	13.6	5.7	8.7	39.0	3.5	15.2	35.4	38.9	170.2
Arkhangelsk Oblast	5.8	10.5	23.8	29.6	54.0	7.4	12.6	88.6	96.0	164.9
Kabardino-Balkar Republic	1.0	8.7	2.5	3.5	30.1	2.0	15.4	19.0	21.0	162.2
Nizhny Novgorod Oblast	10.7	9.0	59.4	70.1	59.0	11.7	9.4	153.5	165.2	133.3
Amur Oblast	2.8	7.9	13.8	16.6	46.5	11.6	31.6	29.2	40.8	110.8
Tomsk Oblast	6.8	15.8	14.0	20.8	48.2	6.0	12.7	45.4	51.4	108.7
Republic of Karelia	5.9	26.6	8.2	14.1	63.7	3.7	16.6	20.0	23.7	105.5
Tambov Oblast	5.0	21.5	6.8	11.8	50.6	2.5	10.0	22.6	25.1	100.9
Kirov Oblast	6.6	19.4	11.5	18.1	53.1	4.5	12.6	31.6	36.1	100.8
Russian Federation	642	9.7	712.6	1355	20.6	469.0	6.6	1608	2077	29.1

* Deficit share in the amount of own revenues of the budget.
Source: the author's calculations according to the Federal Treasury data.

2017, the term to reimburse loans to the federal budget. Ultimately, according to the experts, the budget loans will not solve financial problems of the regions [4]. So, sooner or later the Federation will have to find resources to provide the subjects with the financial aid, otherwise the rising debt situation will repeat.

The forecast for 2015 does not contain any signs of regional finances recovery. According to the HSE experts, the budget deficit in the Russian regions can reach 1.3 trillion rubles [2]. In the conditions of poor generation of own revenues and negative dynamics of federal transfers it is not possible to fund such amount of the deficit.

The results of the current budget process confirm unfavorable forecasts of the experts. In January–February 2015, compared with the same period of 2014, profit tax receipts to the territorial budgets fell by 51.3%, which caused the negative vector of total tax payments.

The federal budget profit decreased by 4%, mainly due to the fall in foreign trade fees by a third.

The Russian authorities can not find a way out of the fiscal crisis of the regions, although, in our opinion, the transfer of the federal budget imbalance to the regional level by delegating the main part of the state social obligations was the key reason for its occurrence and aggravation.

The center's mission is to reallocate budget flows so that the financial self-sufficiency of RF subjects can be achieved. "The assignment of a clearly insufficient proportion of the consolidated budget total revenues¹¹ to the regions", notes Doctor of Economics A.Z. Seleznev, "virtually eliminates their active role in the implementation of new industrialization by means of their own financial basis" [15].

In our view, the references to the scarcity of the Federal Treasury can not justify the annual sequestration of transfers to the regions; their share in the federal spending amounts to 11% on average, which is much lower than in the OECD countries (30–40%).

The results of the ISED T RAS research [3, 11, 12, 13, 14] prove that there are additional reserves to increase the budget. The key ones relate to the legislative amendments to the Tax and Budget codes, in particular: review of the administration of large corporations' profit and abolition of a number unjustified tax privileges; introduction of the progressive taxation of physical persons' incomes; recovery of the state regulation of foreign exchange activity and introduction of cross-border transactions tax; abolition of the large-scale benefits and VAT exemptions, contrasting major commodity exporters and financial conciliators to other economic entities;

¹¹ According to our calculations, in 2000–2014 the proportion of revenues in the regional budgets decreased from 51 to 37.6%.

inventory of regions' powers and assessment of their revenue potential, etc.

Our calculations show that during these measures implementation about 18 trillion rubles of additional annual revenues could be received to the National Treasury. It would redistribute a significant share of funds to the regions in the form of regulating taxes or interbudgetary transfers and, ultimately, promote the achievement of strategic objectives of the country's socio-economic development.

During the crisis the regional authorities should use the few remaining sources to stabilize their budgets.

First, more active work with the informal sector and debtors on tax payments is required. According to the FTS, more than 30% of the enterprises registered with the taxing authorities do not give in the statements annually. In 2014 the taxpayers' debt increased by 111 billion rubles, compared to 570 billion rubles in 2013¹². Regional and local payments debts total 35% of this amount; it indicates the regional authorities' insufficient work with taxpayers.

Second, it is necessary to increase fiscal functions of property taxes, fulfilled by the sub-federal authorities. According to the FTS, 40% of the real estate owners are not registered. Thus, the territorial budgets lack 45 billion rubles annually.

¹² According to our calculations, based on the Federal Tax Service data, in 2014 only a quarter of the regions managed to reduce receivables payments to the budget; almost 80% of the repaid debts were observed in Moscow, the Novosibirsk Oblast and the Tyumen Oblast.

Third, the attention should be paid to the issues of strict budget discipline. Despite the acute shortage of budgetary resources the regions do not draw 800 billion rubles of the allocated funds annually. The accounts receivable of the budgets increases; at the beginning of 2014 it amounted to almost 500 billion rubles. It is mainly advances and loans granted from the regional budgets.

Fourth, despite much talk about the management costs optimization the authorities have not achieved their radical reduction.

According to our estimates, in 2014 the growth of administrative costs was observed in 62 regions; it indicates the available reserves for their reductions, primarily at

the expense of more modest remuneration of the officials¹³.

Of course, the use of explicit sources to increase territorial budgets will weaken the risks of imbalance. At the same time, the central authorities' unwillingness to change the approaches to fiscal policy, redirect it toward the interests of regional development lead to the rise in profit and corporate taxes. This requires the formation of a diversified base of taxpayers by creating new production and infrastructure projects and reconstructing enterprises for the production of building materials. Only the achievement of financial self-sufficiency can promote the accomplishment of the Russian regions' mission in the country's socio-economic development.

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¹³ In 2014 the average salary of enforcement authorities in the RF subjects amounted to 47.6 thousand rubles, which was by 1.5 times higher than the average level in the economy; the average salary of officials reached 180.3 thousand rubles, exceeding the average wage in the economy of the regions by almost 6 times.

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FOREIGN EXPERIENCE

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Agricultural modernization and sustainable development under resource and environmental constraints



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Abstract. The agricultural modernization of any country must be considered in the light of its national conditions, its population, resources and economic and social conditions. China's government clearly expresses the desire to promote agricultural modernization at the same pace with the in-depth development of industrialization, information technology, and urbanization, which is a major task for the construction of a moderately prosperous society and for the achievement of modernization. Due to the growing resource and environmental constraints, promoting the agricultural modernization must take the way of achieving its sustainable development based on the status quo of the environment and basic national conditions.

Key words: agricultural production, modernization of agriculture, industrialization and urbanization, sustainable development, environmental protection, resource constraints.

I. Supportive policies on China's agricultural modernization and achievements

Agriculture is the foundation of a nation or a region, because its economic development depends on the rapid and stable agricultural growth, while the traditional agriculture is incapable of growing rapidly and stably; therefore, the fundamental

way out for traditional agriculture lies in the transformation to modern agriculture, namely, agricultural modernization. China has the basic national conditions of huge population and limited arable lands. As a result, the agricultural modernization can only be achieved with sustainable and modern development.

1. The government has increased the investment in agriculture. China's reform began in rural areas in the 1980s, allocating the farmlands to farmers, which greatly aroused the enthusiasm of farmers; in 2004, Chinese government abolished agricultural taxes, ending 2,000-year history of collecting taxes from farmers; meanwhile, Chinese government has increased the support and subsidies to agriculture, mainly including direct grain subsidies to farmers, comprehensive agricultural subsidies, subsidies for superior crop varieties, and subsidies of farm machinery purchase; in addition, other subsidies were gradually increased from RMB 11.67 billion Yuan in 2004 to RMB 167.05 billion Yuan in 2013 (see Figure 1). At the same time, China's government also places a great emphasis on the investments in agriculture, forest

and irrigation, increased from RMB 304.07 billion Yuan in 2007 to RMB 1.322791 trillion Yuan in 2013, an increase of four times (see Figure 2).

2. Comprehensive productive capacity of grain has been greatly improved. Since the reform and opening up, China's total grain output has doubled, which resolved the problem of food and clothing of 1.3 billion Chinese people; the output has been increased from 304.765 million tons in 1978 to 601.9384 million tons in 2013 (see Figure 3); since 2004, the grain has been increased for ten years on end. The increase in the food yield per unit area is the major factor for the increase in grain production in China, increasing from 2527.3 kg/hectare in 1978 to 5301.76 kg/hectare in 2012, an increase of over 100 percent (see Figure 4).

Figure 1. Chinese agricultural subsidies (Unit: RMB 100 million Yuan)

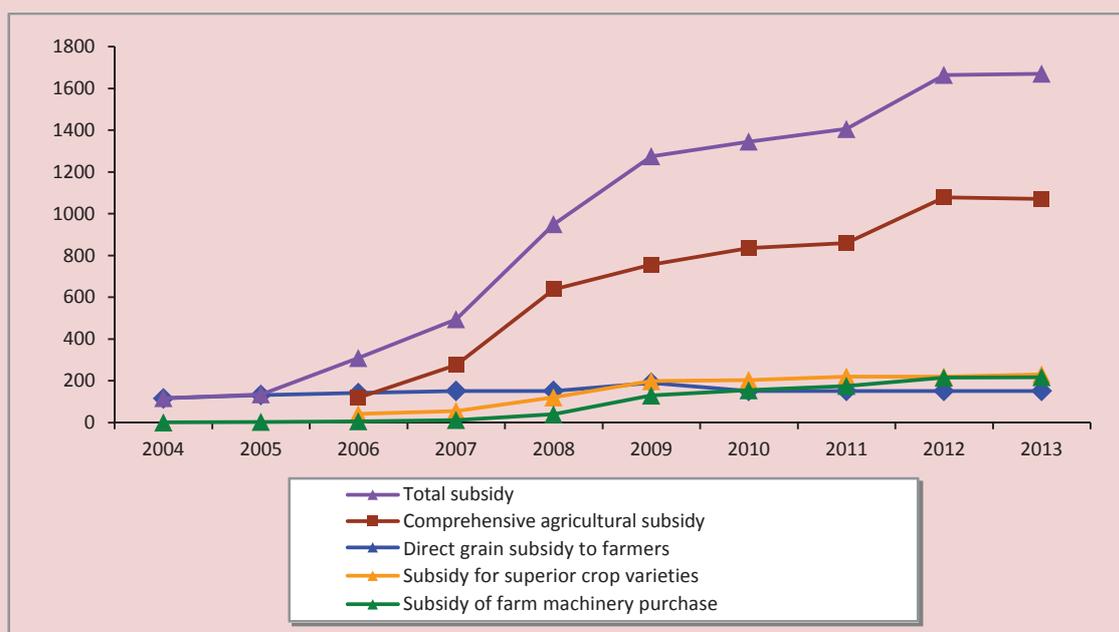


Figure 2. Change of China's expenditure for agriculture, forest and irrigation from 2007 to 2013

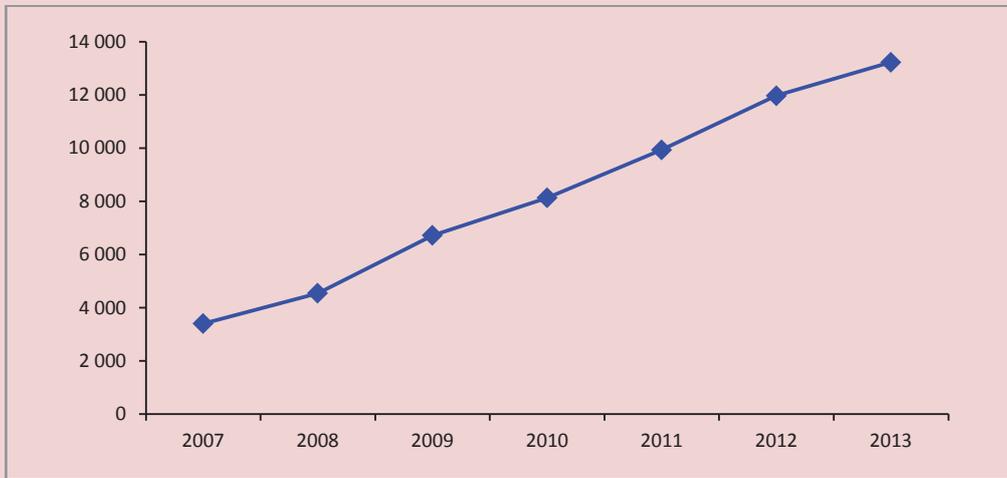


Figure 3. Trend of China's total grain production

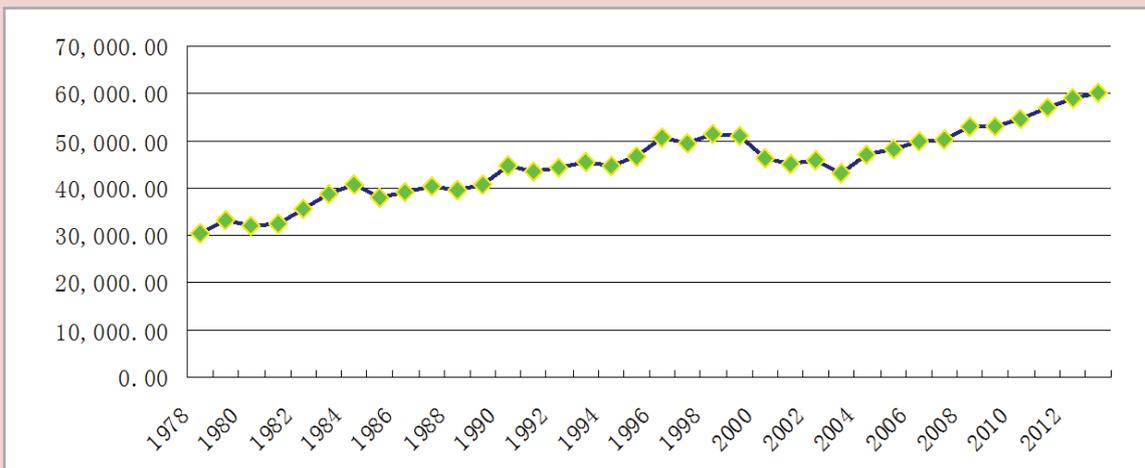
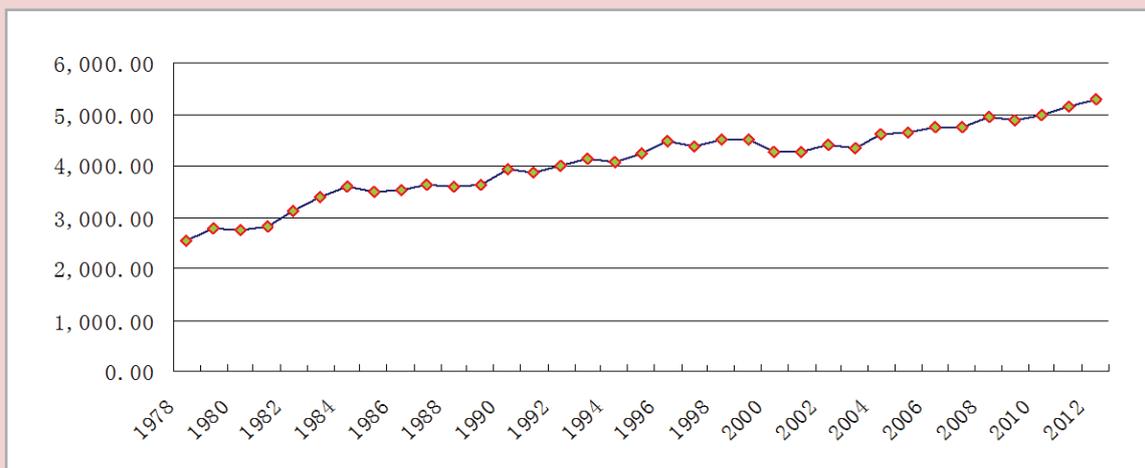


Figure 4. Trend of China's grain yield per unit area

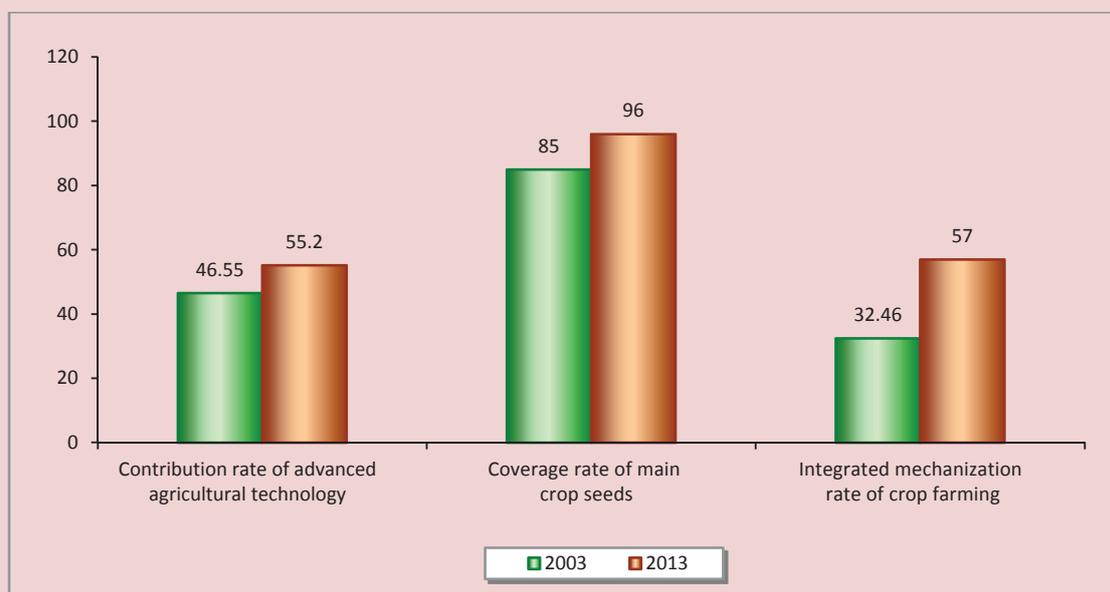


As a result, a complete system consisting of grain production, processing, and distribution has been formed, promoting the increase in China's total grain and the improvement of its quality.

3. Advances in agricultural technology contribute more to the agricultural development. Since the reform and opening up, China's agricultural technology has been developed steadily. The modern crop breeding technology system has been initially established, especially the hybrid rice breeding technology developed by Yuan Longping which has made outstanding contributions to the increase in food production of China and to the resolution to the problem of food and clothing in

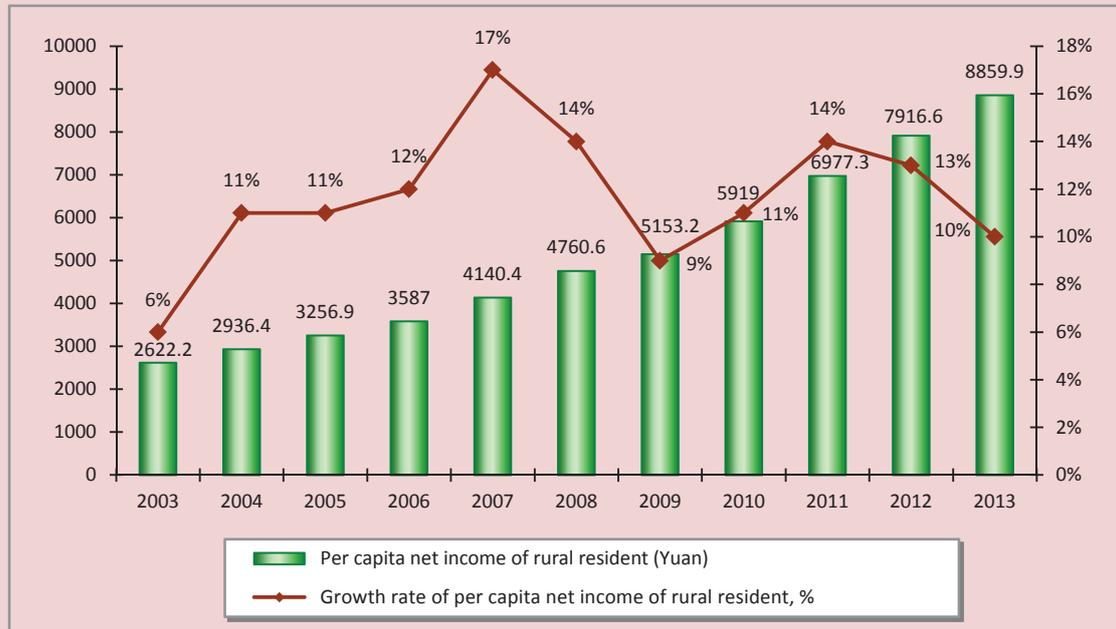
China and even the world, especially, the 4th super rice currently can increase the yield to around 1000 kg per mu¹; in addition, China's investment to agriculture, forest and irrigation has promoted the wide application of advanced agricultural machinery and equipment, GPS, remote sensing, agricultural biotechnology and other technologies. The contribution rate of advanced agricultural technology has been increased from 46.55 percent in 2003 to 55.2 percent in 2013, and the coverage rate of main crop seeds has been increased from 85% in 2003 to over 96% in 2013, and the integrated mechanization rate of crop farming has risen from 32.46% in 2003 to 57% in 2013 (see Figure 5).

Figure 5. Contribution of China's agricultural technology, %



¹ Mu – unit of measurement of land area in China, equal to 0.067 ha.

Figure 6. Per capita net income of rural resident and its growth



4. Rapid increase in farmers' income.

The ultimate goal of agricultural modernization is to improve farmers' living standard. Since 2004, the per capita net income of farmer has been increased from RMB 2936.4 Yuan in 2004 to RMB 8859.9 Yuan in 2013, an increase of three times. During the period, except for several years impacted by the financial crisis, the per capita net income of farmer in other years has basically been increased by double-digit (see Figure 6).

II. Increased resource and environmental constraints for China's agricultural modernization

With China's economic development and the rapid progress of urbanization as well as industrialization, the competition in arable land, labor, and water resource

between agriculture and non-agriculture and between rural areas and urban areas has been increasingly intense, indicating that the sustainable development of China's agricultural modernization has faced gradually strengthened "hard constraints" in resource and environment.

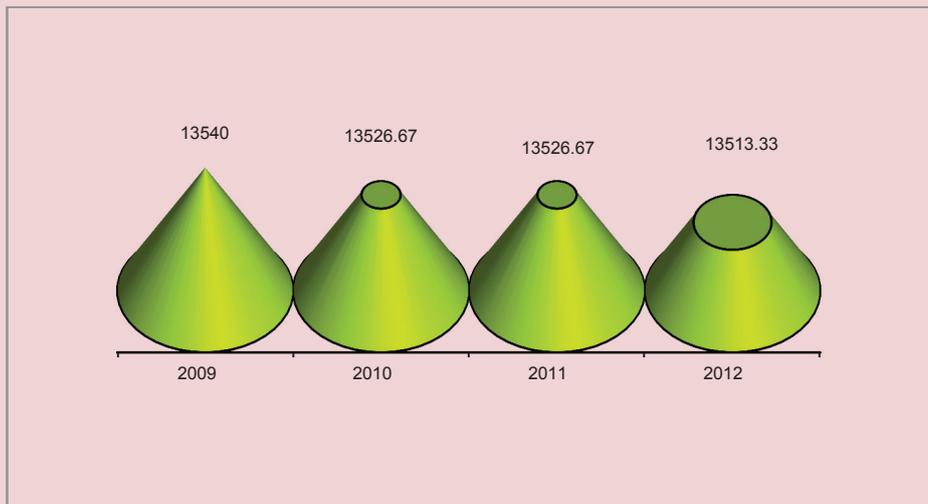
(A) Huge pressure from arable land resource

The increasingly prominent scarcity of arable land resource has been the bottleneck for the sustainable development of China's agricultural modernization. According to *China's Land and Resources Report 2013*, by the end of 2012, China's arable lands have been 135.1333 million hectares, ranking the fourth in the world, lagging behind the United States, India, and Russia, but the total amount of arable land resource

is large; however, with more lands for industrialization and urbanization, China's arable land has decreased (see Figure 7). In addition, China's per capita arable land is fewer, only 0.08 hectares, 40 percent of

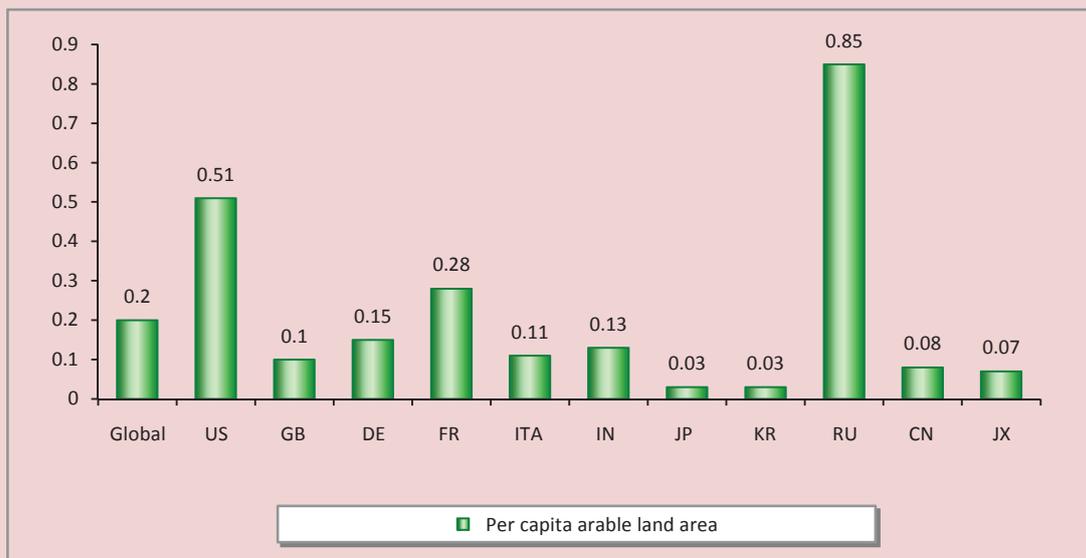
the world average, far lower than that in Russia, the United States, France and other developed countries; and the per capita arable land of Jiangxi Province is below national average (See Figure 8 for details).

Figure 7. Trend of China's arable land 2009–2012



Source: *China's Land and Resources Report 2013*.

Figure 8. Comparison of per capita arable land area between China and the world



Source: database of World Bank.

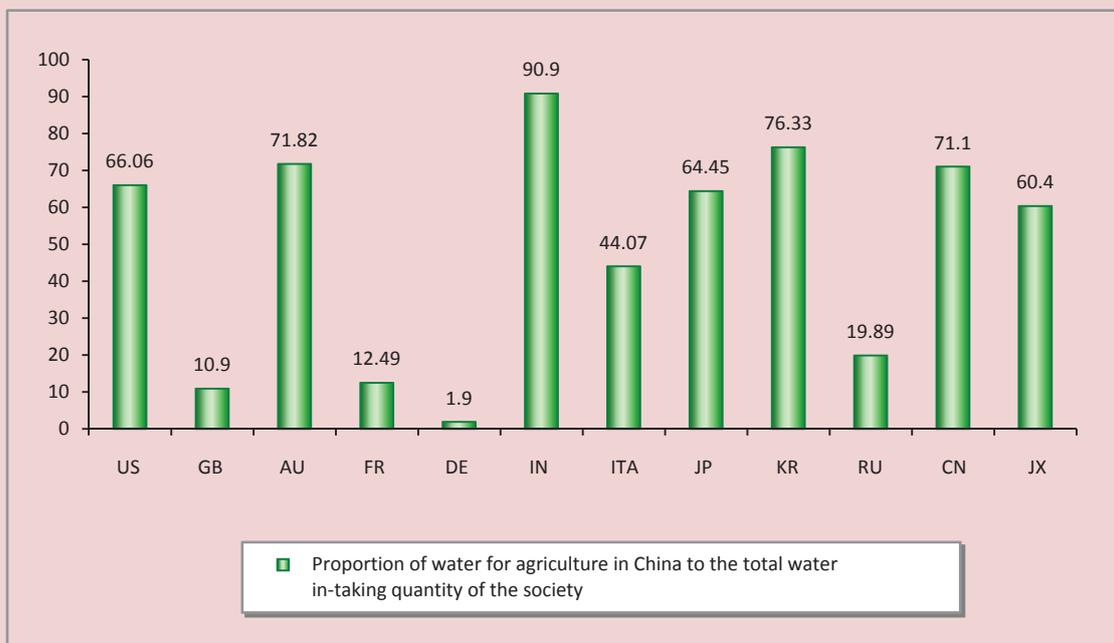
China in the next period of time will continue to accelerate the industrialization and urbanization, which will further occupy the arable land required by the sustainable development of modern agriculture; therefore, the “hard constraints” on arable land has been intensified.

(B) Increasing shortage of water resource for agriculture

China has the total freshwater resource ranked the sixth in the world, but its per capita has been very low; in accordance with the data from the sixth census released in 2011, the per capita availability of water resource in China is only 2.093 cubic meters, less than one-third of the world average; as a result, China has been

one of the world’s 13 countries with the poorest water resource listed by the United Nations. Under the current condition of severe water shortage, the extensive flood irrigation mode has been still used in Chinese agriculture, and the water for agriculture occupies higher proportion in the total water in-taking quantity of the society. From 1992 to 2012, the proportion of water for agriculture in China to the total water in-taking quantity of the society was 71.1% on average, and Jiangxi’s proportion was slightly lower than the average level of China, basically the same to that in the United States, Australia, Japan, South Korea but much higher than that in the UK, France, Germany and Russia (*see Figure 9*).

Figure 9. Proportion of water for agriculture in major countries to their respective total water in-taking quantity, %



Note: The data of major countries is the annual average 1994-2012 from FAOSTAT.FAO.ORG; and the data of Jiangxi is the data 2012 from *Jiangxi Water Resources Bulletin 2012*.

Meanwhile, the agricultural water of China is mainly used for irrigating farmlands, characterized in low utilization rate and a large gap between supply and demand. Currently, its utilization factor is only 0.5, with a great gap when compared with 0.7–0.9 for developed countries, which has reached more than 30 billion cubic meters. With a water shortage in China and the advance of China's industrialization and urbanization, the water demands for industrial and domestic uses will be increased; coupled with the population growth, the water resource for agriculture in the future will be quite severe.

(C) More obvious outflow trend of young rural labors

China is in the middle and late period of industrialization; therefore, its industrialization and urbanization will continue to advance, and more and more rural labors will outflow for work; according to the data from National Bureau of Statistics, China had 225.4 million rural labors flowing out for work in 2008, increasing to 268.9 million to the end of 2013, an

average annual increase of 8–9 million people, mostly young labors (*see Table 1*). Meanwhile, most of such labors have the educational background of junior high school or higher. Such an outflow will lead to hollowing and destitution of rural areas, and aging and low education of agricultural labor forces. The problem who will till the land will be the major challenge for achieving the sustainable development of China's agricultural modernization.

(D) Severer agro-ecological and environmental constraints

Severer agricultural nonpoint source pollution: According to China's first national pollution census, the agricultural nonpoint source pollution has accounted for about half of total pollution, characterized in more points and wide coverage. China's utilization rate of agricultural fertilizer is only 40% and that of pesticide is about 30%, and about 1.4 million hectares of arable lands were contaminated by pesticides. Meanwhile, the pollution of agricultural film residues and animal manures on agricultural environment has become increasingly serious.

Table 1. Number of rural migrant workers and age structure of China from 2008 to 2013 (Unit: 10,000; %)

Indicator	2008	2009	2010	2011	2012	2013
Quantity of rural migrant workers	22542	22978	24223	25278	26261	26894
16-20 years old	10.7	8.5	6.5	6.3	4.9	–
21-30 years old	35.3	35.8	35.9	32.7	31.9	–
31-40 years old	24.0	23.6	23.5	22.7	22.5	–
41-50 years old	18.6	19.9	21.2	24.0	25.6	–
Over 50 years old	11.4	12.2	12.9	14.3	15.1	–

III. Path to the sustainable development of China's agricultural modernization

To achieve the sustainable development of agricultural modernization, China's government must change the mode of agricultural development, break the resource and environmental constraints, and strive to open a new agricultural modernization road with advanced production technology, appropriate management scales, strong market competitiveness, and sustainable ecology and environment based on the basic conditions of scarce arable lands and fresh water and other natural resources.

(A) Strengthening the intensive and economical use of water and land resources

Land and water resource have been the most important elements among agricultural production factors. To achieve the sustainable development of China's agricultural modernization, it must take the intensive and economical use of arable land and water resources, to guarantee the two "lifelines" for agricultural production.

First, it needs to strengthen the management, control and implementation of *Notice of Strengthening the Control, Management, and Implementation of the Most Stringent Farmland Protection System*, strictly define and permanently protect basic farmland, strengthen the economical use of land resources, and make ensure that the cultivated land inventory is not fewer than 1.8 billion mu and the basic farmland inventory is not fewer than 1.56 billion mu; furthermore, it still needs to accelerate the land transfer, actively encourage the moderate scale of operation

of lands, strictly control the land occupied by industrialization and urbanization and strengthen the intensive use of lands. Second, it needs to strictly implement the *Opinion on the Implementation of the Most Stringent Water Management System*, create the system for realizing the efficient use of agricultural water resource, promote the new irrigation technologies with water and energy conservation and realize the transformation from extensive water utilization to intensive water utilization.

(B) Accelerating the innovation of agricultural technology

We should vigorously promote the use of agricultural technology and improve the comprehensive utilization of agricultural resources as follows: first, with accurate agriculture technology focused, accelerating the popularization and utilization of comprehensive agricultural information technology; second, with automation and intelligence equipment and technology focused, accelerating the popularization and utilization of machinery throughout agricultural production; third, with quality and safety of agricultural products and agro-processing technology focused, accelerating the popularization and utilization of food safety technologies; fourth, with farmland pollution remediation technologies focused, accelerating the popularization and utilization of ecological agriculture technologies. At the same time, it needs to improve the conditions for the innovation of agricultural technology, expand the technological team, improve the capabilities in the promotion of agricultural

technology, provide the exemplary role for farmers and technical personnel, and strive to develop the social service system for agriculture.

(C) Cultivating new agricultural business entities

Studies of many experts and scholars in China show that, fostering new agricultural business entities such as professional large landlords, family farms, and farmer cooperatives and leading agricultural enterprises is the main way to achieve the sustainable development of China's agricultural modernization.

First, it needs to strengthen the cultivation of professional large landlords, family farm operators, cooperative leaders, farmers' brokers, agricultural machinery drivers and plant protectors and other new farmers.

Second, it needs to spend the incremental subsidies supporting the development of new and main agricultural business entities.

Third, it needs to make the demonstration by examples. Furthermore, it needs to formulate the standards and conditions for new agricultural business entities such as professional large landlords, family farms, and farmer cooperatives and leading agricultural enterprises and to develop the demonstration list.

(D) Strengthening the agro-ecological and environmental protection

The agro-ecological and environmental protection should be strengthened. It needs to accelerate the development of clean energy in rural areas, promote the comprehensive treatment, conversion and utilization of agricultural production and domestic wastes and improve the agricultural production conditions; to develop new agro-industries, actively develop new fertilizers and efficient pesticides of low toxicity, multifunctional agricultural machinery and biodegradable agricultural films and other new agricultural inputs.

YOUNG RESEARCHERS

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Assessment of labor potential of rural areas



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Abstract. The article presents the authors' method to evaluate and analyze labor potential in rural areas. It is focused on the role of human factor in solving the problem of sustainable development of rural territories. It considers the need to apply special tools in the study of labor potential of rural areas in order to justify the management decisions on the allocation of budgetary funds for sustainable development. The work discloses the algorithm to calculate the integral index of labor potential of rural areas, the formulas and the sources of required data. Health, education and activity of the population are the main estimated characteristics of labor potential. The authors estimate them by calculating the partial indices for four statistical indicators: mortality in the working age, number of persons with higher education, number of individual entrepreneurs and in-migration. The developed method is tested on the basis of the Vologda Oblast statistical data. The article reveals the results of the partial and integral indices calculation; the specially compiled map clearly shows the main problems and features of the labor potential distribution in the region, in particular: increased values of the labor potential index in the areas near large cities and in the direction of the Vologda – Veliky Ustyug highway, reduced labor potential in the areas located far from the regional center and major highways.

The authors group the districts by values of the labor potential index and rank them by level of development. Sheksninsky District, Vologodsky District and Kaduysky District belong to the group of leaders; Babushkinsky District, Vytegorsky District and Kichmengsko-Gorodetsky District are characterized by the lowest level of labor potential development. The authors offer recommendations to use this index as a tool to study labor potential of rural areas.

Key words: labor potential, rural areas, assessment of labor potential, assessment method.

Many recent legal and normative acts, adopted at the federal and regional level, set the Russian countryside a task to develop rural territories and ensure food security of the country.

Thus, according to the Federal law “On agriculture development”, signed almost a decade ago, the sustainable development of rural areas is one of the main objectives of the state agrarian policy [8, Paragraph 2, Article 5]. The same long term is specified in the Concept of socio-economic development of the Russian Federation for the period up to 2020, approved in 2008 [4].

Moreover, the Concept stipulates the creation of preconditions for sustainable rural development as the second priority direction of the state policy in agriculture and fisheries industry of the country (see Section V, Paragraph 8). Paragraph 14 of the Food security doctrine, approved two years later, considers directions of sustainable development of rural areas [3]. And in July 2013 the Government adopted a broad target program “Sustainable development of rural areas in 2014–2017 and for the period up to 2020”. And this is not a complete list of the documents that reveal the need to ensure sustainable development of rural territories of Russia and its regions.

Moreover, according to the federal law “On agriculture development”, sustainable development of rural territories is defined as their stable socio-economic development, increase in the agricultural production, improvement of the agriculture efficiency, achievement of the full employment of rural population and rise in the standard of living and rational use of land [8].

The question arises: who should ensure this sustainable development? Naturally, it is people, the working population of rural territories. In particular, the given target program emphasizes that the effective development of productive potential of the agrarian sector requires “activation of human factor in economic growth” [12, p. 5], and “enhancing the role and competitiveness of the domestic agricultural sector is largely dependent on the improvement of qualitative characteristics of labor resources in rural areas... more full use of the available labor forces and attraction of highly qualified personnel” [12, p. 6].

In practice, this means that to implement such programs in the country’s regions and municipalities, the managers are forced to seek the answer to the question: what rural areas have the highest labor potential and where it is reasonable to effectively public

money and attract qualified personnel? To answer this question is not easy without the use of special tools for the study of labor potential. Such tools can help make reasonable and competent management decisions. The authors offer a special method to analyze and assess labor potential of rural areas, elaborated by request of the Department of agriculture and food resources of the Vologda Oblast and tested on the statistic data of municipal districts.

So, in accordance with the stated above, the study is aimed at elaborating and justifying the methods to analyze and assess labor potential of rural areas.

To achieve this goal, we have solved the following tasks: 1) the methodological approaches to the analysis and assessment of labor potential of rural areas are theoretically substantiated; 2) the factors influencing the formation of labor potential of rural territories are structured; 3) the method of analysis and assessment of labor potential of rural areas is developed and tested. The solution of the first two tasks was earlier described [10], so this article is devoted to the method.

The information base for the study is the following: domestic and foreign literature (monographs, scientific periodicals), normative-legal acts, method of official reports, statistical data of the Federal State Statistics Service (Rosstat) and the Territorial Body of the Federal State Statistics Service in the Vologda Oblast (Vologdastat), as well Medical Information-Analytical Center at the Vologda Oblast Health Care Department.

First, we will clarify the terminology and briefly determine the concepts of “rural area” and “employment potential”. “The Concept of Sustainable Development of Rural Territories of the Russian Federation for the Period up to 2020” contains the following interpretation: rural areas are territories outside the cities. In essence, this approach identifies rural areas within the region [5, pp. 59-61] and undermines their differentiated evaluation. The organization for economic cooperation and development uses the following definition: “areas with the percentage of rural population being over 50%” [15]. Thus, in our view, it is reasonable to equate the municipal districts corresponding to the named indicator to rural areas. This approach suggests that the territory by definition has strict boundaries. In addition, the municipal district is a unit of the state statistical accounting, which is most consistent with the objectives of the study.

In our research we follow the integrated approach to understanding of the essence and the structure of labor potential and use the definition of I.S. Maslova. According to it, labor potential is a “general characteristic of the measure and quality of the aggregate ability to carry out socially useful activity, which defines the capabilities of an individual, groups of people and all able-bodied citizens to participate in the work” [6, p. 32].

The choice of this definition is determined by the goals of the current research and our stance. However, despite the diversity of existing approaches to the

Table 1. Ranking of the countries according to the degree of ethical economy development

Rating	Country	Rating level
Very high	Austria, Denmark, Finland, Germany, Netherlands, Norway, Switzerland, UK, Sweden	9–11
High	France, Spain, Portugal, Brazil, Canada, Italy, Japan, Luxembourg, South Korea	6–8
Average	Australia, Belgium, Czech Republic, Hungary, China, India, Chile, Greece, Indonesia, New Zealand, Slovakia, Slovenia, Taiwan, USA	3–5
Low	Iceland, Ireland, Mexico, Philippines, Romania, Russia, Singapore, Colombia, Malaysia, Peru, Thailand, Turkey, UAE, Argentina, Bulgaria, Costa Rica, Hong Kong, Israel, Pakistan, Poland, Saudi Arabia.	0–2

study of labor potential, its consideration as a complex characteristic consisting of heterogeneous components is a key one. As stated in [10], many scientists emphasize the importance of quantitative and qualitative components of labor potential and recognize health, education and activity of the population as the main quality characteristics. These characteristics are chosen as estimated components of labor potential of rural areas.

According the critical analysis of methods to estimate labor potential, the calculation of the integral index is widely used. It is calculated by the formula:

$$I_{xi} = \frac{X_i - X_{\min}}{X_{\max} - X_{\min}}, \quad (1)$$

where I_{xi} is a value of the partial index, x – an estimated indicator, i – an analysis object (in this case, a name or reference number of the district), X_i – an estimated value of the index in region i , X_{\min} – a minimum possible value of the estimated indicator, X_{\max} – a maximal possible value of the estimated indicator.

The so-called “inverse formula” is used if the recorded phenomenon is of negative nature.

$$I_{xi} = \frac{X_{\max} - X_i}{X_{\max} - X_{\min}}. \quad (2)$$

It is most reasonable to join partial indices by calculating their arithmetic mean. Thus, the characteristics of labor potential and the values of the integral index dynamics in various years are compared. There is another important issue, such as the principle to determine the minimum and maximum values used in the index calculation.

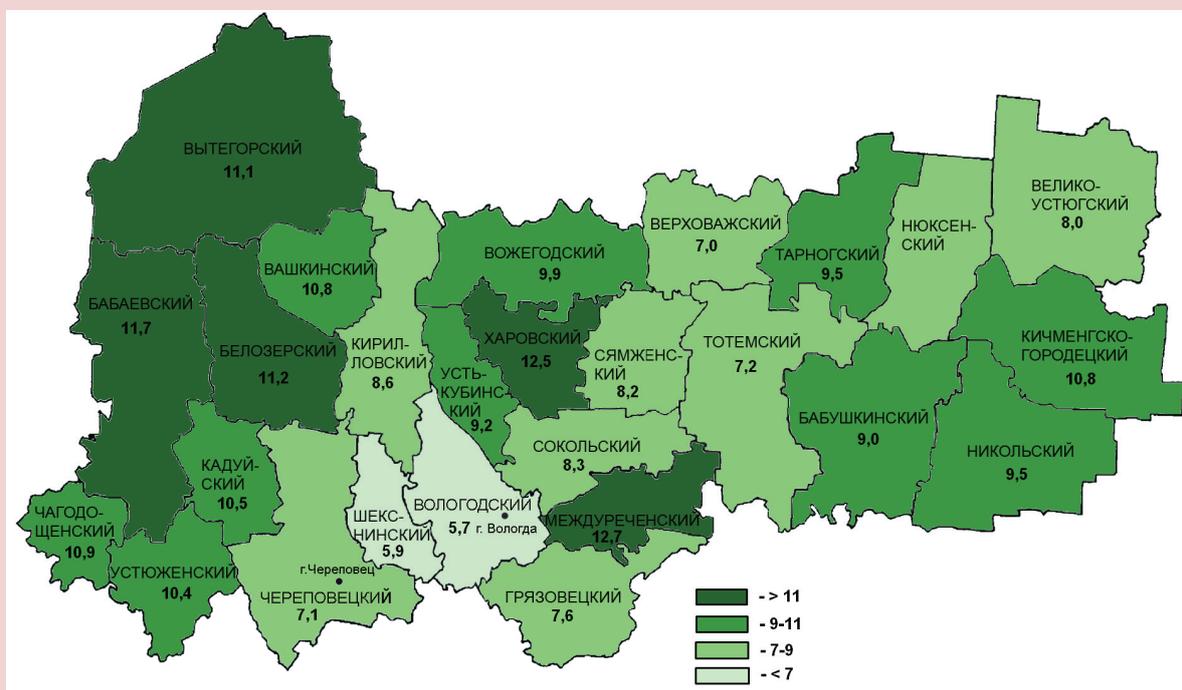
It is necessary to solve two problems simultaneously: to ensure the comparability of index values and focus on the real conditions of the region. To do this, we use the values observed in the Vologda Oblast values as limit values to calculate the index. Since these can vary from year to year, it is logical to choose them in the statistics providing data for a few years. In this case we focus on the 2000–2012 period.

As already noted, the choice of indicators remains one of the controversial issues in the methodology of estimating labor potential due to the characteristics of the research object. Considering rural areas of the Vologda Oblast, it is rational to rely on the previously identified major problems and the real effect of indicators on the district's economy. Besides, the indicators are selected on the basis of the analysis of factors, i.e. the assessment of their impact on a certain economic output indicator revealing the impact of labor potential implementation. The Pearson correlation coefficient is used as the main tool. It ranges

from -1 (total negative correlation) to 1 (total positive correlation), 0 is a neutral value (no correlation). The comparative index is the following: the total profit of enterprises per the average number of employees in absolute terms, which partly reflects labor productivity. Thus, to identify the correlation, the values of expected indicators of labor potential are compared with the values of organizations' profit by means of the correlation–regression analysis.

Mortality in working age is the indicator to reflect the population's health indirectly (fig. 1).

Figure 1. Mortality in working age in the Vologda Oblast districts in 2012, per 1,000 people of working age



Source: Osnovnye pokazateli deyatel'nosti uchrezhdenii zdravookhraneniya za 2012 god: stat. sb. [Main Indicators of Activity of Health Care Institutions in 2012: Statistics Digest]. MIATs pri Departamente zdravookhraneniya Vologodskoi oblasti [Medical Information-Analytical Center at the Vologda Oblast Health Care Department]. Vologda, 2013. 133 p.

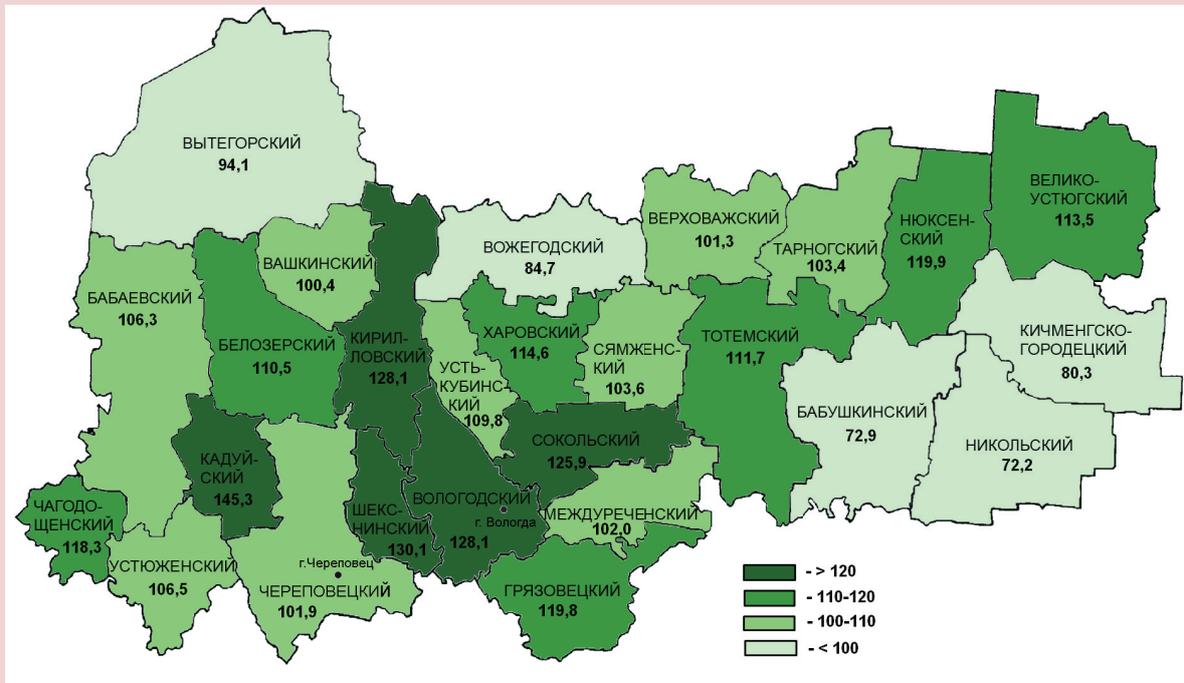
First, the phenomenon of high mortality has a negative impact on labor potential of the territory, reflects the actual loss of labor resources and indirectly indicates the population's morbidity. Second, in terms of the districts the values of this indicator are calculated by the Federal State Statistics Service, in contrast to the index of life expectancy at birth, which is widely used to assess the population's health in certain countries and regions, but is not calculated for municipalities. However, the indicator of life expectancy seems too broad, as it covers a range of phenomena beyond the category of "labor potential": the specificity of fertility and mortality, the features of the state health care policy, the specificity of ethnicity and traditions, climate, ecology, etc. [14]. Third, according to the correlation analysis results, mortality in working age and enterprises' profit per employee (to be more precise, its natural logarithm, as we follow the log-normal distribution hypothesis) have a significant statistical correlation of mean power (the Pearson correlation coefficient is over 0.5 in modulus).

Let us consider another important characteristic of labor potential – education. The indicator of the education level of the population is most widely used in this case. It is calculated as the number who completed some level of general or vocational education per 1,000 people aged over 15. As a rule, the enrolment rate in primary education is applied to assess human potential. However, according to [10], the territorial differentiation by basic

literacy (the number who completed 3 years of elementary school) is negligible; in all districts almost 100% of the population left primary school. The level of higher education, widely used in the methods that solve similar tasks, is more relevant for the evaluation of labor potential (*fig. 2*). This indicator reflects the number of highly qualified personnel – the key resource of Innovation economics. The indicator has a number of limitations. First, we can not determine the quality of received education on the basis of statistics. Second, we do not know, whether the graduate is employed or not, and if so, whether he/she works in the specialty or not. Nevertheless, we believe that, even with a certain degree of error, this indicator reflects the educational characteristics of labor potential in terms of districts to a greater extent than others. This is partially confirmed in the correlation analysis: the Pearson correlation coefficient amounts to 0.786 if we compare the data on higher education and profit in absolute terms. At the same time, we should note a significant limitation of the indicator: the data on the level of education are only published by the census results. The number of persons with higher education in the period between the censuses should be considered unchanged due to lack of the suitable alternative indicator of educational performance, devoid of such shortcomings.

The third characteristic, we have chosen to assess labor potential of rural areas in the Vologda region, is activity of the population. This quality can manifest itself in different ways.

Figure 2. Number of persons with higher education in the Vologda Oblast districts in 2010 per 1,000 people aged over 15



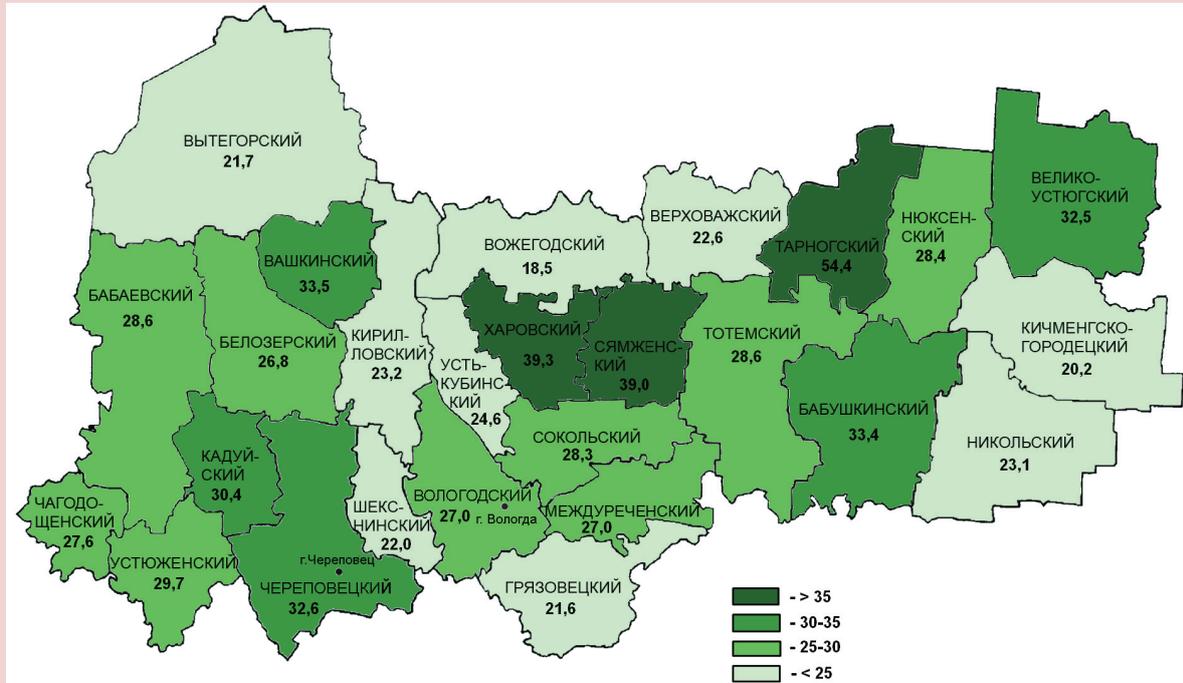
Source: Uroven' obrazovaniya naseleniya Vologodskoi oblasti: itogi Vserossiiskoi perepisi naseleniya 2010 goda: stat. sbornik [The Education Level of the Vologda Oblast Population: Results of the 2010 All-Russia Population Census: Statistics Digest]. *Vologdastat* [Territorial Body of the Federal State Statistics Service in the Vologda Oblast], Vologda, 2012. 238 p.

In the context of the labor market analysis the economic and entrepreneurial activities are of great interest. The latter is particularly important for this study because it shows not only the involvement in economic processes, but also the population's initiative and ability to self employment. The growth and development of private entrepreneurship has a beneficial effect on the territorial economy, contributing to the diversification of employment, the growth of the population's income, the development of services and private trade [13]. In addition, according to the statistics analysis, the number of

individual entrepreneurs (*fig. 3*) has a significant statistical correlation ($r = 0.765$) with the gross profit of organizations in the 2000–2012 period.

We believe that, in addition to the entrepreneurial activity, the consideration of critical problems of the Vologda Oblast requires the assessment of migration activity. Migration, being a complex phenomenon, can reflect a number of different characteristics of the territory: living conditions (social, economic, political, climatic, etc.), labor market attractiveness, access to certain services (education, health care, etc.).

Figure 3. Number of individual entrepreneurs in the Vologda Oblast districts in 2012, per 1,000 population



Source: Munitsipal'nye raiony i gorodskie okruga Vologodskoi oblasti: sotsial'no-ekonomicheskie pokazateli, 2012: stat. sb. [Municipal and Urban Districts of the Vologda Oblast: Socio-Economic Indicators, 2012: Statistics Digest]. *Vologdastat* [Territorial Body of the Federal State Statistics Service in the Vologda Oblast], Vologda, 2013. 324 p.

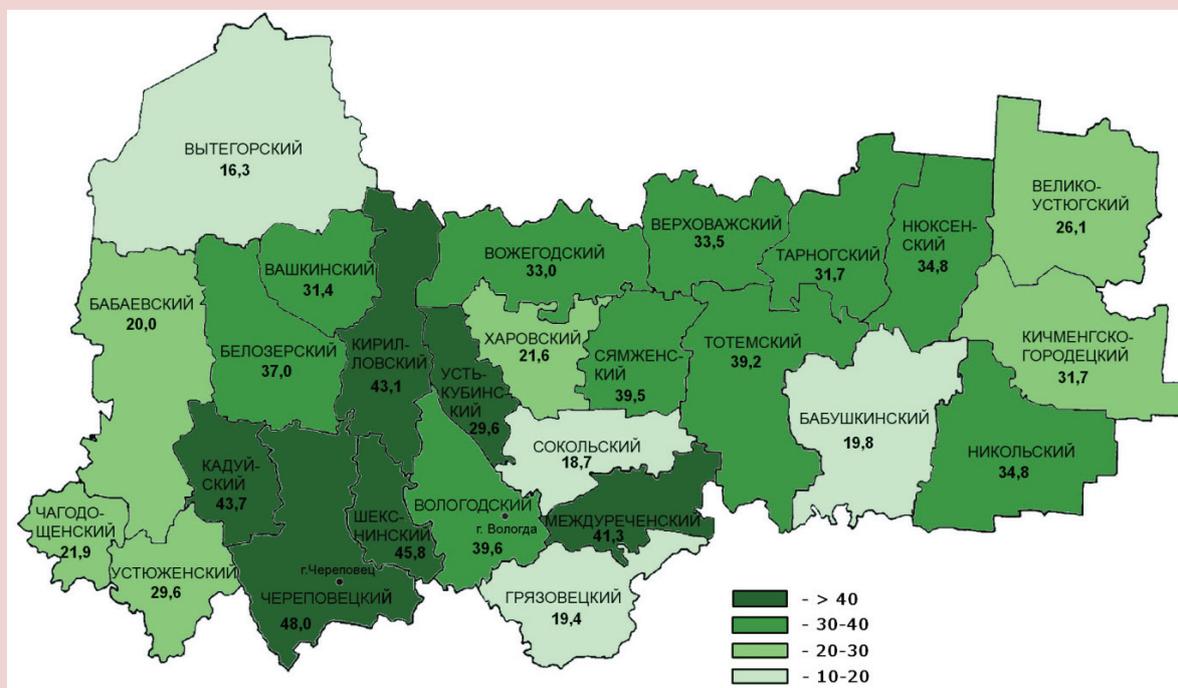
As noted earlier, in the study migration is represented mainly by active population groups: ambitious young people and people with higher education. Therefore, we can say that most districts are at a disadvantage due to the population outflow. However, the migration rate does not answer the purposes of this study entirely. First, the limits are imposed in connection with its composite nature; if we rely only on its value, we can not describe the phenomena occurring on the territory clearly.

For example, the neutral (close to zero) value can be caused by both low and high migration activity, provided that the

outflow is compensated by the inflow. In addition, the coefficient value can be both positive and negative, which significantly hinders its use in the context of the chosen method. In this regard, it is useful to consider one of the coefficient components – an outflow or an inflow. The population outflow is more indicative of certain characteristics of the territory.

However, it is impossible to identify the specific cause of migration and the professional quality of migrants on the basis of a single indicator. Moreover, migration is always dependent on the population.

Figure 4. Migration in the Vologda oblast districts in 2012, per 1,000 population



Source: Demograficheskii ezhegodnik Vologodskoi oblasti. 2012: stat. sbornik [Demographic Yearbook of the Vologda Oblast. 2012: Statistics Digest]. *Vologdastat* [Territorial Body of the Federal State Statistics Service in the Vologda Oblast], Vologda, 2013. 80 p.

In other words, in the Vologda Oblast districts, characterized by the significant outflow of the population during the analyzed period, there is no one to leave the residence or people have no such desire or ability for it. Therefore, the migration inflow indicator underlies this study (*fig. 4*). Although, as in the case of the outflow, it is very difficult to find a valid reason for in-migration. In this case, this is not so important: incomers are likely to be involved in the territorial economy, “revive” the labor market, i.e. will create additional supply of labor forces. The indicator is also relevant in the long term: the grown

inflow of the population enhances the demographic situation, i.e. potentially increases the number of labor resources. Besides, the correlation coefficient of the migration inflow with the economic profit of organizations amounted to 0.734, indicating a strong correlation between the values of these indicators.

Thus, to assess labor potential of rural areas in the Vologda Oblast we select 4 main indicators that not only reflect the studied characteristics, but also have significant statistical correlations with such an indicator of economic development, as profit of organizations.

Table 1. Method to assess the individual characteristics of labor potential of rural territories in the Vologda Oblast

Characteristics of labor potential	Statistical indicator	Limit values		Formula to calculate a private index
		min	max	
Health	Mortality in working age, per 1,000 population (H_i)	2.0	19.0	$I_{Hi} = \frac{H_{\max} - H_i}{H_{\max} - H_{\min}}$ (3)
Education	Persons with higher education, per 1000 persons aged over 15 (E_i)	51	145.0	$I_{Ei} = \frac{E_i - E_{\min}}{E_{\max} - E_{\min}}$ (4)
Activity	Number of individual entrepreneurs per 1,000 population (B_i)	2.2	68.1	$I_{Bi} = \frac{B_i - B_{\min}}{B_{\max} - B_{\min}}$ (5)
	Migration inflow, per 1,000 population (M_i)	0.9	48.0	$I_{Mi} = \frac{M_i - M_{\min}}{M_{\max} - M_{\min}}$ (6)
Note. Hereinafter i – number of a district. Source: compiled by the authors.				

Table 1 shows the list with formulas to calculate the corresponding partial indices, the minimum (min) and maximum (max) values of statistical indicators used in the method. The formulas presented in the table are variations of Formulas 1 and 2. We choose the real maximum and minimum values observed in the region in 2000–2012 as limit values. On the one hand, it helps achieve comparability of the integral index values in different years, on the other – take into account the realities of the Vologda Oblast.

Since the activity of the population is represented by two indicators, the partial activity index (I_{Ai}) is calculated as an arithmetic average of its components:

$$I_{Ai} = \frac{I_{Bi} + I_{Mi}}{2}. \quad (7)$$

The evaluation is not only aimed at comparing the districts by labor potential, but also at considering the changing trends. Therefore, it is more reasonable to use an arithmetic mean in order to calculate the integral index value. Thus, the formula to calculate the integral index is the following:

$$I_i = \frac{I_{Hi} + I_{Ei} + I_{Ai}}{3}, \quad (8)$$

where I_i is an integral index of labor potential in the i -district, I_{Hi} – a health index, I_{Ei} – an education index, I_{Ai} – a wage index. The calculation is made separately for each area (i).

Table 2 presents a detailed description of the index calculation algorithm indicating the stages and the sources of statistical data.

So, on the basis of the generalized theoretical and methodological expertise as well the analyzed statistical data, we

Table 2. Description of the algorithm to calculate the index of labor potential of rural areas

No	Stage	Content of the work, explanation
1.	Preparation of initial data	This stage is aimed at compiling the source database of statistical information for further processing in the framework of the proposed method
1.1.	Collection of statistical data by the indicators used in the method	The source is the official publication of the Territorial Body of the Federal State Statistics Service in the Vologda Oblast. The initial data necessary for the calculation are the following (the specific source is given in brackets): - mortality in the working age in terms of districts (the data are available upon request to the Territorial Body of the Federal State Statistics Service in the Vologda Oblast); - number of persons with higher education per 1,000 population aged over 15 in terms of districts (Statistics Digest "Results of the 2010 All-Russia Population Census", section "Education", table "Population of urban districts and municipal districts of the Vologda Oblast by level of education (per 1,000 people)"); - number of individual entrepreneurs in terms of districts (Statistics Digest "Demographic Yearbook of the Vologda Oblast. 2012", section "General characteristics of economic entities", table "Number of individual entrepreneurs"); - migration influx of the population in terms of districts (Statistics Digest "Demographic Yearbook of the Vologda Oblast. 2012", section "Migration", table "Population migration by the urban districts and municipal districts of the Vologda Oblast", column "Arrived"); - Population size in the districts of the regions in terms of districts (Statistics Digest "Municipal and Urban Districts of the Vologda Oblast: Socio-Economic Indicators, 2012", section "Population", table "Population").
1.2.	Identification of minimum and maximum values	According to the proposed method, the minimum and maximum values are fixed and correspond to the minimum and maximum values observed in the 2000–2012 period (see tab. 1). If the values are up the limits, the new limit values are set. To achieve the comparability of the assessment results in different years the index values are recalculated, with the new minimum and (or) maximum values being taken into account.
2.	Data processing	After collecting the initial data they are arranged according to the method and added in the calculation formulas.
2.1.	Calculation of relative indices	The values of the number of individual entrepreneurs and immigration inflow are not published in the relative values necessary for the calculation. In this regard, the absolute values are recalculated per 1,000 population.
2.2.	Calculation of partial indices	After arranging all the data on the integral index components the partial indices for four estimated indicators are calculated according to formulas 3, 4, 5, 6 (see tab. 1). Then, to calculate the activity index, the index values for the individual indicators of entrepreneurship and migration inflows are calculated according to Formula 7.
2.3.	Calculation of the integral index	The arithmetic mean of the partial indices for three components of the index of labor potential of rural areas is calculated according to Formula 8. If the comparison with the data for previous years is required or the updated limit values are used (see Stage 1.2), the districts indices for previous years are re-calculated according to a similar algorithm.
Source: compiled by the authors		

elaborate and scientifically justify the method to estimate labor potential of rural areas and other districts of the Vologda Oblast. The methodological framework of this methodology is widely used in the international and domestic studies. It underlines its scientific relevance and practical significance. The analysis of the factors and the identification of their

correlation with the profit of organizations help choose the indicators, which are most significant in terms of the studied territory. The scarcity of the indicators used helps identify the differentiation of its territories.

To test the method we calculate the index of labor potential of rural areas in the Vologda Oblast districts and present it in *table 3*.

Table 3. Index of labor potential of rural areas in the Vologda Oblast, 2012

Territory	Mortality in working age, per 1,000 people of working age	Health index	Number of persons with higher education, per 1,000 people aged over 15	Education index	Number of entrepreneurs per 1,000 people	In-migration, per 1,000 people	Activity index	Index of labor potential of rural areas	Position in the rating
Total by regions	8.6	0.612	111.3	0.641	28.0	31.5	0.520	0.591	x
Rural areas	8.3	0.627	103.3	0.557	27.7	35.4	0.560	0.581	x
Other districts	8.9	0.597	119.5	0.729	28.3	27.3	0.479	0.601	x
Babaevsky	11.7	0.427	106.3	0.588	28.6	20.0	0.403	0.473	21
Babushkinsky	9.0	0.591	72.9	0.233	33.4	19.8	0.438	0.421	24
Belozersky	11.2	0.458	110.5	0.633	26.8	37.0	0.569	0.553	15
Vashkinsky	10.8	0.485	100.4	0.526	33.5	31.4	0.562	0.524	11
Velikoustyugsky	8.0	0.644	113.5	0.665	32.5	26.1	0.498	0.602	18
Verkhovazhsky	7.0	0.704	101.3	0.535	22.6	33.5	0.501	0.580	14
Vozhegodsky	9.9	0.536	84.7	0.359	18.5	33.0	0.464	0.453	22
Vologodsky	5.7	0.782	128.1	0.820	27.0	39.6	0.599	0.734	2
Vytegorsky	11.1	0.463	94.1	0.458	21.7	16.3	0.312	0.411	25
Gryazovetsky	7.6	0.673	119.8	0.732	21.6	19.4	0.344	0.583	13
Kaduysky	10.5	0.502	145.3	1.000	30.4	43.7	0.669	0.725	3
Kirillovsky	8.6	0.612	128.1	0.821	23.2	43.1	0.608	0.680	4
K.-Gorodetsky	10.8	0.481	80.3	0.312	20.2	24.8	0.390	0.394	26
Mezhdurechensky	12.7	0.368	102.0	0.543	28.0	41.3	0.625	0.512	20
Nikolsky	9.5	0.556	72.2	0.225	23.1	34.2	0.512	0.431	23
Nyuksensky	8.6	0.611	119.9	0.733	28.4	34.8	0.558	0.634	7
Sokolsky	8.3	0.630	125.9	0.797	28.3	18.7	0.387	0.605	10
Syamzhensky	8.2	0.633	103.6	0.560	36.0	39.5	0.666	0.620	8
Tarnogsky	9.5	0.557	103.4	0.557	54.4	31.7	0.723	0.612	9
Totemsky	7.2	0.695	117.1	0.703	28.6	39.2	0.607	0.668	5
Ust-Kubinsky	9.2	0.577	109.8	0.626	24.6	40.7	0.592	0.598	12
Ustyuzhensky	10.4	0.505	106.5	0.590	29.7	29.6	0.513	0.536	17
Kharovsky	12.5	0.381	114.6	0.676	39.3	21.6	0.501	0.519	19
Chagodoshchensky	10.9	0.476	118.3	0.716	27.6	21.9	0.416	0.536	16
Cherepovetsky	7.1	0.699	101.9	0.542	32.6	48.0	0.730	0.657	6
Sheksninsky	5.9	0.769	130.1	0.842	22.0	45.8	0.627	0.746	1

Source: authors' calculations.

Judging by the data, in 2012 there was a significant differentiation of districts by the index of labor potential of rural areas. Thus, in Sheksninsky District, leading in the ranking, the index is almost 2 times higher than in Kichmengsko-Gorodetsky District, which ranges the last. Vologodsky District and Kaduysky District are other leaders by this index, the rest lag behind significantly. The determining factors are the following: migration attractiveness of the territory and a number of persons with higher education partly related to it.

For example, Kaduysky District, despite the low value of the health index, has a high level of education. At the same time, Cherepovetsky District, leading by the activity index and the health index, ranges the 6th place by the composite index due to the low level of education.

The entrepreneurial activity in the districts also varies greatly. This is partly explained by the fact that the significant migration inflows has been observed only in recent years (1945 people in 2012, compared to 295 in 2010; see tab. 3) and have not had influenced much yet. As for the districts, which occupy the last places in the ranking, in addition to Kichmengsko-Gorodetsky District, we can mention Vytegorsky District, Babushkinsy District and Nikolsky District, close to each other by the value of the integral index.

However, there are some characteristic features. If Kichmengsko-Gorodetsky District and Vytegorsky District lag behind by all indicators, Nikolsky District and Babushkinsky District – by level

of education. Some districts with the low proportion of rural population are characterized by very low activity of the population, but average and even high indicators of health and education. These are Babaevsky District, Gryazovetsky District, Sokolsky District and Chagodoshchensky District.

In general, despite the fact that small towns and urban-type settlements have relatively efficient health care and education systems, the attractiveness of these areas for human resources and entrepreneurship is low.

As for rural and other districts of the region, there is no obvious difference between these groups by the composite index value. Although, apart from those mentioned above, there are many other interesting features.

So, most rural areas are characterized by low levels of education (Kichmengsko-Gorodetsky District – 72 people with higher education per 1000 persons of the population, Babushkinsky District – 72.9, Vozhegodsky – 84.7, etc.; see tab. 3). As a result, leading in immigration and entrepreneurship, the rural areas are inferior in the number of persons with higher education. To make the comparison of rural and other areas more vivid we divide them in five groups according to the labor potential index value: very low (below 0.500); low (0.500 to 0.600); average (0.600-0.700); high (0.700-0.800) and very high (above 0.800). The similar principle of grouping is used in the UNDP method [2, pp. 144-147].

Table 4. Grouping of the Vologda Oblast districts by the index of labor potential of rural territories (including the proportion of the rural population, according to the 2012 data)

Districts groups	Region	Value of the index of labor potential of rural areas	Share of rural population, %	Position in the rating
Areas with the high level of labor potential	Sheksninsky	0.746	36.7	1
	Vologodsky	<i>0.734</i>	<i>100</i>	2
	Kaduysky	0.725	19.2	3
Areas with the average level of labor potential	Kirillovsky	<i>0.680</i>	<i>51.3</i>	4
	Totemsky	<i>0.668</i>	<i>57.9</i>	5
	Cherepovetsky	<i>0.657</i>	<i>100</i>	6
	Nyuksensky	<i>0.634</i>	<i>100</i>	7
	Syamzhensky	<i>0.620</i>	<i>100</i>	8
	Tarnogsky	<i>0.612</i>	<i>100</i>	9
	Sokolsky	0.605	15.6	10
	Velikoustyugsky	0.602	30.1	11
Areas with the low level of labor potential	Ust-Kubinsky	<i>0.598</i>	<i>100</i>	12
	Gryazovetsky	0.583	38.4	13
	Verkhovazhsky	<i>0.580</i>	<i>100</i>	14
	Belozersky	0.553	42.7	15
	Chagodoshchensky	0.536	26.7	16
	Ustyuzhensky	0.536	49.6	17
	Vashkinsky	<i>0.524</i>	<i>100</i>	18
	Kharovsky	0.519	38.1	19
	Mezhdurechensky	<i>0.512</i>	<i>100</i>	20
Areas with the very low level of labor potential	Babaevsky	0.473	43.6	21
	Vozhegodsky	<i>0.453</i>	<i>59.4</i>	22
	Nikolsky	<i>0.431</i>	<i>61.6</i>	23
	Babushkinsky	<i>0.421</i>	<i>100</i>	24
	Vytegorsky	<i>0.411</i>	<i>60.5</i>	25
	K.-Gorodetsky	<i>0.394</i>	<i>100</i>	26

Sources: compiled by the authors.

Table 4 presents these groups of districts, except for the group with the very high index value, as there were no such districts in 2012. The proportion of rural population is given. The figures in italics indicate those areas that in this study are considered as rural.

As the table demonstrates, the rural areas can be observed in all groups of districts. At the same time, given that Vologodsky District is, in fact, adjacent to the regional capital and, therefore, falls within the area of its economic impact, it is not reasonable to compare it to other rural areas.

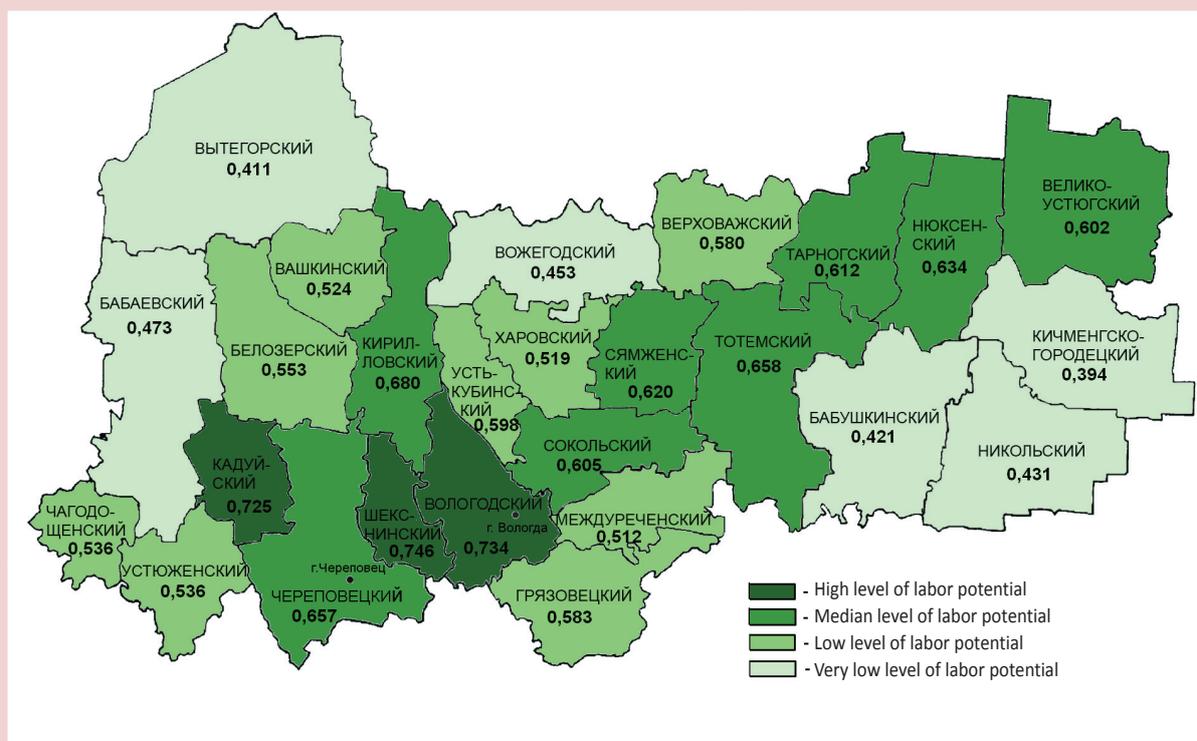
The lower part of the table includes 5 districts with predominant rural population. However, the group of territories with the low level of labor potential is mostly represented by the districts with the high share of urban population. Thus, despite the differences in the values of the partial indices, the labor potential indices of rural and urban areas differ slightly. The map shows districts groups, reveals the increasing labor potential index values of the areas located near large cities and also in the direction of Vologda–Veliky Ustyug (fig. 5).

In addition, it is interesting to compare the 2012 index value with the earlier data

(tab. 5). The year of 2002 is chosen due to more accurate data in regard to the conducted census.

As the above data show, during the period under review all districts are characterized by the increase in the value of labor potential of rural areas. Although many areas maintain or slightly change their positions, the obvious significant changes are observed in some of them, for example, in Kirillovsky District, Tarnogsky District, Chagodoshchensky District and Sheksninsky District. However, Velikoustyugsky District, Mezhdurechensky District and Sokolsky District lose their positions.

Figure 5. Index of labor potential of rural areas in the Vologda Oblast districts in 2012



Source: authors' calculations.

Table 5. Index of labor potential of rural areas in the Vologda Oblast districts in 2002 and 2012

Territory	Index value		Position in the rating	
	2002	2012	2002	2012
Total by districts	0.361	0.591	No data	No data
Rural territories	0.343	0.581	No data	No data
Other districts	0.378	0.601	No data	No data
Babaevsky	0.245	0.473	23	21
Babushkinsky	0.212	0.421	26	24
Belozersky	0.298	0.553	16	15
Vashkinsky	0.337	0.524	13	11
Velikoustyugsky	0.498	0.602	1	18
Verkhovazhsky	0.318	0.580	15	14
Vozhegodsky	0.255	0.453	21	22
Vologodsky	0.471	0.734	2	2
Vytegorsky	0.235	0.411	24	25
Gryazovetsky	0.326	0.583	14	13
Kaduysky	0.411	0.725	5	3
Kirillovsky	0.360	0.680	11	4
K.-Gorodetsky	0.296	0.394	18	26
Mezhdurechensky	0.352	0.512	12	20
Nikolsky	0.256	0.431	20	23
Nyuksensky	0.379	0.634	7	7
Sokolsky	0.463	0.605	3	10
Syamzhensky	0.364	0.620	10	8
Tarnogsky	0.298	0.612	17	9
Totemsky	0.373	0.668	8	5
Ust-Kubinsky	0.387	0.598	6	12
Ustyuzhensky	0.245	0.536	22	17
Kharovsky	0.292	0.519	19	19
Chagodoshchensky	0.231	0.536	25	16
Cherepovetsky	0.414	0.657	4	6
Sheksninsky	0.365	0.746	9	1

Source: authors' calculations.

Analyzing the dynamics of partial indices, it is worth noting that the mortality index does not virtually change (0.628 in 2002 against 0.612 in 2012). All other indicators increase by 2–3 times: the index of education – from 0.258 to 0.641,

activity – from 0.196 to 0.520. On the one hand, this indicates the stability of mortality rates in working-age, but, on the other hand, – the growth of the level of education, migration and entrepreneurial activity of the population, contributing,

in our opinion, to the transition of the region's economy to the innovative way of development.

We can offer the recommendations for this index application, such as the comparison of values between the districts for a given year and the study of the overall dynamics of the index change in the individual districts and in the whole region. It should also be noted that the integral index reflects a certain set of phenomena that determine labor potential of the area. In this regard, it will be more informative to thoroughly analyze the statistics for individual characteristics of labor potential. This is especially true in cases of low and very low values (see tab. 3) because it will help identify the actual problems that hinder the growth of labor potential of the territory. In addition to the defining factor consideration, it makes sense to analyze the statistics for the accompanying figures. So, when studying the reasons for the high mortality rates one should conduct the in-depth analysis of the incidence, the territorial accessibility of health care institutions, as well as the coverage of preventive inspections,

conducted activities to promote healthy lifestyles, etc. The low level of education can be caused by the remoteness of higher education institutions from place of residence and the shortage of demand in graduates on the local labor market, which necessitates the creation of jobs. The low in-migration usually indicates the low migration attractiveness of territories that can be caused by the stagnated labor market, adverse living conditions, poorly developed social infrastructure. The analysis of entrepreneurial activity can be focused not only on endogenous factors of the labor market, but also on the assessment of SME support provided by local governments. As for the research in the dynamics of general and partial values of the index, there will be informative, first of all, to observe the changes.

If there are negative trends, it is necessary to analyze the administrative decisions of local and regional authorities, which could cause the decline. In the case of the increased values of the partial index, it is advisable not only to identify the determining factor, but also analyze the possibility to transfer the successful experience to the lagging areas.

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