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ECONOMIC AND SOCIAL CHANGES: FACTS, TRENDS, FORECAST

A peer-reviewed scientific journal that covers issues of analysis and forecast of changes in the economy and social spheres in various countries, regions, and local territories.

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Federal State Budgetary Institution of Science Institute of Socio-Economic Development of Territories of Russian Academy of Science (ISEDT RAS), which existed as Vologda Scientific Coordinating Center of Central Economic and Mathematical Institute of RAS until March 2009, is situated on the territory of the Vologda Oblast. V.A. Ilyin, Doctor of Economics, Professor, Honored Scientist of Russia, is the permanent director of the Institute. A lot of great scientists have played an important role in the formation and the development of ISEDT RAS as a scientific institution such as: academicians D.S. Lvov, V.L. Makarov, V.I. Mayevsky, A.D. Nekipelov, Y.S. Osipov. Everything that has been done before and is being done nowadays by the personnel of the Institute, it would be impossible without the constant support of the Vologda Oblast's Government and city leaders.

The formation of the scientific personnel with an active life position, a great demand for Institute's investigation, academic community's support of the new journal published by ISEDT RAS, which combined efforts of the economic institutes of RAS in the Northwestern Federal District, and furthermore development of international ties have become the main outcomes of the last years.

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

- problems of economic growth, scientific basis of regional policy, sustainable development of territories and municipalities, and transformations of socio-economic space;
- regional integration into global economic and political processes, problems of economic security and competitiveness of territorial socio-economic systems;
- territorial characteristics of living standards and lifestyle, behavioral strategies and world view of different groups of the Russian society;
- development of regional socio-economic systems, implementation of new forms and methods concerning territorial organization of society and economy, development of territories' recreational area;
- socio-economic problems regarding scientific and innovative transformation activities of territories;
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2009 – Cooperation agreement is signed with Center for System Analysis of Strategic Investigations of NAS (Belarus, 2009).

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

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

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

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

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

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Development of Civil Society in Russia in Conditions of “Capitalism for the Few”



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Civil society is a term known since ancient times and a problem that preoccupied thinkers and managers throughout the history of mankind since the emergence of first civilizations and government. With each new step the development of mankind (be it science and technology, a change of political regime, a reform or revolution) inevitably faced issues related to civil society, since man is the engine of all the new, and society – the recipient of all the new.

Civil society constitutes one of the value categories, which (along with such concepts as capitalism, market economy and democratic state) is typical of Western civilization. According to experts, “civil society has a fundamental, historically conditioned, ethnocentric Western sense, which is not very successfully transmitted to non-Western parts of the world”¹.

In different eras and civilizations, civil society assumed its own unique character in

¹ Howard M. *Slabost' grazhdanskogo obshchestva v postkommunisticheskoi Evrope* [The Weakness of Civil Society in Post-Communist Europe]. Moscow, 2009. P. 63.

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accordance with the spirit of the times and national cultural specifics². However, there are two characteristic features that unite all the cultural and historical variations of the interpretation of the very concept and methods of civil society organization.

First, civil activity, its vector, degrees and forms of expression have always been closely associated with public administration efficiency; and in our opinion its major criterion is “the ability of the state to improve the quality of life, to meet people’s interests by increasing the rate and ensuring the sustainability of economic growth and increasing people’s real incomes”³.

Civic engagement has always been based on a certain layer of social needs. What were those needs and to what extent was the state able to implement them? The answer to these questions determined the nature of civil society development. The protest movement of the Luddites⁴, the Pioneer and Komsomol organization created in the Soviet times – all

this can be called civic participation. Both of these examples that occurred in different historical periods and are opposites in their essence reflect the attitude of the government to the issues that are of concern to the population. **History shows that if the ruling elites are not focused on the national interests, this leads to the unification of people on the basis of protest sentiment. In turn, high moral responsibility of the elites for a progressive and dynamic development of the country and for fulfilling their obligations to the people leads to the establishment of constructive dialogue between government and civil society, which ultimately is the key to social stability and national security and provides positive dynamics for the country’s competitiveness in the external environment.**

Second, historically there are two traditions of forming civil society: “from the top” (where the state initiates the creation of civil society institutions in order to organize various social groups and layers, obtain

² “The development of civil society is characterized by national and cultural features, which were, for example, in England, France, Northern Europe, and Germanic principalities. For example, in the Anglo-Saxon world, civil society and the state were usually considered to be complementary rather than mutually hostile forces. On the contrary, in France, Spain and Portugal, civil society had to win its rights in the fight against the government (even if it was enlightened) that did not want to share its power. In the German-speaking Central Europe of the 18th–19th centuries, the idea of civil society was supported and spread, especially in lodges and associations, in correspondence and communication circles, parties and movements in the household living conditions and culture of the urban bourgeoisie, which included not only merchants, entrepreneurs and bankers, but also educated officials, professors, teachers, doctors, lawyers, and clergy. Thus, each national culture gradually formed minor but still existing features of civil society” (Source: Naletova I.V. Grazhdanskoe obshchestvo i osobennosti ego formirovaniya v kul'ture Rossii [Civil society and the features of its formation in the culture of Russia]. *Vestnik Tambovskogo universiteta. Seriya: Gumanitarnye nauki* [Tambov University Bulletin. Series: Humanitarian Sciences], 2013, no. 5 (121), p. 174).

³ Ilyin V.A., Povarova A.I. *Problemy effektivnosti gosudarstvennogo upravleniya. Tendentsii rynochnykh transformatsii. Krizis byudzhetnoi sistemy. Rol' chastnogo kapitala. Strategiya-2020: problemy realizatsii* [Public administration efficiency. Market transformation trends. Crisis of the budget system. Role of private capital. Strategy-2020: implementation issues]. Vologda: ISERT RAN, 2014. P. 10.

⁴ The Luddites were participants of spontaneous protests of the first quarter of the 19th century against the introduction of machinery during the industrial revolution in England. The Luddites were named after their leader Ned Ludd, who was supposed to have broken two stocking frames that produced cheap stockings and undermined the business of experienced knitters, and whose signature is on the Manifest of the Workers of the time (although historically the existence of Ned Ludd is not confirmed). From the point of view of the Luddites, machines would replace the role of people in the industry, which led to technological unemployment, so that often the protest of the Luddites was expressed in riots and destruction of machinery and equipment.

feedback and maintain social stability) and from the bottom” (when civil activity is initiated by representatives of society itself – individuals or groups that unite different social strata for the purpose of forming public “response” to certain state reforms). In both cases civil society should strive to be **an independent subject of social development and lead a full-fledged dialogue with representatives of the ruling elites in the framework of democratic procedures and legal basis**. In other words, civil society should be neither a panacea for the state nor a forced necessity for social groups.

The development of civil society, its forms and mechanisms is a problem the relevance of which is difficult to overestimate in modern conditions characterized by tense international relations and complications in the interaction between society and the authorities within the countries involved in geopolitical competition. The results of the latest 2016 national referendums in the Netherlands and the UK, as well as the U.S. presidential election clearly show that **if the ruling elites create effective legislation and comply with it, then society makes its own contribution to the formation of political course of the country’s development**. Thus, the results of voting in the UK (June 23, 2016) led to its withdrawal from the European Union and the resignation of its government, and in the U.S. (November 8, 2016) – to Donald Trump’s victory in the presidential election. Perhaps these events have not changed fundamentally the political establishment in these countries, but obviously these are significant steps for a gradual transformation of the political course, and it is not less obvious that this is a significant victory for civil society, the facts that prove the real possibility of civic

engagement in shaping the system of public administration.

In other words, a relatively peaceful procedure of transforming the political course according to national interests becomes possible only when the government creates appropriate conditions. In particular, when it moves beyond simple rhetoric about the need to create efficient institutions of civil society and develops legislative mechanisms, adopts them, strictly observes and controls them, which provides conditions not only for effective functioning of civil society institutions, but also for improving the motivation and manifestation of civil activity by wider population.

The influence of citizens on the political situation in the country is a critical issue for Russia, which over the past 100 years accumulated a unique but, unfortunately, negative experience of violent change of its policy. The overthrow of the tsarist monarchy in 1917 and the toppling of the Soviet government in 1991 eventually led to comprehensive large-scale consequences, which pushed the country to the brink of an abyss.

Can we compare these two examples from the history of the 20th century with the current domestic political situation in Russia? On the one hand, as noted in the Report of the Civic Chamber of the Russian Federation, in 2016, the country is experiencing “increased activity of citizens in the sphere of public control, from procurement monitoring to analyzing parliamentary and ministerial declarations. There is also a notable increase in the activity of youth movements and projects: numerous forums involve an increasing number of young people from across the country. It is important for the Russian civil society that there is an emerging

M. Buev: “From a regulatory point of view of economic theory, government should look after the welfare of society by adjusting the so-called market failures. The meaning of existence of officials is to make our life better where the market cannot do it. However, **when in practice the state is corrupt and inefficient, then government failures are adjusted by charity, that is, at the expense of citizens. This shows the cohesion of civil society, especially when political freedoms are limited.**

The unprecedented growth of funds and initiatives helping children, the elderly, and stray animals, the spread of voluntary movements – all this is both good and bad news for us. It is bad, because we ourselves do the job of the government, having been disappointed in its capacity. It is good, because we still have civil society”⁵.

trend of civil activity and projects of active citizens in rural areas, from purely local initiatives aimed to improve social and living conditions in one’s community to organizing federal competitions for the title of the most beautiful village of Russia”⁶.

However, this is only one side of the coin... The already mentioned Report on the development of civil society contains another equally important part in which experts draw attention to the fact that “the state

of civil society is determined not only by the dynamics of quantitative parameters of development of its institutions and social bases. **No less important is the value of the very range of issues within the focus of attention of society, participation of the public in addressing the challenges that the country is facing”⁷.**

What is the “focus of attention” of modern Russian society? For many years key problems of concern to the population are concentrated around the issues related to ensuring sustainable and dynamic increase in the standard of living and quality of life, achieving social justice, overcoming the shocks in the functioning of domestic economy. Another aspect that attracts the attention of society is the fight against corruption, which not coincidentally, according to some experts, can claim the role of an idea that consolidates the general population and that therefore may be central in the program of Vladimir Putin in the upcoming presidential election⁸.

According to the results of sociological surveys, the top five most acute problems for the population include inflation (as of 2017, it is of concern to 57% of people), low standard of living (54%), high degree of social and income inequality (39%), corruption (24%), and economic instability (24%; *Insert 1*). Some steps behind them are the problems of social insecurity (22%), housing affordability (22%), and poor quality

⁵ Buev M. Apolitical civil society. Charity in Russia corrects the failures of the state. *Vedomosti*, 2016, November 28. Available at: <https://www.vedomosti.ru/opinion/columns/2016/11/28/667126-apolitichnoe-grazhdanskoe>

⁶ *Doklad o sostoyanii grazhdanskogo obshchestva v Rossiiskoi Federatsii za 2016 god* [A report on the state of civil society in the Russian Federation for the year 2016]. Moscow: Obshchestvennaya palata RF, 2016. P. 6.

⁷ *Ibidem*. – P. 129.

⁸ Rozhkova N. The ONF is considering the election. *Newspaper “Izvestia”*, 2017, June 26. Available at: <http://iz.ru/610214/natalia-rozhkova/onf-primeriaetsia-k-uchastiiu-v-prezidentskoi-kampanii>

of housing and utilities services (19%). It should be noted that for the last 17 years (from 2000 to 2017) the relevance of most of these problems has not decreased, but rather increased. Thus, the degree of concern about the dynamics of inflation increased from 45 to 57%; the degree of concern about population stratification into the “rich” and the “poor” – from 28 to 39%; corruption – from 15 to 24%, etc. In general, “social insecurity” (4–6th position), housing affordability (7–9th position), and unfair taxation (15–18th position) maintain their positions in the ranking of the most urgent issues.

If we compare the situation in the current year and in 2012 (the beginning of Vladimir Putin’s third presidential term), then we see a roughly similar pattern: the relevance of the problem of inflation has increased from 55 to 57%, poverty – from 43 to 54%; and property stratification – 38–39% (these three problems, like in 2012, occupy a leading position in the rating), unfair taxation – from 8 to 12% (moving upward in the rating from the 18th to the 15th position).

Thus, it is necessary to note positive results of Vladimir Putin’s presidential terms: restoring order in the country, reduction of dismissals and delays in the payment of salaries and pensions. **However, in the most important issues of concern to people there have been no positive changes over the last 17 years: the problems of social justice, property and social stratification, and poverty became even more acute.**

The above problems form the basis of the agenda for the Russians; and their cause, according to many experts, lies in the fact that **the commanding heights of the economy are concentrated in the hands of the oligarchic-comprador part of the ruling elite, by which is meant “the part of the national bourgeoisie that irrevocably submits to the foreign capital of imperialist countries in economic and political terms and is used by them in their imperialist interests. The compradors act as vassals of imperialistic capital and help them keep the country in the state of enslaved colony”**⁹.

Many experts (S.S. Gubanov, S.Yu. Glazyev, N.V. Starikov, Yu.Yu. Boldyrev, V.I. Dobren’kov, K.V. Remchukov, etc.) speak about the ineffectiveness of government reforms. A characteristic feature of the compradors in power is the construction of “capitalism for the few”, or “crony capitalism” initiated by the reforms of privatization and loans-for-shares auctions, when the former party nomenclature actually “exchanged” the power that was inevitably slipping from their hands to national wealth. As a result of privatization “500 largest enterprises of Russia with the total cost of not less than 200 billion US dollars were actually sold for nothing – for about 7.2 billion US dollars. The base was established for the formation of the phase of oligarchic capitalism. The era of “capitalism for the few” started”¹⁰.

⁹ Gubanov S.S. Zamechaniya o sistemnykh osnovakh ekonomicheskoi bezopasnosti Rossii [Observations on the system foundations of economic security of Russia]. *Ekonomist* [Economist], 2017, no. 6, p. 3.

¹⁰ Dobren’kov V.I., Ispravnikova N.R. Rossiiskaya versiya “kapitalizma dlya svoikh”: est’ li vykhod iz tupika? [The Russian version of “crony capitalism”: is there a way out of the impasse?]. *Vestnik Moskovskogo universiteta. Seriya 18: Sotsiologiya i politologiya* [Moscow State University Bulletin. Series 18. Sociology and Political Science], 2013, no. 3, p. 30.

A.I. Fursov: **“Catastrophic social consequences are largely due not to the actions of the West, but to the decisions made by persons in power in Russia... A war was declared on Russia, the goal is to overthrow the power and then to eliminate Russia and the Russian people. But such are the historical targets of the invaders, they have always been present. And this strategy has always been based on a strong “fifth column” in Russia. Our country has won no war in its history without getting read of the “fifth column”. Today is no exception.**

The “fifth column” is specific institutions and officials, who are preparing for the invasion of the West. In particular, the Central Bank is collapsing the ruble and the Russian economy. The Central Bank simply implements the will of the IMF. Officials at the regional level carry out their policies, not all of them, but the representatives of the “fifth column”.

Representatives of the “fifth column” act not on their own, but as a component of a foreign power in Russia. They have a cover, support, and real power. And we have no legal state institutions that could deal with them. We will not be able to solve the problem of the “fifth column” without a proper assessment of events of 1991 as a year of defeat. If we disclose this truth, we will automatically get a solution to this problem. That is, we will get rid of the “fifth column” and develop a national standard of power...

Now the advantage is on the side of the “fifth column”. To shift the advantage to the side of the national forces, they must be joined by the people, but the people do not want it yet. Accordingly, it is possible to expect the realization of a negative scenario. Americans will drop the standard of living of Russians with the help of the Central Bank, they will raise prices in two-three-four times, and organize mass unemployment. And then people will go either by the path of destruction of Russia, or by the scenario of national liberation forces and rid the state of the “fifth column”.

We must follow the path of the thousand-year-long Russian national state-building. **The format of power is determined by only one factor: who the government works for. Russia will be either a vassal colony or an independent metropolitan country. What is important is not so much the architecture of power as its orientation. If the power is nationally oriented, then the architecture adapts to the historical model, in our case – to the Russian model of state-building.**

Solution to many Russian problems is connected with political and tools to suppress the “fifth column”. **The question is either we hold out, or the “fifth column” will sweep Putin’s regime, that would mean the break up of Russia.** But if we win, we will face a new problem, because our confrontation with the West will not end. In order to cope with it, we need to have a good economy, a strong army and adequate media. But for this we need to solve the problem of the “fifth column”.

Now Russia is at a crossroads, we are at a critical moment in our history. The West is confronting us and is ready in case of need even to engage in armed conflict with Russia. But the military path is a last resort. So far the problems are being handled in a peaceful way. The sanctions trigger a conflict inside the elites. We don’t know how acute this conflict may become. **But we face a choice: to become a colony of the West or to defend our sovereignty.**

It is necessary to form a new government of real professionals. In 1998, the Primakov – Maslyukov government was formed. Today something similar has to be done”¹¹.

¹¹ Fursov A.I. “Pyataya kolonna” gotovitsya k pobednomu marшу [The “fifth column” is getting ready for a victorious march]. *Ofitsial’nyi sait A. Fursova* [A. Fursov’s official website]. Available at: http://andreyfursov.ru/news/pjataja_kolonna_gotovitsja_k_pobednomu_marшу/2014-12-19-390

Most critical issues of concern to people*

| Issues | 1999 | | 2000 | | 2003 | | 2004 | | 2007 | | 2008 | | 2011 | | 2012 | | 2017 | | Average for 1999-2017 | |
|---|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|------|------|------|------|------|------|-----------------------|------|
| | % | Rank | % | Rank | % | Rank | % | Rank | % | Rank | % | Rank | % | Rank | % | Rank | % | Rank | % | Rank |
| Inflation | 54.5 | 2 | 44.7 | 2 | 46.9 | 1 | 39.5 | 1 | 43.8 | 1 | 56.3 | 1 | 56.0 | 1 | 55.3 | 1 | 56.5 | 1 | 50.4 | 1 |
| Low standard of living, poverty | 57.1 | 1 | 50.8 | 1 | 39.2 | 3 | 32.8 | 4 | 40.4 | 2 | 41.4 | 2 | 49.4 | 2 | 43.2 | 2 | 54.2 | 2 | 45.4 | 2 |
| Population stratification into the "rich" and the "poor" | 21.3 | 9 | 27.7 | 7 | 33.6 | 5 | 30.8 | 5 | 31.0 | 4 | 31.4 | 4 | 36.2 | 3 | 37.5 | 3 | 39.0 | 3 | 32.1 | 3 |
| Corruption, bribery | 14.8 | 11 | 15.4 | 11 | 17.8 | 10 | 18.7 | 10 | 15.0 | 12 | 17.5 | 9 | 21.8 | 8 | 19.8 | 9 | 23.9 | 4 | 18.3 | 9 |
| Economic instability, shut down of enterprises | 39.6 | 4 | 29.1 | 6 | 17.3 | 11 | 14.8 | 13 | 14.5 | 13 | 16.9 | 10 | 19.2 | 9 | 16.5 | 11 | 23.5 | 5 | 21.3 | 11 |
| Social vulnerability | 32.5 | 6 | 34.4 | 4 | 33.4 | 6 | 28.7 | 6 | 26.7 | 7 | 24.8 | 7 | 23.1 | 7 | 22.3 | 8 | 21.5 | 6 | 27.5 | 7 |
| Provision with housing, low affordability of housing | 11.8 | 14 | 16.8 | 9 | 21.2 | 8 | 23.1 | 9 | 31.8 | 3 | 36.3 | 3 | 24.8 | 6 | 28.6 | 4 | 21.5 | 7 | 24.0 | 6 |
| Poor quality of engineering infrastructure (housing and utilities, roads, transport, etc.) | no data | no data | no data | no data | no data | no data | no data | no data | no data | no data | no data | no data | 19.0 | 10 | 25.3 | 7 | 19.3 | 8 | 21.2 | 8 |
| Political instability | 21.9 | 8 | 16.0 | 10 | 9.9 | 14 | 8.7 | 17 | 7.9 | 15 | 7.8 | 15 | 8.8 | 18 | 11.2 | 16 | 18.9 | 9 | 12.3 | 16 |
| Increase in alcoholism rate | 15.8 | 10 | 22.2 | 8 | 37.7 | 4 | 36.1 | 2 | 30.9 | 5 | 26.5 | 6 | 27.1 | 5 | 27.3 | 5 | 17.3 | 10 | 26.8 | 5 |
| High crime rate, insecurity from crime, vandalism, etc. | 33.4 | 5 | 36.9 | 3 | 39.5 | 2 | 34.2 | 3 | 30.2 | 6 | 28.4 | 5 | 29.3 | 4 | 25.5 | 6 | 16.7 | 11 | 30.5 | 4 |
| Firing, unemployment | 43.7 | 3 | 32.1 | 5 | 29.4 | 7 | 24.4 | 7 | 25.0 | 8 | 24.6 | 8 | 15.4 | 12 | 11.1 | 17 | 15.9 | 12 | 24.6 | 10 |
| Poor environment, pollution | 8.7 | 16 | 11.6 | 14 | 15.7 | 13 | 16.5 | 12 | 15.9 | 9 | 14.4 | 13 | 16.2 | 11 | 14.1 | 12 | 15.2 | 13 | 14.3 | 13 |
| Inaccessibility of health care, low quality of medical services | 12.4 | 13 | 14.6 | 13 | 21.0 | 9 | 24.0 | 8 | 15.2 | 11 | 15.8 | 11 | 13.8 | 14 | 18.5 | 10 | 13.5 | 14 | 16.5 | 12 |
| Unfair taxation | 7.5 | 17 | 7.4 | 18 | 7.9 | 17 | 7.2 | 19 | 5.0 | 17 | 5.0 | 16 | 9.6 | 17 | 8.4 | 18 | 12.1 | 15 | 7.8 | 19 |
| Lack of opportunities for ordinary people to influence the situation in the country, region, place of residence | no data | no data | no data | no data | no data | no data | no data | no data | no data | no data | no data | no data | 12.5 | 16 | 11.5 | 14 | 10.8 | 16 | 11.6 | 17 |

| Issues | 1999 | | 2000 | | 2003 | | 2004 | | 2007 | | 2008 | | 2011 | | 2012 | | 2017 | | Average for 1999-2017 | |
|--|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|------|------|------|------|------|------|-----------------------|------|
| | % | Rank | % | Rank | % | Rank | % | Rank | % | Rank | % | Rank | % | Rank | % | Rank | % | Rank | % | Rank |
| Lack of spirituality, surge of immorality | 11.6 | 15 | 15.1 | 12 | 16.9 | 12 | 18.2 | 11 | 11.9 | 14 | 11.0 | 14 | 12.9 | 15 | 12.2 | 13 | 9.3 | 17 | 13.2 | 14 |
| Incompetence of authorities | 14.1 | 12 | 9.4 | 16 | 9.6 | 15 | 9.6 | 14 | 4.5 | 19 | 5.0 | 17 | 8.1 | 19 | 7.2 | 20 | 9.1 | 18 | 8.5 | 18 |
| Low life expectancy, population decline | no data | no data | no data | no data | no data | no data | no data | no data | 15.8 | 10 | 14.6 | 12 | 15.1 | 13 | 11.4 | 15 | 9.1 | 19 | 13.2 | 15 |
| Delays in payment of salaries, pensions, scholarships | 27.2 | 7 | 10.6 | 15 | 8.5 | 16 | 7.7 | 18 | 3.3 | 20 | 2.7 | 20 | 7.4 | 20 | 6.9 | 21 | 7.3 | 20 | 9.1 | 20 |
| Inaccessibility of educational services, poor quality of education | 5.1 | 19 | 6.3 | 19 | 7.7 | 18 | 9.1 | 15 | 4.7 | 18 | 4.4 | 18 | 5.6 | 21 | 7.4 | 19 | 5.5 | 21 | 6.2 | 21 |
| Harassment on ethnic grounds, ethnic conflicts | 6.5 | | 8.8 | 17 | 6.8 | 19 | 8.8 | 16 | 6.6 | 16 | 4.4 | 19 | 5.0 | 22 | 4.2 | 22 | 4.3 | 22 | 6.2 | 22 |
| Lack (shortage) of conditions for rest and leisure | no data | no data | no data | no data | no data | no data | no data | no data | no data | no data | no data | no data | 4.4 | 23 | 3.9 | 23 | 2.7 | 23 | 3.7 | 23 |

* Ranked according to the data as of 2017. The data are taken for the years preceding the presidential election (1999, 2003, 2007 and 2011), as well as for the years of the presidential election (2000, 2004, 2008, 2012), when the country started a new political season. The top five and top ten most relevant issues that matter to people are highlighted in brown and yellow respectively, the top ten and top five least urgent problems are highlighted in blue and green.

Inflation, low standard of living, poverty and stratification of the population into the poor and the rich – these issues topped the list of most relevant issues throughout the period from 1999 to 2017.

It is important to note that by 2017, compared with the beginning of Vladimir Putin’s first presidential term (2000) there was a significant decrease in the importance of such problems as high crime rate (from the 3rd to the 11th position), unemployment, firing (from the 5th to the 12th position), lack of spirituality, rampant immorality (from the 12th to the 17th position), delays in payment of salaries and pensions (from the 15th to the 20th position), harassment on ethnic grounds (from the 17th to the 22nd position).

However, the relevance of the most acute problems has not diminished, but even increased: the share of people concerned with the problem of inflation for the period from 2000 to 2017 has increased from 45 to 57%; low standard of living – from 51 to 54%; stratification of the population into the poor and the rich – from 28 to 39% (an increase in the ranking from the 7th to the 3rd position), corruption – from 15 to 24% (an increase in the ranking from the 11th to the 4th position).

August 31, 1995, Boris Yeltsin issued Decree 889 “On the procedure of pledging shares in federal ownership in 1995”. Thus a legal “cover” was provided for the transaction on mortgage auctions, in which “at costs tending to zero, the oligarchs acquired property worth at least 40 billion US dollars”. Experts called it a “speculation, which had no precedent in our history...”¹²

Over the past 25 years the “capitalism for the few” was firmly rooted in the ranks of the ruling elite. **It became “the basis of the political and economic structure of the country”**. According to the results of international studies in 2016 Russia topped a ranking of countries by volume of “crony capital”, which for the period from 2004 to 2014 increased by 385%, reaching two trillion US dollars¹³.

It is important to note that this is not only a key obstacle to socio-economic development of Russia and to addressing critical issues that matter to people. **Today, “capitalism for the few” is also a factor that discredits Russia at the international level, a reason for an information campaign to spread Russo-phobic sentiment and, in particular, to continue the sanctions policy of the United States.**

August 2, 2017, the President of the United States Donald Trump under pressure from Congress signed the law on the continuation of sanctions against Russia (and Iran and North Korea). In this document, in particular, it is said that the U.S. intelligence services within 180 days will be required to prepare two reports.

The first one is “a detailed dossier on Russian elites”, which “will list the names of prominent businessmen with ties to the Kremlin, the value of their assets, including those that belong to the family and relatives of the businessmen; indicate the degree of closeness of contacts of large businessmen with Russian President and his entourage”. In addition, the U.S. Congress suggests to find out “whether the oligarchs were implicated in corruption, and to study their relationship with companies from abroad”, and also “intends to get more information about Russian enterprises with participation of public capital”.

The second report “concerns illicit financial activity associated with Russia. It will be prepared by the same representatives of the executive power. To do so, they will have a year after the entry of the bill into force”¹⁴.

¹² Dobren'kov V.I., Ispravnikova N.R. Rossiiskaya versiya “kapitalizma dlya svoikh”: est' li vykhod iz tupika? [The Russian version of “crony capitalism”: is there a way out of the impasse?]. *Vestnik Moskovskogo universiteta. Seriya 18: Sotsiologiya i politologiya* [Moscow State University Bulletin. Series 18: Sociology and Political Science], 2013, no. 3, p. 30.

¹³ The rating is based on the results of studies conducted in 22 countries. The top five countries include Malaysia (13%), the Philippines and Singapore (11%), Ukraine (7%). At the bottom of the rating are South Korea, Poland and Germany (less than 1%). The Crony-capitalism Index is compiled by the Economist magazine. The authors estimate the total wealth of billionaires whose business lies mainly in industries prone to monopolization, state regulation and state participation (gambling, oil and gas and defense sectors, coal industry and metallurgy, real estate and construction, infrastructure projects, banking), and compare it with the country's GDP (source: Godfather to the king as the foundation of the economy. Crony capitalism for the most part is legal, but it is always unfair (editorial). *Vedomosti*, 2016, May 9. Available at: <https://www.vedomosti.ru/opinion/articles/2016/05/10/640443-kum-korolyu-kak-osnova-ekonomiki>).

¹⁴ Pudovkin E. Congress seeks for the secrets of the Russian elites. *Nezavisimaya Gazeta*, 2017, July 24. Available at: http://www.ng.ru/world/2017-07-24/1_7035_usa.html

The achievements of Russia in the international political arena, which was achieved by the President’s team for the last 10 years (since the Munich conference, 2007), are now among the “pillars” of national support of Vladimir Putin and among the aspects of his activities that have earned high ratings among experts¹⁵.

Sociological studies show that the President’s dealing with foreign political affairs finds approval in the society, while the solution of material problems has been, and continues to be, mainly negatively evaluated by

people. Among the key problems of the country, the activities of the head of state aimed to strengthen the international position of Russia are considered successful by 50–55%; his actions to restore order in the country – by about 50%; his actions to protect democracy – by 36–40%, his actions to promote economic recovery – by 28–34% (*Tab. 1*).

Thus, the “capitalism for the few” is the problem of not only internal but also external character, which, on the one hand, aggravates the condition of uncertainty and risks (which cannot but interfere with the readiness of

Table 1. In your opinion, how successful is the RF President in coping with challenging issues?* (as a percentage of the number of respondents)

| Indicator | 2000 | 2003 | 2005 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 1 half-year of 2017 | Dynamics 1 half-year of 2017 to... | |
|--|------|------|------|------|------|------|------|------|------|------|------|------|------|---------------------|------------------------------------|------|
| | | | | | | | | | | | | | | | 2000 | 2016 |
| <i>Strengthening Russia’s international standing</i> | | | | | | | | | | | | | | | | |
| Successfully | 42.3 | 44.9 | 47.9 | 58.4 | 55.1 | 49.5 | 49.9 | 46.2 | 43.1 | 45.6 | 50.4 | 51.7 | 51.2 | 54.1 | +12 | +3 |
| Unsuccessfully | 30.9 | 30.1 | 33.8 | 24.9 | 23.7 | 30.4 | 29.3 | 33.7 | 37.9 | 36.2 | 32.4 | 31.3 | 29.9 | 26.7 | -4 | -3 |
| <i>Imposing order in the country</i> | | | | | | | | | | | | | | | | |
| Successfully | 31.4 | 37.5 | 41.9 | 53.2 | 48.2 | 39.1 | 41.1 | 36.6 | 35.4 | 39.4 | 48.0 | 50.2 | 49.2 | 48.9 | +18 | 0 |
| Unsuccessfully | 49.2 | 45.1 | 45.1 | 34.0 | 34.2 | 43.5 | 42.5 | 50.0 | 50.7 | 47.5 | 39.1 | 37.9 | 36.7 | 37.1 | -12 | 0 |
| <i>Protecting democracy and strengthening the citizens’ freedoms</i> | | | | | | | | | | | | | | | | |
| Successfully | 23.5 | 29.9 | 33.6 | 44.4 | 39.9 | 36.7 | 36.3 | 32.4 | 28.8 | 31.8 | 37.5 | 40.4 | 36.6 | 38.2 | +15 | +2 |
| Unsuccessfully | 43.8 | 42.4 | 47.0 | 37.0 | 35.9 | 41.5 | 42.6 | 48.3 | 52.3 | 51.0 | 45.4 | 41.5 | 44.3 | 41.5 | -2 | -3 |
| <i>Economic recovery and increase in the citizens’ welfare</i> | | | | | | | | | | | | | | | | |
| Successfully | 25.6 | 29.6 | 35.1 | 47.2 | 36.7 | 31.6 | 33.5 | 30.7 | 28.5 | 31.3 | 34.8 | 34.2 | 27.2 | 26.8 | +1 | 0 |
| Unsuccessfully | 52.9 | 51.4 | 50.8 | 39.1 | 46.0 | 52.4 | 51.6 | 56.1 | 57.9 | 56.8 | 53.4 | 52.3 | 59.4 | 57.9 | +5 | -2 |

Source: ISED T RAS public opinion monitoring.

¹⁵ For example (source: Putin’s “four-year period”: foreign policy achievements and “capricious” economy. *RIA-Novosti*. Available at: <https://ria.ru/politics/20160506/1427638180.html>):

I.I. Mel’nikov: “A brilliant, considered foreign policy in the spirit of all the most glorious and powerful pages of the great Russian history, and the Crimean triumph, and the power of the Syrian operation, and the struggle for the truth about the Victory, and the modernization of the Russian Armed Forces... as a consequence – the transformation of Russia into a leading player on the world stage”;

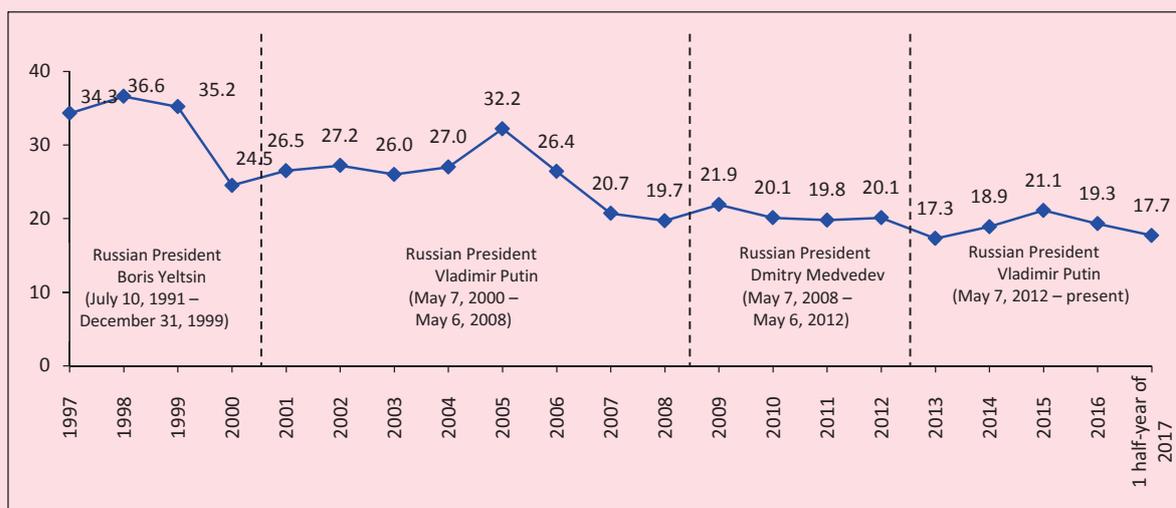
F.A. Klintsevich: “One of the most important results of the past four years can be considered the transformation of Russia into a leading player on the world stage. In this context, we should regard the steps to strengthen and modernize the Russian Armed Forces. The last four years were really breakthrough in this regard. We now have one of the most modern armies in the world”;

V.V. Ryazanskii: “Despite the tough blockade and severe sanctions, we managed to solve the problems of war and peace as equals... Russia has managed to make the SCO and BRICS the tools for political dialogue in international life. This gives us grounds to say that we managed to restore the parity, without which Russia can not live. In addition, our philosophy of a multipolar world finds more and more supporters. As an example, we can mention the decision of the French Parliament to encourage the government to abandon the practice of anti-Russian sanctions”.

wider population to exercise their civic activity and interest in major social and political issues that go beyond their ordinary everyday problems); on the other hand, this problem weakens Vladimir Putin's personal political achievements and achievements of his team (which is important in light of the approaching presidential election). **The roots of this phenomenon are found in the fused interests of individual representatives of the ruling elite and big business, and in Russia they are as constant, as the nature of the problems forming the basis of public requests (inflation, low standard of living, stratification of the population, corruption, social insecurity). And this circumstance cannot be called accidental.**

We have repeatedly cited expert evaluations and the facts that demonstrate how the ineffective (and if we speak more precisely – contrary to the national interests) actions of government officials lead to serious consequences for the Russian economy, science and all key spheres of public life; as a result, the problems of Russian society become long-term and perennial¹⁶. This is evidenced by the level of protest that has been stable over the past 10 years (17–20%; *Fig. 1*), and the relentless demand of Russians to “live in a more just and reasonably ordered society”, to be able “to live and not just scrape a living”¹⁷.

Figure 1. Dynamics of protest potential* (% of respondents)



* Protest potential is formed by the respondents who answered the question “What are you ready to do to protect your interests?” as follows: “I will come to a rally, a demonstration”; “I will participate in strikes, protests”; “If necessary, I will take arms, take to the barricades”.

Source: ISEDТ RAS public opinion monitoring.

¹⁶ See, for example: Ilyin V.A. Aktual'nost' tezisa “Kadry reshayut vse!” dlya sovremennoi Rossii [Significance of the thesis “Cadres decide everything” as applied to modern Russia]. *Ekonomicheskie i sotsial'nye peremeny: fakty, tendentsii, prognoz* [Economic and social changes: facts, trends, forecast], 2017, no. 3, pp. 9–31.; Ilyin V.A. Nekrasivaya istoriya... [What a Shame...]. *Ibidem*, no. 2, pp. 9–21; Ilyin V.A. God do chetvertogo prezidentskogo sroka [One Year Left before the Fourth Presidential Term]. *Ibidem*, no. 1, pp. 9–24.

¹⁷ Gorshkov M.K., Krumm R., Tikhonov N.E. (Eds.). *O chem mechtayut rossiyane: ideal i real'nost'* [What Russians dream about: the ideal and reality]. Moscow: Ves' Mir, 2013. P. 11.

Policy of building the “capitalism for the few” influenced the formation of civil society in post-Soviet Russia. It develops according to a familiar pattern: **the comprador elites’ catering to their own private interests to the detriment of national priorities is accompanied by simulating the implementation of strategic guidelines for the development of the country, approved by the President.**

In this context it should be noted that Vladimir Putin from the very beginning of his presidential terms clearly denotes his intention to develop civil society institutions. In the article “Russia at the turn of the Millennium” (1999) he talks about three “chance of a decent future” and one of them is called “strong state” that creates conditions for the formation of **“full-fledged civil society that balances and controls power”**¹⁸.

Vladimir Putin: “Worldwide there is a trend to enhance the executive power. And therefore it is no accident that the society strives to strengthen control over it in order to avoid arbitrariness and abuse. That’s why **I personally attach utmost importance to establishing a cooperative relationship between the executive power and civil society, to the development of institutions and structures of the latter, and to the deployment of active and hard fight against corruption**”¹⁹.

Focus on the development of civil society and achievement of consolidation in a society fragmented after the “turbulent 1990s” can be traced not only in the President’s words, but in his specific decisions.

For example:

1. In 2002, he introduced a tax on mineral extraction (MET) that forced the oligarchic clan to share their profits with the state. As a result, by 2002, budget revenues rose to 2204.7 billion rubles, that is, in 3.6 times compared with 1999.

2. In 2003, Federal Law 131 “On general principles of organization of local government in the Russian Federation” was adopted.

3. In 2005, the Civic Chamber of the Russian Federation and public councils were established²⁰. Ten years later, Vladimir Putin noted that “we had originally intended to establish the Civic Chamber of Russia with its principles and activities **in order to expand the base of democracy in the truest sense of the word, without any big talk...** It should not replace either the Government or Parliament, it should have its own niche, and it occupies the niche. It is public control over the executive and representative powers, it is an expert evaluation of what is generated as immediate and more distant plans, it is an assessment of how these plans are implemented, and it is a direct link with the people, a direct link with those who feel the efforts of the authorities aimed to improve life in the country”²¹.

¹⁸ Putin V.V. Russia at the turn of the Millennium. *Nezavisimaya Gazeta*, 1999, December 30. Available at: http://www.ng.ru/politics/1999-12-30/4_millennium.html

¹⁹ *Ibidem*.

²⁰ On the Civic Chamber of the Russian Federation: Federal Law of April 4, 2005 No. 32. *Rossiyskaya Gazeta*, 2005, no. 3739, April 7. Available at: <https://rg.ru/2005/04/07/obshestv-palata-dok.html>

²¹ Transcript of Vladimir Putin’s speech at the meeting with members of the Civic Chamber of the Russian Federation on June 20, 2017. *Official website of the Russian President*. Available at: <http://www.kremlin.ru/events/president/news/54831>

4. In 2011, the Russian Popular Front (ONF) was established, and the President set before it the task “to supervise the execution of decrees and orders of the head of state and to fight against corruption”²². In October 2012, at the first meeting with core members of the ONF Vladimir Putin said that “with the creation of the ONF he proceeded not so much from political reasons, but was guided by the necessity of creating a broad public coalition”²³.

5. In 2012, the Decree of the President of the Russian Federation “About assessing performance efficiency of the executive authorities of constituent entities of the Russian Federation” No. 1199 was issued, according to which one of these indicators was “People’s assessment of the performance of the executive authorities of constituent entities of the Russian Federation”²⁴. In 2014, Federal Law 2012 “On the fundamentals of civic watch in the Russian Federation” was adopted, etc.

However, neither the strengthening of democratic foundations of the management system nor civil society institutions that work efficiently and reflect the opinion of the general population could be among the interests of the comprador elite, which the President continues to “tolerate”. Therefore, the development of civil society in Russia is faced with the same example of simulation activities of the Government with which it

Vladimir Putin: “The Russian Popular Front must become a truly broad-based public movement that gives all citizens the chance to set their goals and aims, reach these goals, take action on issues that often get bogged down in the bureaucratic swamp, and directly propose ideas that could go on to become laws and government decisions. We need to give people the opportunity to use existing instruments for influencing public processes, look for new instruments, and put them to skillful use. We need to promote new people, new candidates, take part in elections and put forward the right kind of people for them. Most important of all, this work must be real and alive, directly linked with people, their interests, and resolving their problems”²⁵.

regularly “reports” on the implementation of the May Decrees of the President: the Civic Chamber and the civic councils (at the regional level, as well) have been created, but they were endowed with the right of advisory vote, which can be ignored given an appropriate level of “responsibility” of management personnel. Key representatives of regional civic chambers and councils were determined by regional authorities and funded by the same authorities; that is, in fact, civil society institutions have been forced to find fault with those on whom they depended financially.

²² History of the Russian Popular Front. *Official website of the Russian Popular Front*. Available at: <http://onf.ru/structure/istoriya-onf/>

²³ Transcript of Vladimir Putin’s speech at the meeting with core members of the Russian Popular Front on October 18, 2012. *Official website of the Russian President*. Available at: <http://www.kremlin.ru/events/president/news/16680>

²⁴ On assessing the efficiency of the work of the executive authorities of constituent entities of the Russian Federation: the Decree of the President of the Russian Federation of August 21, 2012 No. 1199. *Official website of the Russian President*. Available at: <http://www.kremlin.ru/acts/bank/35958>

²⁵ Transcript of Vladimir Putin’s speech at the Founding Congress of the Russian Popular Front on June 12, 2013. *Official website of the Russian President*. Available at: <http://www.kremlin.ru/events/president/news/18328>

Thus, the implementation of a generally correct rhetoric of the President aimed to overcome a huge gap of mistrust that has developed between the society and the state in the 1990s is in the hands of officials who are not interested in it. This led to two sustainable trends in the Russian society.

The first of them is the **skepticism that people feel toward civil society institutions**, as illustrated by the results of sociological surveys (see *Appendix*). Thus, the index of trust of people to the media during Vladimir Putin’s third presidential term (2012–2017) declined from 102 to 89 p., to political parties and movements – from 89 to 80 p., to local authorities – from 104 to 99 p., to non-governmental organizations – from 102 to 94 p., to the Civic Chamber of the Vologda Oblast – from 103 to 98 points²⁶.

But the main thing is not the negative dynamics, but the fact that **among many state and public institutions it is the civil society institutions that enjoy the least trust among people** (for comparison: the index of confidence in the President, according to the data as of 2017, is 147 p., in the Church – 135 p., in the Army – 128 p., in the FSB – 126 p., in the Court and Prosecutor’s office – 121 p. for each, etc.). That is, the Russian society has developed a level of confidence in the institutions of civil society that is comparable with the trust in banking and business communities (80–90 points). The only difference is that in relation to entrepreneurship there is the mental

commitment of Russians to the conservatism and traditionalism, as well as their desire for stability generated by the numerous facts of fraud on the part of elites dominating in the 1990s. As for civil society institutions, **we are talking more about the lack of faith in their ability to exercise a real impact on individuals who make management decisions.** It is no coincidence that these motives (“lack of faith in the possibility of influencing the decisions of the authorities”, “indifference to common causes, individualism”, “the habit of pinning one’s hopes on what already exists, including the power”) are frequently recognized by people as the main obstacles to the manifestation of civic activity (*Tab. 2*).

The second trend logically follows the first one. It consists directly in the decline of civil activity of wide layers of the population or in social atomism, the presence of which in the Russian society is recognized by many researchers who study public sentiment.

In 2008, RAS Academician V.I. Zhukov pointed out that “in the modern Russian society the priority of work for the benefit of society and other people is being transformed into the priority of work for the sake of personal interests. In modern Russia in conditions of crisis and instability of culture there forms a personality type with a predominance of the orientation toward individual norms of behavior and activities”²⁷. In 2012, RAS Academician M.K. Gorshkov wrote: “In the face of increasing anxiety, and often hostility of the external environment

²⁶ According to the methodology of calculating the index (see *Appendix*), its value below 100 points indicates the predominance of negative judgments in the estimation of population, or, in other words, people often speak about their distrust of the above mentioned forms of organization of civil society.

²⁷ Zhukov V.I. Rossiya v global’noi sisteme sotsial’nykh koordinat: sotsiologicheskii analiz i prognoz (doklad na II s’ezde Soyuza sotsiologov Rossii) [Russia in the global system of social coordinates: sociological analysis and forecast (the report at the 2nd Congress of the Union of Sociologists of Russia)]. *Sotsiologicheskie issledovaniya* [Sociological studies], 2008, no. 10, p. 39.

Table 2. What obstacles do you consider to be most important for the manifestation of people's civic position? (% of respondents)*

| Indicator | 2008 | 2011 | 2013 | 2014 | 2015 | 2016 | 2017 | Dynamics (+ / -) 2017 to... | |
|--|------|------|------|------|------|------|------|--------------------------------|------|
| | | | | | | | | 2016 | 2008 |
| Lack of faith in the possibility of influencing the decisions of the authorities | 20.7 | 24.3 | 27.2 | 22.7 | 21.0 | 22.3 | 20.0 | -2 | -1 |
| Indifference to common causes, individualism | 43.5 | 26.2 | 24.1 | 23.5 | 19.6 | 24.5 | 19.5 | -5 | -24 |
| The habit of pinning one's hopes on what already exists, including the power | 24.8 | 19.1 | 22.0 | 21.9 | 19.5 | 19.6 | 19.1 | -1 | -6 |
| Lack of knowledge, incompetence | 20.9 | 15.2 | 19.1 | 15.9 | 15.4 | 19.7 | 16.4 | -3 | -5 |
| Lack of time, excessive employment | 9.9 | 12.3 | 15.5 | 15.0 | 14.4 | 18.5 | 14.8 | -4 | +5 |
| Fear of punishment, harassment by superiors, authorities, law enforcement agencies | – | 15.9 | 19.9 | 19.7 | 11.8 | 13.2 | 14.6 | +1 | – |
| Lack of organization ability | 9.5 | 8.3 | 11.1 | 10.7 | 9.5 | 10.9 | 9.6 | -1 | 0 |
| Fears of negative reactions from others | – | 6.7 | 9.4 | 7.4 | 6.5 | 5.3 | 5.9 | +1 | – |
| Other | 0.5 | 0.6 | 0.3 | 0.2 | 0.1 | 0.3 | 0.4 | 0 | 0 |
| Difficult to answer | 14.9 | 27.3 | 29.7 | 29.9 | 35.1 | 35.3 | 37.0 | +2 | +22 |

* Question is asked once a year. Ranked according to the data as of 2017.

and in conditions of the lack of the ability to significantly influence the emerging situation, the Russians are concentrating their efforts on creating a comfortable microenvironment of their habitat...”²⁸

Speaking about the Russian society today, experts say: “People adapt to poverty. This usually occurs in two stages. The first one continues for a year or two. During this time, the changes are not perceived as critical. A shortage of funds represents only a lack of resources, nothing more. The second stage begins after about five years of poverty. **To this point value orientation and social circle have changed. The process of getting used to poverty is not just completed, but leads to external changes in life and also to internal changes. If a person is in a state of**

despair for too long, they develop a sense of hopelessness. They are not inclined to fight for their interests, but think only about how to survive”²⁹.

A VTsIOM poll conducted in May 2017 shows that “in the case of declining revenues, only 4% of families expect help from the state, about a third of families rely on their relatives, every fourth family is counting on its own savings and **more than 40% of families do not count on anyone's support**” (Fig. 2)³⁰.

Regional studies of the dynamics of public opinion clearly demonstrate the fears of Russian scientists:

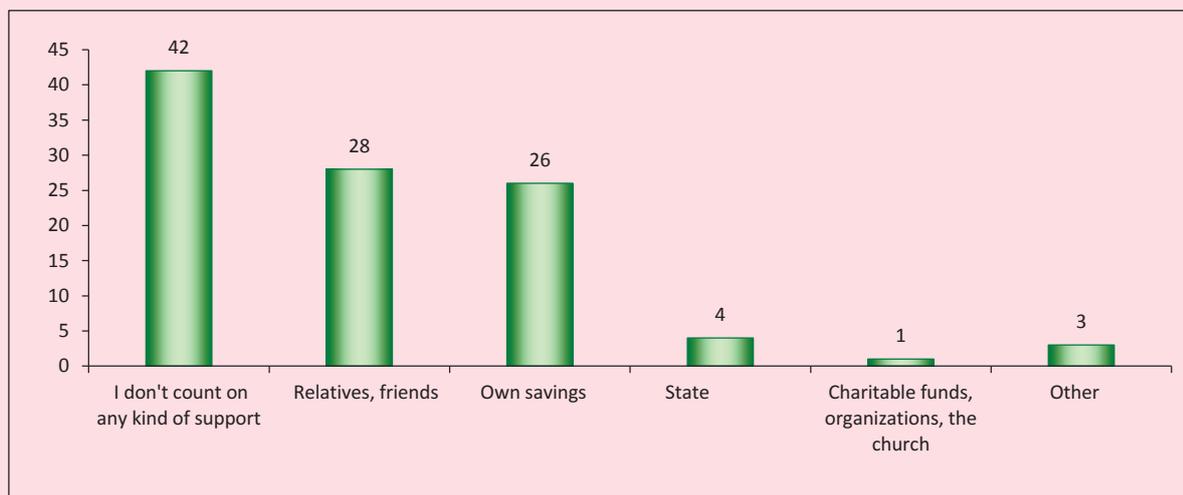
✓ a sense of harmony and cohesion at the micro-level (family, immediate circle) is noted by 62% of the population in the country and in the region – three times less (22%);

²⁸ Gorshkov M.K. “Russkaya mehta”: opyt sotsiologicheskogo izmereniya [“Russian dream”: an experience of sociological measurement]. *Sotsiologicheskie issledovaniya* [Sociological studies], 2012, no. 12, p. 3.

²⁹ Granina N. The habit of poverty: Russians cope with the crisis by gradually getting used to poverty. *The information resource Lenta.ru*. Available at: <https://lenta.ru/articles/2016/03/09/poverty/>

³⁰ Ovcharova L.N. (Ed.). *Naselenie Rossii v 2017 godu: dokhody, raskhody i sotsial'noe samochuvstvie. Monitoring NIU VShE. Iyul' 2017* [The population of Russia in 2017: revenues, expenditures, and social well-being. Monitoring of HSE. July 2017]. Moscow: NIU VShE, 2017. P. 5.

Figure 2. Distribution of answers to the question “If the income of your family decreases for some reasons, on what or whom will you rely in the first place?” (% of respondents, calculations by the HSE according to the data of the opinion poll, May 2017)



Source: Ovcharova L.N. (Ed.). *Naselenie Rossii v 2017 godu: dokhody, raskhody i sotsial'noe samochuvstvie. Monitoring NIU VShE. Iyul' 2017* [The population of Russia in 2017: revenues, expenditures, and social well-being. Monitoring of HSE. July 2017]. Moscow: NIU VShE, 2017. P. 26.

✓ 87% do not trust anyone or trust only their closest friends and relatives;

✓ 84% assess the degree of their influence on the situation in the family as high (understand and accept their responsibility), but only 4–10% say they can influence the situation in the country, region, city;

✓ the proportion of people willing to unite to achieve common goals (45–50%), prevails over the proportion of those who share the opposite view (20–25%); however, as we know, people can unite for various reasons, including for the purpose of participating in protests, which is clearly demonstrated by the protest actions organized by the non-system opposition in March 2016;

✓ 33% do not participate in various activities of public and political life (their share over the past six years has increased by 12 percentage points); we cannot but mention the decline in the share of people who do not participate in social activities in 2017 (from 50 to 32%), but (as we noted earlier) it also can mean only that in this way people “do the job of the government, after they became disappointed in its capacity”³¹.

All of the above facts showing a low level of civic activity are typical not only of the Russian society of 2017. A similar ratio of assessments of interpersonal trust, degree of cohesion, ability to influence the situation, etc. is observed over the entire period under consideration, i.e. at least in the last six years.

³¹ Buev M. Apolitical civil society. Charity in Russia corrects the failures of the state. *The Newspaper Vedomosti*, 2016, November 28. Available at: <https://www.vedomosti.ru/opinion/columns/2016/11/28/667126-apolitichnoe-grazhdanskoe>

Events of the “Crimean spring” have played a positive role in the development of civil activity of the population. They have led to a sharp increase in consolidation sentiment (the level of cohesion in the country in 2014 increased from 14 to 29%) and to more active participation of people in different social and political events (in 2015, the share of those who do not participate in these events for the

first time during the study period decreased from 44 to 37%; *Tab. 3*). However, these positive changes proved to be short-term. The following year the proportion of people who point out a high level of agreement and cohesion in the country decreased (from 29 to 22%); and the percentage of people who do not participating in political and social activities increased from 37 to 50%.

Table 3. Dynamics of indicators of civic engagement and interpersonal trust
(% of the number of respondents; answers for each question are ranked according to 2017)

| Answer options | 2011 | 2013 | 2014 | 2015 | 2016 | 2017 | Dynamics (+/-) 2017 to... | |
|---|------|------|------|------|------|------|------------------------------|------|
| | | | | | | | 2016 | 2011 |
| Proportion of people who believe that “today there is more harmony and cohesion than disagreement and disunity...” | | | | | | | | |
| In your immediate circle | 46.9 | 52.1 | 61.4 | 57.7 | 58.0 | 62.3 | +4 | +15 |
| In the place of your residence | 24.1 | 28.4 | 39.1 | 32.2 | 33.4 | 38.5 | +5 | +14 |
| In the country | 14.2 | 14.1 | 28.9 | 22.0 | 21.6 | 22.8 | +1 | +9 |
| In the oblast | 19.3 | 15.9 | 26.9 | 19.9 | 20.3 | 21.7 | +1 | +2 |
| Distribution of answers to the question “Who can you trust?” | | | | | | | | |
| Only my close friends and relatives | 58.1 | 52.5 | 53.4 | 55.7 | 60.2 | 62.7 | +3 | +5 |
| You can trust no one these days | 26.1 | 27.9 | 27.9 | 23.5 | 25.1 | 24.2 | -1 | -2 |
| You can trust most of my acquaintances | 12.8 | 15.2 | 12.2 | 12.6 | 10.8 | 9.7 | -1 | -3 |
| You can trust all people without exception | 2.3 | 1.6 | 3.1 | 2.5 | 2.3 | 1.0 | -1 | -1 |
| Proportion of people who believe that they can “personally affect the state of affairs...” | | | | | | | | |
| In my family | 77,1 | 76,9 | 77,5 | 75,7 | 84,5 | 84,4 | 0 | +7 |
| At work | 50.7 | 42.9 | 40.9 | 35.1 | 39.9 | 46.1 | +6 | -5 |
| In my house, yard | 35.6 | 34.5 | 33.5 | 34.1 | 32.9 | 35.5 | +3 | 0 |
| In my city, neighborhood | 12.3 | 7.1 | 9.4 | 7.1 | 7.1 | 9.8 | +3 | -3 |
| In my oblast | 7.7 | 3.0 | 4.1 | 3.7 | 4.7 | 4.5 | 0 | -3 |
| In country in general | 6.6 | 2.5 | 3.7 | 3.3 | 3.9 | 4.5 | +1 | -2 |
| Distribution of answers to the question “Are you ready to unite with other people for any joint action to defend common interests?” | | | | | | | | |
| Ready and sooner ready | 47.1 | 43.0 | 54.6 | 50.6 | 38.3 | 45.8 | +8 | -1 |
| Not ready and sooner not ready | 25.2 | 19.9 | 15.1 | 18.9 | 26.1 | 21.6 | -5 | -4 |
| Difficult to answer | 27.7 | 37.1 | 30.3 | 30.5 | 35.5 | 32.6 | -3 | +5 |
| Participation in various activities of public and political life* | | | | | | | | |
| I didn't participate | 20.6 | 29.0 | 43.7 | 36.6 | 50.1 | 32.7 | -17 | +12 |
| * Answers (events): election, collective beautification, subbotniks; work of housing and utilities services, house committee, council of self-government; collecting donations, funds, items for the needy; signing petitions to the authorities; trade union activities; election campaign; activity of public organizations; rallies, demonstrations, pickets; activities of religious organizations; activities of political parties; strikes. The survey is conducted since 2011 once a year (in April). Source: ISEDT RAS public opinion monitoring. | | | | | | | | |

Thus, the Government essentially represents the interests of the ruling elite engaged in the construction of “crony capitalism”. Therefore, the fact that the officials pretend they work for the common good (and in fact they are not interested either in addressing the key issues that matter to people, or in the efficient development of civil society institutions) leads to the fact that the President’s policy of rapprochement between government and society is not implemented to the fullest extent. Instead, real-life conditions contribute to the fact that the Russian society is facing social atomism, apathy, and disbelief in the possibility of influencing the situation in the country.

In this context one should mention the growth of political apathy among Russians. As shown by the results of sociological surveys, more than 40% of the population find it difficult to determine which of the current parties reflects their interests, or think

that none of the political forces represented in Parliament does. For the period from 2007 to the first half of 2017, the percentage of those who share this view increased from 40 to 44% (Tab. 4). For comparison, this is more than the percentage of those who support the ruling party (30–35%) and support all the other parliamentary parties combined (about 20%).

Of interest is also the dynamics of voter turnout in Russia at the election of the federal level (in particular, to the State Duma), which we analyzed in detail in one of our previous articles³². Overall, the turnout of Russians at the election to Parliament has shown a continuous downward trend since 2007 (in 1999 – 61.9%, in 2003 – 55.8%, in 2007 – 63.8%, in 2011 – 60.2%, and in 2016 – 47.9%). For the period from 2007 to 2016, the number of voters coming to the polls declined by 17 million people (from 70 to 53 million; Tab. 5).

Table 4. Which party expresses your interests? (as a percentage of the number of respondents)

| Party | 2007 | Election to the RF State Duma 2007, fact | 2011 | Election to the RF State Duma 2011, fact | 2013 | 2014 | 2015 | 2016 | Election to the RF State Duma 2016, fact | 1 half-year of 2017 | Dynamics (+/-) 1 half-year of 2017 to | | |
|---------------------------|------|--|------|--|------|------|------|------|--|---------------------|---------------------------------------|------|------|
| | | | | | | | | | | | 2016 | 2011 | 2007 |
| United Russia | 30.2 | 60.5 | 31.1 | 33.4 | 29.4 | 32.8 | 38.8 | 35.4 | 38.0 | 33.2 | -2 | +2 | +3 |
| LDPR | 7.5 | 11.0 | 7.8 | 15.4 | 7.2 | 7.6 | 6.2 | 10.4 | 21.9 | 10.7 | 0 | +3 | +3 |
| KPRF | 7.0 | 9.3 | 10.3 | 16.8 | 11.3 | 9.7 | 7.1 | 8.3 | 14.2 | 7.3 | -1 | -3 | 0 |
| Just Russia | 7.8 | 8.8 | 5.6 | 27.2 | 4.6 | 3.5 | 3.6 | 4.2 | 10.8 | 4.7 | +1 | -1 | -3 |
| Other | 1.8 | – | 1.9 | – | 0.6 | 0.3 | 0.2 | 0.3 | – | 0.3 | 0 | -2 | -2 |
| No party | 17.8 | – | 29.4 | – | 34.9 | 34.4 | 31.8 | 29.4 | – | 31.5 | +2 | +2 | +14 |
| It is difficult to answer | 21.2 | – | 13.2 | – | 10.2 | 11.7 | 12.2 | 12.0 | – | 12.3 | 0 | -1 | -9 |

Source: ISED T RAS public opinion monitoring.

³² Ilyin V.A. Konstitutsionnoe bol'shinstvo v Gosudarstvennoi Dume VII sozyva poluchil Prezident RF [Russian President got a constitutional majority in the State Duma of the Seventh Convocation]. *Ekonomicheskie i sotsial'nye peremeny: fakty, tendentsii, prognoz* [Economic and social changes: facts, trends, forecast], 2016, no. 5, pp. 9-26.

Table 5. Dynamics of voter turnout at the election to the State Duma of the 5th–7th convocations, broken down by federal districts of Russia*

| <i>people</i> | | | | | |
|----------------------------------|-----------------|-----------------|-----------------|-----------------------------|-----------------------------|
| Territory | 2007 | 2011 | 2016 | Dynamics (+/-) 2016 to 2011 | Dynamics (+/-) 2016 to 2007 |
| Russian Federation | 69609446 | 65766594 | 52700992 | -13065602 | -16908454 |
| Central Federal District | 17546326 | 17049621 | 12270883 | -4778738 | -5275443 |
| Volga Federal District | 16043964 | 15100550 | 13083343 | -2017207 | -2960621 |
| Northwestern Federal District | 6520540 | 6234123 | 4378759 | -1855364 | -2141781 |
| Siberian Federal District | 9351476 | 8212790 | 6599218 | -1613572 | -2752258 |
| Ural Federal District | 6039397 | 5273346 | 4258200 | -1015146 | -1781197 |
| Far Eastern Federal District | 2986327 | 2530907 | 1870528 | -660379 | -1115799 |
| Southern Federal District | 6621657 | 6510122 | 5896748 | -613374 | -724909 |
| North Caucasian Federal District | 4195352 | 4544971 | 4343313 | -201658 | +147961 |
| <i>%</i> | | | | | |
| Territory | 2007 | 2011 | 2016 | Dynamics (+/-) 2016 to 2011 | Dynamics (+/-) 2016 to 2007 |
| Northwestern Federal District | 61.23 | 57.65 | 43.18 | -14.47 | -18.05 |
| Central Federal District | 60.98 | 58.78 | 45.29 | -13.49 | -15.69 |
| Southern Federal District | 63.22 | 61.51 | 48.27 | -13.24 | -14.95 |
| Far Eastern Federal District | 63.68 | 55.83 | 42.92 | -12.91 | -20.76 |
| Siberian Federal District | 66.45 | 58.19 | 46.70 | -11.49 | -19.75 |
| Ural Federal District | 65.51 | 59.07 | 48.83 | -10.24 | -16.68 |
| Volga Federal District | 69.13 | 64.30 | 54.44 | -9.86 | -14.69 |
| North Caucasian Federal District | 84.95 | 86.46 | 82.22 | -4.24 | -2.73 |

* Ranked by reduction in turnout in 2016 compared to 2011.

It should be noted that since 2007, voter turnout in Russia at the presidential election has been also decreasing: in 2007 it was 69.7%, in 2012 – 65.3%, and who knows what it will be in 2018...

Trends of civic activity of the population registered by sociological assessments, the level of trust in key institutions of civil society, the dynamics of voter turnout at the election at the federal level – all these indicators show that **an imitation of activity with which the government has started to implement the President's tasks to bring government and society closer to each other has not**

produced effective results, but has only aggravated irritation and apathy among the population. By and large it could not lead to the implementation of the tasks, since the key issues of concern to the population remain unresolved. In the first place, due to the fact that most of the ruling elite has no interest in the realization of national interests, and because in the Russian system of government, at all levels of government, the tradition of responsibility of the officials and their punishment for the performance of their professional duties has not been formed (either organizationally or psychologically).

The question whether the President agrees with the state of affairs in the field of public administration or whether he is forced to continue to endure an actually open non-performance of his direct orders is difficult to answer, but the fact remains: the liberal bloc of the Government continues to carry out its activities contrary to Russia’s national interests.

Perhaps one of the forms of influence on the liberal bloc of the government and officials at the regional level can be found in the civil society institutions actively supported by the President. Today, they effectively solve many problems. In particular, the ONF succeeds not only in addressing local issues (such as the resettlement of people from dilapidated houses, commissioning of kindergartens, repair of roads, liquidation of illegal dumps, etc.), but also effectively implements one of the key objectives noted in its Charter: “public monitoring and civil control over the execution of laws, presidential initiatives and other priorities of government decisions and programs”³³. **It is no coincidence, that the inspections carried out by the ONF initiated the arrests of the governors of the Volgograd, Novosibirsk, Bryansk, Chelyabinsk, Ryazan, and Sakhalin oblasts. And it is the estimates of ONF members that allow us to see the real picture concerning the implementation of the May decrees of the President.** According to

In mid-2016, that is four years after publication of the May presidential decrees, the Government reported on the implementation of “about 70% of the total number of the orders and 88% of the number of orders that are to be executed to the present time”. However, as noted by the representatives of the Russian Popular Front, “out of 162 our opinions on government reports about the withdrawal of the relevant instructions from control, we confirmed the feasibility of withdrawing only 24 instructions. The numbers are exact: we believe that 24 instructions were actually executed, the rest in varying degrees, have not been executed”³⁵.

experts, the ONF today “can play a very striking role” in the presidential campaign if Vladimir Putin announces his candidacy for the 2018 presidential election and “if the scenario “Vladimir Putin with people” is chosen”³⁴.

We should also note some new developments in the work of the State Duma of the 7th convocation:

first, the Duma arranges wide parliamentary hearings with the participation of “not only the opposition but also citizens

³³ Charter of the ONF. *Official website of the Russian Popular Front*. Available at: <http://onf.ru/2013/06/10/ustav/>

³⁴ Volkova O., Nikol’skaya P., Tkachev I., Mogilevskaya A. The promises of the third term: How the May Decrees of the President are executed. *The official website of RBC*. Available at: <http://www.rbc.ru/economics/17/05/2016/573a034a9a7947d18967193a>

³⁵ Rozhkova N. The ONF is considering the election. *Newspaper “Izvestia”*, 2017, June 26. Available at: <https://iz.ru/610214/natalia-rozhkova/onf-primeriaetsia-k-uchastiiu-v-prezidentskoi-kampanii>

united to defend their interests”³⁶, and it also intends “to discuss with the voters the directions of improvement of parliamentary control”;

second, the Duma expresses an intention “to carry out discussions with the Cabinet most strictly – even given the fact that the ruling party is headed by Prime Minister Dmitry Medvedev” (in particular, to exercise tighter control over the executive power, together with the Accounts Chamber);

third, the Duma “lays aside party differences for the sake of consolidating the status”. It is no accident that during the first year of the work of the deputies of the 7th convocation out of the 225 initiatives supported by the Duma 173 were “adopted by consensus, i.e. by the votes of all four Duma parties”, which, according to Speaker V. Volodin, means that they “are supported by the vast majority of the population of our country”, and in this case a large part of these laws is “not a technical correction, but topical solutions to modern problems”³⁷.

But even amid the cautious optimism that can arise when looking at the actions of parliamentarians and successes of civic

activists in the fight against corruption and in addressing specific problems of Russian regions, their efforts may not be enough to develop civil society efficiently. **Because this development is based on civic participation of wide layers of the population, and it cannot be achieved without compliance with two conditions:**

1) tangible progress in addressing the issues of standard of living and quality of life;

2) people’s belief that civil society institutions are able to defend their opinion on the most important issues that can affect managerial decisions of the authorities.

So far these conditions in Russia remain unfulfilled. A stable level of protest potential and sustainable nature of the problems plaguing the population suggest that in Russian society there are certain social needs, which promote the accumulation of critical mass. While the unsatisfied social needs of the population can become the basis for constructive dialogue between civil society institution and the authorities as well as the basis for destructive targeted activities of certain forces seeking to destabilize the situation prior to the presidential election.

³⁶ For example: June 6, 2017, the State Duma held parliamentary hearings of a bill on renovation of residential buildings in the city. The discussion was attended by deputies of relevant committees, heads of parliamentary parties, members of government, Mayor of Moscow Sergei Sobyenin and the residents of the houses included in the program of renovation (about 300 people).

July 3, 2017 the State Duma held parliamentary hearings on the topic “Formation of effective legal mechanisms to protect the rights and legitimate interests of participants of shared construction”, organized by relevant committees in preparation for the second reading of draft federal law 139186-7 “On amendments to the Federal Law “About participation in shared construction of apartment houses and other real estate and on amendments to certain legislative acts of the Russian Federation” and certain legislative acts of the Russian Federation” (in terms of protection of the rights of participants of shared construction). The discussion of the government bill was attended by deputies of the State Duma, participants of shared construction, defrauded real estate investors from troubled regions (Novosibirsk Oblast, Krasnodar Krai, Samara Oblast, Moscow and the Moscow Oblast, Saint Petersburg, Chelyabinsk Oblast, etc. – a total of about 227 people), as well as representatives of the Bank of Russia, the Agency for Housing Mortgage Lending, the Ministry of Construction and Housing of Russia.

³⁷ Rodin I. Deputies will work on parliamentary control in the fall. *Nezavisimaya Gazeta*, 2017, July 25. Available at: http://www.ng.ru/politics/2017-07-25/3_7036_duma.html

Thus, long-term expectations of the population concerning the solution of issues of social justice become a resource for which there is a war between the non-systemic opposition (to “shake” social stability and create an explosive situation before the presidential election) and civil society institutions, first of all, such as the Russian Popular Front and the Civic Chamber, the new chairman of which (V. Fadeev) rightly noted that “the agenda should be from the bottom to the top”³⁸. The key areas on which the Civic Chamber of the new convocation plans to focus its attention are as follows: “protecting social rights of citizens such as the right to work, to housing, to health care”; struggle for increasing the independence of regional public chambers; creation of an “automatic system of public control”³⁹.

The wave of protests that swept Russia in the spring and summer of 2017⁴⁰, has shown that professional organizational work and information “input” that performs a role of a “match” is enough to unite representatives of different social groups for a short time. And the growing dynamics of people’s readiness to come together in pursuit of common objectives (which is shown by the data of long-term sociological research carried out

by ISEDT RAS) can prove it: it proves not the strengthening of consolidation processes in the society, but an exhaustion of the stock of patience.

This is confirmed by the results of nationwide surveys: thus, according to the Institute of Sociology of the Russian Academy of Sciences, “two-thirds of Russians today talk about unsolvable contradictions between the people and the government. At that, the demand for stability in the country is gradually replaced by the demand for change”⁴¹. For the period from 2014 to 2017, the share of Russians who believe that “the country needs significant changes, it needs new reforms in economic and political life” increased from 30 to 41%, while the share of those who believe that “the country needs stability; it is more important than the changes”, decreased from 70 to 56%.

It should be noted that the very fact of the struggle for “popular support” among the non-systemic opposition and social activists is forced in nature. It suggests that **the social issues are not solved by those whose job is to do so**. This, in particular, was confirmed by the recently held direct live TV phone-in with Vladimir Putin: “the President himself had to tackle the problems that no one paid any attention for months or even years. But the

³⁸ Transcript of Vladimir Putin’s speech at the meeting with members of the Civic Chamber of the Russian Federation on June 20, 2017. *Official website of the Russian President*. Available at: <http://www.kremlin.ru/events/president/news/54831>

³⁹ Civil society institution. Agenda. *Journal “Expert”*, 2017, August 4. Available at: <http://expert.ru/expert/2017/29/institut-grazhdanskogo-obschestva/>

⁴⁰ March 26, 2017, protest actions (rallies, marches, pickets) against corruption in the highest echelons of Russian power were held in 82 Russian cities. They were triggered by the lack of reaction to the film “He is not Dimon to you”, which is an investigation by Alexey Navalny’s Anti-Corruption Foundation, it tells about the alleged corrupt ties of the Chairman of the Government of the Russian Federation Dmitri Medvedev. According to some foreign and Russian media it was the largest protest in Russia since the protests of 2011–2013. The second “wave” of protests took place on June 12, 2017. Rallies were held in more than 150 cities of Russia and attended by 50 to 98 thousand people.

⁴¹ Solov’eva O. People are tired of stability. *Nezavisimaya Gazeta*, 2017, July 13, no. 143. Available at: http://www.ng.ru/economics/2017-07-13/4_7028_people.html

President of Russia, even if he laid aside his duties and dedicates all his time to dealing with private matters, will never have time to solve everything”⁴².

At the same time, the President’s attention to the development of civil society and, in particular, his direct involvement in the management of the ONF indicate his interest in using this institution as an effective mechanism for fighting corruption, for implementing the objectives of nationalization of the ruling elites. Not being able to carry out drastic reshuffle in the Government, which, according to some experts, is largely because of Vladimir Putin’s reluctance to engage in open conflict with the West and its “liberal agents in Russia”⁴³, the President does not estrange himself from domestic issues, but tries to solve them by acting “in a roundabout way” and using power structures and mechanisms of social control.

However, until the President takes decisive steps to nationalize the ruling elite that continues to work on the construction of “crony capitalism”, it is still premature to talk about the effective development of civil society and its control functions, as well as about the creation of conditions for a natural, democratic transformation of the management

system in accordance with the dynamics of national interests, which causes a risk of repeating tragic lessons of history.

Further development of civil society and improving the quality of public administration in Russia, in our opinion, depend largely on two circumstances:

- first, the dynamics of international political events, which (in case of any force majeure event like the Ukrainian crisis or a new round of the Cold war 2.0.) may require priority attention of the President to the issues of foreign policy;

- second, answers to the questions: will the President maintain the role of “regulator” of the processes occurring in the internal political life in the country? Will he be able to ensure the quality functioning of public administration system in order to implement national interests and national security? Does he have enough political will, personal strength and strategic thinking in order to not get bogged down in a swamp of political intrigue, corruption schemes and behind-the-scenes games, which accompany the construction of “crony capitalism”?

In order to create a solid foundation of civil society and ensure that its institutions fulfill the function of public control to the fullest extent, strong action will be necessary

⁴² Civil society institution. Agenda. *Journal “Expert”*, 2017, August 4. Available at: <http://expert.ru/expert/2017/29/institut-grazhdanskogo-obschestva/>

⁴³ M.G. Delyagin: “If we defend Russia’s national interests – then we will have to quarrel with the West, to quarrel really and not like it is now. And in this case, a huge number of representatives of the Russian “offshore aristocracy” will lose their houses in Paris, their palaces in London and castles in Austria, Scotland, etc. And what can be done with them? **They will be discontented and as a whole, as wise, energetic and efficient people, will fight quite skillfully against the policy of protection of national interests of Russia, which threatens their property in the West.** To prevent this war, they should be punished preemptively. But the main problem of Putin is that he is a humanist and a democrat, and he would not punish without direct and personal guilt. But he understands that if we wait for the occurrence of such a fault, it may be too late, because the revolt of the elites so desirable by the West and its liberal agents in Russia will have already started” (Source: Delyagin M.G. The liberals treat Russia as if it were a cutlet – an object of consumption. “*Biznes Online*” Newspaper. Available at: <https://www.business-gazeta.ru/article/327971>).

(not just from the President, but from the security and civil agencies that he supports). Otherwise, the role of civil society in Russia can be reduced to the solution of specific problems of narrow social groups (the disabled, pensioners, young people, etc.).

And in this scenario the “niche” of the force able to unite the demands of various population groups to improve the quality of life and the standard of living will remain vacant, and we will only have to wait and guess about who is going to occupy it...

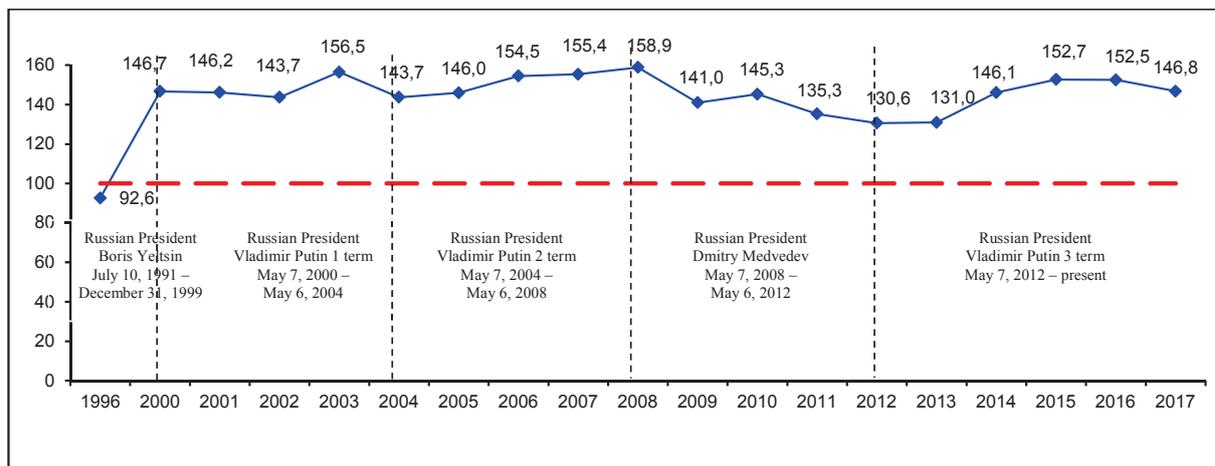
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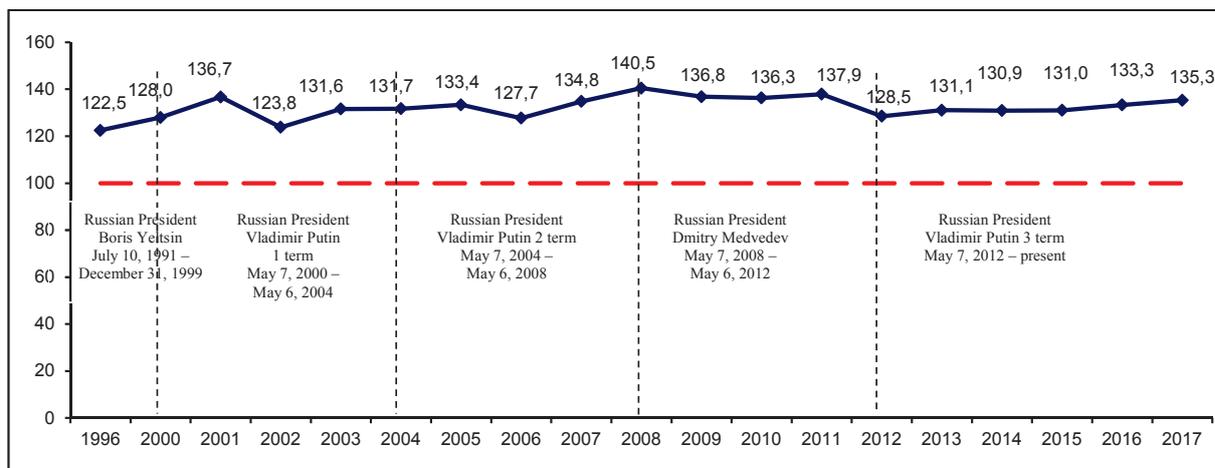
Appendix

Dynamics of the index of trust in governmental and non-governmental institutions*

1. Institutes that enjoy people's trust
(according to 2017 data)



1.1. Index of trust in the RF President



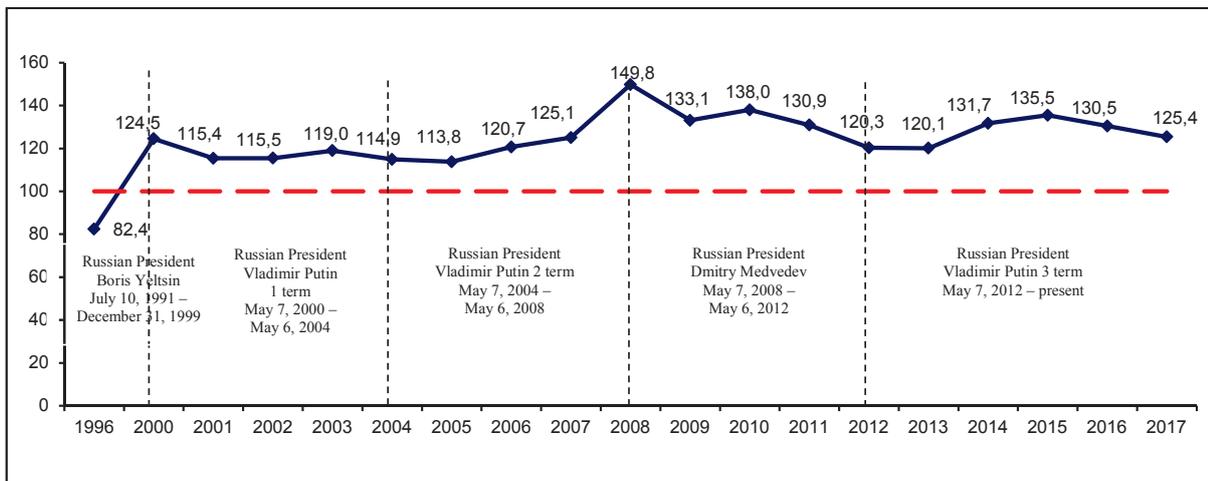
1.2. Index of trust in the Church

* The Appendix is divided into two units:

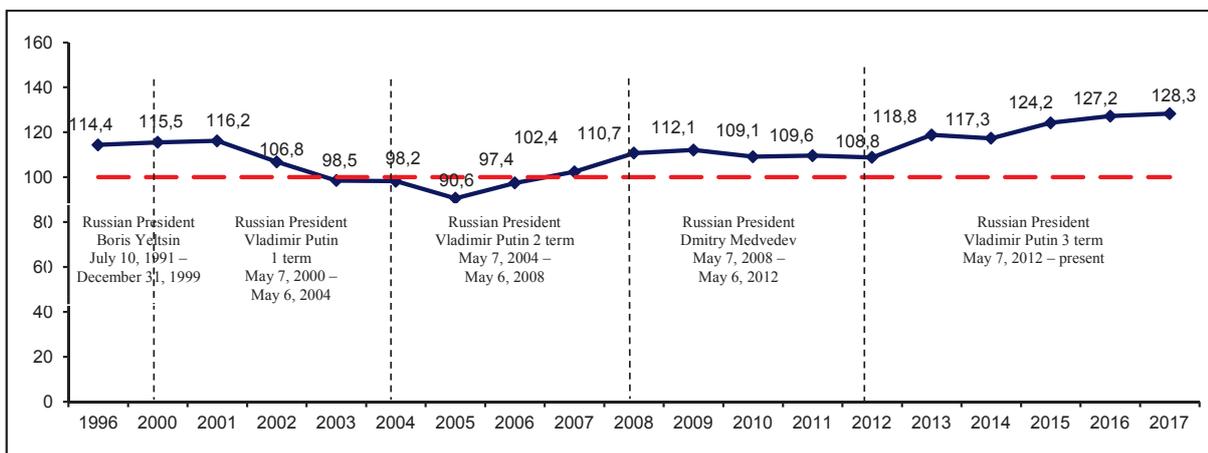
1. Institutions that enjoy trust among the population (according to 2017 data).
2. Institutions that do not enjoy trust among the population (according to 2017 data).

All the institutions presented in the Appendix are ranked by the degree of reduction of trust among the population. The criterion for distribution of the institutions in two blocks is the value of the index of trust. According to the methodology of calculating the index for its calculation the share of negative responses is subtracted from the share of positive responses, then value of 100 is added to the obtained figure so as not to have negative values. Accordingly, 100 points is a neutral mark, indicating the equilibrium proportion of positive and negative assessments; the index value above 100 points indicates the predominance of positive judgments over negative ones; below 100 points – the opposite situation.

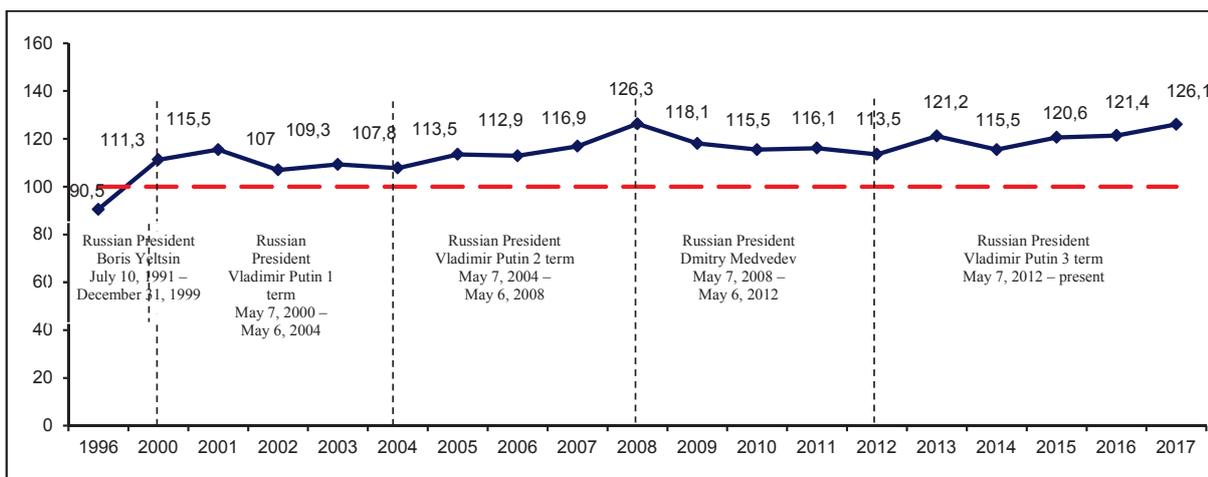
The level of trust is measured by ISEDT RAS in the Vologda Oblast since 1996. The wording of the question is “Please indicate your attitude to existing structures and institutions of power...” (answers: “I trust completely”, “I mostly trust”, “I mostly don’t trust”, “I don’t trust at all”, “I find it difficult to answer”). The question is asked twice a year (in April and October). The data for 2017 presents the results of the survey conducted in April.



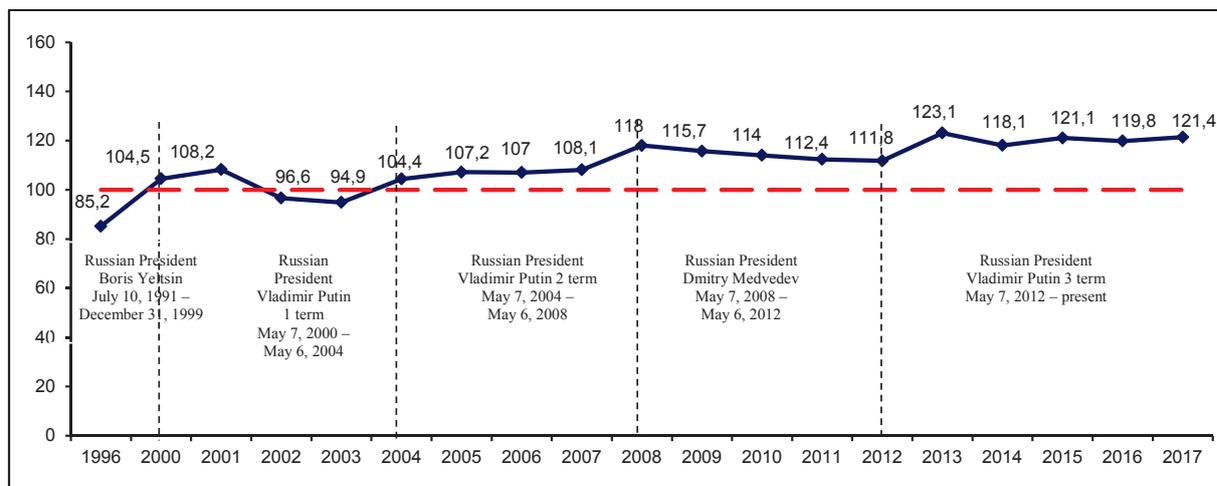
1.3. Index of trust in the RF Government



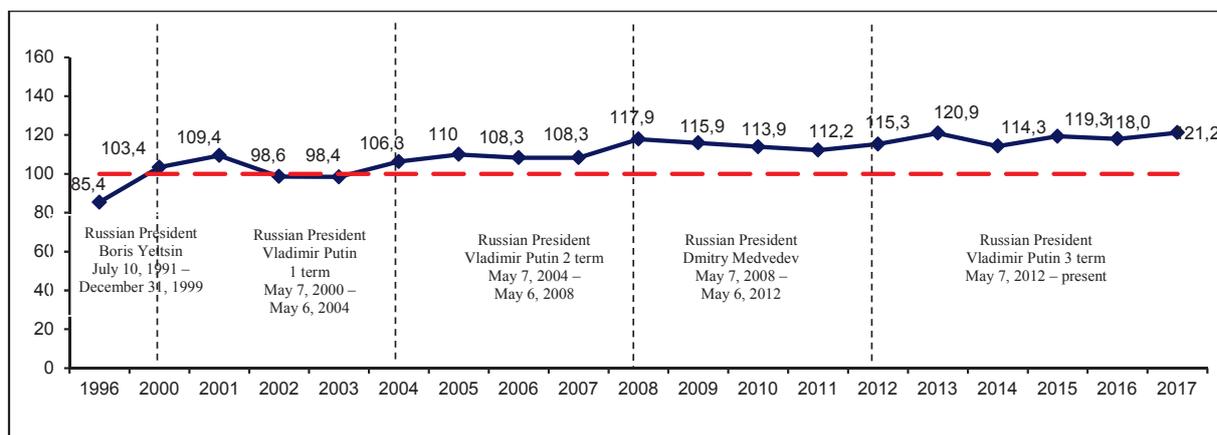
1.4. Index of trust in the Army



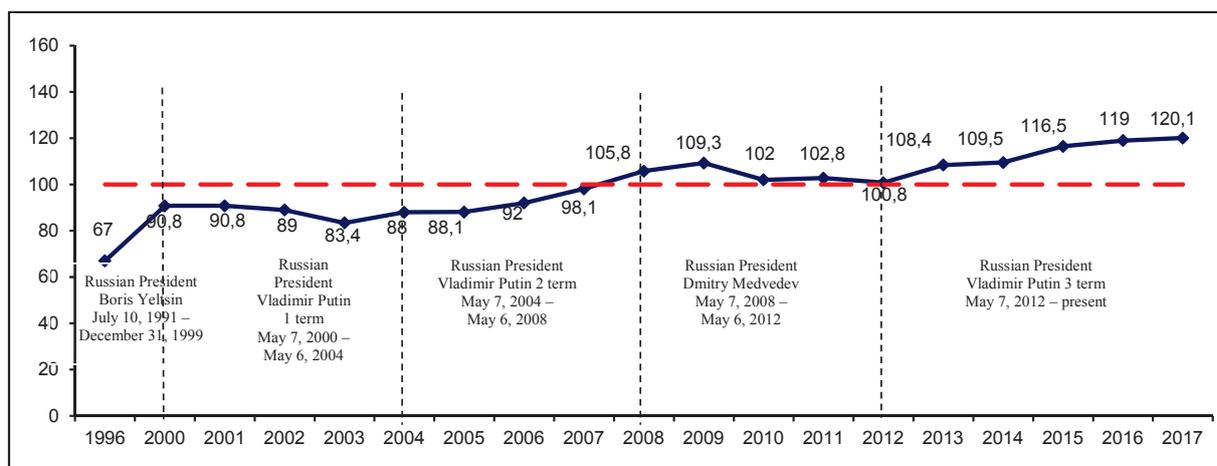
1.5. Index of trust in the Federal Security Service



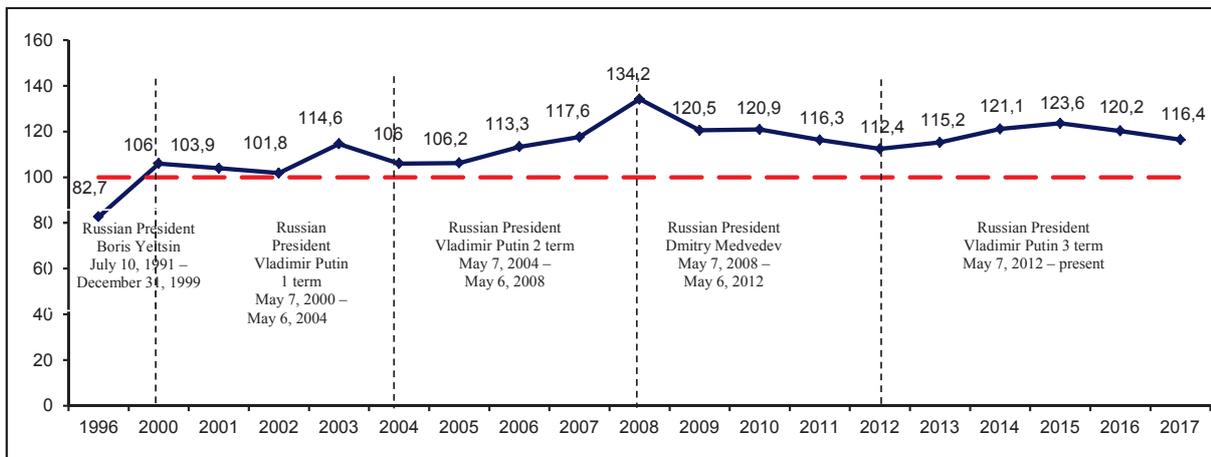
1.6. Index of trust in the Prosecutor's Office



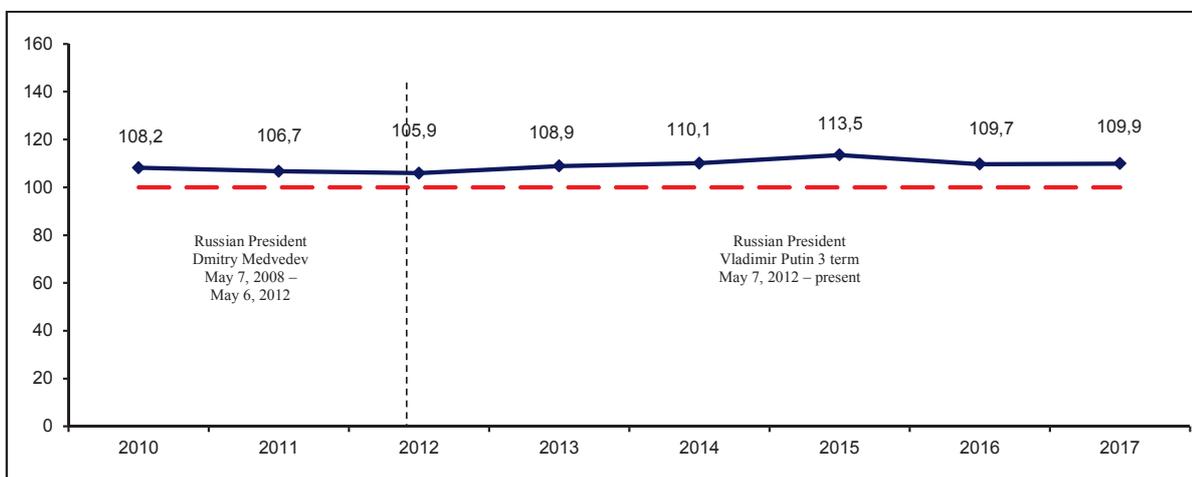
1.7. Index of trust in the Court



1.8. Index of trust in the Police

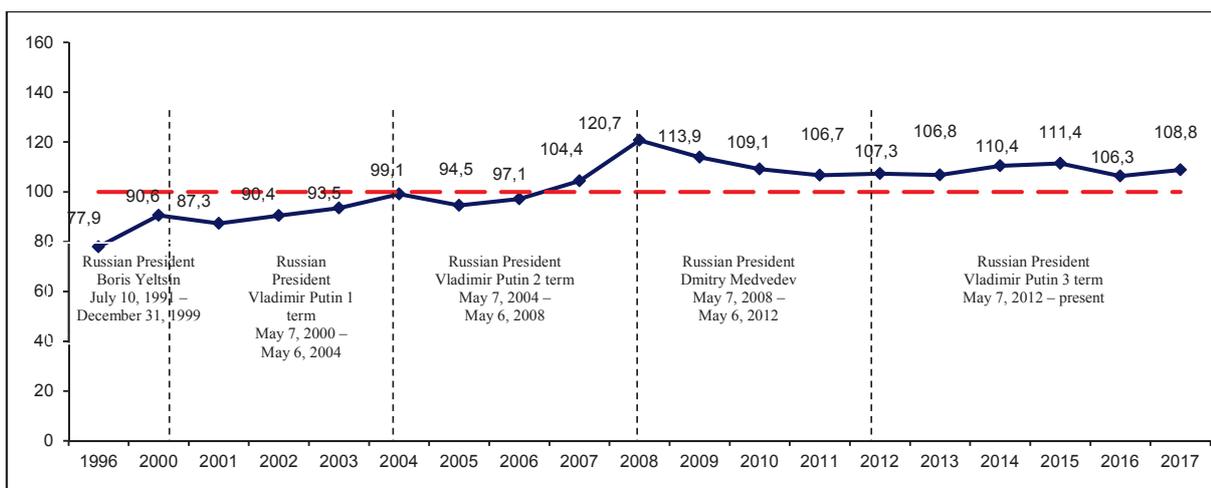


1.9. Index of trust in the Federation Council

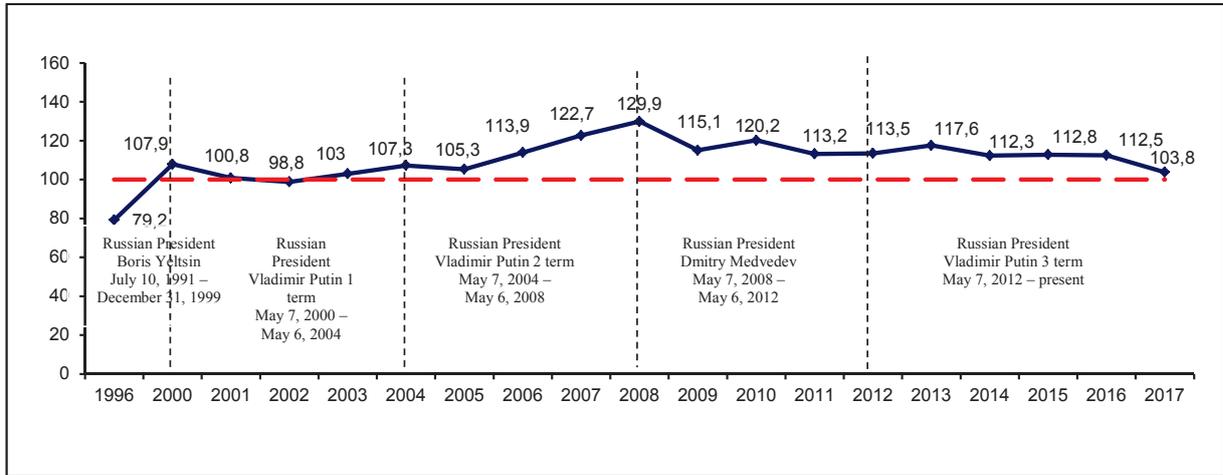


1.10. Index of trust in the Civic Chamber of the Russian Federation*

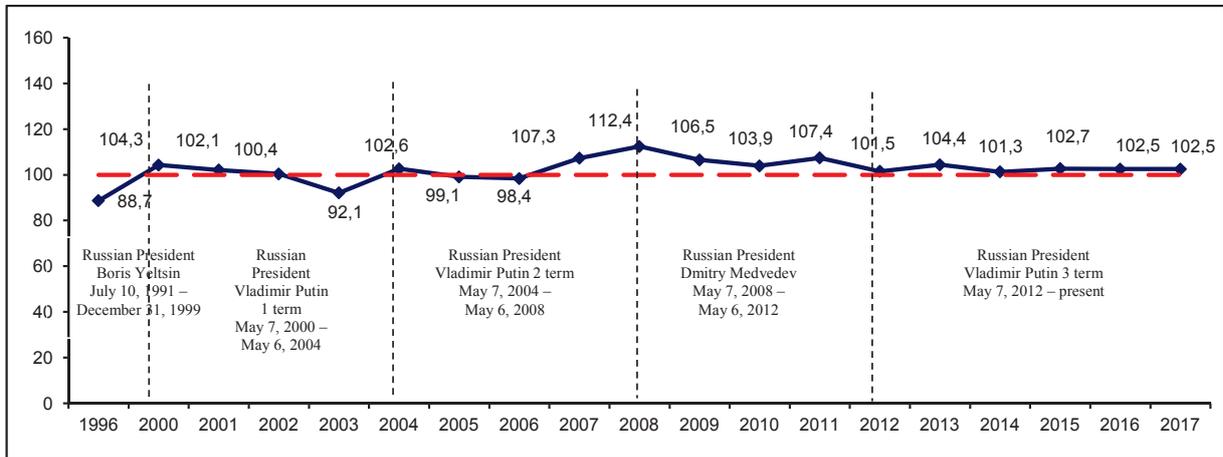
* Included in the survey since 2010.



1.11. Index of trust in the State Duma

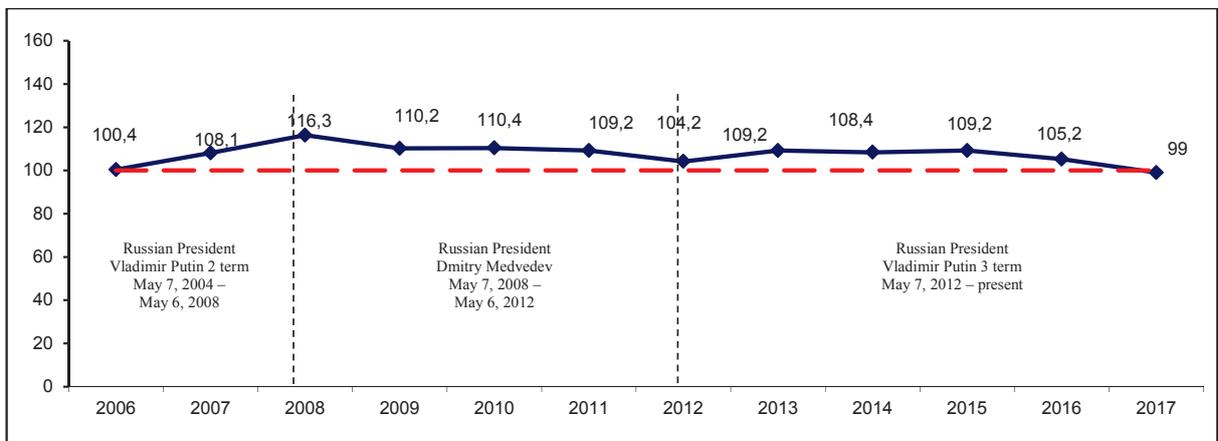


1.12. Index of trust in the Volloga Oblast Government



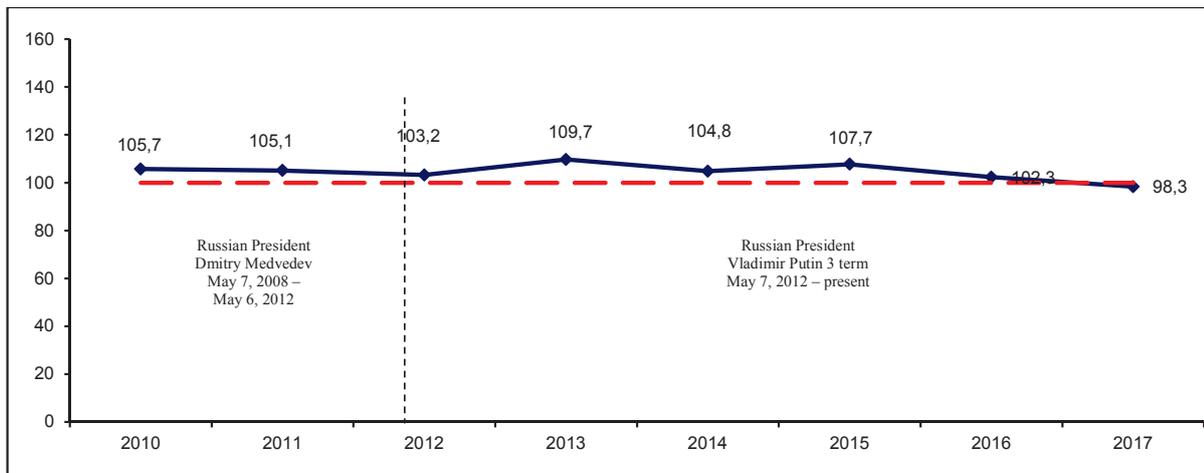
1.13. Index of trust in the Trade Unions

2. Institutions that do not enjoy people's trust
(according to 2017 data)



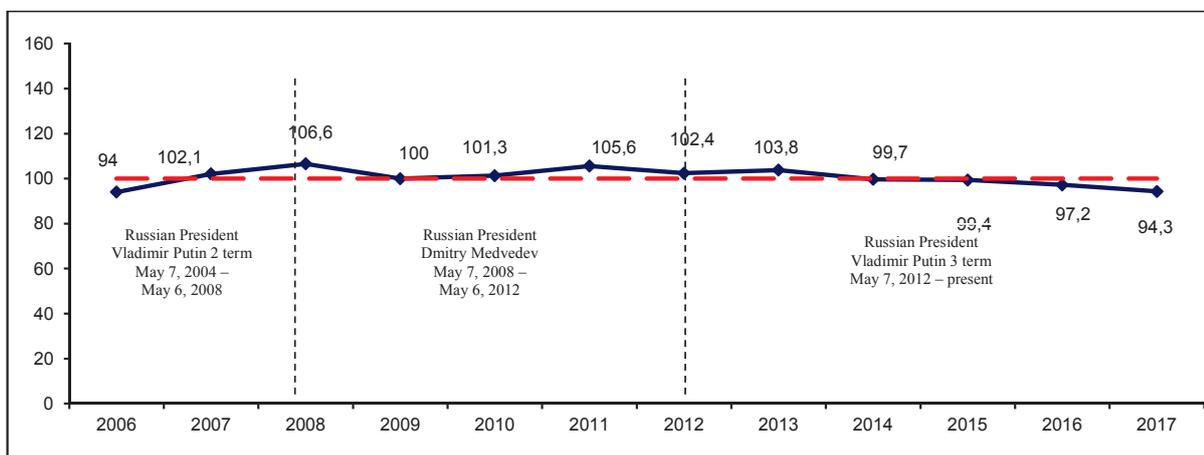
2.1. Index of trust in the local government *

* Included in the survey since 2006.



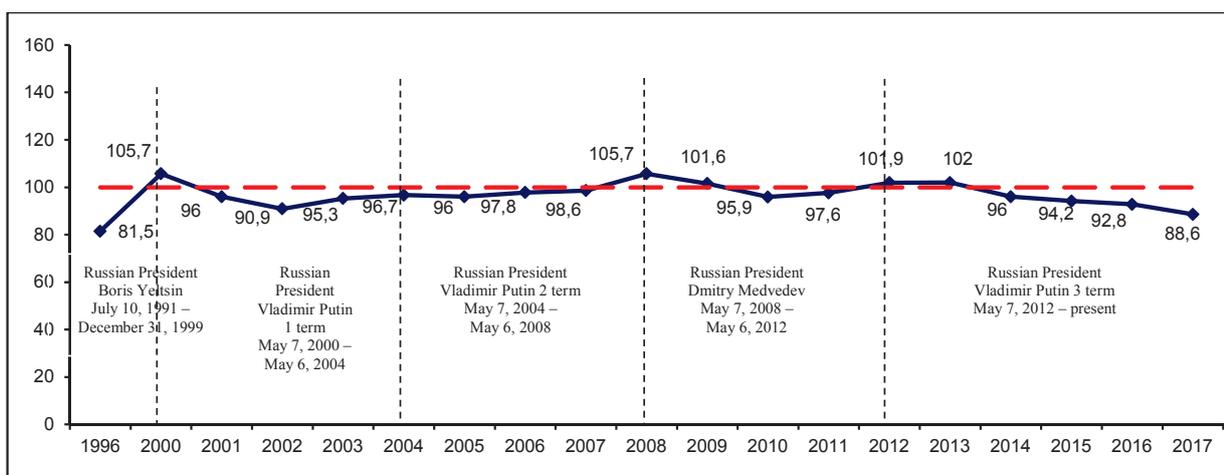
2.2. Index of trust in the Civic Chamber of the Vologda Oblast*

* Included in the survey since 2006.

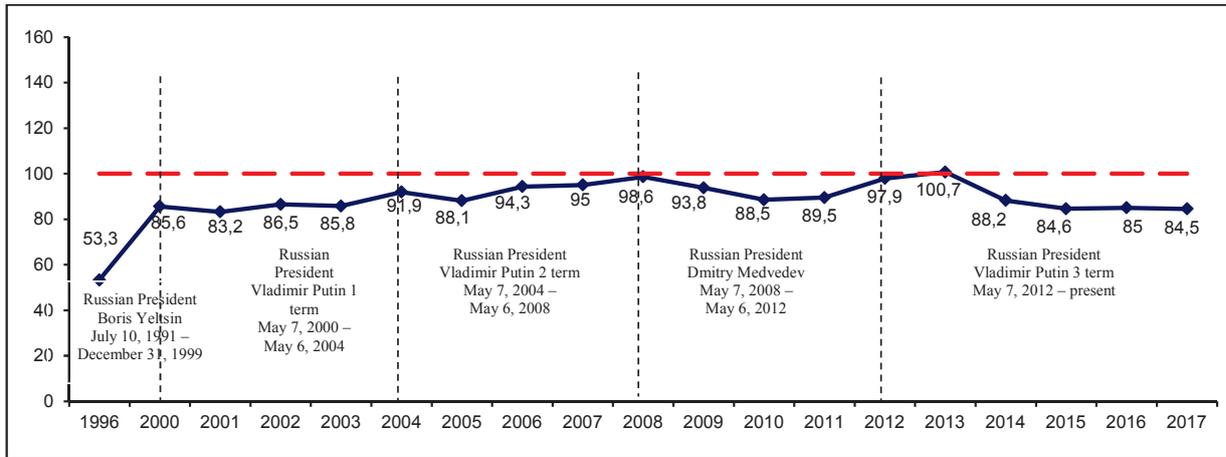


2.3. Index of trust in non-governmental organizations*

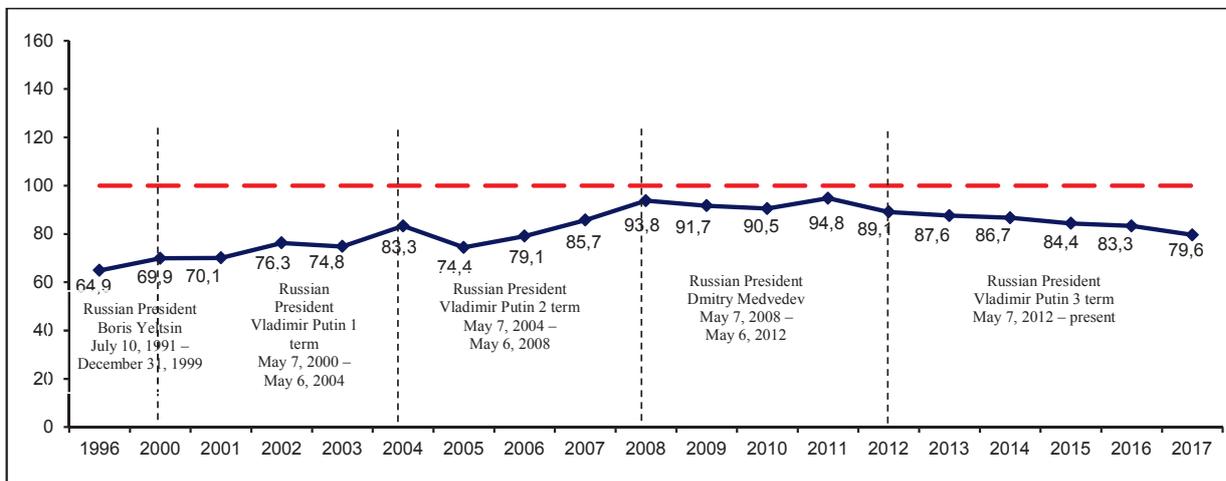
* Included in the survey since 2006.



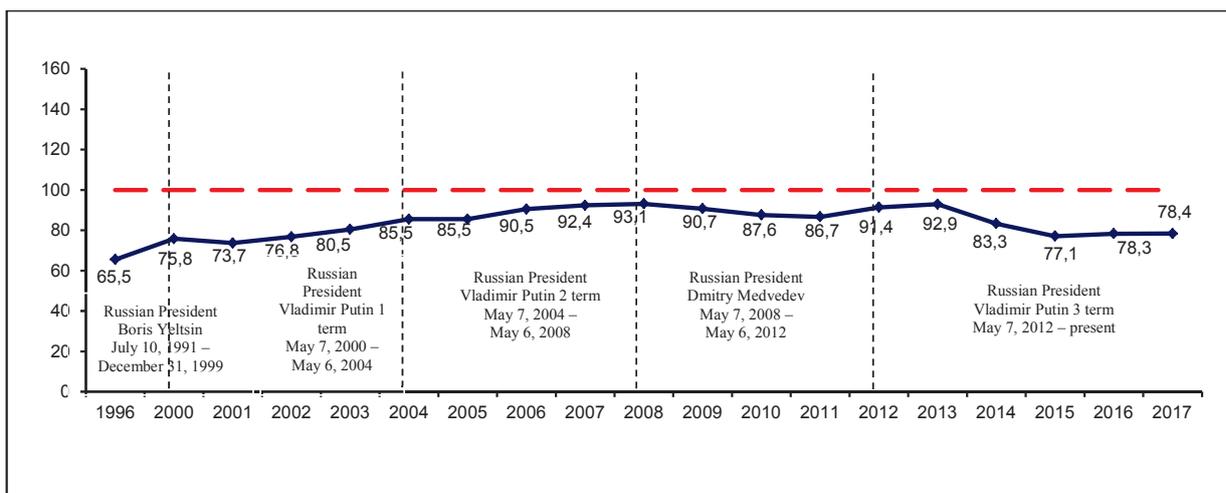
2.4. Index of trust in the mass media



2.5. Index of trust in CEOs and heads of enterprises



2.6. Index of trust in political parties, movements



2.7. Index of trust in banks and entrepreneurs

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Public Opinion Monitoring of the State of the Russian Society

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

The following tables show the dynamics of several parameters indicating the social feeling and socio-political sentiment of the Vologda Oblast population in June – August 2017, and also on average for the latest six polls (October 2016 – August 2017). These data are compared with the data for 2007 (the last year of Vladimir Putin's second presidential term, when the assessment of the President's work was the highest) and for 2011 (the last year of Dmitry Medvedev's presidency). The yearly dynamics of the data is presented beginning from 2013.

In August 2017 compared with June, the level of approval of the work of the President of the Russian Federation did not change significantly (68–70%). It corresponds to an average annual indicator for 2015–2016 and is slightly higher than at the beginning of 2017 (66%). Thus from April 2017, there has been a decline in the share of negative evaluations of the President's work: for the period from April to August, 2017 – by 7 p.p. (from 24 to 17%).

The level of support for the Chairman of the Government of the Russian Federation did not change significantly and is 48-50%, which is lower than in 2015–2016 (52–58%).

For reference: the nationwide level of approval of the RF President's performance remains stable. In June, July, and in the first half of August it was 83% according to VTsIOM, the share of negative assessments in this period was 10–11%.

The proportion of positive assessments of the work of the Chairman of the RF Government in June – middle of August 2017 was 51–53%, the share of negative assessments was 31–32%.

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 1,500 people 18 years of age 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 ISEDT RAS polls are available at <http://www.vscd.ac.ru/>.

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

| Answer | 2007 | 2011 | 2013 | 2014 | 2015 | 2016 | Oct. 2016 | Dec. 2016 | Feb. 2017 | Apr. 2017 | June 2017 | Aug. 2017 | Average for the latest 6 surveys | Dynamics (+/-) the latest 6 surveys compared to... | | |
|---------------------------------------|------|------|------|------|------|------|--------------|--------------|--------------|--------------|--------------|--------------|---|--|------|------|
| | | | | | | | | | | | | | | 2016 | 2011 | 2007 |
| RF President | | | | | | | | | | | | | | | | |
| I approve | 75.3 | 58.7 | 55.3 | 64.1 | 69.1 | 67.8 | 68.4 | 67.3 | 65.7 | 63.6 | 67.5 | 69.7 | 67.0 | -1 | +8 | -8 |
| I don't approve | 11.5 | 25.6 | 29.4 | 22.3 | 17.5 | 18.8 | 19.7 | 19.3 | 21.1 | 23.6 | 19.3 | 17.3 | 20.1 | +1 | -6 | +9 |
| Chairman of the RF Government* | | | | | | | | | | | | | | | | |
| I approve | -* | 59.3 | 48.9 | 54.2 | 58.1 | 52.3 | 49.4 | 50.4 | 50.4 | 47.5 | 47.9 | 49.7 | 49.2 | -3 | -10 | - |
| I don't approve | - | 24.7 | 32.8 | 27.6 | 21.7 | 27.6 | 30.6 | 30.1 | 29.8 | 32.8 | 32.1 | 30.9 | 31.1 | +3 | +6 | - |
| Governor | | | | | | | | | | | | | | | | |
| I approve | 55.8 | 45.7 | 44.4 | 40.1 | 39.3 | 37.7 | 39.1 | 40.2 | 38.9 | 36.7 | 40.6 | 42.3 | 39.6 | +2 | -6 | -16 |
| I don't approve | 22.2 | 30.5 | 33.2 | 38.9 | 36.2 | 39.3 | 39.3 | 38.5 | 37.8 | 41.1 | 38.9 | 38.7 | 39.1 | 0 | +9 | +17 |

* Included in the survey since 2008.

There have been no substantial changes in the assessment of success of the President's actions in addressing the key problems of the country over the past two months.

There was a slight increase in the share of the Vologda Oblast residents who think that the President successfully copes with the task of strengthening international positions of Russia (by 3 p.p., from 55 to 58%) and protecting democracy (by 3 p.p., from 39 to 42%).

The share of the Vologda Oblast residents who think that the President successfully copes with the task of restoring order in the country remains stable (50–52%), as well as the share of those who believe that the President successfully copes with the task of economic recovery and promotes the increase in the welfare of citizens (29–31%).

It should be noted that economic recovery and promoting the welfare of people remain the only issue on which citizens' assessments of the President's work are mostly negative: for the latest six surveys, the share of negative judgments was 1.5–2 times higher than the proportion of positive assessments.

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

| Answer | 2007 | 2011 | 2013 | 2014 | 2015 | 2016 | Oct. 2016 | Dec. 2016 | Feb. 2017 | Apr. 2017 | June 2017 | Aug. 2017 | Average for the latest 6 surveys | Dynamics (+/-) the latest 6 surveys compared to... | | |
|--|-------|-------|-------|-------|-------|-------|-----------|-----------|-----------|-----------|-----------|-----------|----------------------------------|--|------|------|
| | | | | | | | | | | | | | | 2016 | 2011 | 2007 |
| Strengthening Russia's international standing | | | | | | | | | | | | | | | | |
| Successful | 58.4 | 46.2 | 45.7 | 50.4 | 51.7 | 51.2 | 51.4 | 51.9 | 54.5 | 52.4 | 55.3 | 58.1 | 53.9 | +3 | +8 | -4 |
| Unsuccessful | 24.9 | 33.7 | 36.2 | 32.4 | 31.3 | 29.9 | 28.8 | 31.1 | 26.5 | 27.7 | 25.8 | 26.1 | 27.7 | -2 | -6 | +3 |
| Success index | 133.5 | 112.5 | 109.5 | 118.0 | 120.4 | 121.3 | 122.6 | 120.8 | 128.0 | 124.7 | 129.5 | 132.0 | 126.3 | +5 | +14 | -7 |
| Imposing order in the country | | | | | | | | | | | | | | | | |
| Successful | 53.2 | 36.6 | 39.4 | 48.0 | 50.2 | 49.2 | 49.7 | 50.2 | 49.5 | 47.3 | 49.9 | 52.0 | 49.8 | +1 | +13 | -3 |
| Unsuccessful | 34.0 | 50.0 | 47.5 | 39.1 | 37.9 | 36.7 | 35.6 | 36.7 | 36.8 | 38.8 | 35.8 | 35.6 | 36.6 | 0 | -13 | +3 |
| Success index | 119.2 | 86.6 | 91.9 | 108.9 | 112.3 | 112.6 | 114.1 | 113.5 | 112.7 | 108.5 | 114.1 | 116.4 | 113.2 | +1 | +27 | -6 |
| Protecting democracy and strengthening citizens' freedoms | | | | | | | | | | | | | | | | |
| Successful | 44.4 | 32.4 | 31.8 | 37.5 | 40.4 | 36.6 | 35.7 | 36.2 | 38.6 | 36.8 | 39.1 | 41.7 | 38.0 | +1 | +6 | -6 |
| Unsuccessful | 37.0 | 48.3 | 51.0 | 45.4 | 41.5 | 44.3 | 44.7 | 44.3 | 41.3 | 43.5 | 39.7 | 38.8 | 42.1 | -2 | -6 | +5 |
| Success index | 107.4 | 84.1 | 80.8 | 92.1 | 99.0 | 92.3 | 91.0 | 91.9 | 97.3 | 93.3 | 99.4 | 102.9 | 96.0 | +4 | +12 | -11 |
| Economic recovery and increase in citizens' welfare | | | | | | | | | | | | | | | | |
| Successful | 47.2 | 30.7 | 31.3 | 34.8 | 34.2 | 27.2 | 26.4 | 27.2 | 26.1 | 25.8 | 28.5 | 31.3 | 27.6 | 0 | -3 | -20 |
| Unsuccessful | 39.1 | 56.1 | 56.8 | 53.4 | 52.3 | 59.4 | 60.9 | 61.1 | 59.1 | 57.3 | 57.2 | 55.9 | 58.6 | -1 | +2 | +19 |
| Success index | 108.1 | 74.6 | 74.5 | 81.4 | 81.8 | 67.8 | 65.5 | 66.1 | 67.0 | 68.5 | 71.3 | 75.4 | 69.0 | +1 | -6 | -39 |

* Ranked according to the average value of the index of success for 2016.

Over the past two months, the structure of Russians' preferences concerning political parties did not change significantly. The United Russia Party is supported by 34–35% (which is lower than in 2015 – 39%), LDPR – by 11%, LDPR – 11%, the Just Russia Party – by 5–6%.

Since April 2017 there has been a decrease in the proportion of people who think that no political party reflects their interests (in April – 35%, in June – 29%, in August – 26%). However, on this basis it is premature to draw any definite conclusions, since in the same period (from April to August 2017), the proportion of those who found it difficult to express their attitude to the main parties increased from 11 to 14%.

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

| Party | 2007 | Election to the RF State Duma 2007, fact | | Election to the RF State Duma 2011, fact | | 2013 | 2014 | 2015 | 2016 | Election to the RF State Duma 2016, fact | | Oct. 2016 | Dec. 2016 | Feb. 2017 | Apr. 2017 | June 2017 | Aug. 2017 | Average for the latest 6 surveys | Dynamics (+/-) the latest 6 surveys compared to... | | |
|---------------------------|------|--|------|--|------|------|------|------|------|--|------|-----------|-----------|-----------|-----------|-----------|-----------|----------------------------------|--|------|------|
| | | | | | | | | | | | | | | | | | | | 2016 | 2011 | 2007 |
| United Russia | 30.2 | 60.5 | 31.1 | 33.4 | 29.4 | 32.8 | 38.8 | 35.4 | 38.0 | 36.3 | 34.5 | 33.9 | 31.8 | 33.8 | 35.2 | 34.3 | -1 | +3 | +4 | | |
| LDPR | 7.5 | 11.0 | 7.8 | 15.4 | 7.2 | 7.6 | 6.2 | 10.4 | 21.9 | 12.8 | 13.9 | 10.2 | 10.7 | 11.1 | 10.9 | 11.6 | +1 | +4 | +4 | | |
| KPRF | 7.0 | 9.3 | 10.3 | 16.8 | 11.3 | 9.7 | 7.1 | 8.3 | 14.2 | 9.0 | 8.7 | 7.2 | 6.2 | 8.5 | 8.0 | 7.9 | 0 | -2 | +1 | | |
| Just Russia | 7.8 | 8.8 | 5.6 | 27.2 | 4.6 | 3.5 | 3.6 | 4.2 | 10.8 | 6.1 | 4.9 | 4.3 | 4.8 | 5.1 | 5.8 | 5.2 | +1 | 0 | -3 | | |
| Other | 1.8 | - | 1.9 | - | 0.6 | 0.3 | 0.2 | 0.3 | - | 0.3 | 0.3 | 0.1 | 0.5 | 0.3 | 0.4 | 0.3 | 0 | -2 | -1 | | |
| No party | 17.8 | - | 29.4 | - | 34.9 | 34.4 | 31.8 | 29.4 | - | 23.7 | 30.1 | 30.7 | 34.8 | 29.1 | 26.1 | 29.1 | 0 | 0 | +11 | | |
| It is difficult to answer | 21.2 | - | 13.2 | - | 10.2 | 11.7 | 12.2 | 12.0 | - | 11.8 | 7.7 | 13.6 | 11.2 | 12.1 | 13.7 | 11.7 | 0 | -2 | -10 | | |

In June – August 2017, assessments of social well-being of the population improved slightly:

- the percentage of people describing their mood as positive, increased by 3 p.p. (from 71 to 74%);
- the share of those who believe that “everything is not so bad; it is difficult to live, but possible to stand it” increased from 79 to 81%;
- in addition, from April 2017, there has been a gradual increase in the consumer sentiment index, which shows the improvement of people’s forecasts concerning the prospects of the Russian economy and their personal wealth (in April 2017 – 81 p., in June – 84 p., in August – 86 p.).

However, we cannot conclude that the improvement of people’s social well-being is due to the strengthening of their financial position. The consumer sentiment of the population is still dominated by negative judgments. In addition, over the past two months there was an increase in the proportion of those who subjectively consider themselves to be “poor and extremely poor” (by 3 p.p., from 43 to 46%). Their share remains very high – almost one in two oblast residents considers himself or herself to be “poor and extremely poor”.

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

| Answer | 2007 | 2011 | 2013 | 2014 | 2015 | 2016 | Oct. 2016 | Dec. 2016 | Feb. 2017 | Apr. 2017 | June 2017 | Aug. 2017 | Average for the latest 6 surveys | Dynamics (+/-) the latest 6 surveys compared to... | | |
|--|-------|------|------|------|------|------|--------------|--------------|--------------|--------------|--------------|--------------|---|---|------|------|
| | | | | | | | | | | | | | | 2016 | 2011 | 2007 |
| Mood | | | | | | | | | | | | | | | | |
| Usual condition, good mood | 63.6 | 63.1 | 68.6 | 69.4 | 68.7 | 68.0 | 70.2 | 70.4 | 67.2 | 68.6 | 71.0 | 73.8 | 70.2 | +2 | +7 | +7 |
| I feel stress, anger, fear, depression | 27.8 | 28.9 | 26.2 | 24.9 | 25.9 | 26.2 | 24.3 | 26.1 | 28.5 | 25.5 | 23.2 | 21.2 | 24.8 | -1 | -4 | -3 |
| 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 | 78.4 | 78.0 | 79.5 | 81.1 | 78.2 | 77.3 | 78.7 | 80.5 | 79.2 | +1 | +4 | +5 |
| It's impossible to bear such plight | 13.6 | 15.3 | 14.2 | 12.6 | 14.5 | 15.6 | 14.9 | 14.9 | 16.1 | 16.4 | 14.8 | 13.5 | 15.1 | 0 | 0 | +2 |
| Social self-identification* | | | | | | | | | | | | | | | | |
| The share of people who consider themselves to have average income | 48.2 | 43.1 | 43.9 | 43.2 | 38.7 | 42.1 | 42.3 | 43.7 | 42.5 | 42.8 | 43.5 | 45.2 | 43.3 | +1 | 0 | -5 |
| The share of people who consider themselves to be poor and extremely poor | 42.4 | 44.3 | 46.9 | 49.1 | 50.7 | 49.0 | 48.9 | 47.4 | 47.2 | 47.3 | 43.2 | 45.8 | 46.6 | -2 | +2 | +4 |
| Consumer sentiment index | | | | | | | | | | | | | | | | |
| Index value, points | 105.9 | 89.6 | 90.3 | 87.6 | 77.1 | 77.7 | 80.8 | 79.4 | 82.0 | 80.8 | 84.3 | 86.2 | 82.3 | +5 | -7 | -24 |
| * Question: "Which category do you belong to, in your opinion?" | | | | | | | | | | | | | | | | |

Over the past two months the social mood has improved in 8 out of 14 socio-demographic groups (especially among young people – by 5 p.p., from 75 to 80%; among people with secondary vocational education – by 7p.p., from 70 to 77% and among 20% of the most well-off residents of the oblast – by 5 p.p., from 81 to 86%).

Among the most socially vulnerable groups the proportion of those who characterize their mood as “normal, good” in June – August 2017 has not changed significantly: 67–68% among people aged over 55 and 57–58% of those who according to their own assessment of their revenues refers to the category of 20% of the poorest inhabitants of the oblast.

Social mood in different social groups (answer: "Good mood, normal condition", as a percentage of the number of respondents)

| Population group | 2007 | 2011 | 2013 | 2014 | 2015 | 2016 | Oct. 2016 | Dec. 2016 | Feb. 2017 | Apr. 2017 | June 2017 | Aug. 2017 | Average for the latest 6 surveys | Dynamics (+/-) the latest 6 surveys compared to... | | |
|--------------------------------------|------|------|------|------|------|------|-----------|-----------|-----------|-----------|-----------|-----------|----------------------------------|--|------|------|
| | | | | | | | | | | | | | | 2016 | 2011 | 2007 |
| Sex | | | | | | | | | | | | | | | | |
| Men | 65.9 | 64.5 | 69.9 | 68.9 | 69.5 | 68.8 | 71.6 | 73.3 | 66.9 | 67.6 | 72.5 | 74.6 | 71.1 | +2 | +7 | +5 |
| Women | 61.7 | 62.0 | 67.5 | 69.8 | 68.0 | 67.4 | 69.0 | 68.1 | 67.4 | 69.4 | 69.9 | 73.1 | 69.5 | +2 | +7 | +8 |
| Age | | | | | | | | | | | | | | | | |
| Under 30 | 71.3 | 70.0 | 75.5 | 75.1 | 77.1 | 76.4 | 76.3 | 80.8 | 70.9 | 80.5 | 75.4 | 80.1 | 77.3 | +1 | +7 | +6 |
| 30-55 | 64.8 | 62.5 | 69.2 | 69.5 | 67.2 | 67.4 | 68.9 | 71.8 | 66.7 | 70.1 | 72.0 | 75.9 | 70.9 | +3 | +8 | +6 |
| Over 55 | 54.8 | 58.3 | 62.4 | 65.4 | 65.5 | 64.0 | 68.3 | 62.8 | 65.8 | 60.4 | 67.4 | 67.8 | 65.4 | +1 | +7 | +11 |
| Education | | | | | | | | | | | | | | | | |
| Secondary and incomplete secondary | 58.4 | 57.4 | 60.6 | 62.5 | 63.6 | 62.1 | 64.7 | 62.8 | 61.4 | 64.9 | 65.8 | 65.2 | 64.1 | +2 | +7 | +6 |
| Secondary vocational | 64.6 | 63.6 | 68.1 | 70.4 | 70.1 | 68.4 | 72.1 | 72.7 | 67.7 | 69.3 | 70.2 | 76.7 | 71.5 | +3 | +8 | +7 |
| Higher and incomplete higher | 68.6 | 68.3 | 77.4 | 76.2 | 72.7 | 74.3 | 74.6 | 76.9 | 73.1 | 71.7 | 78.0 | 79.1 | 75.6 | +1 | +7 | +7 |
| Income groups | | | | | | | | | | | | | | | | |
| 20% of the poorest people | 51.6 | 45.3 | 46.2 | 50.8 | 51.8 | 52.5 | 55.5 | 57.5 | 44.6 | 49.1 | 57.1 | 58.1 | 53.7 | +1 | +8 | +2 |
| 60% of the people with median income | 62.9 | 65.3 | 71.9 | 72.3 | 71.0 | 69.4 | 71.8 | 70.7 | 70.8 | 70.6 | 72.9 | 73.7 | 71.8 | +2 | +6 | +9 |
| 20% of the most prosperous people | 74.9 | 75.3 | 83.3 | 84.8 | 82.0 | 80.9 | 79.3 | 83.5 | 86.3 | 79.9 | 81.3 | 86.4 | 82.8 | +2 | +7 | +8 |
| Territories | | | | | | | | | | | | | | | | |
| Vologda | 63.1 | 67.1 | 75.0 | 76.4 | 73.9 | 69.9 | 71.0 | 73.6 | 67.9 | 70.6 | 74.0 | 77.0 | 72.4 | +2 | +5 | +9 |
| Cherepovets | 68.1 | 71.2 | 75.3 | 76.3 | 70.6 | 71.7 | 72.7 | 74.0 | 73.7 | 74.1 | 76.1 | 77.9 | 74.8 | +3 | +4 | +7 |
| Districts | 61.6 | 57.1 | 61.6 | 61.8 | 64.6 | 64.8 | 68.1 | 66.6 | 63.1 | 64.3 | 66.6 | 69.7 | 66.4 | +2 | +9 | +5 |
| Oblast | 63.6 | 63.1 | 68.6 | 69.4 | 68.7 | 68.0 | 70.1 | 70.4 | 67.2 | 68.6 | 71.1 | 73.8 | 70.2 | +2 | +7 | +7 |

Conclusion

Characterizing the social mood of Russians in July – August 2017, VTsIOM experts say that **“in the summer months, the behavior of most indicators of social well-being is quite stable (fluctuations are within three percentage points)”**². This can be also said concerning people’s attitude toward the activities of state bodies and political parties: **“The situation with political ratings is relatively stable. The fluctuations that we registered are wave-like. In the summer months, volatility of the indicators is traditionally low. This situation will continue, obviously, to the onset of fall and the completion of the period of vacation”**³.

In general, the dynamics of public opinion in the Vologda Oblast corresponds to the overall Russian trend: **according to the key indicators of the monitoring (including the attitude toward the work of the head of state and evaluation of social well-being) the changes do not exceed 3 p.p.**

Perhaps the most positive trend can be seen in a gradual increase in the consumer sentiment index. **The value of CSI remains extremely low, but in April 2017 it was 81 points, in June – 84 p., in August – 86 p.**

We cannot but agree with the opinion of Russian experts that before the fall and end of the period of vacation we can hardly expect any tangible changes in the dynamics of public opinion. That is why their conclusion that **“the crisis has come to an end”** seem premature to us⁴.

According to the public opinion monitoring carried out by ISEDT RAS, the proportion of Vologda Oblast residents who consider themselves to be “poor and extremely poor” over the last two months has increased (from 43 to 46%), while in the socially vulnerable groups (people over 55 years of age and members of the category of 20% of the poorest), there have been no improvements in the dynamics of social mood.

VTsIOM experts also note that **“today Russians are worried about financial problems even more than a year ago... For three months in a row, low wages and the low standard of living top the list of critical issues – in July they were named by 24% of Russians (against 18% in January and 14% in July 2016). One in five residents (21%) is concerned about the state of the economy (at the beginning of the year – 16%). The top three problems include social policy: 18% in July (a year ago its share was half this figure – 9%). The urgency of health sector issues also remains high: according to a recent survey, this topic is of concern to 17% of citizens (in January the figure was at the same level, in July 2016 it was 10%). With regard to unemployment, since the beginning of the year this indicator had no sharp ups or downs (variations were**

² Social well-being of Russians: monitoring: VTsIOM press release 3437. *Official website of VTsIOM*. Available at: <https://wciom.ru/index.php?id=236&uid=116346>

³ Ratings of parties, ratings of trust to politicians, ratings of approval of work of state institutions: VTsIOM press release 3433. *Official website of VTsIOM*. Available at: <https://wciom.ru/index.php?id=236&uid=116338> (comment of M. Mamonov, head of VTsIOM practice of political analysis and consulting).

⁴ The problematic background of the country: monitoring: VTsIOM press release 3440. *Official website of VTsIOM*. Available at: <https://wciom.ru/index.php?id=236&uid=116346>

in the range of 12–16%), according to the data of the latest survey, 14% of respondents named this issue among major problems. The same can be said for the problems in education (from January to July, variations were in the range of 10–14%, in July – 12%)”⁵. Summary of experts is as follows: **“The ranking of pressing issues is a barometer of mismatch between reality and expectations, it shows the main points of deprivation followed by a request to the government. To date, the most urgent issue is the problem of financial welfare, low wages and low standard of living that brings to the fore the second subject – social support”**⁶.

Thus, today, in our opinion, we cannot speak with optimism about overcoming the crisis and negative trends in addressing the key concerns of the population. First, because the real “test” for the dynamics of public opinion (and, therefore, for the authorities at all levels) will be the autumn-winter period. Second, because the problems of the Russian economy, as shown by the results of long term monitoring studies carried out by ISEDТ RAS, are not concentrated around crisis periods, but are more profound and long-term, and are associated with the effectiveness of management decisions and with the motives of those who make the decisions.

Future trends in social attitudes of Russian society will be seen in the results of the next stages of ISEDТ RAS monitoring.

⁵ *Ibidem*.

⁶ *Ibidem* (comment by Yu. Baskakova, supervisor of the practice of social modelling and forecasting at VTsIOM Department of Research).

SOCIO-ECONOMIC DEVELOPMENT STRATEGY

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About the System Fundamentals of Russia's Economic Security*



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Presidential Decree 208 of May 13, 2017 approved the Economic Security Strategy of the Russian Federation for the period till 2030. Unfortunately, the approach adopted and implemented in the strategy proved to be unnecessarily abstracted from the natural connection between the state of economic security and the type of current economic system. Therefore, it seems appropriate to provide some "notes for the future", which deal with system fundamentals of Russia's economic security.

Why are these notes necessary? Why did I have to give them in the form of brief comments? The reason is that the Economic Security Strategy of the Russian Federation

for the period till 2030, in its approved version, does not take into consideration basic foundations of economic security in Russia. Here I mean the most fundamental basics that have system-wide character. In particular, the commanding heights of the economy, whose property – sovereign or non-sovereign – they are, in whose hands they are and in whose interests they are used – in the interests of Russia or in the interests of the oligarchic-comprador capital that is allied to foreign capital and hostile to domestic industrial capital.

It is useful to clarify that the comprador bourgeoisie is part of the national bourgeoisie, which irrevocably submits to the foreign

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capital of imperialist countries in economic and political terms and is used by them in their imperialist interests. It is used by imperialist powers as a vassal, which helps them keep the country in the state of enslaved colony.

In post-Soviet Russia, oligarchic capital swore allegiance to imperialist ideology of the Washington Consensus, the ideology imposed by the United States upon the whole world due to the collapse of the Soviet Union. Accordingly, an oligarchic economic system formed in the period of anti-Soviet reforms in the 1980s – 1990s and aimed to maximize natural and intermediary rent by transforming Russian property into foreign property took the form of that driven by raw materials export, rent-oriented, and monetarist.

Is it possible to ensure economic safety and economic sovereignty of the country, if there is no sovereignty over the command heights of the economy: land, extraction of raw materials, energy and transport infrastructure, banks, foreign trade, storage, commodity-money circulation, etc.?

Is economic security compatible with the system-wide crisis, due to which Russia lost the status of industrial, technological and engineering power and returned to the group of resource-extracting nations?

Does modern history contain any examples when a country whose economy is driven by export of raw materials and whose socio-economic system is dominated by the comprador form of capitalist ownership was able to end the dependence on foreign capital, to gain economic independence and break free from the shackles of backwardness?

Is it possible to achieve economic security and sovereignty in conditions when the oligarchic nature of the socio-economic system dominates and squeezes out maximum rent by transforming Russian national wealth into non-Russian, i.e. foreign and offshore?

These are the fundamental questions that arise from the realities of the post-reform Russia and, consequently, are basic in the development of a full-fledged strategy for the country's economic security.

Meanwhile, these questions were disregarded and they did not become a base for those who compiled an adopted version of the Economic Security Strategy of the Russian Federation for the period till 2030. As a result, they remain underdeveloped and are left unanswered. In reality, however, without solving a system-wide issue all other minor issues remain unsettled as well – it is an axiom of public life.

Having no adequate system-wide framework, the adopted Economic Security Strategy of the Russian Federation for the period till 2030 lists only phenomena but not their causes; it deals with issues of private and secondary order without affecting the overall and paramount ones. Thus, this document is doomed to be only formal. And we can be sure that it contains plenty of formalism.

But the trouble with this document lies not only in its formalism and declarative nature. Abstract phrases deliberately reduced to overly general and weasel allegations rarely convey an erroneous position or set out fallacious guidelines. The text of the Economic Security Strategy of the Russian Federation for the

period till 2030 proved peculiar in this aspect as well: for several declarative points, as we will show, it contains not just wrong guidelines that do not support but rather oppose the process of ensuring economic security of Russia.

Why did this happen? Because the drafters of the Economic Security Strategy of the Russian Federation for the period till 2030 did not consider key features of the economic system of historically highest order.

No doubt, being determines consciousness. And if an individual is in the conditions of an economic system of a lower order, like the comprador system, it is not easy for them to rise to the level of beliefs typical of those who look on and evaluate reality from the position of a socio-economic system of a higher rank. But there exist fundamental laws and laws of modern era. They are known to economic science. And scientific knowledge of them helps understand what is historically inferior from the positions of what is historically higher.

Thus, scientific ideas about the advanced and sovereign economic system prove the observations discussed further in the paper.

§ 1. The strategy of doing nothing?

In the Economic Security Strategy of the Russian Federation for the period till 2030 the state of economic security is linked to economic sovereignty; in general, it is right. But the interpretation of economic sovereignty given in Paragraph 7 is clearly not thought through and deprives the whole link of any sense by relegating economic sovereignty to the “independence of the

state in conducting internal and external economic policy”, and it is supposed that this independence “objectively exists”.

First, such interpretation completely separates economic security from its system basis and substitutes the true objective with a false one. Indeed, it shifts the focus from economic basis to political superstructure, from the primary to the secondary and derivative, and from economic system to economic policy. The independence and sovereignty of economic system is replaced by the independence of economic policy.

It turns out that instead of actual economic sovereignty the document urges to be content with the formal, ostentatious and feigned. It sets a fictitious objective function, as a result of which it becomes a fiction itself.

Second, if independence of economic policy is something that exists objectively regardless of the will and consciousness of people, then it is useless either to achieve it or strengthen it. In this case it is enough just to maintain a semblance of the work that aims to ensure the independence of economic policy.

Both observations are entirely consistent with one another and quite clearly demonstrate the fictitious nature of the goals set out in the Economic Security Strategy of the Russian Federation for the period till 2030.

Without a system-wide framework and without reference to system-wide goals the Economic Security Strategy of the Russian Federation for the period till 2030 is not a guide to the authorities, but another legal fiction – akin to the laws on strategic planning and industrial policy. Instead of clear rules and

regulations it expresses a set of declarations, not all of them being correct. Judging by its objectives, in its current version it is a strategy of doing nothing.

Of course, this assessment is not really partial, but it is fair and is confirmed more than sufficiently in the analysis of further paragraphs of the document.

Let us give one, but quite revealing and symptomatic, example of matching economic security and strategic planning.

§ 2. Implementing the failure to implement

As far as we know, the Soviet Union had no legal act on national economic planning, neither did it need such a law: before the implementation of destructive reforms there operated a planned economic system, which included state-wide centralized planning of the Soviet economy and a national body, Gosplan of the USSR.

In post-Soviet Russia on the contrary, the situation is different. In June 2014, Federal Law 172 "About strategic planning in the Russian Federation" was adopted. The law exists, but it does not work, because there is no federal authority, no system, and no mechanism for strategic planning.

Despite the existence of the federal law, Russia does not have strategic planning and strategic plans for socio-economic development. Fundamental criteria and a model of strategic planning are not defined, not to mention the creation of a workable mechanism. Current practice proves that the term "strategic" as applied to planning means "non-existent". In fact, strategic planning in Russia is a non-existent planning.

However, the drafters of the Economic Security Strategy of the Russian Federation for the period till 2030 found it appropriate to tie it to strategic planning, which is currently also nothing but legal fiction.

In particular, the Economic Security Strategy of the Russian Federation for the period till 2030 is declared to be a "strategic planning document" (Item 1).

It is also required that "the challenges and threats to economic security" were taken into consideration "when developing strategic planning documents in the field of socio-economic development of the Russian Federation" (Item 13).

Unfortunately, further in the document there is juggling of empty rhetoric, when the main direction of "state policy in the sphere of ensuring economic security" is explained as the "development of strategic planning system in economic sphere" (Item 15), and the main goal – as "improving the system of strategic planning" (Item 16).

In comparison with the realities it turns out that the main direction is the development of the non-existent, and the main task is to improve the same non-existent.

On top of all this is the final position that the Economic Security Strategy of the Russian Federation for the period till 2030 is implemented in the process of implementation of a package of measures "developed in the framework of strategic planning in the Russian Federation" (Item 33).

Since strategic planning does not exist in Russia even in its initial phase, the drafters of the Economic Security Strategy of the

Russian Federation for the period till 2030 envisaged the implementation of a failure to implement.

This conclusion is corroborated by target functions of the two phases of realization of this document: the first one – until 2019, and the second one – until 2030. By 2019 it is planned to develop and implement measures “to ensure economic security”; and by 2030 – to implement “measures to neutralize challenges and threats to economic security” (Item 32).

A logical consequence is that challenges and threats to Russia’s economic security will remain until at least 2030. And among them, by the way, is “the exhaustion of raw materials export model of economic development” (Item 12).

Therefore, the Economic Security Strategy of the Russian Federation for the period till 2030 involves preservation of raw materials export model, which can only by mistake be considered “a model of economic development” up to 2030. According to the viewpoint of the drafters of the document, it is simply impossible before 2030 to shift to a sovereign economic system in order to rid Russia of its role as a raw materials appendage of foreign capital and overcome its de-industrialization.

Therefore, the Economic Security Strategy of the Russian Federation for the period till 2030 is not a strategy for dealing with raw materials export model and introducing a model of new digital industrialization of our country. Its drafters

believe that Russia’s economic security can be based on raw materials export model, despite its “exhaustion”.

§ 3. Economic security – the security of raw materials export model?

That which starts from fiction and rests on fiction, ends with fiction, as well. Raw materials export model is a form of existence of a comprador economic system created under the pressure of foreign capital and aimed at satisfying its interests. This kind of economic system is by definition non-sovereign and critically dependent on external factors beyond control of the Russian government.

Therefore, the preservation of raw materials export model is identical to the preservation of an economic system of a historically lower type: the system obviously non-sovereign and in particular dependent on the imperialism of the US dollar. In such system conditions Russia’s economic security is not more than the economic security of a neo-colony, from which global imperialism drains natural, material and human resources with the help of oligarchic capital.

And, paradoxically, the Economic Security Strategy of the Russian Federation for the period till 2030 is designed so that the challenges and threats to economic security are challenges and threats to raw materials export model. Judging by the list of main challenges and threats (Item 12), the protection of economic security is understood as nothing but the protection of the oligarchic system and raw materials export model.

In order to confirm these statements let us provide several specific examples out of the above list.

The first place in the list of main challenges and threats to our economic security belongs to “the desire of developed countries to use their advantages in the level of development of economy, high technology (including information) as a tool of global competition” (Item 12).

If we consider this formulation, then it is impossible not to notice that it turns everything upside down and substitutes internal factors with external ones. In fact, our economic security is not threatened either by the advantages of industrialized countries or by the fact that they possess high technology. The problem is that Russia lost its former advantages of an industrialized power, plunged into de-industrialization and ceased to produce technology advanced in its scientific and technical levels.

In short, a threat to Russia's security lies not in the high technology of other countries, but in the absence of high technology of our own. This is how things are in reality. But the Economic Security Strategy of the Russian Federation for the period till 2030 presents the state of affairs in another way by hiding the true cause of economic dependence on industrialized countries. Thus the correct benchmark is replaced by a wrong one.

Nevertheless, the specified wording has some sense. High technology generated by a new, technetronic and digital industrialization and launched by industrialized countries is

a threat to the profitability of raw materials export model. Neo-industrialization leads to the formation of post-oil energy industry, which, in turn, causes revolutionary changes in the structure of electric power balance and leads to a reduction in foreign demand for Russian hydrocarbons. In 2011, there emerged a phenomenon of negative elasticity of EU demand concerning the price of oil and gas imports from Russia.

As a result, there emerged a trend of reduction in comprador rent. Over time this trend will only continue to grow, and its pace will accelerate. Moreover, foreign capital has taken root on the commanding heights of our economy and predictably seeks to lower costs intended for the maintenance of oligarchic mediation in post-Soviet Russia.

As for the attitude of global imperialism toward Russia, everything is clear in this regard. But a threat to the comprador rent must not be mistaken for a threat to economic security of the country, because the genuine cause of dependence on foreign capital is the very comprador socio-economic system, or the system of comprador power and property.

Finally, it would be simply absurd if industrialized countries abandoned the idea of using high technology in global competition. Capitalist competition, if we do not reduce its understanding to a primitive conventional stamp, is a battle for the appropriation of surplus value among various private capitals, the battle won only by the capital whose technological level is the highest.

Classic scientific works call the law of capitalist appropriation expressed by the law of prices of production the objective law of capitalist competition. According to this law, the more advanced the technology of the capital, the higher its share in the total surplus value.

Judging by the mentioned laws and regularities of capitalism, the wording under consideration is strange in its meaning, to say the least. It implies that competition should be global on the basis of low rather than high technology, and that global competition should be dominated by countries with the lowest and neocolonial capitalism rather than those with the highest and neo-industrial capitalism.

But it doesn't work that way. Obviously, the drafters of the Economic Security Strategy of the Russian Federation for the period till 2030 formulated their own wish from the standpoint of the oligarchic system rather than objective economic laws of modern capitalism.

The following definition of "major threat" is part of the same story: "the changing structure of world energy demand and the changing structure of its consumption, the development of energy-saving technology and reduction of materials intensity, the development of "green technology".

It is reasonable to wonder: who can be threatened by neo-industrial progress of the productive forces with large-scale development of post-oil technology, an increased "green" energy and reduction

in material intensity of goods? Is it really a threat to those countries that have shifted to new science-intensive technetronic and digital industrialization? That is not so. New industrialization cannot be a threat to those countries that implement it. It becomes a threat only to those countries that have not reached the stage of neo-industrial development.

Technetronic industrialization is not a threat to advanced countries: it is only a threat to backward and dependent countries.

As we can see, the second formulation also turns everything upside down and shifts the focus from the backwardness of post-Soviet Russia to the power and neo-industrial progress of industrialized countries.

Is it possible to accept such mangled logic incorporated by the drafters in the Economic Security Strategy of the Russian Federation for the period till 2030? No, it is not. To accept it means to accept the substitution of the right benchmarks with wrong ones. The main threat to Russia's economic security is de-industrialization generated by a backward economic system, and therefore – an unacceptable lagging behind advanced and industrialized countries.

More specifically, chronic failure of post-Soviet Russia to adopt the new technetronic industrialization is the central challenge and the most severe threat to economic security of our country. While Russia preserves an economic system of a historically low type, we cannot rely on neo-industrial progress – that's the point.

The drafters, as we can see, protect the worthless system of power and property, and create its artificial defense by burying in oblivion the fundamental national interests of Russia and the urgent necessity for new technetronic industrialization.

The wordings mentioned above are followed by another one, which defines “major threat” (Item 12) as “the vulnerability of the financial system of the Russian Federation to global risks (including the effects of speculative foreign capital) and the vulnerability of the information infrastructure of the financial and banking system”.

This definition again points out a negative impact from the outside, whereas the true reason lies in the fact that our domestic socio-economic system is extremely backward. Foreign speculative capital was active in the Soviet times, but before *perestroika* it did not have a comprehensive capability to damage the Soviet economy and its development, because the commanding heights of the economy were in sovereign ownership.

Thus it is not about the speculative foreign capital. The reason lies in an obviously dependent economic system that allows the speculative capital to hold sway in our country like a conqueror. So the blame is not that of the foreign capital that seized the commanding heights of our economy, but that of the non-sovereign system of power and ownership, which allowed the foreign capital to seize the commanding heights of the domestic economy: property, banks, land, infrastructure, key industries, distribution networks, etc.

The same applies to the “vulnerability of the information infrastructure”. This vulnerability is rooted in the strong dependence on foreign microprocessors, operating systems and digital technology, in the backwardness of technetronic innovation and developments, in the disruption of fundamental and applied science, in the destruction of production of computer-based means of production, in general – in large-scale de-industrialization caused by non-economic privatization of property and destruction of the planning and standard-based regulation of the ratios and growth rates of social reproduction.

All of the above is directly connected with the vicious domestic system-wide basis and the vicious system structure of post-Soviet Russia. But the position of the drafters of the Economic Security Strategy of the Russian Federation for the period till 2030 is different: they draw attention to the speck in another's eye without noticing the log in their own – in the form of the terrible consequences of unlimited power of a backward and unfit economic system.

In the end, according to the logic of the drafters, it turns out that the security of raw materials export system requires the termination of neo-industrial progress in industrialized countries. For compilers it would be ideal if industrialized countries descended to the same level of backwardness as post-Soviet Russia rather than Russia climbed up the stairs of technetronic progress.

§ 4. Phenomena without essence and effect without reasons?

The Economic Security Strategy of the Russian Federation for the period till 2030 still found a place for “major challenges and threats” of internal origin. But even if we only glance at them, we will see a rather strange approach, namely: there is a listing of phenomena and effects, but not one reason is specified.

It is noted, for example, “the absence of Russian non-resource companies among global leaders of the world economy”. The question is: what is the reason for this “absence”? And what must be done to ensure their “presence” there? What measures must be adopted and implemented? Unfortunately, the compilers have neither answers nor guesses in this respect.

Meanwhile, “global leaders” are exclusively representatives of multinational corporations, i.e. those that have a vertically integrated organizational structure and are embedded in global economic chains of production of goods with high added value. Global leadership belongs to “the economy of multinational corporations”.

Leaders in the world economy are those countries whose economic system is in strict accordance with the law of vertical integration, with the law under which it is strictly forbidden to profit from intermediate production, and hence – from the extraction of raw materials and infrastructure monopolies.

Only an economic system that is subordinated to the mentioned law becomes

a system of multinational corporations, a system of “global leaders”.

On the contrary, an economic system that contradicts this law remains fragmented and underdeveloped, and therefore dependent and uncompetitive; in other words – a global outsider. Such is the oligarchic system of post-Soviet Russia: it does not comply with the law of vertical integration and is a system of total backwardness – organizational, structural, scientific-technical, innovative, technological, infrastructural, human, social, environmental, etc.

The domestic economic science has long established a formula for modern socio-economic progress: *vertical integration plus neo-industrialization*. So, from the point of view of this formula we have complete inaction. The government does not engage in vertical integration at all, it refuses to create full-fledged vertically integrated and diversified corporations specialized in the production of science intensive and competitive products of final demand, including exports. Moreover, under the guise of “reforms”, the government authorized the destruction of the vertically integrated structure of strategic infrastructure – electricity, railway transport, housing and utilities, etc.

In the framework of the oligarchic system the government was satisfied with the establishment of fictitious corporations that have neither vertical integration nor cross-sector interaction or inter-sectoral production chains of products with high added value; instead, there is private capitalist

appropriation of income, similar to that in the offshore.

In our opinion, the scientific formula for modern socio-economic development is a strategic formula for real economic security of Russia: *vertical integration plus neo-industrialization*. To ensure economic security in our country, the domestic economic system should be brought into full compliance with the imperative requirements of the law of vertical integration. Actually, this should be policy measures aimed at reviving economic sovereignty and economic independence of Russia.

All the rest of the internal “major challenges and threats” listed in the Economic Security Strategy of the Russian Federation for the period till 2030 are part of the phenomena and effects caused by the contradiction between the oligarchical economic system and the law of vertical integration.

The whole list of direct results of domination of the oligarchic system fits into a single phenomenon of *de-industrialization*:

- “insufficient investment in the real sector of the economy due to unfavorable investment climate, high business costs, excessive administrative barriers, ineffective protection of property rights”;
- “weak innovation activity, backwardness in the development and implementation of new and emerging technologies (including technologies of the digital economy), lack of qualifications and key competences of employees”;

- “depletion of the resource base of fuel and raw materials industries as the fields become exhausted”;

- “limited scale of Russian non-oil export due to its low competitiveness, underdeveloped market infrastructure and insufficient engagement in global chains of added value”;

- “slow economic growth due to internal factors including limited access to long-term financial resources and insufficient development of transport and energy infrastructure”;

- “imbalances in the national budget system”;

- “lack of efficient public administration”;

- “high level of criminalization and corruption in the economic sphere”;

- “significant proportion of shadow economy”;

- “strengthening of differentiation of the population by income level”;

- “decline in the quality and availability of education, medical care and, as a consequence, decline in the quality of human potential”;

- “insufficient labor resources”;

- “uneven spatial development of the Russian Federation, strengthening of differentiation of regions and municipalities by level and pace of socio-economic development”.

Any position in this list (Item 12) is a direct consequence of the oligarchic system. But the drafters demonstrate their unwillingness to shift from effects to causes.

Moreover, they make some completely false statements that cannot be left without critical consideration.

Let us consider the argument about “insufficient engagement in global chains of added value”. It is not just questionable, but absolutely wrong. And it is wrong from both actual and theoretical aspects.

First, domestic intermediate production is excessively involved in the “global” value added chains. The only question concerns its role there. It is involved as intermediate resource units in the chains of multinational corporations.

This engagement results in the fact that the domestic economy is now subordinate to the dollar tolling system under which the imperialism of the dollar possesses the entire cost of production, resulting in the fact that the wages is what mainly remains inside our country. By the way, this was the reason for the current investment crisis, not because of some ephemeral “investment climate”, which is invariably blamed by financial speculators in order to justify the export of money capital.

In general, involvement in “global” chains is quite significant. If we do not see this, do not understand that the dollar tolling system arranged by the dominance of oligarchic power and property “washes out” capital investment and recreates autonomous recession, then we are led by false assessments and rely on false targets.

Second, it is fundamentally erroneous to rely on the fact of embedding into foreign chains of added value. Such an illusion can

only be shared by those who do not understand the vertically integrated structure of multinational corporations and their internal mechanism.

Let us only state a well-known fact of separating profit center and research center from costs and expenses center. If someone is embedded in someone else’s value chain, then he is automatically transferred to the costs and expenses center, thus being excluded from the profit center, R&D, investment, innovation, and high technology centers. This kind of embedding is equivalent to the embedding of a beggar in an unfamiliar monastery.

Let us face it: the position of “embedding” in the chains of foreign multinational corporations, which is advocated by the comprador retro-liberals and shared for some unknown reason by the compilers of the Economic Security Strategy of the Russian Federation for the period till 2030, is in direct conflict with strategic and geopolitical interests of Russia.

The national interests of Russia can be supported by another position – the position of forming our own multinational corporations, our own diversified chains of producing science intensive and competitive products with high added value.

It is the lack of our own “economy of multinational corporations” that places our country in danger associated with backwardness in all key areas of scientific, technological and socio-economic progress.

The same reason explains the “weak innovation activity, a lag in the development

and implementation of new and emerging technology (including technology of the digital economy)". The oligarchic economic system is characterized by complete disintegration, and therefore belongs to the class of disintegrated economies.

Meanwhile, scientific and technological progress in the era of new technetronic industrialization finds its driving force only in vertically integrated corporations that connect the mining and processing of raw materials, science and manufacturing, production and marketing, links of group "A" and group "B". If there are no vertically integrated corporations and multinational economy, then there can be no scientific progress, no innovation, no high technology or higher technical structure of industrial capital.

It is useless to demand innovation activity, development and implementation of effective technology from an economic system that is not in compliance with the law of vertical integration. In essence, a disintegrated system has no driving force represented either by scientific and technological or economic and social progress. Such an economic system does not have incentives for expanded reproduction, enhancement of the technological structure of industrial capital, reduction of economic costs, saturation of the domestic market, and improvement of the product quality.

In short, an economic system similar to the oligarchic one is completely devoid of incentives to any progress: scientific, technological, environmental, or social.

By the way, the Economic Security Strategy of the Russian Federation for the period till 2030 mentions "digital economy" three times (Items 16–18). It is made in the manner of hasty and formal insertion, counting on the use of the term that is intended to enter the political rhetoric of the Kremlin. In industrialized countries this term is outdated; now they speak about the "fourth industrial revolution" because they understand that "digital economy" will not be implemented, first, without industrial production, and second, without the digital industry. For example, Germany considers the need to connect the real economy with a "digital" one¹.

The most correct understanding of the relationship between industry and digital technology is found in the neo-industrial paradigm developed by the domestic economic science. Within this paradigm, "digital economy" appears as a result of a new, digital and technetronic industrialization. Without the digital industrialization of the productive forces, "digital economy" is doomed to be only an illusion. It appears that the understanding of this fact leads industrialized countries to change their landmarks and embark on the course of the next industrial revolution.

Finally, it is impossible not to note the absurdity of the fact that the following factors are included in "major challenges and threats": "establishment of redundant

¹ *The Next Production Revolution: Implications for Governments and Business*. Paris: OECD, 2017. P. 28.

requirements in the field of environmental security; increasing the costs of meeting environmental standards of production and consumption”.

The drafters of the Economic Security Strategy of the Russian Federation for the period till 2030 in this item are again at odds with actual state of affairs. What and whose “excessive requirements in the field of environmental security” are meant here, given the fact that throughout the country there is now a catastrophic environmental situation, and the mortality due to the abnormal environmental situation sets record after record, especially in metropolitan areas and million-plus cities? What is the use of the requirements that are not fulfilled? And how can the overcoming of ecological disaster be identified with the threat to economic security, if on the contrary, ensuring environmental friendliness of workplaces, technologies and production provides one of the most important conditions of economic security?

Besides, most importantly, environmental safety is not ensured by administrative requirements, but by resource recycling,

industrial system for collecting and recycling household and industrial waste, and organization of a closed resource cycle. It is possible to create resources recycling sector only on the basis of high technology. In particular, to automate the sorting of industrial waste requires technology with the use of specialized robots and artificial intelligence devices. Therefore, enhancing ecological safety goes hand in hand with the economic security of the country, rather than contradict it.

We will not provide any more examples of poorly-designed and poorly formed sentences. In our view, the inefficient Economic Security Strategy of the Russian Federation for the period till 2030 represents the maximum of what a comprador system of power and property is capable.

Of course, economic sovereignty and economic security are both of critical importance for our country. But they are achievable only when the dependent economic system is replaced by a sovereign, vertically integrated, planned and regulated system, and if major new high-tech, digital, and technetronic industrialization is implemented nationwide.

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Industrial Development Issues in the Economy of the Old Industrial Regions of Russia



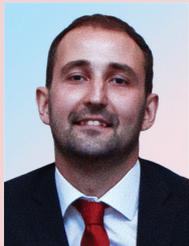
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Abstract. Achieving balanced economic development is a key task for old industrial regions, in which many industrial sectors are concentrated. However, current macroeconomic situation does not promote the development of industrial sectors and new technological modes; moreover, it can lead to a decline in production output, tax proceeds, people's real incomes, consumer demand and other negative trends in socio-economic development. A considerable gap in labor productivity between Russia and developed countries as well as between old industrial regions indicates the existence of major problems in Russian industry. For this reason, the aim of the research is to identify main trends and issues in the industrial sector of old industrial areas in order to work out its further development prospects. Methodological framework of the study includes economic, statistical, and comparative analysis, generalization, and sociological survey. The works of Russian and foreign economists in the field of regional economics, official data of the Federal State Statistics Service, databases of international organizations including the World Bank, the Organization for Economic Cooperation and Development and the U.S. Bureau of Labor Statistics constitute the information base of the present study. It also uses research findings of I.V. Makarov, G.B. Korovin, K.V. Pavlov and others. The paper defines problems in the development of old industrial regions; the major problem is insufficient funding, which does not allow industrial enterprises to carry out full reconstruction and technological upgrade. The paper points out measures that would promote economic modernization in Russia's old industrial regions. Findings of the research can be used by regional authorities in the elaboration of economic development programs.

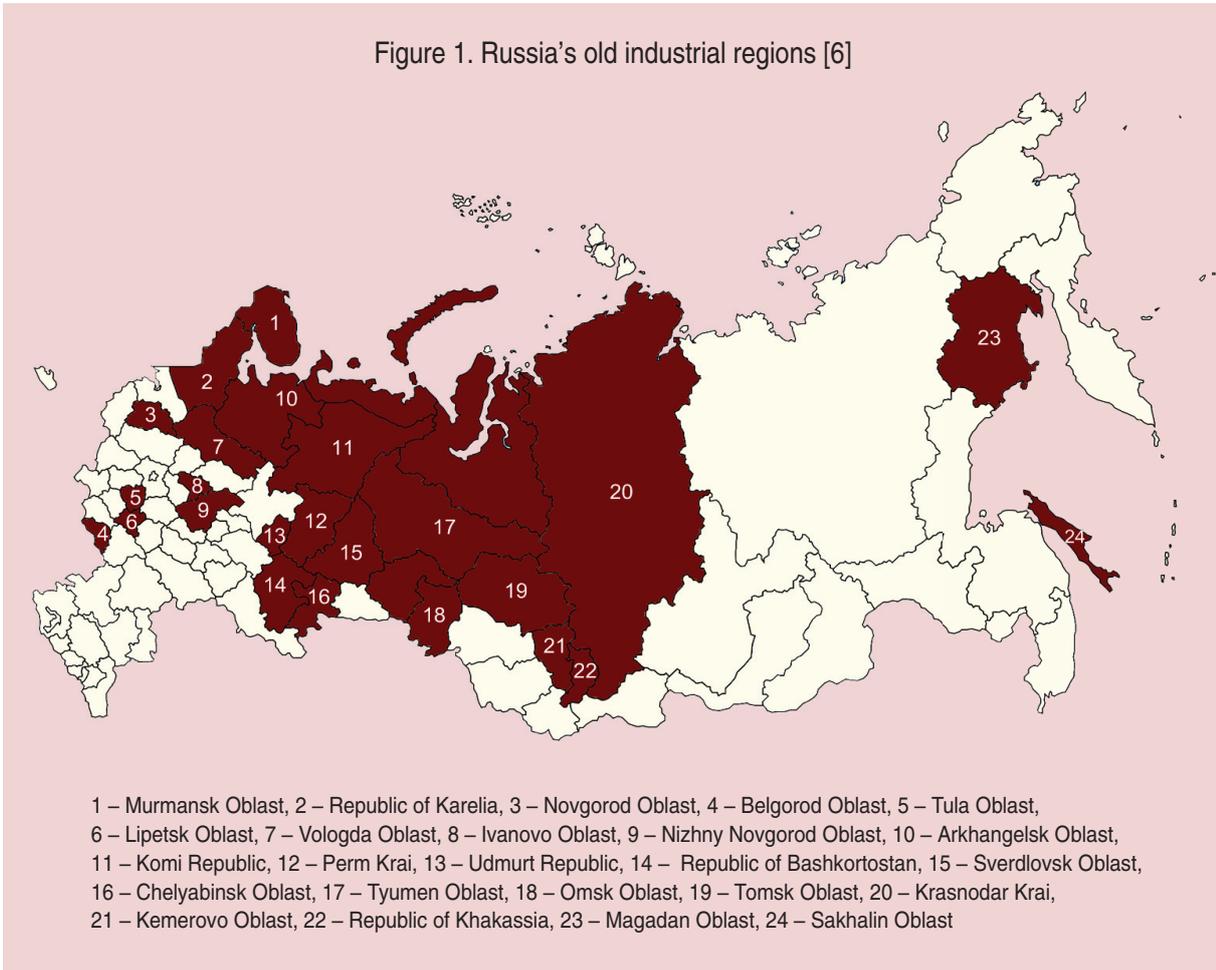
Key words: regional economy, region, old industrial regions, industry, labor productivity, investment, economic development.

Introduction. Currently Russia enhances the role of its regions as independent units of national economy; they obtain relative autonomy in decision-making and develop interregional relations; spatial forms of development of territories are spreading, and the dependence on raw materials is increasing. An important task for regional management is to ensure balanced economic development. This is especially relevant for old industrial regions with high concentration of industries¹,

¹ The proportion of industry in the structure of gross regional product in old industrial regions is over 30%.

the structure of which began to be formed back in the 18th century. Subsequently, most of these territories became dependent on the production of one or two types of products. According to these criteria, old industrial regions include more than one third of Russia's constituent entities; it accounts for 30% of the country's population, 33% of its gross domestic product, 44% of its industrial production, and 36% of its investment. Thus, the problem of their balanced economic development becomes most critical.

Figure 1. Russia's old industrial regions [6]



The largest group of old industrial regions is located in the North-West and in Siberia; however, such regions are also located in the Urals, the Volga region, Central Russia and in the Far East (*Fig. 1*).

The industry in these regions accounts for 86.4% of products produced in the sphere of material production and 42.7% of the cost of fixed assets, and employs 22.5% of workers. In these territories, the industries with a high value added multiplier are concentrated, and

they act as a driving force in the development of other economic sectors. On the whole in Russia, the aggregate value added multiplier² decreased significantly in the period from 2007 to 2015. Thus, in 2015, manufacturing industries produced only 1.52 units of value added per unit cost of production in the

² This indicator is calculated as a ratio of the total value of commodity weight to the cost of primary raw materials involved in economic turnover. Official data on the detailed development of the production account of the System of National Accounts is used for calculating the indicator [5].

Figure 2. Value added multiplier in Russia's economy [7]



extractive sector, while this figure amounted to 1.61 in 2007³ (Fig. 2). The value added multiplier reduced even more significantly for Russia's old industrial regions⁴. It is due to system disorganization and deterioration of the manufacturing industry.

The analysis of labor productivity in the industrial sector calculated in compliance with international practice as the ratio of gross value added to the average annual number of employees in the respective industries has shown that Russia lags considerably behind other countries with regard to this indicator. Thus, it lags behind Canada and the United

States in 5.4 and 4.8 times, respectively. Even Italy – the least industrialized country of G7 with gradually declining productivity (by 6.4% over 7 years) – is way ahead of Russia in this respect. However, we should still note a stable positive trend in this sphere in Russia: its economy demonstrates one of the highest growth rates in labor productivity in industry among the members of the former G8 (11.9%; Tab. 1).

Labor productivity in the industrial sector of Russia's old industrial regions has increased by 21.9% compared to 2007 (Tab. 2). The maximum growth is observed in the Tula Oblast. Negative dynamics is observed in the Lipetsk, Tyumen, Murmansk and Ivanovo oblasts due to the high level of labor cost of workers per unit of products. It is due mainly to the fact that production base is obsolete and does not allow enterprises to automate many of their labor-intensive processes.

³ The use of the year 2007 as the base period to make comparisons with current indicators is due to the fact that it is the last year of pre-crisis development of the Russian economy. A series of macroeconomic shocks that began in 2007 had a significant impact on economic development in Russia and its regions.

⁴ For example, having calculated the value added multiplier for the Vologda Oblast, we obtained the figure of 1.14. The value of this indicator is even lower for the old industrial regions with a large share of mining industry.

Table 1. Gross value added in industry per employee*, thousand US dollars (in constant prices as of 2010)

| Country | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2014 κ 2007 , % |
|---------|-------|-------|-------|-------|-------|-------|-------|-------|-----------------|
| Canada | 129.2 | 126.2 | 122.1 | 129.2 | 132.1 | 132.0 | 133.7 | 138.1 | 106.9 |
| USA | 105.8 | 108.9 | 112.6 | 123.0 | 123.2 | 123.7 | 123.1 | 121.3 | 114.7 |
| Japan | 85.7 | 87.1 | 78.1 | 91.4 | 93.8 | 90.3 | 91.3 | 92.2 | 107.5 |
| Germany | 82.6 | 83.6 | 73.2 | 84.4 | 89.1 | 88.1 | 88.0 | 90.3 | 109.3 |
| France | 85.1 | 82.3 | 80.4 | 82.0 | 82.7 | 83.5 | 86.2 | 88.4 | 103.8 |
| UK | 71.9 | 72.8 | 74.4 | 79.3 | 78.8 | 75.3 | 76.2 | 76.4 | 106.2 |
| Italy | 76.3 | 75.7 | 67.5 | 72.3 | 72.7 | 72.0 | 72.5 | 71.5 | 93.6 |
| Russia | 22.8 | 23.3 | 22.5 | 23.6 | 24.7 | 25.1 | 25.4 | 25.5 | 111.9 |

* Compiled with the use of the following sources: Federal State Statistics Service (Rosstat), World Bank, OECD, U.S. Bureau of Labor Statistics.

Table 2. Labor productivity in the industry of Russia's old industrial regions*, thousand rubles (in prices of 2015)

| Territory | 2007 | 2010 | 2013 | 2014 | 2015 | 2015 to 2007 , % |
|---------------------------|--------|---------|---------|---------|---------|------------------|
| Tula Oblast | 681.3 | 764.3 | 876.6 | 1105.8 | 1235.4 | 181.3 |
| Novgorod Oblast | 775.6 | 822.8 | 1020.9 | 1100.5 | 1200.3 | 154.8 |
| Republic of Khakassia | 1065.8 | 1193.0 | 1333.6 | 1255.7 | 1541.2 | 144.6 |
| Magadan Oblast | 1585.7 | 1718.2 | 1769.4 | 1563.6 | 2267.0 | 143.0 |
| Nizhny Novgorod Oblast | 758.1 | 915.1 | 1019.5 | 1060.4 | 1081.4 | 142.7 |
| Republic of Komi | 2246.6 | 2706.3 | 3035.4 | 3056.6 | 3169.1 | 141.1 |
| Krasnoyarsk Krai | 2474.2 | 2731.3 | 3073.6 | 3287.5 | 3410.2 | 137.8 |
| Perm Krai | 1210.1 | 1302.4 | 1454.7 | 1596.3 | 1584.3 | 130.9 |
| Arkhangelsk Oblast | 1502.8 | 1943.5 | 1744.0 | 1858.2 | 1954.8 | 130.1 |
| Sverdlovsk Oblast | 949.6 | 1039.2 | 1046.4 | 1104.7 | 1207.3 | 127.1 |
| Sakhalin Oblast | 9528.1 | 12634.4 | 14516.3 | 15518.5 | 12082.1 | 126.8 |
| Republic of Karelia | 1054.0 | 1218.9 | 1310.5 | 1347.5 | 1304.1 | 123.7 |
| Tomsk Oblast | 1704.2 | 1691.4 | 1968.9 | 2030.3 | 2097.6 | 123.1 |
| Omsk Oblast | 1283.9 | 1305.8 | 1557.5 | 1611.3 | 1502.6 | 117.0 |
| Udmurt Republic | 1092.4 | 1071.2 | 1176.2 | 1196.3 | 1273.8 | 116.6 |
| Belgorod Oblast | 1272.4 | 1392.8 | 1493.7 | 1389.1 | 1450.9 | 114.0 |
| Chelyabinsk Oblast | 953.3 | 953.1 | 906.2 | 1005.1 | 1076.0 | 112.9 |
| Republic of Bashkortostan | 1136.7 | 1238.8 | 1480.0 | 1324.1 | 1281.6 | 112.7 |
| Kemerovo Oblast | 1164.1 | 1249.4 | 1019.6 | 1134.2 | 1251.8 | 107.5 |
| Vologda Oblast | 1448.3 | 1221.7 | 1234.9 | 1350.7 | 1539.7 | 106.3 |
| Lipetsk Oblast | 1739.9 | 1494.7 | 1370.7 | 1688.0 | 1704.2 | 97.9 |
| Tyumen Oblast | 7418.9 | 7049.4 | 7461.0 | 7220.3 | 7227.9 | 97.4 |
| Murmansk Oblast | 1859.3 | 1728.6 | 1559.1 | 1469.3 | 1601.0 | 86.1 |
| Ivanovo Oblast | 405.2 | 395.6 | 342.8 | 310.1 | 279.4 | 68.9 |
| Old industrial regions | 1889.7 | 2080.7 | 2191.8 | 2254.2 | 2303.8 | 121.9 |

* Compiled with the use of the following source: Regions of Russia. Socio-Economic Indicators 2008–2016: Statistics Collection. Rosstat, 2008–2016.

Thus, old industrial regions still have to address the issues of using advanced technology and enhancing the level of processing of commodities. This situation can trigger negative phenomena in socio-economic development such as slowdown of output growth, lower tax revenues, decline in people's real incomes, decrease in consumer demand and in the volume of retail trade, rising unemployment, etc.

The aim of our study is to identify main trends and problems in the development of industrial sector in old industrial regions in order to work out the areas for their further development. Scientific novelty of the study consists in the fact that it defines the direction of development of the studied sector and corroborates it with evidence based on retrospective analysis of changes in the quality of the sectoral structure of the industry in the territories under consideration. The study also uses expert survey results and statistical data analysis.

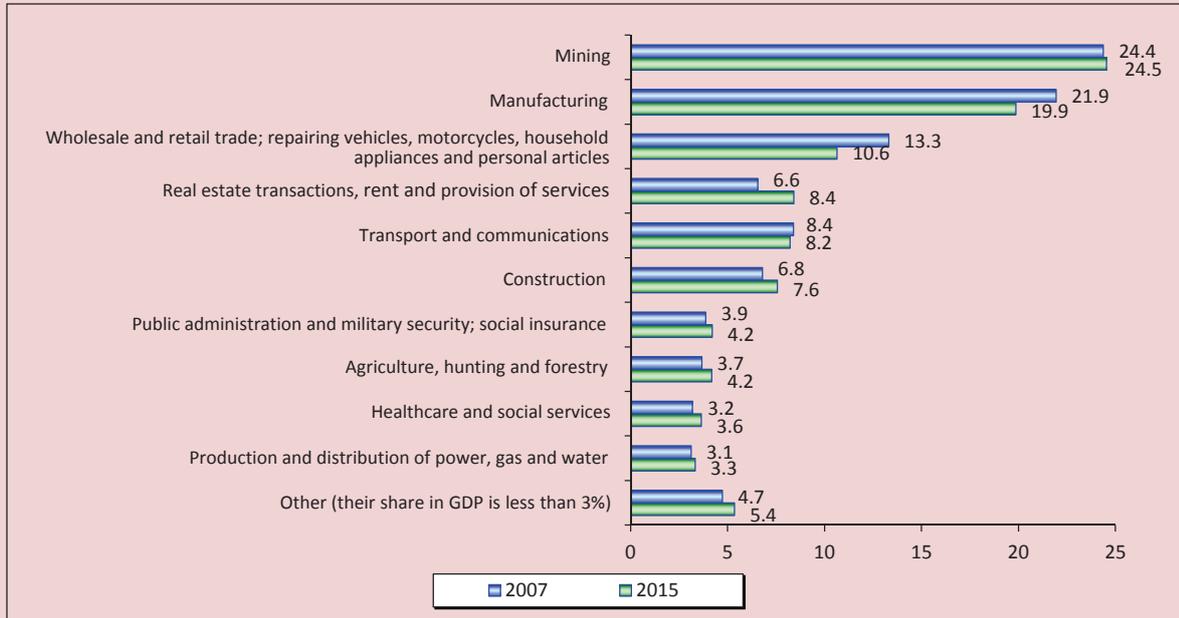
Research methodology and methods. Economic, statistical and comparative analysis, synthesis and expert interviews are methods used in the research. Methodological basis is formed by the works of domestic and foreign economists in the field of regional economics. In particular, A.R. Bakhtizin, E.M. Bukhwald, S.Yu. Glazyev, A.G. Granberg, R.S. Grinberg, N.V. Kol'chugina and other researchers [2; 4; 14] study socio-economic development trends in Russian regions. Researchers also study the economy of old industrial regions and prospects for their modernization [8; 9]. K.V. Pavlov in his work proves it necessary to consider

socio-economic features of regions in the implementation of structural adjustment. The importance of industrial sector in determining the areas of development of old industrial regions is reflected in the works of I.V. Makarova, G.B. Korovin, N.Yu. Sorokina [8; 12; 13; 16–18].

However, these works do not contain any detailed analysis of industrial sector, the analysis that was tested in the case of Russia's old industrial regions; and without such an analysis we consider it impossible to provide a reasoned determination of the vector of its development, which stresses the relevance of our research. The methodology of our analysis involves identifying changes in areas such as the progressiveness of changes in the structure of industry, investment activity of industrial enterprises, and the dynamics of investment in fixed capital.

Results of the study. Currently, economic development depends largely on the extent at which national economy is provided by industrial products and on the extent of penetration of cutting-edge technology in all spheres of society. For this reason, technological progress is the main source of economic development; it greatly simplifies many labor-intensive tasks, provides the ability to produce goods that were previously unavailable due to technological imperfections, and helps enhance energy efficiency, etc. Industrial plants amass a significant proportion of scientific and technological achievements; this fact allows us to name industry the foundation of modern economy.

Figure 3. Structure of GRP in Russia's old industrial regions*, %



* Compiled with the use of the source: Gross regional product. Rosstat. Available at: http://www.gks.ru/wps/wcm/connect/rosstat_main/rosstat/ru/statistics/accounts

However, modern economic realities have quite a negative effect on the development of industry, resulting in a gradual loss of scientific, technological and production potential; this leads to the fact that industrial contribution to economy reduces. These changes can be monitored on the example of Russia's old industrial regions: if the share of industrial production accounted for 49.4% of GRP in 2007, then it reduced to 47.7% by the end of 2015 (Fig. 3).

We can express concern that the contribution of industry to economic development of regions in the future will continue due to the absence of positive transformations in the economy, the need to

address the impact of the financial crisis in 2008 and the introduction of anti-Russian sanctions in 2014 and their subsequent expansion⁵. In particular, due to the fall of the Russian ruble against the US dollar

⁵ Data from a survey of heads of industrial enterprises of the Vologda Oblast indicate that economic sanctions against Russia affected the activity of 54.4% of enterprises that participated in the survey. The sanctions significantly affect the development of food, timber, engineering industries, and the producers of construction materials. Among the main consequences of the sectoral economic sanctions against Russia the respondents pointed out the rising cost of imported raw materials, components and equipment (94.6%), loss of suppliers or partners (21.6%), and the inability to get cheap loans (18.9%). The survey involved more than 200 heads of industrial enterprises of the Vologda Oblast. The distribution of the sample population by types of economic activity is consistent with to the general population. The questionnaire covers organization of all the districts of the region. Sampling error does not exceed 4%.

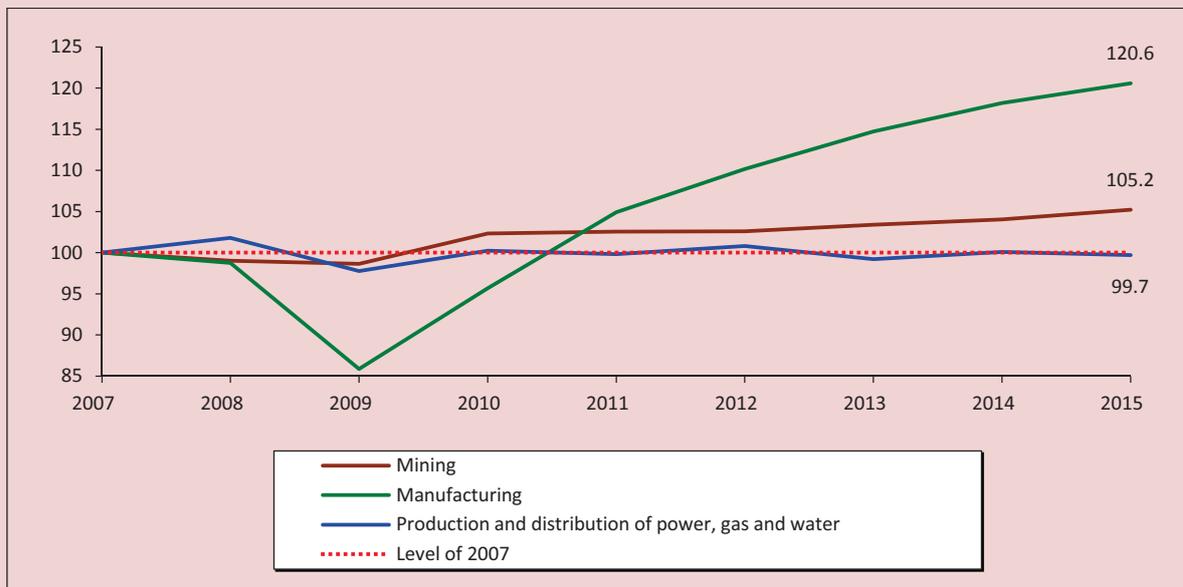
and the Euro there has been an increase in production costs, which ultimately worsened the financial condition of enterprises, reduced their investment attractiveness and return on investment.

At the same time, it is not quite right to link the changes only to the consequences of the macroeconomic events noted above. They only aggravated negative phenomena in the economy of Russian regions and, in particular, they have complicated the conditions in which industry is operating [15]. First of all, current negative development trends are due to the devastating effects of market reforms that took place in the 1990s. They caused a breakdown in interregional relations that had existed within the country and between CIS member states. Dramatic decline in

economic activity, shutdown of production facilities, and destruction of cooperative ties resulted in a deep fall of the Russian economy in the mid 1990s, which, in turn, caused sharp deterioration of people's welfare. The impact of those problems on old industrial regions was especially acute.

The volume of production in such regions is not supported by continuously increasing demand, so it has remained almost on the same level for years. Relative to 2007, the largest increase in output occurred only in the manufacturing industry (by 20.6%). In the mining sector, shipments increased by only 5.2%, while enterprises engaged in the production and distribution of electricity, gas and water showed a negative trend: 99.7% of the 2007 level (*Fig. 4*).

Figure 4. Industrial production dynamics in Russia's old industrial regions, % to 2007



* Compiled with the use of the following source: *Regions of Russia. Socio-Economic Indicators 2008–2016: Statistics Collection*. Rosstat, 2008–2016.

Having analyzed the dynamics of enterprises raising investments in fixed capital in old industrial regions, we observe that over the period from 2007 to 2015, total investment increased by only 13.8%, and the average annual growth rate was 1.6%. The largest decline in investment occurred

in old industrial regions of the Siberian Federal District (with the exception of Krasnoyarsk Krai) and in the Arkhangelsk, Vologda, Ivanovo and Chelyabinsk oblasts (*Tab. 3*). A continuous inflow of investments is accumulated mostly in the regions with developed commodity production.

Table 3. Investments in fixed capital in Russia's old industrial regions*, billion rubles (in the prices as of 2015)

| Territory | 2007 | 2010 | 2013 | 2014 | 2015 | 2015 to 2007, % |
|---------------------------|--------|--------|--------|--------|--------|-----------------|
| Magadan Oblast | 23.6 | 27.1 | 45.6 | 45.6 | 60.7 | 256.5 |
| Krasnoyarsk Krai | 184.4 | 342.5 | 443.4 | 411.7 | 396.9 | 215.2 |
| Murmansk Oblast | 48.5 | 52.3 | 81.5 | 98.6 | 100.4 | 207.0 |
| Tula Oblast | 65.5 | 100.4 | 105.1 | 105.5 | 105.6 | 161.3 |
| Republic of Komi | 117.0 | 165.9 | 233.9 | 227.8 | 169.9 | 145.3 |
| Tyumen Oblast | 1282.0 | 1429.2 | 1854.4 | 1922.4 | 1762.9 | 137.5 |
| Novgorod Oblast | 51.0 | 61.3 | 64.1 | 69.9 | 69.3 | 135.9 |
| Sverdlovsk Oblast | 322.0 | 363.8 | 398.3 | 411.2 | 350.0 | 108.7 |
| Sakhalin Oblast | 222.4 | 176.2 | 222.2 | 252.6 | 241.5 | 108.6 |
| Lipetsk Oblast | 107.1 | 138.4 | 114.9 | 115.7 | 116.1 | 108.5 |
| Belgorod Oblast | 139.4 | 131.9 | 142.1 | 128.8 | 147.2 | 105.6 |
| Republic of Karelia | 31.4 | 30.8 | 38.4 | 35.7 | 32.7 | 104.3 |
| Republic of Bashkortostan | 308.8 | 243.9 | 305.8 | 316.2 | 317.8 | 102.9 |
| Perm Krai | 220.0 | 189.2 | 257.2 | 233.0 | 226.2 | 102.8 |
| Udmurt Republic | 83.8 | 71.1 | 96.2 | 101.5 | 81.8 | 97.7 |
| Nizhny Novgorod Oblast | 254.8 | 288.3 | 331.1 | 313.4 | 235.1 | 92.3 |
| Chelyabinsk Oblast | 253.9 | 227.6 | 256.7 | 259.9 | 217.2 | 85.6 |
| Kemerovo Oblast | 207.8 | 226.8 | 255.5 | 261.9 | 170.5 | 82.0 |
| Omsk Oblast | 124.7 | 100.6 | 121.6 | 106.9 | 94.2 | 75.6 |
| Ivanovo Oblast | 34.3 | 45.6 | 41.1 | 37.8 | 25.7 | 74.9 |
| Tomsk Oblast | 147.9 | 118.7 | 125.5 | 120.2 | 105.0 | 71.0 |
| Republic of Khakassia | 42.4 | 31.6 | 34.3 | 42.3 | 29.9 | 70.7 |
| Arkhangelsk Oblast | 252.0 | 151.0 | 183.6 | 176.8 | 172.2 | 68.4 |
| Vologda Oblast | 148.8 | 106.0 | 94.3 | 93.4 | 87.1 | 58.6 |
| Old industrial regions | 4673.4 | 4820.3 | 5846.8 | 5888.8 | 5316.0 | 113.8 |

* Compiled with the use of the source: Investments in non-financial assets. Rosstat. Available at: http://www.gks.ru/wps/wcm/connect/rosstat_main/rosstat/ru/statistics/enterprise/investment/nonfinancial

Table 4. Dynamics of the quality of the sectoral structure of industry in old industrial regions* (by volume of output), %

| Industrial sector | 2007 | 2015 |
|---|------|------|
| Raw materials sector: | 67.4 | 62.5 |
| – mining | 32.3 | 35.2 |
| – metallurgy | 2.5 | 17.3 |
| – timber complex | 22.3 | 2.3 |
| – production and distribution of power, water and gas | 7.8 | 7.7 |
| High-tech sector: | 24.3 | 9.5 |
| – mechanical engineering | 8.2 | 7.2 |
| – chemical industry | 16.1 | 2.3 |
| Consumer sector: | 12.5 | 9.4 |
| – light industry | 4.5 | 0.4 |
| – production of construction materials | 2.5 | 1.8 |
| – food industry | 5.5 | 7.1 |
| Ratio of high-tech and consumer sectors to raw materials sectors | 0.55 | 0.30 |
| * Compiled with the use of the following source: <i>Regions of Russia. Socio-Economic Indicators 2008–2016: Statistics Collection</i> . Rosstat, 2008–2016. | | |

Table 5. Dynamics of the quality of the sectoral structure of U.S. industry* (by volume of output), %

| Industrial sector | 2015 |
|--|------|
| Raw materials sector: | 23.2 |
| – mining | 5.7 |
| – metallurgy | 7.7 |
| – timber complex | 4.7 |
| – production and distribution of power, water and gas | 5.1 |
| High-tech sector: | 44.4 |
| – mechanical engineering | 24.5 |
| – chemical industry | 19.9 |
| Consumer sector: | 32 |
| – light industry | 1.1 |
| – production of construction materials | 18.8 |
| – food industry | 12.1 |
| Ratio of high-tech and consumer sectors to raw materials sectors | 3.3 |
| * Compilation source: the U.S. Bureau of Economic Analysis. | |

These figures are quite insignificant for the country whose real sector is in need of intensive high-tech development, enhancement of competitiveness and productivity. According to experts, the economy can be actually upgraded if the annual growth of investment is about 18% [1]. However, as the example of old industrial regions shows, in current situation this figure is more a dream than a near and achievable reality⁶.

Having analyzed the quality of the structure of gross regional product in the regions under consideration, it did not undergo any significant changes in 2007–2015. We determined the dynamics of its changes using an approach developed by experts at the Institute of Economics, Ural Branch of RAS [8]. The dynamics of this index in the mentioned period has a declining trend: from 0.55 in 2007 to 0.30 in 2015 (*Tab. 4*).

Thus, the development of industrial sector in Russia's old industrial regions does not focus on high-tech branches. Meanwhile, countries leading in high-tech production, for example, the U.S., have a different ratio of high-tech and consumer sectors to raw materials sectors (*Tab. 5*).

Having analyzed the quality of economic structure in the regions under consideration,

⁶ It should be noted that for the Russian economy in general, the situation is even more depressing. For the period from 2007 to 2015, the growth of investment in fixed capital amounted to only 6.3%, and its average annual rate – 0.77%.

Table 6. Impact of economic factors on the work of industrial enterprises in the Vologda Oblast*, percentage of respondents

| Factors hindering the development of production | | Factors hindering investment activity | |
|---|------|--|------|
| High prices of raw materials and resources | 76.5 | High cost of new equipment | 61.8 |
| High fuel and energy prices | 63.2 | Shortage of own funds | 60.3 |
| Delays in the payment of delivered products | 48.5 | High interest on commercial loans | 50.0 |
| Shortage of own funds | 42.6 | Change in the exchange rate of the ruble and interest rates of banks | 33.8 |

* According to a survey of heads of industrial enterprises of the Vologda Oblast, conducted by ISEDT RAS in the first half of 2016.

we can make a conclusion that in the current situation the transition to modernization is difficult. Factors hindering progressive changes in the industry, along with technological backwardness and low scientific activity of enterprises⁷, include the shortage of necessary funding, which greatly hampers the development of new technological modes and production of goods competitive on international markets. As a consequence, the quality of items produced does not change significantly, which makes them less appealing to potential consumers and does not create prerequisites for increasing the volume of shipment. The financial aspect is the main cause of difficulties arising in connection with attracting highly skilled employees and purchasing modern means of production (in particular, high-quality raw materials and equipment).

⁷ Perechneva I. Mery otvetstvennosti [Penalties]. *Ekspert Severo-Zapad* [Expert North-West], 2013, no. 21. Available at: <http://expert.ru/northwest/2013/21/meryi-otvetstvennosti/>

Based on the results of a survey of managers of industrial enterprises conducted in the Vologda Oblast – one of Russia's old industrial regions – it is possible to conclude that such dynamics of production and a lack of development of high-tech activities is caused primarily by high prices of the means of production and objects of consumption, and also by a lack of own funds (*Tab. 6*).

Of course, the government takes steps to mitigate negative factors in industrial development. In particular, it participates in the funding of projects on development of new Russian equipment and machinery, in promoting the demand for it in conditions when government agencies are not allowed to purchase foreign equipment if its domestic analogues are available. However, such measures are not sufficient to change the situation radically [3].

According to research carried out at the Center for Macroeconomic Analysis and Short-Term Forecasting, it is mainly the

primary industries and the food industries that introduce changes in the range and characteristics of their goods, improve the quality of their products and upgrade their fixed assets; and these processes are mostly inert. These processes are going on slower in the engineering industry and in the manufacture of technologically sophisticated non-food items [10].

As a result, it often happens that financial resources allocated to R&D, innovation technology, and improvement of production processes with the aim of increasing the competitiveness of the products are spent only on maintaining their current level or paying off debt rather than allocated directly to meet development needs.

This situation is primarily due to inefficient tax and monetary policy in the country. In the first case, having paid the taxes, the entrepreneurs are left without financial resources sufficient for their further work. In the second case, the business gets access to external sources of funding, usually on very unfavorable conditions. As a consequence, industrial production is characterized by the following cyclic issues⁸.

1. Stable industrial development requires adequate amount of funding; however,

⁸ This question is considered in more detail in the publication: Uskova T.V., Lukin E.V., Mel'nikov A.E. Organizatsiya i faktory novoi industrializatsii [Organization and drivers of a new industrialization]. *Ekonomist* [Economist], 2016, no. 11, pp. 3-15.

enterprises spend a substantial share of their profits on tax deductions.

2. Tax expenditures can be compensated and working capital financed through commercial loans, but high interest rates reduce the attractiveness and prevalence of this method.

3. The insufficient amount of financial resources leads to slowdown or lack of plans for modernization of fixed assets, which results in a high proportion of outdated and worn equipment.

4. Flaws in the technological base of enterprises result in poor quality of products, their backwardness or low competitiveness on the markets of developed countries.

5. Due to the fact that domestic goods lack competitive advantages, many Russian companies do not receive a sufficient amount of orders.

6. A small number of orders, advantageous positions of foreign manufacturers, and low investment attractiveness of domestic industry are factors due to which the amount of profit obtained is insignificant.

7. Having paid the taxes, enterprises with small profits are left with only an insignificant amount of free financial resources that are not enough for comprehensive modernization, R&D or mastering some new technology. Thus, enterprises have to deal with the question of external funding, which is virtually inaccessible due to above mentioned reasons.

Conclusion. Economic development in old industrial regions is largely determined by the status of their industrial sector. Problems existing in this sector affect social sphere and performance figures, so economic development tasks must be addressed alongside industrial modernization. This process implies the transition to high-tech production, but it is constrained by insufficient funding. In this regard, we consider that finding sources for the implementation of modernization, and the activities for qualitative improvement of parameters of functioning of the economy of old industrial regions should be viewed as main directions. Among such events are the following activities:

- forming the chains of vertical integration of extraction and processing industries that will increase value added multiplier;

- creating conditions for increasing the volume of production of industrial enterprises, solving the problems of sales and demand for products; this can provide additional funds for modernization;

- implementing regional policy in the sphere of human resources, aimed to enhance the internal resources of old industrial regions on the basis modernization and creation of new highly productive jobs.

The prospects for the implementation of these directions are connected in many

respects with intensification of government intervention and stimulation of activities in industrial sector:

1. The government should provide industrial actors with preferential terms of functioning, subsidies, investment loans for the implementation of promising projects in technological development and exploitation of innovative developments. In the context of development of personnel potential it is necessary to provide grants to educational institutions engaged in training highly qualified specialists for innovative economic sectors.

2. Improvement of current legislation in the field of regulation of tax policy and reduction of administrative burden. First and foremost, it is necessary to intensify the practice of granting tax exemptions, reduce the number and specification of mandatory requirements for industrial enterprises, and reduce the number of inspection procedures. Governmental impact on industrial sector must aim not only to create favorable conditions for the functioning of its well-off regions, but also to increase its attractiveness to new actors of the market.

3. The extent of cooperation between the government, industrial enterprises and educational institutions should be increased in order to improve the quality of training of personnel for the industry and increase the number of graduates for innovative economic

sectors. It is necessary to restore the system for training of professional workers, to promote on-site training at industrial enterprises, and to upgrade the facilities and equipment of educational institutions.

In our view, modernization of industrial sector in old industrial regions is one of the main sources of their further sustainable economic development. However, the implementation of these processes should

take place along with a number of important changes at the federal level. These include the improvement of tax policy that will help overcome a technological gap between Russia and advanced economies and restore the scientific and technological potential of the country that was lost during the transition period; this can be done by releasing the financial resources allocated at present to the payment of taxes.

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Application of Outsourcing in the Regions of Eastern Siberia and the Far Eastern Federal District



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Abstract. Outsourcing is currently common in Russian business practice. The use of outsourcing changes the system of management in a company and affects its performance indicators. The aim of this study is to identify patterns in the development of outsourcing in regions of the Far Eastern Federal District and Eastern Siberia on the basis of empirical data. Despite the widespread introduction of outsourcing in the activities of enterprises, the patterns of development of this phenomenon at the regional level, its relationship with economic indicators and investment attractiveness of the regions are not studied sufficiently. The relevance of the study is determined by the strategy of improving the business environment in the regions with the aim of attracting investment and implementation of innovative technology. Our research is built on the information methods of data structuring and correlation and

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regression analysis. We selected activities that are transferred to outsourcing and developed a structure of a multidimensional data array that helps apply various methods of analytical data processing. We revealed patterns in the development of outsourcing in the regions. The patterns are formulated on the basis of the analysis of the structural composition of enterprises, the results of correlation analysis and estimates of logistic regression models. The obtained results have both theoretical and practical significance; they are interesting for the business environment and for researchers in economics and entrepreneurship. Of theoretical importance are the regularities of development of outsourcing in the Far Eastern Federal District and East Siberia. We point out that the development of outsourcing in these regions has common patterns that do not depend on the level of economic development and investment rating. Our research reveals that the use of outsourcing in production activities has no effect on the level of gross regional product. At the same time, it is shown that the number of companies operating in the outsourcing indicates the investment attractiveness of the region. As for real business, the results that we present can be useful in studying the structure of the outsourcing market and in assessing the possibility of transferring the functions and processes to external execution. The data structure that we have developed is the basis for organizing the monitoring of the outsourcing market in the regions. The organization of such a system for storing the data of statistical observations makes it possible to record dynamic changes in the outsourcing market, to study its influence on the formation of a comfortable business environment, and to predict the level of self-employment.

Key words: outsourcing, statistical analysis, investment attractiveness of the region.

Introduction

The term “outsourcing” usually denotes a situation where some internal processes, functions or services in a particular company are handed over to an external company to be executed.

In English-language literature this interpretation is unambiguous [21; 27]. It is understood that some manufacturing processes can be transferred to external execution [22].

The works of domestic authors contain definitions that are substantially different from the one presented above. For example, they distinguish the outsourcing of municipal

management functions [4]. Classifications based on an economic point of view allocate the outsourcing of capital [6]. In this case the customer enterprise is only an owner of the brand, but has no production processes for products or services.

In our research, we understand outsourcing as the transfer of support business processes, some non-core business processes, functions and external operations by the customer company to the external company.

The use of outsourcing leads to a change in business rules and management system in the company. Currently, researchers in regional economics note that economic

actors more often transfer some of their tasks to third parties to be solved. So, companies can fully transfer to other firms the functions like accounting and reporting, advertising campaigns, information provision, etc. [3; 7]. The principle of economic efficiency according to which we do only those tasks that others do less effectively [18] and which at present promotes the development of entrepreneurship is the main principle of outsourcing. Having analyzed economic literature [1; 2; 18] we can talk about the allocation of both managerial and economic aspects of outsourcing. However, these issues are beyond the scope of the present study.

Despite the widespread introduction of outsourcing in the economic activities of enterprises the patterns of development of this phenomenon and its connection with economic indicators and investment attractiveness of the regions still require further research.

The purpose of our paper is to reveal patterns in the development of outsourcing in the regions of the Far Eastern Federal District and Eastern Siberia on the basis of empirical data.

The relevance of the study is determined by the strategic task of forming a comfortable business environment in the Far Eastern and Siberian federal districts with the aim of raising investment and implementing innovation technology in production.

The authors [23] believe that the main reason for the emergence of outsourcing lies in the increasing complexity of technological processes and, as a consequence, sharp differentiation of knowledge and competences. It is obvious that in such a situation, top managers are unable not only to control, but also to understand how competent the actions of their employees are [1; 24; 25; 26; 28]. The transfer of certain processes and functions for execution to external companies helps an enterprise focus on its core activities. Hence there is an assumption that the development of outsourcing means improving the business environment in the regions.

We believe that our studies will help answer the following questions:

1. Are there general patterns in the development of outsourcing in the regions of Eastern Siberia and the Far Eastern Federal District?
2. Is there a connection between the development of outsourcing in the region and the volume of GRP?
3. Does the number of outsourcing companies depend on the level (rating) of investment attractiveness of the region?
4. Is it possible to highlight the types of economic activity connected with the rating of investment attractiveness of the region?

The answers to these questions help establish a link between the development of outsourcing and the business environment

and elaborate measures on the development of small and medium business in the regions.

In practical terms, the results of our research give entrepreneurs an opportunity to determine the following aspects:

- possibility of outsourcing non-core functions and supporting business processes;
- popular types of services and industries in the B2B (*business-to-business*) outsourcing market.

Choosing the objects of the research

The objects of our study are regions of the Far Eastern Federal District (FEFD) and regions of Eastern Siberia (Irkutsk Oblast, Zabaykalsky Krai, Republic of Buryatia). Traditionally, these constituent entities have close economic and socio-cultural relations. The regions are situated far from the federal center, their socio-economic development is highly unequal, and they have small population.

Macroeconomic indicators of the level of development are contradictory. Among the twelve regions under consideration four are included in the top ten in terms of GRP per capita in the Russian Federation [11; 19]. However, in the rankings of investment attractiveness almost all the analyzed regions belong to the group of those with low potential [12].

To date, the FEFD is implementing large-scale investment projects, the success of which largely depends on the level of development of entrepreneurship in the region.

Thus, the study of the development of outsourcing is very topical and is of particular interest to public authorities and the business community, as it shows the development of entrepreneurship in general.

Data sources

The study is based on open public data. The data sources include the Unified Register of Subjects of Small and Medium Business available at the website of the Federal Tax Service of Russia [5], the website of the Federal State Statistics Service of Russia, and websites of analytical companies.

In order to analyze the patterns based on empirical data we used the following sources:

1. The results of queries to the database “Unified Register of Subjects of Small and Medium Business” [2]. The result of each query is a table with the list of enterprises in the selected region and type of economic activity. For each region we made 17 queries (in accordance with the number of allocated types of activities). The data is structured in accordance with the relational data model¹.
2. The data on the main characteristics of Russian regions including population, GRP, average accrued wages, etc. [11].
3. The rating of Russian regions according to main characteristics such as population size, average income per capita, GRP per capita, and others [11].

¹ See, for example: http://www.internet-technologies.ru/books/category_9.html

Table 1. Ratings of the regions of the Far Eastern Federal District and Eastern Siberia

| Region | Position in Russia | | | Investment attractiveness rank |
|-----------------------------|--------------------|------------|-----------------------|--------------------------------|
| | Area | Population | GRP per capita (2013) | |
| Republic of Buryatia | 14 | 54 | 65 | 3C1 |
| Zabaykalsky Krai | 10 | 48 | 60 | 3C1 |
| Irkutsk Oblast | 4 | 20 | 24 | 2B |
| Republic of Sakha (Yakutia) | 1 | 57 | 8 | 3B1 |
| Kamchatka Krai | 8 | 78 | 13 | 3C2 |
| Primorsky Krai | 22 | 25 | 29 | 3B1 |
| Khabarovsk Krai | 3 | 36 | 21 | 3B1 |
| Amur Oblast | 13 | 61 | 44 | 3B2 |
| Magadan Oblast | 9 | 83 | 9 | 3C2 |
| Sakhalin Oblast | 37 | 73 | 4 | 3B1 |
| Jewish Autonomous Oblast | 60 | 82 | 52 | 3C2 |
| Chukotka Autonomous Okrug | 6 | 84 | 6 | 3C2 |

Source: statistics reports of the Federal State Statistics Service.

4. The rating of investment attractiveness of Russian regions [12].

5. Statistical report “Population of the Russian Federation in municipalities as of January 1, 2016” (source: Federal State Statistics Service – Rosstat [19]).

The rating (macroeconomic and investment) of regions of the Far Eastern Federal District and Eastern Siberia is presented in *Table 1*.

Research methods

Our research is based on the information methods of data structuring and methods of applied statistics.

Regularities of the development of outsourcing and relationships with the level of regional economic development are studied with the help of applied statistics methods.

Analysis of statistical relationships of indicators is based on correlation analysis – we calculated the Pearson correlation coefficient and partial correlation coefficients [8].

We use logistic regressions [8] to evaluate the impact of outsourcing on the level of investment attractiveness of the region.

Data. Selection and preliminary processing

In accordance with traditional views we believe that outsourcing can take on the functions and operations related to the implementation of auxiliary work and administrative processes, tasks and economic activities. Thus, we allocate the activities that are potentially transferred to the external contractor (hereafter we use the classification from the Register of Small and Medium Business [5]):

1. Subsidiary activities in the production of agricultural crops and post-harvest processing of agricultural products (Code 01.6).

2. Warehousing and storage (Code 52.1).

3. Managing computer equipment (Code 62.03).

4. Data processing, provision of information hosting services and related activities (Code 63.11).

5. Activities of holding companies (Code 64.2).

6. Administration of financial markets (Code 66.11).

7. Advisory services on financial intermediation (Code 66.19.4).

8. Acceptance of payments from individuals by payment agents (Code 66.19.6). The choice of this type of activity requires special comment. The companies of this type play the role of “front office” at the sales of goods and services.

9. Legal activities (Code 69.1).

10. Providing services in the field of accounting (Code 69.20.1).

11. Activities of head offices (Code 70.1). In this case administrative management functions are transferred to the external contractor;

12. Technical testing, analysis and certification (Code 71.2).

13. Promotion and advertising (Code 73.1).

14. Market research (Code 73.20.1, market research).

15. Employment and recruitment (Code 78).

16. Private security (Code 80.1, economic activity).

17. Cleaning (Code 81.1, economic activity).

These types of activities are the most obvious ones, because they are not associated with core activities of industrial enterprises or of entities that provide services to the end user.

We assume that at the regional level these activities are carried out by medium or small enterprises. While studying the issue we found that big players in the outsourcing market (e.g., IT companies, advertising agencies, holding companies, accounting firms, etc.) are not residents of the Eastern-Siberian regions or the FEFD [13; 14; 15; 16; 17].

The original data (the results of queries to the database “Register of Small and Medium Business [5]) were not fit for analysis and were pre-processed. Methods of processing included sorting, structuring, and consolidation. As a result of processing we have formed a multi-dimensional data array. The structure of the data is presented in the diagram (*Fig. 1*).

Thus, in order to analyze the patterns of outsourcing in the regions of Eastern Siberia and in the Far Eastern Federal District we use the following indicators:

Figure 1. Structure of the multi-dimensional data array

| federation subjects | scale of the enterprise | type of activity1 | | | | type of activity n | outsourcers Total | Population size | Investment rating |
|--|-------------------------|-----------------------|-------|-------------|-----------------------|-----------------------|-------------------|-----------------|-------------------|
| | | number of enterprises | | | | number of enterprises | | | |
| Region (excluding the administrative center) | micro | number of enterprises | | | | | | | |
| | small | number of enterprises | | | | | | | |
| | medium | | | | number of enterprises | | | | |
| | micro | | | enterprises | number of enterprises | | | | |
| | small | | | | | | | | |
| | medium | | | | | | | | |
| Administrative center | micro | | | | | | | | |
| | small | | | | | | | | |
| | medium | | | | | | | | |
| ..... | ..... | number of enterprises | | | | number of enterprises | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| Region (excluding the administrative center) | micro | | | | | | | | |
| | small | ..... |  |  |  |  |  |  |  |
| Administrative center | micro | | | | | | | | |
| | small | ..... |  |  |  |  |  |  |  |

Source: developed by authors.

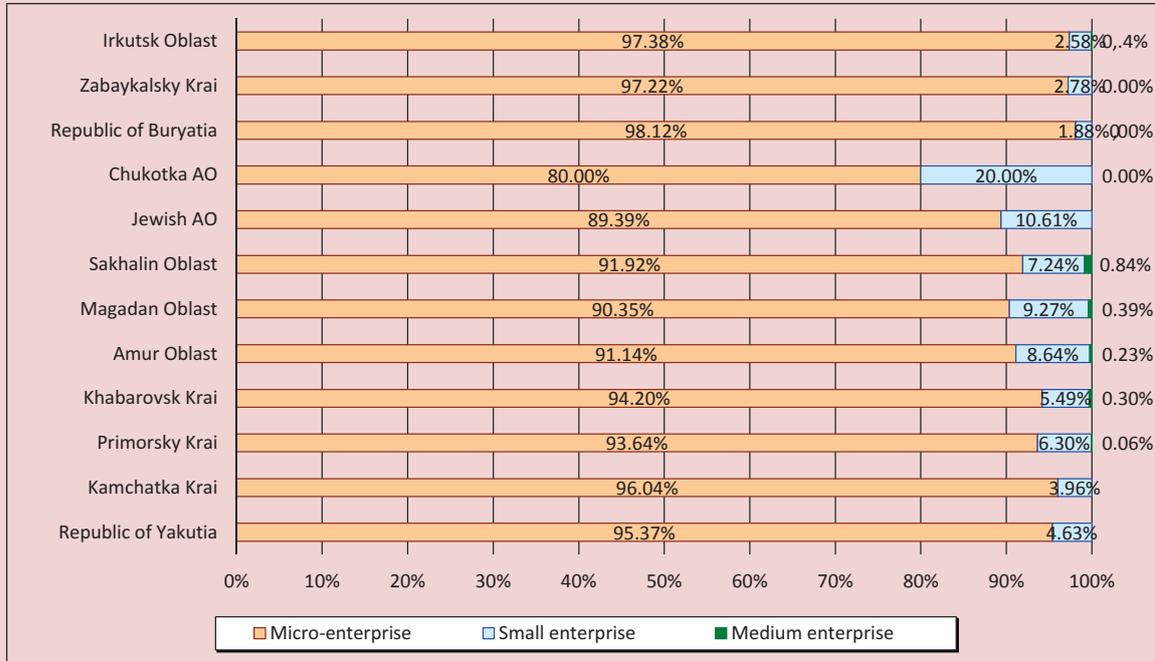
- gross regional product (GRP), including GRP per thousand population, GRP per thousand economically active population;
- the number of enterprises operating in the outsourcing (total), including the number of enterprises operating in the outsourcing per thousand population and per thousand of economically active population;
- total number of outsourcer enterprises broken down by types of economic activities;
- regions' ratings on investment attractiveness [12].

An obvious disadvantage of the multidimensional dataset lies in the lack of indicators of output and labor productivity at enterprises operating in the outsourcing. However, such data is not available. Regional statistics have only aggregated information on small and medium enterprises broken down by large groups of economic activities [9; 10].

Results

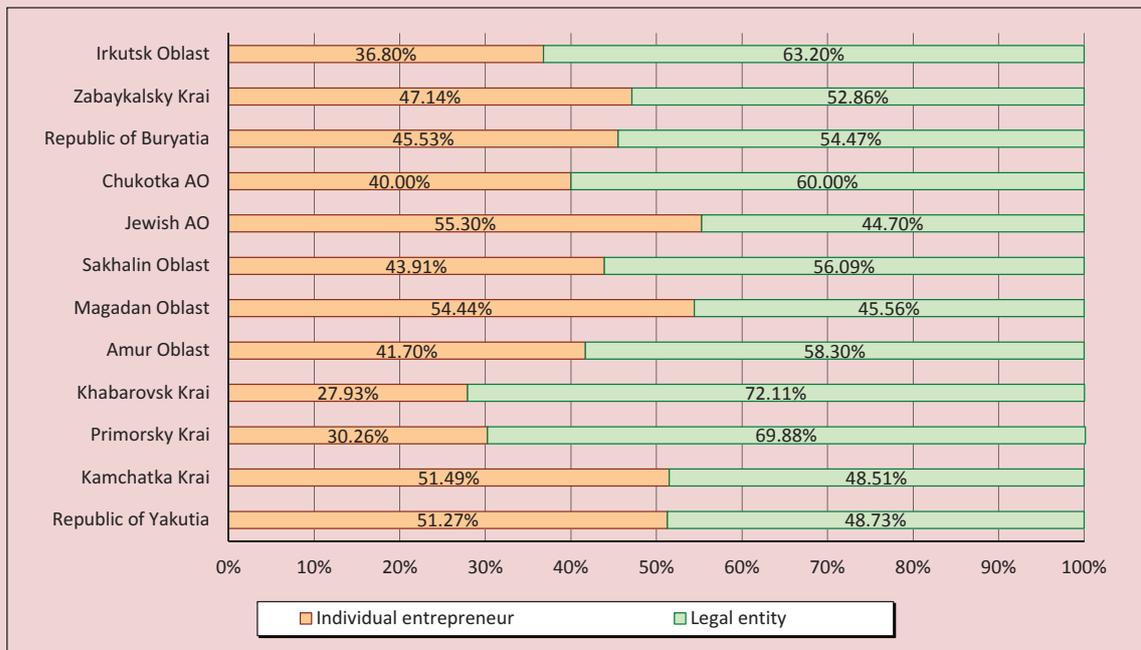
The resulting data arrays are used for analysis by various statistical methods. An obvious advantage of these methods consists in the possibility to identify patterns in the development of outsourcing and the relationship with the level of economic development of the territory even in the absence of detailed information. Of interest is the structural composition of enterprises in the regions by the scale (number of employees) and legal form of organization. All regions have the same structural composition of the enterprises operating in the outsourcing services. According to their scale, they are mostly micro-enterprises. Their legal form is presented by legal entities. The structural composition of outsourcer enterprises in the regions is represented as a diagram in *Figures 2 and 3*.

Figure 2. Structural composition of outsourcer enterprises broken down by scale



Source: calculated by authors based on the generated data array.

Figure 3. Structural composition of outsourcer enterprises broken down by legal form



Source: calculated by authors based on the generated data array.

When we group enterprises by types of activity, the pattern in the structural composition of the enterprises is different. In their scale the outsourcers in the vast majority of cases are also micro-enterprises. However, the structural composition arranged by legal form has no pattern. For businesses with types of activities “private security services” and “holding companies” legal entities constitute more than 90%, which may be due to the requirements to licensing and to information security. For other types of activities the number of legal entities is 20 to 80% of the total number of enterprises.

In order to carry out statistical analysis of the patterns we use three types of samples:

- data on the regions as a whole (we considered 12 regions, thus the sample size $N = 12$);
- data on the administrative centers of regions (hereinafter – “capitals”, the sample size $N = 12$);
- the sample that includes data on the number of outsourcer enterprises in the region excluding capital cities and the data on capitals separately (the sample size $N = 24$).

The latter type of samples was formed to build logistic regression models, because small samples do not provide statistically significant estimates.

The values of the elements of the matrix of paired correlation coefficients of the number of enterprises by types of economic activity are statistically significant at the level of 0.05.

This clearly indicates a general pattern of development of outsourcing in the region. Chukotka Autonomous Okrug is an exception here. However, it is quite understandable, given the special climatic conditions of the region and its extremely low population density.

The level of correlation between GRP and the total number of outsourcer enterprises, and between GRP and the number of such enterprises per thousand active population is quite high (*Tab. 2*). The calculated values of the coefficients are statistically significant at the level of not more than 0.05.

However, the samples that we possess do not allow us to make unambiguous conclusions about the nature of causal relationships between the indicators. Moreover, the high level of correlation (78%) between GRP and the total number of enterprises operating in terms of outsourcing arouse our concern. Most enterprises in our sample are micro-enterprises (see diagrams in Figures 2 and 3) and cannot significantly influence the level of gross output of enterprises in the regions. We hypothesized that the high level of correlation between the indicators might result from population size. Our hypothesis has been confirmed. When we calculated the coefficients of partial correlation with the eliminated variable “population size” it became apparent that correlation with GRP of the regions was not statistically significant (*Tab. 3*). Consequently,

Table 2. Matrix of pair correlation coefficients

| Indicator | GRP | Total number of outsourcer enterprises | Total number of outsourcer enterprises per thousand active population |
|---|-------|--|---|
| GRP | 1.000 | | |
| Total number of outsourcer enterprises | 0.783 | 1.000 | |
| Total number of outsourcer enterprises per thousand active population | 0.573 | 0.596 | 1.000 |

Source: calculated by authors with the use of the generated data array.

Table 3. Matrix of partial pairwise correlation coefficients that excluded the variable “population of the region”

| Excluded variable – population size in the region | GRP | Total number of outsourcer enterprises | Total number of outsourcer enterprises per thousand active population |
|---|-------|--|---|
| BPI | 1.000 | | |
| Total number of outsourcer enterprises | 0.326 | 1.000 | |
| Total number of outsourcer enterprises per thousand active population | 0.438 | 0.697 | 1.000 |

Source: calculated by authors with the use of the generated data array.

the number of outsourcers is not statistically associated with the level of GRP in the region.

The calculated values of coefficients of correlation with GRP index were not statistically significant.

In order to test the hypothesis about the existence of pattern connecting the number of outsourcer enterprises with the rating of investment attractiveness of the region we used the regression model of a special type – a *logit* model.

A specific feature of this model consists in the fact that the dependent variable is binary (it takes either the value 1 or the value 0). In our case, the ratings of investment attractiveness of regions of Eastern Siberia and the Far East are represented as binary. Given the fact that overall levels of regions

in the rating of investment attractiveness are quite low, in the binary option the values of the rating below 3B1 are taken as zero; consequently, the values equal to or above this level are taken as a unit (see Tab. 1).

The pairwise logistic regression analysis produced the following results.

The indicator “Total number of outsourcer companies” is statistically significantly associated with the rating of the region according to its investment attractiveness. The forecast of the rating is not perfect, there are errors in three cases out of 24 (over 12%). The value of the pseudo-coefficient of determination is $R^2 = 0.63$.

The indicator “Number of enterprises with the main type of activity “market research” as a factor produces a slightly worse

result of the forecast of the rating. Errors occur in four out of 24 cases (17%). However, the value of the pseudo-coefficient of determination is slightly higher: $R^2 = 0.69$.

Other indicators that classify the level of investment attractiveness of the region include enterprises with the following types of activity: 52.1 (warehousing and storage), 78 (employment and recruitment).

It should be noted that almost all indicators of the number of outsourcer enterprises prove statistically significant when *logit* regressions are constructed with a single variable. However, these pair models give a forecasting result that is much worse, though the factors are statistically significant.

The exceptions are the indicators for companies with the following types of activities: 66.19.6 (reception of payments from individuals by payment agents), 66.11 (administration of financial markets). The number of companies with these types of activities is not connected statistically with the level of investment attractiveness of the region. The results for all models are presented in detail in *Table 4*.

All the factors listed in the table are statistically significant when “predicting” the position of a region in the rating of investment attractiveness. This means that companies in more developed regions improve their administration system and transfer administrative processes and functions to external companies for execution.

Insights

Thus, the simulation results allow us to formulate answers to the questions set out in the introduction.

The analysis of statistical data indicates the presence of a general pattern of development of outsourcing in the regions of the Far Eastern Federal District and Eastern Siberia. This conclusion is supported by the results of correlation analysis and analysis of the structural composition of enterprises.

Despite the significant number of companies operating on conditions of outsourcing, their number is not related to the level of GRP, and is only a consequence of population size in general and of the size of economically active population in particular. Hence it is obvious that the introduction of outsourcing in economic practice in the regions of the Far Eastern Federal District and Eastern Siberia does not have a significant effect on macroeconomic performance. The absence of big players among regional outsourcing companies does not allow them to compete with the branches of Moscow-based companies.

At the same time the results obtained allow us to assert that the use of outsourcing is an indicator of investment attractiveness of regions. The fact that a region has specialized analytical firms (“market research”) and companies specializing in “technical testing, research and certification” is no doubt related to a higher position of the region in the rating

Table 4. Logistic models assessment results

| Factor | Share of errors | R ² | p-value |
|---|-------------------|----------------|---------|
| Number of outsourcer enterprises, total | 12% (3 out of 24) | 63% | 0.012 |
| Number of enterprises 73.20.1 "market research" | 17% (4 out of 24) | 69% | 0.022 |
| Number of enterprises 73.1 "advertising" | 30% | 50% | 0.025 |
| Number of enterprises 52.1 "warehousing" | 13% | 66% | 0.098 |
| Number of enterprises 70.1 "headquarters" | 21% | 51% | 0.052 |
| Number of enterprises 81.2 "cleaning" | 25% | 33% | 0.051 |
| Number of enterprises 63.11 "data processing" | 30% (7 out of 24) | 32% | 0.018 |
| Number of enterprises 66.19.4 "financial advisory support" | 30% (7 out of 24) | 40% | 0.021 |
| Number of enterprises 69.10 "legal services" | 25% | 54% | 0.019 |
| Number of enterprises 78 "staff recruitment" | 13% | 66% | 0.012 |
| Number of enterprises 71.20 "technical testing and certification" | 21% | 60% | 0.014 |
| Number of enterprises 80.1 "private security services" | 17% (4 out of 24) | 57% | 0.008 |

Source: calculated by authors with the use of the generated data array.

of investment attractiveness. Logistic models with the number of companies of this type as a factor produce the smallest number of errors in the "forecast" of the rating of investment attractiveness of the region, the factors have statistical significance at the level of 2% (see Tab. 4). This result indirectly confirms our hypothesis that the main reason for the development of outsourcing

lies in the differentiation of knowledge and competences.

The research produced the results that have both theoretical and practical significance and that can be interesting for business environment and for researchers in the field of economics and entrepreneurship.

Of theoretical importance are the patterns of development of outsourcing in the Far

Eastern Federal District and Eastern Siberia. The development of outsourcing in these regions has common patterns that do not depend on the level of economic development and investment rating. It is established that the use of outsourcing in production activities has no effect on the level of GRP. At the same time, our research shows that the number of companies operating on the terms of outsourcing is an indicator of investment attractiveness of the region.

The findings presented in the research allow real business to study the structure of the outsourcing market and to assess the possibility of transferring functions and processes to external execution.

The structure of the data that we developed provides the basis for organizing the monitoring of the outsourcing market in the regions, because organizing such a system for

the storage of statistical surveys data helps do the following:

- register dynamic changes in the outsourcing market.
- study the impact of outsourcing on the creation of a comfortable business environment and investment attractiveness of regions;
- forecast the level of self-employment.

In general, our studies confirm that the introduction of outsourcing is an indicator of the level of development of the business environment and self-employment. However, the use of outsourcing in production activities of enterprises has no significant impact on the economic performance of regions of the Far Eastern Federal District and Eastern Siberia. We see development prospects within the consolidation of outsourcer companies and advancement of their technology.

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Managing the Functioning of Small Business at the Municipal Level as a Driver of Regional Economic Development



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Abstract. Small business plays a special role in socio-economic development of territorial entities. Implementing the resource potential of a local area is the main and typical feature in the functioning of its subjects. However, issues related to the management of the sector, remain insufficiently developed in the framework of individual municipalities. On this basis, the aim of the present research is to develop an organizational and economic mechanism for managing small business, which would ensure the implementation of policy measures to enhance the functioning of regional small business at the municipal level. In order to achieve this goal, we set out the tasks to develop recommendations

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to promote the work of small organizations with the help of program activities and organizational and economic mechanism to ensure their implementation, as well as recommendations for the calculation of their economic effects. Methodological approaches to the research are based on general scientific methods (comparison, generalization, analysis, synthesis) and statistical methods (correlation, regression analysis). Their theoretical and methodological basis is formed by the works of Russian scientists (A.I. Ageev, A.P. Asaul, M.G. Lapusta, Yu.L. Starostin, and others) and foreign scientists (R. Cantillon, J. Meyer-Stamer, A. Smith, D. Ricardo, J.B. Say, J. Schumpeter) in the field of regional economics, specifically, small business management. Findings of the research confirm the need to develop an optimal approach to the organization of relations between small business and government structures at the municipal level. In this regard, we developed and proposed guidelines for designing programs aimed to enhance the functioning of small business for different types of municipalities chosen on the basis of application of methods that we developed previously for estimating the functioning of small business at the municipal level. In order to ensure their implementation we also developed an organizational-economic mechanism for managing small business functioning. Calculation of the effectiveness of implementation of the recommendations presented on the example of the Vologda Oblast shows that their implementation increases the autonomy of local budgets, releasing the funds of the regional budget in the next fiscal year in the amount of 52% of the amount of project financing (409.5 million rubles). The materials presented in the article can be used by regional and municipal authorities when determining future strategy and elaborating territorial development programs.

Key words: small business; entrepreneurship; regional economy; municipal entity; management mechanism; own revenues of local budgets, system for enhancement of activity.

Introduction

At the present stage of economic development, Russia and its regions are searching for new models, forms, and methods of socio-economic growth, for improving innovative capacity and economic competitiveness in the world economy [10]. Increased economic activity in small business is one of the most important problems in modernization of Russian economy [8]. Without enhancing the effectiveness of small business it is impossible to overcome a decline in production, to achieve financial

stabilization and economic recovery, and to improve the quality of life in the country as a whole and in its local territories.

Currently, there exists a dual point of view in relation to the development of economic systems, in particular, small businesses. Proponents of neoclassical theory (T. Bartik [18], D. Storey [25] L. Webster [26], R. Hamilton [22], A. Shleifer, etc.) adhered to the principle of economic liberalism, the principle of free competition. Dependence on factors such as human capital, unemployment, sectoral structure of the

economy, and the production and market infrastructure promotes self-development and self-regulation of the economic sector under consideration; this is why the government should not intervene in the process of harmonizing the data on economic processes. However, this approach works in a society accustomed to tough competition. In transition economies, the free market leads to impoverishment of a large number of people and to the unprecedented enrichment of large corporations that causes marginalization of part of the population.

An opposite point of view related to the Keynesian theory involves government's participation in all economic processes. According to supporters, the "consumer society" develops economic imbalance by directing too many resources to the production of consumer goods and not enough resources to social needs and infrastructure. Proceeding from this, researchers who support main provisions of this theory (P. Johnson, B. Mokry [23] F. Night, J. Schumpeter, J.W. Baumol [9; 15; 19]), indicate that the economic sector under consideration requires its entrepreneurial potential to be directed and efficiently distributed in order to improve the performance of society and increase the volume of innovation. Therefore, main reasons affecting the functioning of small businesses, have been supplemented with institutional and administrative factors.

Based on the results of a previously published study [5], we obtained conclusions

that it is necessary not only to create conditions for independent development of business structures, but also to provide various kinds of managerial influence to promote specific sectors and activities.

Taking into consideration the current dynamics and problems in the development of small business [7], we can assert there is a necessity to develop organizational and economic mechanism for managing its functioning, which would help implement measures aimed at its promotion at the municipal level. This confirms the relevance of the present study.

The goal of our research is to develop such a mechanism. To achieve this goal, on the basis of previously developed methods for assessing the functioning of small business at the municipal level, we worked out recommendations on promoting the work of small business through the implementation of program activities in municipal districts and city districts; we also developed a mechanism to ensure their implementation, and calculated their economic impact.

The relevance of the research

The quality of interaction between its elements is the main factor determining the performance of economic system management. In our opinion, the optimal solution is found in a model of indirect impact on small business through the improvement of conditions for economic activity for all entities of the business sector while simultaneously implementing various

measures to enhance their activities with regard to existing problems and needs.

According to the report of Joint-Stock Company “Russian Bank for Small and Medium Enterprises Support” (SME Bank) published in 2015, there are 11 major types of support provided by authorities of different countries. Comparing their ways to manage the development of small business and its support shows clearly the need to expand the field of financial support of small businesses. This is demonstrated by the experience of Canada, Switzerland, the UK, and other countries.

The adoption of Federal Law 209-FZ “On the development of small and medium entrepreneurship in the Russian Federation” dated July 24, 2007 marked the beginning of state support and management effects on the economic sector under consideration. However, the results of implementation of the adopted programs do not indicate their sufficient efficiency [7].

Compared to 2008, the number of organizations in 2014 increased by 34%, and the number of registered physical persons engaged in entrepreneurial activities decreased by 9.1%. For this period there was also an increase in the average number of people employed in the small business sector and an increase in its share in the structure of people employed in the economy (by 1.9% and by 2.4 p.p., respectively). However, despite the growing number of small businesses, their commodity turnover showed a continuous

downward trend. In 2011–2014, it decreased (in comparable prices of 2014) from 28.8 to 26.4 trillion rubles (or by 8.3%), and its share in the turnover of all companies decreased from 22.6 to 20.4%. As a result, in four years, the turnover of one small organization decreased on average from 15.6 to 12.6 million rubles (in comparable prices of 2014). Thus, the result of government management of the sector under consideration was its quantitative increase rather than development.

Having analyzed scientific literature on the function and role of small business in the economy [1; 3; 16; 21], we can conclude that it has the greatest impact on the economy of municipal entities, because its functioning facilitates accelerated economic growth of local territories, contributes to the development and saturation of local markets, at the same time making it possible to compensate for the costs of market economy (unemployment, fluctuations, crises) and implement resource potential of the territory, contributing to the growth of its level of socio-economic development.

Having studied the experience of government management of small business development at the municipal level, we point out that in modern conditions there are many different models of interaction between small businesses and local governments; the models have their advantages and disadvantages. Thus, it is necessary to develop an optimal approach to the organization of relations between power structures at the municipal

level and the small business sector. It is also necessary to develop a set of measures to promote effective functioning of small entrepreneurship subjects in local territories.

Research methods. Methodological approaches to the research are based on general scientific methods (comparison, generalization, analysis, synthesis) and statistical method (correlation, regression analysis).

In our research, we used economic-mathematical modeling, which helped establish linear dependence between the functioning of small entrepreneurship, and various factors and identify its impact on the financial independence of municipalities.

Using the method of mean values, we determined national average values of indicators of small business at the municipal level for 2009–2014, on the basis of which, on the example of the Vologda Oblast, we classified municipalities according to the quality of functioning of small business in the territory under consideration.

The works of Russian scientists (A.I. Ageev, A.P. Asaul, M.G. Lapusta, Yu.L. Starostin, and others) and foreign scientists (R. Cantillon, J. Meyer-Stamer, A. Smith, D. Ricardo, J.B. Say, J. Schumpeter) in the field of regional economics, in the management of small business, served as theoretical and methodological basis for the development and justification of program activities and organizational-economic mechanism of functioning of small business at the municipal level.

The results of the study.

Having analyzed the report of the Ministry of Economic Development for the meeting of the State Council of the Russian Federation “About the measures on development of small and medium entrepreneurship in the Russian Federation”, we point out that currently the majority of municipal entities of the Russian Federation implement programs for development and support of small business. In turn, development programs adopted at the municipal level differ considerably within the same region and are often only formal¹. We also analyzed business development programs that are implemented in municipalities that are leaders (according to the Agency for Strategic Initiatives in 2015) in different regions of the Russian Federation based on criteria such as the types of support, sources of funding, availability of infrastructure for support, the level and share of expenses of the municipal administration to support small business in the total amount of costs on the national economy. As a result, we came to the following conclusions:

1. Provision of municipalities with grants aimed to increase the number of small organizations has not produced the desired effect.

2. Subsidizing various costs of small business and provision of guarantee support

¹ For example, the average amount of financing for the program of development of small and medium entrepreneurship on the territory of Syamzhensky District of the Vologda Oblast amounted to an average of 10 thousand rubles per year for 2010–2016.

from municipal authorities for the purpose of obtaining additional financial resources has not led to the planned result, as well.

3. In the regions-leaders with a relatively low volume of funding for small business support, their municipal authorities direct most of their efforts to create favorable business and investment environment for the subjects of small business for the purpose of their effective functioning and further development. This activity is carried out in the following areas: streamlining of administrative procedures; provision of incentives for entrepreneurs in priority sectors; improving the quality of consulting services on the development of small organizations; implementation of measures to stimulate activities in individual economic sectors; organizing a system of state and municipal orders, etc. The availability of positive experience in using these measures at the municipal level, according to specified directions, confirms their efficiency.

The results of the analysis of municipal programs for development and support of small business undertaken in the territory of the Vologda Oblast indicate the low efficiency of their implementation in most municipalities and the actual lack of interest of local authorities in the development of small business. It is worth noting that in areas that lack infrastructure for the development of small business and additional support from the local authorities, we observe an increase in the basic indicators of activity

of small business; it is due to the allocation of municipal budget funds to other spheres of promoting the performance of economic sectors. This confirms the possibility of using a model for indirect promotion processes to enhance the operation of small businesses at the municipal level as an optimum variant of management of this economic sector.

To implement the model proposed, it is necessary to develop or revise the existing municipal target programs for development of small business. Their main goal should consist in creating favorable conditions for enhancing the functioning of small businesses in the municipal entity of the region for the purpose of enhancing the profitability of local budgets at the expense of own funds. The objectives of the programs can vary depending on different socio-economic issues of territories.

In order to determine them, we used our previously developed methodology that assesses the functioning of small businesses at the municipal level, which allows us to define its functioning trends and classify small business entities according to individual parameters, thereby promoting the development of a set of measures to solve specific problems of each group [4]. On the basis of this methodology we classified municipal entities of the region according to three blocks of the integrated indicator of functioning of small business. Having distributed the results of calculation of indicators concerning the average values

of each block in the country for 2009–2014, adopted as the critical boundary of the estimate, we obtained eight types of municipalities characterized by a particular set of positive and negative characteristics (Tab. 1).

The block “Extent of dissemination of small businesses” includes indicators characterizing the density of small enterprises on the territory of the municipality, taking into account its population size and the involvement of its population in the small business sector. The “Scale of business” in the territory of the municipality is understood as a group of indicators characterizing the extent of entrepreneurial activity carried out by small businesses (territorial characteristics are not taken into account in this category). The block describing the efficiency of functioning of small business includes profitability of their products and profitability of entrepreneurial activity on the territory of the municipality.

Having tested the method on materials of the Vologda Oblast, we identified main types

of municipal entities that differ in the functioning of small entrepreneurship; we also identified current problems for each municipality. In most districts there is a low degree of dissemination of small businesses. Major activities in this sphere, in our opinion, should aim to promote quality growth and development of small business and their activities and the need for dialogue between government and business to identify its specific problems and reduce administrative barriers.

The decrease in the level of functioning of small business in Babushkinsky, Velikoustyugsky and Sheksninsky districts is due to deterioration of financial efficiency of activity of small businesses. However, Vytegorsky, Gryazovetsky, Kaduysky, Ust-Kubinsky and Ustyuzhensky districts are experiencing a reduction in the scale of business operations. Thus, municipalities that are experiencing different problems require differentiated ways to support small entrepreneurship.

Table 1. Characteristic of the types of municipal entities of the region*

| Type | Extent of dissemination of small business | | Scale of small business | | Efficiency of small business | |
|------|---|-----|-------------------------|-----|------------------------------|-----|
| | High | Low | High | Low | High | Low |
| 1 | + | | + | | + | |
| 2 | | + | + | | + | |
| 3 | + | | | + | + | |
| 4 | | + | | + | + | |
| 5 | + | | + | | | + |
| 6 | | + | + | | | + |
| 7 | + | | | + | | + |
| 8 | | + | | + | | + |

* Compiled by authors.

In this regard, a set of recommendations was developed for enhancing the functioning of small businesses at the municipal level for each type of municipalities. The complex comprises two blocks:

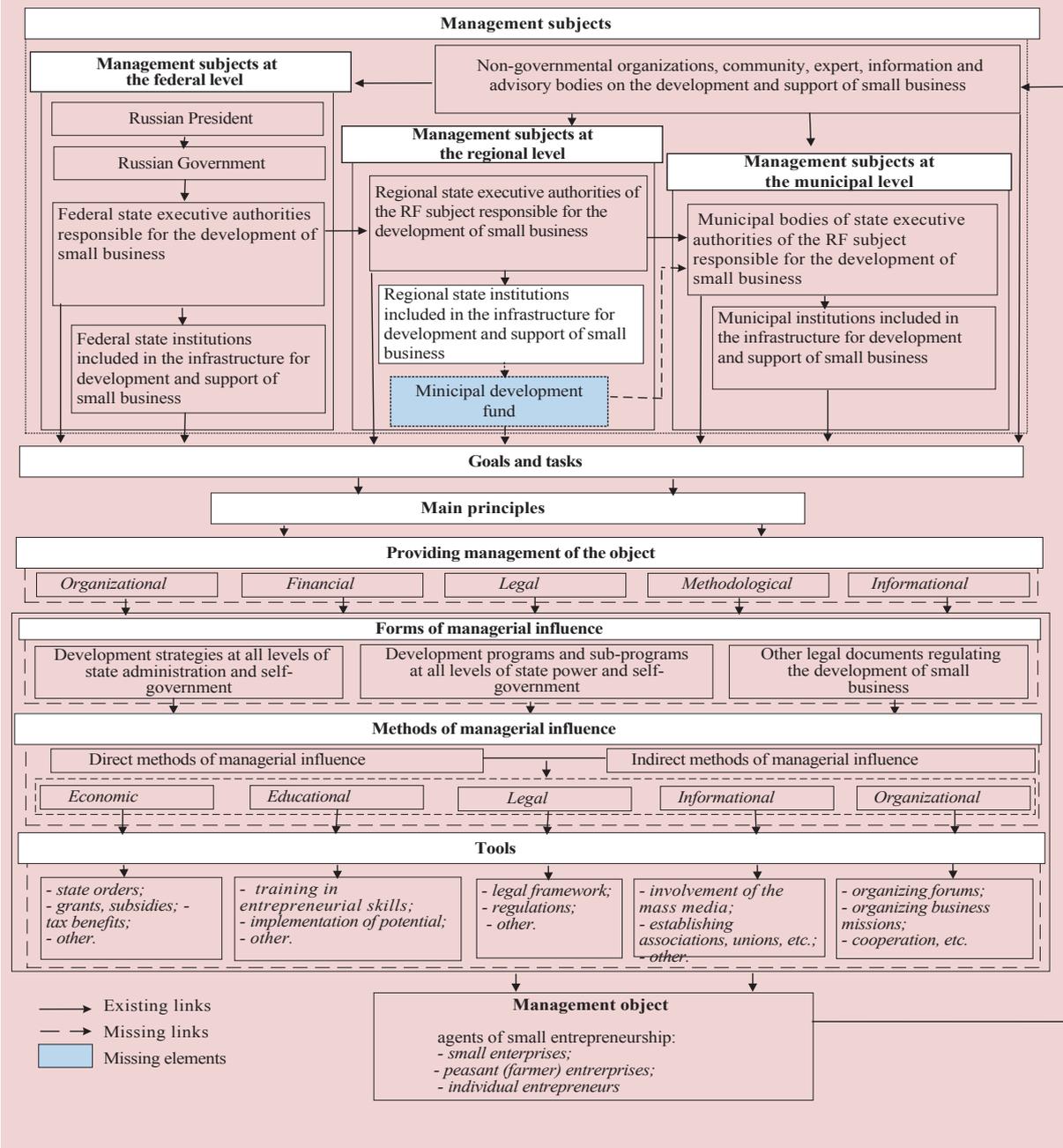
1) basic (priority activities, the implementation of which is feasible regardless of the group of small business);

2) variable (differentiated activities for each group of small business).

Each of these units has five main areas to enhance the functioning and creation of conditions for development of the subjects of small business on the territory of municipalities. These areas are as follows: legal (for the basic block: development of legal framework for cooperation between municipal self-government and small business; outlining the areas of investment policy; approval of quality standards for municipal services, etc.; for the variable block: development of investment passport; conclusion of a partnership agreement between municipal self-government and small business, etc.); information (for the basic block: publication of plans for creation of investment platforms; formation of advisory support system for small business, etc.; for the variable block: creation of online resource to provide a channel of direct communication with small business and municipal self-government; direct informing about the latest changes in the legal and economic interaction between business and government, etc.);

organizational (for the basic block: creation of public councils of entrepreneurs under municipal self-government; establishment of an administration of municipal entities on the development of small business; establishment of an office for managing the land and property complex; for the variable block: development of joint projects of small business and municipal self-government on the basis of public-private partnership (PPP); development of sponsorship and charity; organization of socially significant productions, etc.); economic (for the basic block: reduction of time and financial costs of small business with regard to licensing procedures; creation of a mechanism to promote energy efficiency of small business production; formation of factoring mechanism, etc.; for the variable block: creation of infrastructure to accommodate industrial and other objects of investors in the territory of the municipality; formation of development institutions and financial organizations on the territory of the municipality, etc.), and resource and methodological support (for the basic block: development and dissemination of manuals on the rules and guidelines of doing business; improvement of professional skill of employees at municipalities' administration, etc.; for the variable block: training the unemployed for entrepreneurial activities; increasing the economic and legal literacy of residents of municipal entities, etc.).

Organizational and economic mechanism of management of functioning of small business at the municipal level



In the preparation of a municipal program for boosting the functioning of small businesses at the municipal level it is recommended to include at least one measure of support for each area of activity of municipal self-government of the basic block and at least three measures for the variable block. It should be noted that for each area of the variable block it is possible to develop other projects of activities to support and enhance the functioning of small business. However, they should be aimed primarily at solving problems corresponding to the type of municipal entity. This approach will provide an optimal use of available resources and increase in the efficiency of municipal authorities.

The performance of the program is estimated by assessing the obtained and planned results of the functioning of small business at the municipal level; and the efficiency is assessed by a regional expert council through assessing the growth of own revenues of local budgets of municipal entities.

In our opinion, the implementation of these measures is only possible if a common organizational-economic mechanism is created that helps achieve goals taking into account the problems that exist in business entities in municipalities of the region.

We analyzed the works by V.G. Afanas'ev, G.Kh. Popov, A. Kuhlmann, K. Morgan and others [6; 11; 24] that study organizational and economic systems, and we understand

the organizational-economic mechanism of management of the functioning of small businesses at the municipal level as a set of principles, forms, methods and tools of targeted administrative impact of authorities at all levels on the functioning of small business in order to improve the efficiency of its activities to facilitate socio-economic development in the territory.

The mechanism that is to be formed is based on the existing system of management of development of small entrepreneurship in the Russian Federation and provides for the adjustment of existing relationships and the formation of several new management subjects (*Figure*). This mechanism is created and operates by the management activities of municipal government and administration that are guided by their own principles and management specifics, available resources and local policy, based on development priorities identified by federal and regional authorities and spelled out in key documents of socio-economic development of the state.

This organizational and economic mechanism of management of functioning of small business in municipal entities consists of three units. The first unit – the system for managing the operation of small business – comprises state and municipal authorities, community councils, enterprises, public institutions and institutions that provide management impact. The second unit of the mechanism is a set of forms, methods and tools that can change depending on

the tasks, resource base of the municipality, management practices and other external and internal factors. The third unit includes an object of management – small businesses of the municipality. The following diagram reflects the process of interaction and communication between all participants of the management under consideration. Thus, the main task of the mechanism is to restore the links between its elements that were broken or that are not functioning at full strength. Since we have revealed a decrease in managerial influence on the functioning of small business on the part of municipal authorities, it is advisable to create additional sources of incentives for their cooperation to promote economic development of a territorial entity.

In regions of the Russian Federation, different power structures are created that are involved in stimulating socio-economic development of municipal entities. In the Vologda Oblast such a structure is the Department of Internal Policy, formed according to the Decree of the Vologda Oblast Government “On approval of regulations on the Department of Internal Policy of the Vologda Oblast Government” dated May 31, 2012 No. 570; this department is in charge of implementation of powers of executive bodies of state authorities of the region in the sphere of local self-government. The functions of the department include the distribution of financial means of the regional budget, allocated for socio-economic development

of territories in the framework of various projects, contests, and events. As of July 1, 2016, the instructions with regard to all municipal districts of the oblast were executed for a total amount of 78.612 million rubles, including in 2014 – 15.474 million, in 2015 – 8.841 million rubles and in 2016 – 54.296 million rubles.

However, the allocated funds are not enough to address current problems of municipalities and design additional projects and activities, which reduces the interest of the local administration in the development of the district economy. The most perspective sphere of activity for local self-government is to receive subsidized payments, which tend to increase in the Vologda Oblast. In 2014–2016, the increase in the volume of subsidies that go to the budget of municipal districts and urban districts averaged 40.3%, and the total volume of subsidized payments reached 1.5 billion rubles in 2016.

Based on the necessity to organize real motivation for local self-governments in the promotion of managerial impact on the small business sector, we consider it appropriate to create a structural unit on the basis of regional business support centers (BSC), whose activity is connected with promoting small business development and providing various support measures aimed to enhance their functioning, and with the implementation of other activities in the framework of state programs (subprograms) of constituent entities of the Russian Federation and

municipal programs that contains activities for development of subjects of small and average business, ensuring effective implementation of municipal programs for the development of small business through the implementation of financial incentives for administrations of municipal districts of Russia's constituent entity (Municipal Development Fund – hereinafter, the Fund).

This project can be implemented after the adoption of the regional program for development of small business, which includes the establishment of the Fund. It should be noted that its activity does not involve making profit. The main objective of the Fund is to provide financial support to administrations of municipal districts (municipalities with the exception of regional and industrial centers and single-industry towns) with the aim of creating a system for enhancing the functioning of small businesses in the local territory.

The main objectives of the Fund can be as follows:

- promoting the development of small business by organizing an effective administrative support to the municipal authorities;
- increasing self-sufficiency of the budgets of the region's municipal entities;
- diversifying the economy of the region's municipal entities;
- evaluating the effectiveness and targeted use of funds by municipal self-government.

Funding sources can be found in financial resources of the regional and federal budgets. According to the resolution of the Ministry of Economic Development of the Russian Federation dated December 29, 2016, No. 1538, the amount of co-financing of regional programs for development of small and medium business ranges from 34 to 95% of the total project funding, depending on the subject of the Russian Federation. It is proposed to link the amount of regional financial resources allocated to the activities of the fund to the volume of corporate tax inflow of organizations in the amount of 2% out of 17% of the total income tax directed to the consolidated budget of the region from the municipalities (around 11.5% of the total amount of corporate tax directed to the consolidated budget of the region by municipalities). The expenditures on operating activities of the fund (wages, current expenses, etc.) are covered by these funds in the amount that does not exceed 10% of the total amount of financing the fund's activities. The rest of its financial means should be distributed among municipal administrations for implementation of the selected projects on development of their own socio-economic systems (under the item “needs of the national economy”).

The implementation of this financing system will help create a system for supporting the functioning of small business at the municipal level through changing the amount of support provided by regional

authorities judging by the performance of the entrepreneurial sector in the local territory.

According to the office of the Federal Treasury and the Department of Federal Tax Service in the Vologda Oblast, the amount of corporate tax in the municipalities under consideration (except for the cities of Vologda and Cherepovets) amounted to 6.55 billion rubles as of 2014. Thus, the financing of the fund from the regional budget next year should amount to 770.5 million rubles, which, in turn, is about 1.3% of the total revenues of the consolidated budget of the Vologda Oblast and 67.5% of the amount of subsidies paid to the local budgets. According to the aforementioned resolution of the Ministry of Economic Development, the co-financing on the part of federal authorities is about 62% for the Vologda Oblast. All in all, the total amount of financing of the fund from all levels of the budget will be about 2.03 billion rubles.

Taking into account the expenses for the needs of the economy in the municipalities under consideration, as well as the results of simulating the interaction between small business and socio-economic system of municipalities, and if 90% of financial resources of the fund (about 1.8 billion rubles) are allocated to the needs of economy of municipal districts of the oblast, then next year it is expected that own revenues of the municipality will increase by 15.5% (1.18 billion rubles) due to the increase in the profit

of small businesses². Efficient operation of the fund will also contribute to the growth of the tax base of businesses that will further increase the payments of profit tax in the consolidated budget of the region.

As a result of increase in the payments to local budgets at the expense of own funds, in the future it is possible to reduce subsidy expenditures of the consolidated budget in the amount of the sum of this increase, and this will make it possible to redirect the funds to address other socio-economic problems of the region.

In addition, in order to redirect the funds of the consolidated budget of the region for the implementation of the proposed project, it is suggested to reduce subsidy payments to district budgets aimed at the needs of the economy of municipal entities. Redistribution of budget funds shown on the example of the Vologda Oblast will increase the revenues and autonomy of local budgets and lead to the release of regional budget funds in the amount of 52% of the total funding for the project.

It is recommended to determine quotas and allocate financial resources of the fund according to expert opinion of the application of the municipality, and according to the classification of small businesses on the basis of deviation of the integral indicator of

² The calculations were performed on the basis of existing models of interaction between small business and the economy of the municipal entity with the use of the data of the office of the Federal Treasury and the office of Federal Tax Service in the Vologda Oblast [5].

Table 2. Distribution of scores on the deviation of the integral indicator of functioning of small businesses in the district from the average value

| Level | Deviation of the integral indicator | Recommended score of application assessment |
|-----------------------|-------------------------------------|---|
| High | over 30%. | 5 |
| Above average | from 10 to 30%. | 4 |
| Average | from -10 to 10%. | 3 |
| Below average | from -30 to -10%. | 2 |
| Low | less than -30%. | 1 |
| * Compiled by authors | | |

functioning of small businesses in the district from the regional average value (Tab. 2).

The amount of funding for the application of a municipal entity is calculated according to the following formula:

$$S_i = F_j * \left(\frac{b_i + k_i}{\sum_{i=1}^n (b_n + k_n)} \right) \times 100\%, \quad (1)$$

where S_i is the amount of funding for the i -th application of the municipality;

F_j – main resources of the fund to be distributed between municipal entities in the j -th financial year;

b_i – score of the estimation of statistical indicators of the i -th application of the municipality;

n – number of applications of municipalities for consideration of further financing in the fund;

k_i – expert ratio of the i -th application.

Assessment of the quality and compliance of planned activities with existing problems of municipal entities (according to the classification of municipalities) is assigned to the expert commission of the fund. After the application has been examined, a final score is given, which characterizes the overall quality

of the developed municipal program (from 0 to 10 points). The calculation of the expert ratio is as follows:

$$k_i = \frac{(\sum_{p=1}^z a_{ip})/z}{10}, \quad (2)$$

where a_{ip} is a final score of the p -th conclusion of the i -th application, characterizing the overall quality of the municipal program;

z – number of the expert opinions on a single application.

Thus, the quality of the drafting and the validity of proposed measures and types of support from local self-government, aimed at improving key performance indicators of the economic sector under consideration, will define the amount of incentive funding provided by regional authorities.

The creation of the fund considered above should become a priority area of activities of regional authorities in the field of support and development of small entrepreneurship. Its operation will help attract additional funds from the federal budget to ensure the effective use of the region's consolidated budget, to intensify the activities of local self-

governments, and to increase the financial autonomy of local budgets through the development of the socio-economic system of the territory.

Conclusions

The results of the study prove that it is necessary to develop an optimal approach to the management of relations between municipal government and small business sector as well as a set of measures for its support, contributing to the effective functioning of small businesses in local areas. In this regard, the guidelines for designing programs for different types of municipalities have been developed and proposed, and they aim to enhance the functioning of small business. These programs are based on the system of program measures to enhance the functioning of small businesses at the municipal level taking into account the specifics of each type of municipal formations.

Development of municipal programs on the basis of recommendations presented in this article will contribute to the development of the small business sector and creation of an effective model for interaction between municipal authorities and small businesses; the use of this model will improve the profitability of local budgets at the expense of own funds, which, in turn, will lead to

an increase in the level of socio-economic development of the municipal entity and the region as a whole.

In order to promote the implementation of these programs we developed an organizational-economic mechanism for managing the functioning of small businesses. The main element is the municipal development fund, aimed at financing the proposed activities included in the municipal program. On the example of the Vologda oblast it has been revealed that the implementation of the proposed recommendations will increase the amount of payments to local budgets and the autonomy of these budgets, which will lead to the release of funds of the regional budget in the next fiscal year in the amount of 52% of the amount of project financing (409.5 million rubles).

Further studies will aim to facilitate the approbation of the recommendations presented on the example of districts of the Vologda Oblast, as well as to improve the developed system of program measures to enhance the functioning of small business. The proposed theoretical and methodological approaches can be used in the management of regional and municipal economy in other regions of Russia.

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Methodological Aspects of Governing Residential Solid Waste Management Sphere



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Abstract. The article is based on the results of our research on government regulation of waste treatment. The goal of the first phase of the study is to substantiate methodological provisions on arranging residential solid waste management in the region (municipality). Informational and empirical base of the research was formed with the use of the data of the Federal State Statistics Service of Russia, materials of monographs, surveys on environmental policy in foreign countries, publications in periodicals, information presented on official websites of enterprises and state and municipal authorities, as well as the data that we obtained while analyzing the situation and making observations. The object of the research is organization of residential solid waste management. Our working hypothesis that we prove is the thesis that state regulation mechanisms dominate in managing the

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development of waste treatment sphere and that there is a possibility of limited admission of market self-regulation tools managing residential solid waste treatment in the region (municipality). When defining “waste” we note the absence of a unified approach to the definition of “residential solid waste” and discrepancies in its interpretations in the laws and regulations of state authorities of the Russian Federation, which leads to inconsistencies in organizational regulations and communication space of state and municipal management. We note that the volume of solid waste is increasing each year, their composition becomes more complex, there emerge new packaging materials derived from complex polymers that can for a long time (a hundred years and more) retain hazardous properties, which increases the burden on the ecosystem and hazards to human health. Of the total volume of residential solid waste produced in Russia about 97% goes to landfills and dumps, for which about a thousand hectares of land is allocated annually, and the waste loses its potential as a secondary resource. The responsibility for reducing negative impact of waste on the environment is “spread” among executive authorities. Having analyzed and structured existing problems in the functioning of residential solid waste management and having reviewed domestic and foreign experience of waste management, we conclude that they can be solved step-by-step with the use of system approach to managing this sphere with the increased use of program-target tools of state regulation. In this regard, we postulate a methodological basis to represent the process of managing waste treatment sphere as a set of science-based targeted impacts on the collection, storage, transportation, processing, recycling, and disposal of waste for the purpose of ensuring environmental, economic and social standards and requirements. The article proves the necessity of and prerequisites for the formation of an integrative model for managing the sphere of residential solid waste treatment at the regional (municipal) level.

Key words: residential solid waste; residential solid waste management sphere; management of residential solid waste treatment sphere; state regulation of development of residential solid waste management sphere.

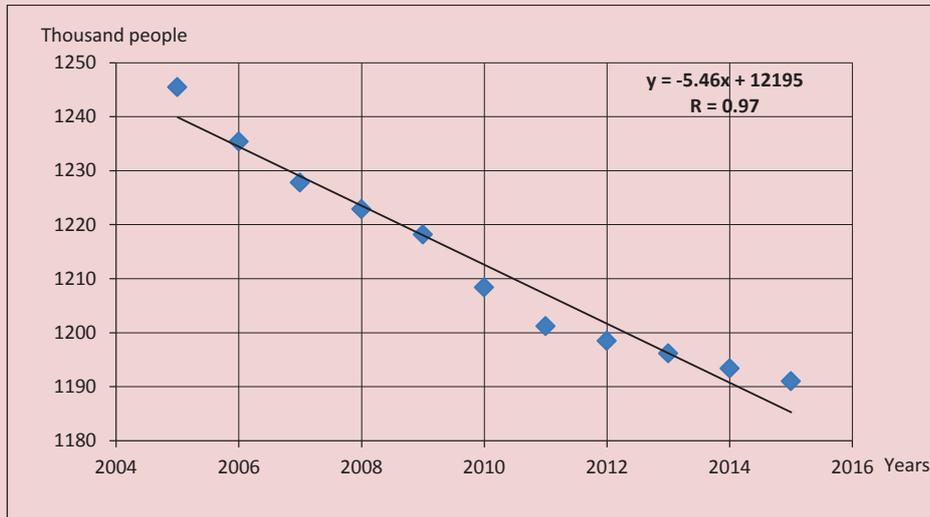
People’s livelihoods are ensured by continuous extraction of various resources from the natural environment for the purpose of their use in the production process or in daily life. This implies the necessity to consider issues such as their sustainable use, and impact of such activities on the environment, including the impact caused by waste accumulation.

According to UNESCO estimates, the volume of residential solid waste increases

each year, and by 2025 it will have increased fivefold compared to the 1990 level [2]. The Russian Federation annually produces over 60 million tons of residential solid waste or around 400 kg per person per year [7].

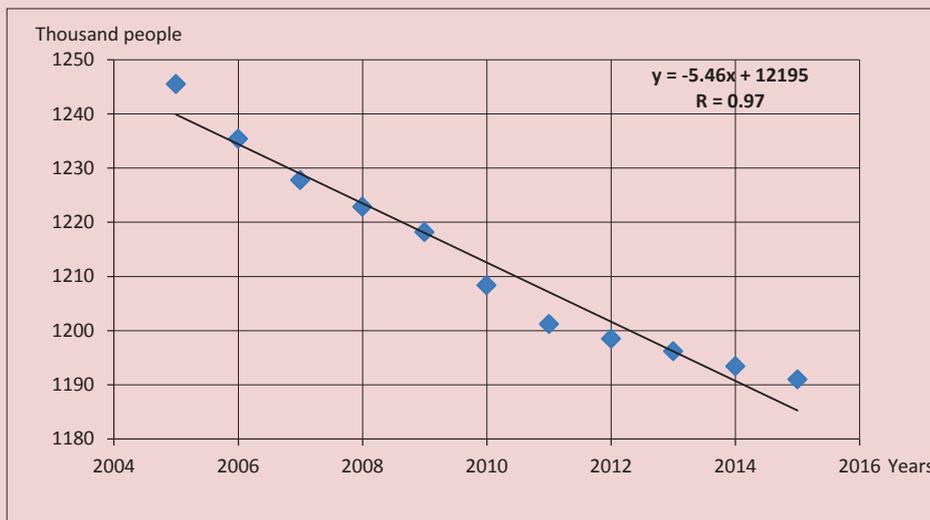
In conditions of continuously declining population, simultaneously with the increase in the volume of solid waste (*Fig. 1a and 1b*) and the complexity of their composition, new packaging materials are emerging derived from complex polymers, which for a long

Figure 1a. Dynamics of generation of residential solid waste in the Vologda Oblast in 2005–2015



Sources: Report on the state of the environment of the Vologda Oblast. Available at: <http://dpr.gov35.ru/deyatelnost/sostoyanie-okruzhayushhey-sredy>; compiled by authors.

Figure 1b. Dynamics of the Vologda Oblast population in 2005–2015



Source: Federal State Statistics Service of Russia. Available at: <http://vologdastat.gks.ru/>; compiled by authors.

time (a hundred years or more), in certain conditions, may retain hazardous properties. However, the Federal State Statistics Service of Russia (Rosstat) does not monitor the morphological composition of residential solid waste; there are only a few regional scientific studies that consider their structure, which according to various estimates contains up to 400–500 varieties of organic and nonorganic products. Most analysts agree that the increase in the volume of residential solid waste in the Russian Federation at the reduction of its population in 1993–2013 is connected with the increased use of packaging materials.

According to the authors (A.A. Solov'yana, E.M. Krivchenko, G.I. Sapozhnikova), in the total volume of waste produced in Russia, about 97% goes to landfills and dumps, and only 4–5% is recovered [14; 22; 23]. For comparison: Sweden, Denmark, Switzerland, Germany, Belgium, Norway, Austria, and the Netherlands recycle from 40 to 60% of their total waste [1; 28]. Currently in the Russian Federation there are more than 1,300 landfills, which occupy more than 40 thousand hectares. Every year about one thousand hectares of land is allocated for the construction of new residential solid waste landfills [7].

The functioning of landfills causes a whole range of environmental problems. The most important of them include negative impact on different components (both abiotic and biotic) of ecosystems around residential solid

waste landfills, which poses a real threat to people's health. However, residential solid waste is not only a source of environmental contamination, but also one of the most economical types of resources. And it is for a reason that the involvement of residential solid waste in economic turnover and the development of resource conservation are contained in the "Principles of state policy in the field of environmental development of the Russian Federation for the period till 2030" as a tool to provide environmental safety and green growth of the economy [18].

Issues such as the development of optimization methods for residential solid waste management and improvement of the economic mechanism of regulation are considered in the works of domestic and foreign scientists such as V.B. Abramov, T.A. Akimova, S.N. Bobylev, A.A. Gusev, V.I. Danilov-Danil'yan, E.V. Zakalyukina, A.V. Ivanov, K.P. Kolotyryn, G.M. Mkrtychyan, N.V. Pakhomova, K.K. Rikhter, and others. However, there is a lack of comprehensive studies on the governance of residential solid waste management sphere at the level of municipalities, cities and villages; it is becoming critically important to substantiate and choose rational models for organizing residential solid waste management in the regions (municipalities).

In this regard, the staff of the Department of Economics and Management of N.V. Vereshchagin Vologda State Dairy Farming Academy conducted a research on the

problems of state regulation of development of waste management sphere. The purpose of one of the stages of the research was to substantiate a conceptual model for governing the sphere of waste management at the regional (municipal) level. To date, the problem is stated, and methodological principles for organizing waste management are worked out. The information and empirical base of the research was formed based on Rosstat data, on studying and summarizing the materials of monographs, surveys on environmental policy of foreign countries, publications in periodicals, information presented on official websites of enterprises, state and municipal authorities, as well as the data that we obtained through analysis and observations. The tools and methodology of the research include economic and statistical surveys, comparative and systemic analysis, structuring and grouping, web analysis and modeling.

Analytical review of legislative and normative legal acts of the federal, regional and municipal level, regulating relations in the field of waste management in the Russian Federation, allows us to note that federal legislation has not until recently defined the concept “residential solid waste” clearly, although the term “municipal waste” is used in the practice of state and municipal management.

The lack of unified approach to the definition of the term “residential solid waste”

entailed certain problems. First, the volume of residential solid waste produced by municipalities was estimated very conventionally. Second, difficulties arose in the calculations of the volume of potential waste that can be directed for further processing. Third, there emerged controversial evaluations of economic efficiency of management decisions in the justification of schemes for the distribution of productive forces in local systems. Fourth, there is a mismatch between organizational regulations of control over execution of requirements of regulatory legal acts in the sphere of residential solid waste management.

The national standard – GOST P53692-2009 [4], which was adopted in 2009, defines residential solid waste as consumer waste generated by the population, including waste generated during cooking, cleaning and repair of residential premises, maintenance of adjacent areas and common areas, keeping domestic animals and birds in residential premises, as well as outdated, worn out household items. Later, the concept of solid waste was formulated in GOST R 56222-2014 [5] as the solid waste generated by households. However, the federal classification catalogue of waste refers residential solid waste to the group “municipal waste”.

December 29, 2014, amendments to Federal Law 89 “On production and consumption waste” were adopted; after that the concept of “municipal solid waste” was

introduced. It includes the waste generated in residential premises during the process of consumption by individuals and the goods that have lost their consumer properties in the course of their use by individuals in residential premises in order to meet their personal and domestic needs. Municipal solid waste also includes the waste generated by legal entities, individual entrepreneurs and that which is similar in composition to the waste produced by individuals in residential premises in the process of consumption [17].

Thus, waste generated in the course of people's lives and economic activity of organizations (service objects) received an official interpretation as solid communal waste. However, the definition of solid communal waste given in the current edition of the federal law does not take into account the transformation of the waste at the stages of its treatment, which leads to inaccuracies in establishing the norms of accumulation and, as a consequence, to errors in determining the volume and range of operational management decisions of state and municipal authorities.

The legislation of European Union members uses the term "municipal waste", which covers not only residential waste but also waste produced by public catering enterprises, trade organizations, educational institutions, etc. It is typical of most EU countries to place the responsibility for waste management on city government. In fact, this marks one of the key functional powers of municipal authorities [27].

We take the liberty of suggesting a revised definition of solid waste. We believe that the main feature of waste should be not only an indication that it was formed in the process of consumption of goods, services, etc. and has lost its consumer properties, but an indication of what constitutes its structure. We understand residential solid waste as the waste that represents secondary resources, biodegradable waste, and unreclaimable waste generated in the residential sector, at enterprises and organizations of the service sector. First, it reflects the social nature of the origin of waste; second, it will help evaluate it from the viewpoint of "usefulness".

The diversity and specific features of solid waste and its high spatial dispersion led to the need for a specific organizational and process format of displaying its place and role in the impact on human health and environment. A new object-subject-category "waste management" was introduced into the legal field of state and municipal management.

Russian GOST 30772-2001 [6] provides a definition of waste management as activity associated with a set of documented organizational and technological procedures for disposal of neutralized waste and discharges for the purpose of obtaining recoverable resources and useful products and/or destructing and burying of hazardous and other waste that is not used at present.

Western European countries use the term "waste management", which means

organizing waste handling with the aim of reducing its impact on human health and on the environment [3; 26]. This terminological position provides an opportunity to develop methodological aspects for measuring and assessing the level of social responsibility in waste management sector.

The literature and financial documents of major international institutions such as the UN (UNEP) and the World Bank, when discussing environmental issues, use the term “municipal solid waste management” – it is the planning and implementation of the system for processing municipal solid waste” [15; 28].

Thus a methodological basis is formed that represents waste management as a set of science-based targeted impacts on the collection, storage, transportation, processing, recycling, and disposal of waste to ensure environmental, economic and social standards and requirements.

It would seem that the methodological platform mentioned above suggests its use in the justification of appropriate powers of state and municipal authorities. However, taking into account the specifics of organizing waste management in Russia, solving the tasks of organizing the collection and recycling of waste is not included in the list of powers of any federal agencies that perform mainly supervisory functions (*Fig. 2*).

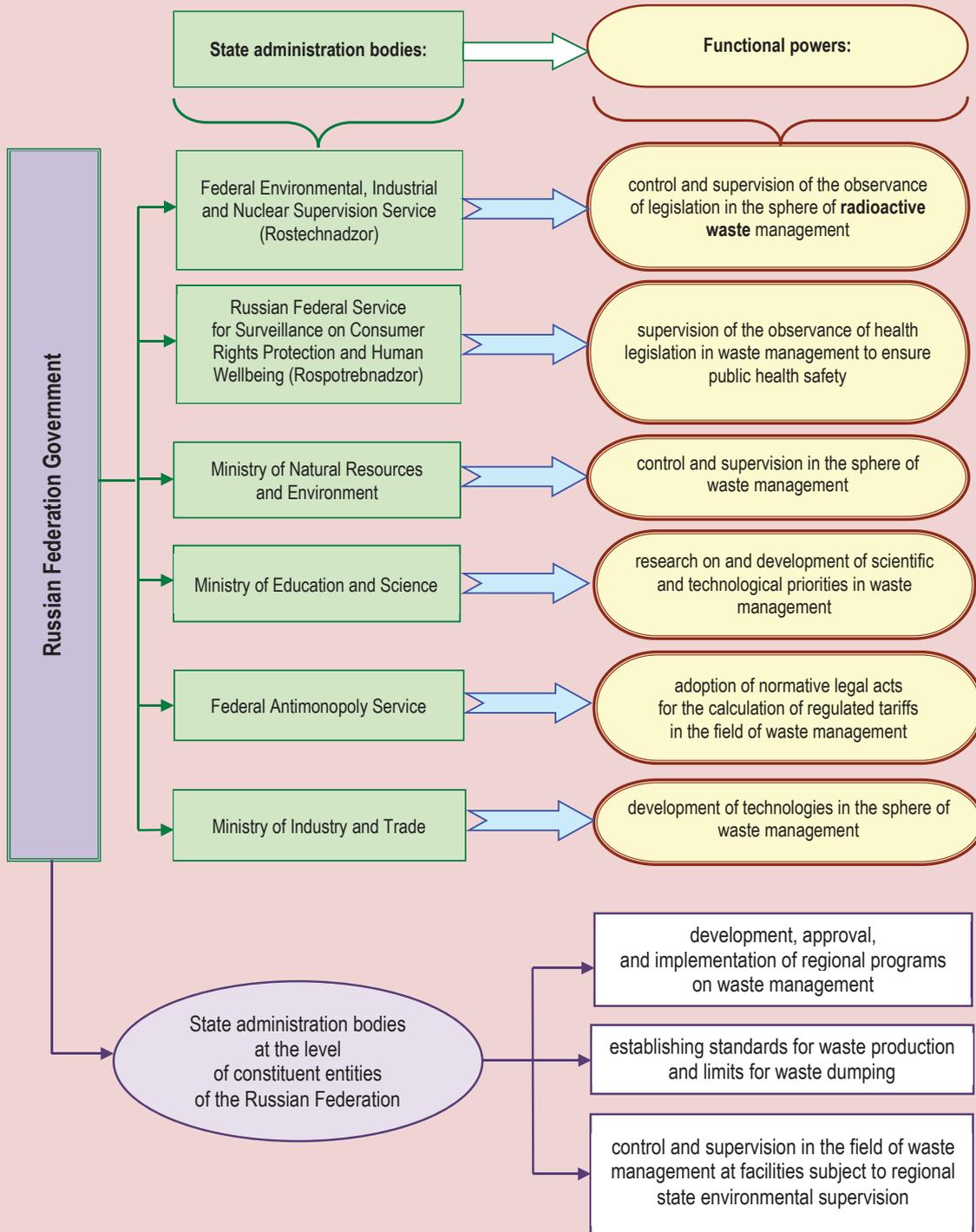
As a result, the issues of resource and environmental policies remain unbalanced,

the responsibility for reducing the negative impact of waste on the environment is “spread” between the departments.

Actually, it turns out that in Russia, all stages of waste management process are governed by municipal authorities. As a rule, they transfer the execution of management decisions on organizing the collection, processing and recycling of waste to municipal unitary enterprises they themselves founded. For these enterprises, a priority task is resource saving and gaining profit at the expense of involving waste into economic circulation, as their function is to take waste away and bury it. In addition, waste management sphere is not covered by market regulation mechanism; and municipal solid waste is not subject to market transactions.

Thus, the problem of linking the tasks of optimizing the relationship between environment and economy remains with municipal governments. And legal framework does not allow them to shift the responsibility, at least partially, to the federal level: according to Articles 14-16, Federal Law 131-FZ, the powers of settlements include organizing the collection and disposal of residential waste and trash; the powers of municipal districts include organizing the utilization and processing of residential waste; and those of urban districts – organizing the collection, removal, disposal and recycling of residential waste [16].

Figure 2. Functional subsystem of state governance of waste management sphere in the Russian Federation



Source: compiled by authors.

Surveys of heads of municipal entities in the Vologda Oblast carried out by ISET RAS show their concern about the functioning of waste management sphere. Many of them focus on the need to use the strengths of domestic experience in the field of waste management, combining the advantages of centralized resource planning with the integrative nature of functional interaction between central, regional and local governments to ensure environmental, economic and social standards and requirements at all stages of collection, storage, transportation, processing, recycling, neutralization, and disposal of waste.

It is known that the targets of the functioning and development of waste management in the USSR were set at the all-union level by the State Planning Committee (Gosplan); resource support was carried out by the State Committee for Material and Technical Supply (Gossnab).

The task of Gosplan was to plan and control the volume of waste collection for its further use as a secondary resource. Gossnab had specialized offices responsible for acceptance of recyclable materials: Glavvtorsyr'e (Main directorate for acceptance and recycling of secondary resources), Glavvtorchermet (Main directorate for acceptance, recycling and sales of secondary ferrous metals), Glavvtortsvetmet (Main directorate for acceptance, recycling and

sales of secondary non-ferrous metals). Glavvtorsyr'e collected recyclables from people in cities and rural settlements (Tsentrosoyuz (Central Union of Consumer Cooperatives) – in rural areas), Glavvtorchermet collected scrap metal from industrial enterprises, state farms, and machine and tractor stations; Glavvtorchermet was responsible for collecting non-ferrous and precious metals. Secondary resources were used for production of new products, and the cost of collection and preliminary processing of secondary raw materials was included in its self-cost.

In the 1980s in the USSR there were 527 enterprises for production of secondary resources and 5,677 centers for collecting secondary raw materials from people, among them: 3,793 stationary and 1,884 mobile centers [9].

Gossnab also included the All-Union Scientific-Research Design and Technological Institute of Secondary Resources (VIVR), which provided scientific solutions to technological problems of recycling.

Information support of waste management sphere was based on detailed and strictly formalized statistical reporting – both general and for different categories of waste. The production plan of each company recorded the amount of waste (metal, glass, plastic, etc.) necessary to be delivered to Gossnab on a mandatory basis.

According to the Decree of the Central Committee of the Communist Party of the Soviet Union and the USSR Council of Ministers No. 608, “On radical improvement in the use of raw materials, energy and other material resources in 1986–1990 and in the period until 2000” dated May 23, 1986, the organization responsible for the development of new types of materials or products at the same time was to develop technology for reuse or recycling after the end of service life or operation, providing for the establishment of appropriate capacities along with the creation of capacities on production of new materials or products [21].

Thus, in the USSR, governing the sphere of waste management included planning, organization, coordination, regulation and control in order to achieve the main goal – to involve waste into economic circulation and to minimize its negative impact on the environment.

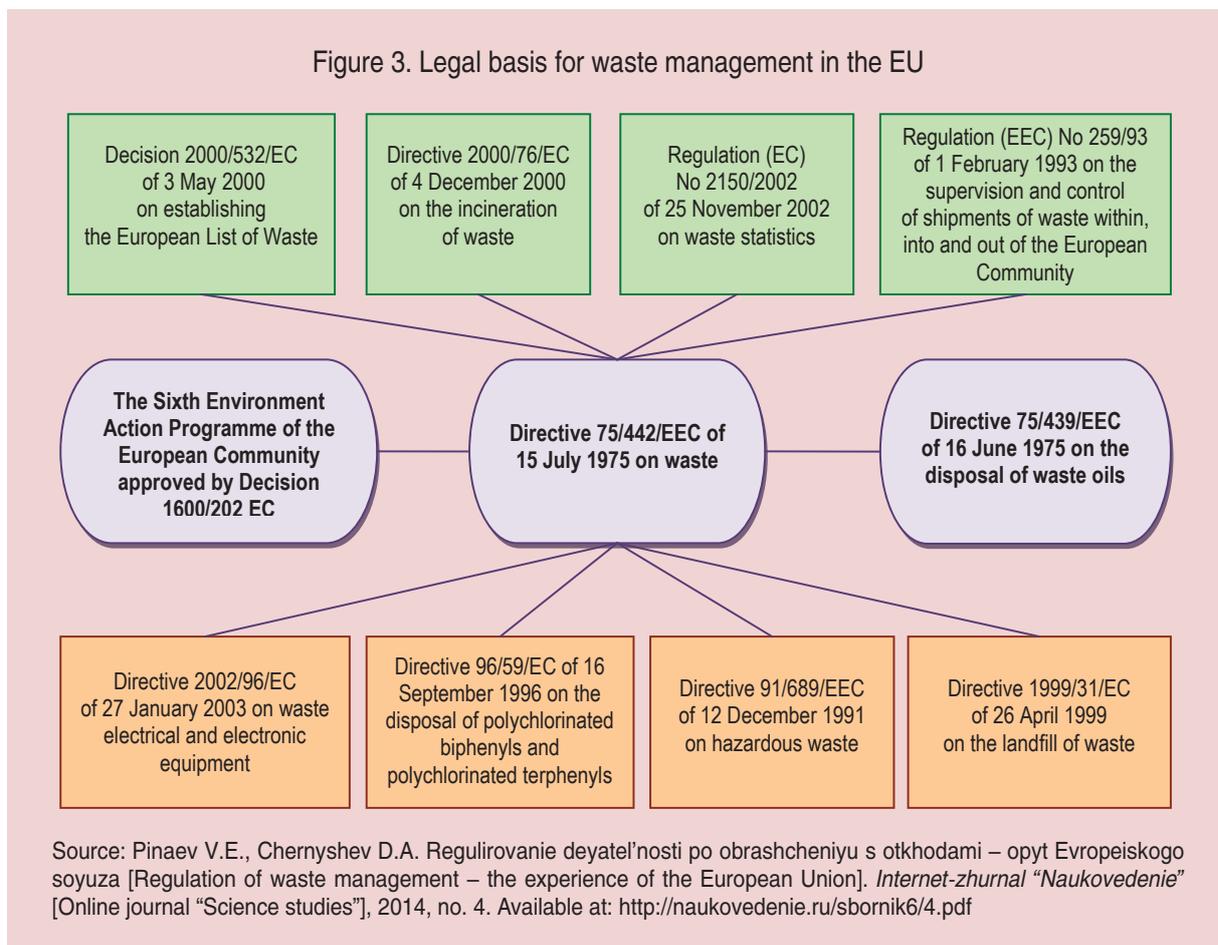
In the 1990s, during the transition to a market economy, the Government of the Russian Federation completely eliminated the then existing system of secondary material resources management; and the economic sector of secondary material resources processing almost collapsed. In 1996, the statistical reporting forms 14-VR (secondary resources) 14-les (wood waste), 9-SN (ferrous scrap metal), 17-SN (non-ferrous scrap metal) for enterprises were abolished.

Due to spontaneous emergence of local private landfills for waste storage and enterprises engaged in waste collection, the reformers of the 1990s were convinced that the sphere of waste management could be governed by pure market regulation. Later it became obvious that it was necessary to use state regulation tools that were partially outlined at the beginning of the 2000s when forming a decentralized model for governing waste management sphere at the municipal level.

Meanwhile, most industrialized countries acknowledge and use an integrated model for governing waste management sphere, which is characterized by the borrowing of methodological principles, individual tools and forms of governance, approved previously in the USSR. So, in the EU, the responsibility for waste management is concentrated at the national level with specially authorized agencies. In Sweden, it is the Ministry of the Environment and Energy, in France – the Ministry of Ecology, Sustainable Development and Energy, in Denmark – Environmental Protection Agency, in the UK – the Department of the Environment, Transport and the Regions, in Austria – the Federal Ministry of Agriculture, Forestry, Environment and Water Management, etc.

The European Union for a long period of time purposefully and consistently formed a unified system of regulations on industrial and residential waste management (*Fig. 3*). To

Figure 3. Legal basis for waste management in the EU



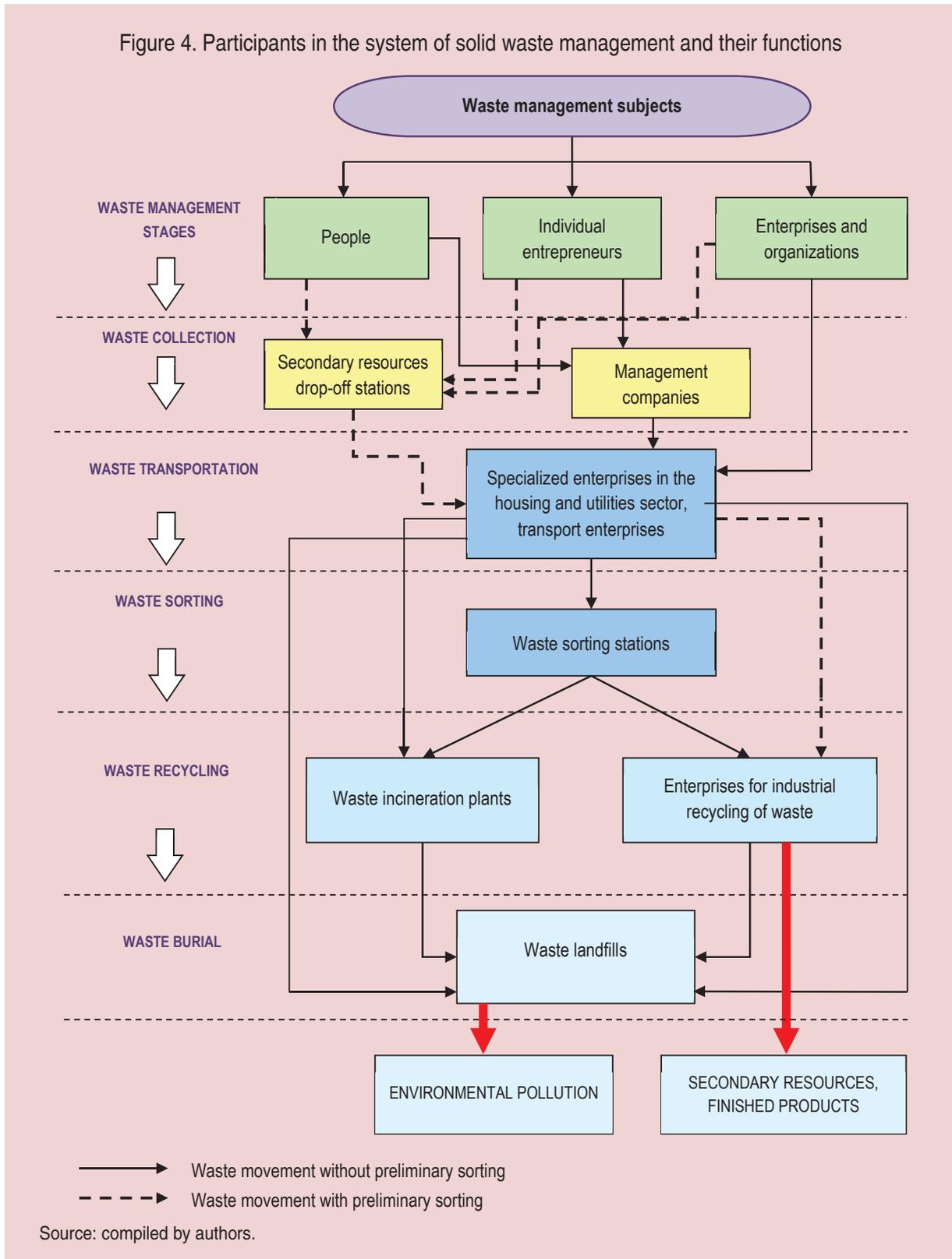
date, EU member states have an established practice of state regulation of the level of collection and recycling of common types of waste; unfortunately, there is no such practice in the current organization of governing the sphere of waste management in the Russian Federation.

One more principle that the USSR applied is now used by different countries in their state and municipal management; this principle is known as “extended producer responsibility”, i.e. the liability of producers (entrepreneurs)

for collecting and recycling their products and packaging [24; 25].

In Austria, Belgium, Finland, Germany, Luxembourg and Sweden, the responsibility for the disposal of individual types of waste is entrusted entirely to specialized organizations, and municipalities do not bear the costs of waste collection. In Ireland, Italy and Spain, manufacturers of goods pay fees to local authorities for collecting waste, and the fee is later allocated to waste disposal activities [11; 13].

Figure 4. Participants in the system of solid waste management and their functions



The Soviet and Western European experience of governing the sphere of waste management described in the scientific literature indicate the possibility of jointed action by all stakeholders: residents, housing and communal services, enterprises that collect and transport waste, waste recycling companies, administrations of municipalities, cities and settlements, state and federal authorities, and environmental associations.

Systematization of the data on the status and functioning of the sphere of residential solid waste management on the materials of the Vologda Oblast allows us to regard it as a system (*Fig. 4*) that has structural and functional imbalance of its stages in a single technological process, inconsistent regulations of interaction between its participants and the inconsistency of their economic interests in the absence of a unified state coordinator. There is an obvious need not only to focus attention on general problems of this complex sphere, but also to specify some of them for the purpose of implementing urgent management actions.

Thus, according to statistical reporting form No. 2-TP (waste), the state register of waste disposal facilities in the oblast as of January 1, 2015 contains 31 facilities for burying communal solid waste [8]. However, in 2015, after the implementation of organizational and supervisory measures, 2,359 sites of unauthorized waste dumps and garbage pilings were revealed [10], which were

not governed by regional authorities (in terms of accounting and assessing their negative effects, calculations of costs of eliminating them or performing other reasonable operations), including information about the responsibility of specific actors.

Another line of action is to elaborate institutional and legal regulations that would help create not only large and specialized enterprises for waste processing, but also a corresponding local network of small and micro enterprises and specific individuals (existing and potential), covering the preparation stage of the process of manufacturing recycled resources. Probably it does not require the use of high technology to organize, for example, separate waste collection, which in the regional center and in the adjacent district is implemented only on a few sites and could potentially be organized at least in all rural and village municipalities in terms of currently functioning 32 companies and enterprises specializing in the processing of waste (plastics, rubber, waste paper, tires, metals, etc.).

It would be advisable to revise the existing regional tariff policy in the sphere of collection and removal of residential solid waste (there is a wide range of tariffs for removal and disposal of solid waste in various municipalities – from 39.16 rubles to 616.8 rubles) [19]. It remains unclear how much consideration is given in the differentiation of tariffs to the utility of residential solid waste

for the production of secondary resources. There is an imperative need for changes in the tariff system in the sphere of solid waste management at the regional level, which should serve, according to the opinion of A.V. Ivanov, as an incentive to organize separate waste collection [12].

It is necessary to consider economic motivation of the subjects participating in the process of solid waste management and enterprises that consume recycled resources.

Having analyzed and considered issues concerning the functioning of the sphere of residential solid waste, having reviewed domestic and foreign experience of waste management, we can draw a conclusion

that it is possible to solve these problems consistently on the basis of system approach to governing this sphere with the increased use of program-target tools for state regulation of development.

Methodological basis for developing an integrative model for governing the sphere of residential solid waste management in municipal areas is provided by representing the process of governing the sphere of waste management as a combination of science-based targeted impacts on the collection, storage, transportation, processing, recycling, utilization, and disposal of waste to ensure environmental, economic and social standards and requirements.

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Methodological Approach to Assessing the Value of the Project on the Development of a Deposit and the Creation of Value Added Chains



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Abstract. Development of companies should aim to increase their value; it is provided by applying the concept of value-based management. This approach can also be the basis for the growth of the value of integrated companies or groups, strategic projects and economic sectors. The mineral resources sector is characterized by a high level of vertical integration, and its own effect of technological, economic and institutional factors that determine the value of mineral assets and products. Assessment of value of the projects of the sectoral level can be carried out with the application of the concept of added value and value chains designed on this basis. The aim of the present research is to substantiate scientifically an approach to assessing the project for establishing the tin industry in the Republic of Kazakhstan taking into account the concept of value added. We use the following research methods: comparative analysis, system approach, strategic analysis, and managerial decision-making methods. Scientific novelty of the research consists in the following: the research identifies specific differences in designing value added chains in the mineral sector that include economic, technological, and institutional factors; the research shows that the specifics of mining projects determines the value of mineral assets and the entire value added chain; the algorithm for assessing the strategic investment project of the sectoral level in the mineral resource sector includes an assessment of effects for the main stakeholders¹; the organizational-economic mechanism for creating the tin industry based on the development and comparison of different options of value added chains. The object of the research is a project on creating the tin industry in the Republic of Kazakhstan on the basis of Syrymbet tin deposit. The research justifies the application of the value added concept for selecting one of the options of the project of deposit development; we propose a model for designing the value added chain in the mineral sector, develop an algorithm for creating the tin industry, taking into account the interests of the state and subsoil users. The results of the study can be used by mining companies and by state authorities that manage subsoil use, because they complement existing methods for assessing strategic sectoral projects with new effects and help manage them. In continuation of the research we plan to carry out quantitative evaluation of various effects of the strategic project and comparative analysis of the variants of value added chains in the organizational-economic mechanism of formation of the tin industry in Kazakhstan.

Key words: business processes, tin industry, portfolio of projects, value potential, technological processes, added value chain.

Introduction

A value chain, according to M. Porter, is referred to as a coherent set of activities creating company's value, ranging from raw

materials from suppliers to finished products delivered to the consumer, including additional features such as services. A value added chain (VAC) as a model structures

¹ Stakeholder is a person, group or organization that can affect, be affected by or perceive itself subjected to the influence of the decision, operation or result of the project [14].

the process of product flow from suppliers to consumers through stages adding value to the product [19].

The concept of value added chains was greatly developed in works by R. Kaplinsky and M. Morris [22, 23] and other economists [11, 19, 24]. Such an approach is based on analysis of the process of product value formation in an integrated company (in several interrelated stages) with the aim to increase the efficiency and competitiveness of the entire system. It should also be noted that the competitiveness of the whole chain (system) is influenced by processes such as value added formation and its redistribution between participants creating the final product. Therefore, the managing entity (corporate center) in the chain needs to specify the distribution of value added among its members.

When implementing VAC in more than one company (especially institutionalized and representing a group of companies) the number of emerging effects increases and may include additional (synergistic) effects [10]. When implementing VAC at the sectoral, regional or national level, it is necessary to consider the socio-economic (external) effects at relevant levels.

The choice of solutions to exploit mineral assets should be undertaken with construction of a VAC at the industry level and based on the methodological approach to assessing the value of the project on deposit development and creation of the VAC taking into account

different effects influencing an integrated company, region, national economy, and cross-border interaction. Such effects must take into account the possible government support, new products, additional revenues, fiscal revenues, etc. when designing different variants of VAC.

The purpose for the research is to scientifically justify the approach to the assessment of the project of tin industry establishment in the Republic of Kazakhstan taking into account the concept of value added chains.

Research objectives:

1. To justify the use of VAC to assess the sectoral project in mineral extraction and to identify the industry characteristics of VAC.
2. To develop an algorithm for evaluating the strategic investment project which forms the basis for an industry in the mineral sector.
3. To develop a methodical approach to the formation of the VAC taking into account the influence of economic, technological, and institutional factors (in the case of tin industry in Kazakhstan).
4. To offer institutional and economic mechanism for implementing different variants of VAC for tin industry in Kazakhstan.

Results and discussion

The rationale for using VACs to assess the sectoral project in mineral extraction and identifying industry-specific characteristics of VAC

The technological correlation between the projects in the program determines their

assessment as a single complex which determines the application of the concept of value added and the design of VAC [24]. In the sector of mineral extraction, VAC are based on mineral development projects, that is why the specific features of mining projects in the country determine the characteristics of VAC valuation [20]. These include: mining-and-geological conditions (MGC) of deposits; choice of technical and economic solutions; specific risks.

MGC of a deposit include: quality characteristics (content of useful components, mineral composition, ore preparation characteristics, ore body structure), quantitative indicators (value of reserves), mode of occurrence (mode of occurrence of geological bodies, dip and strike of bedding surfaces, contact plane, structural elements of folds, and tectonic deformations).

Consideration of risks of deposit development project is ensured by modern assessment of the resource base according to the Australian code of reporting of exploration results, mineral resources and ore reserves (JORC) [1] whose advantages include the separation of each category of reserves and resources based on economic and technical factors, general principles of deposit evaluation which implies collection and evaluation of geological data, determination of ore body geometry, estimation of resources and stocks suitable for mining with simultaneous verification of the obtained data, the use of modern technological

methods to more accurately design and predict the ore body structure, work out detailed tolerance analysis and detailed geological model of the deposit. JORC sets out minimum standards, recommendations, and principles of applying public reporting of exploration results, mineral resources and ore reserves. On this basis, Committee for Mineral Reserves International Reporting Standards (CRIRSCO) is working on a new set of standard international definitions for reporting on mineral resources and mineral (ore) reserves.

The range of commodity output (CO), manufacturing and sales logistics, location of manufacturing sites, value and cost of CO depend on economic (transportation conditions, prices, demand, etc.), technological (production and processing technology), and institutional factors (tax system, state control and state support, benefits and preferences, etc.).

Therefore, designing various VAC leads to different economic outcomes and non-economic effects which have an impact on the company, region, national economy, and cross-border cooperation.

The evaluation algorithm of the strategic investment project which forms the basis for an industry in the mineral sector.

In scientific literature, there is no precise definition of a strategic project, yet its main features are defined: focus on achievement of strategic competitive advantages [12], systematic approach to the development and

implementation, long-term nature. In most cases, these are large scale projects requiring significant and intensive investment, which poses high risks.

Issues of strategic project management are linked to the scope and complexity of technical and technological solutions, a significant number and interconnectedness of organization processes, large budget and long-term implementation, as well as uncertain impacts of factors and significant risks. Strategic projects often represent project or program portfolios [14, 15] implemented in an integrated company.

The extent and complexity of such projects results from several factors: major investment, new technology testing, various stakeholder interests, diverse and significant risk impact, and increased debt load. Such features and risks define problems of implementation of strategic projects. High risks of implementation of investment projects, the need for infrastructure costs, significant investments, the impact on the region's socio-economic development, requirements to profitability from private investors and effectiveness of budget expenditures determine the need for choosing organizational, economic and financial mechanisms for their implementation. These include special mechanisms for attracting financial resources including project financing; comprehensive and rational exploitation of natural, especially mineral, resources; efficient transport and production infrastructure, primarily on the

basis of public-private partnership (PPP); special production management including the use of resource-efficient and low-waste, primarily advanced (best available) technology [13].

Typically, strategic projects in mineral extraction affect the economic condition of the population and various business entities, the development of the industry, the region and the country in general; involve a lot of different interests and needs to be supplemented by mutually beneficial public-private partnerships including the interaction with public organizations representing the interests of industrialists and entrepreneurs. Therefore, the economic effects of mineral developers need to be complemented by the socio-economic effects for other stakeholders.

The algorithm of evaluating a strategic sectoral investment project in the mineral sector:

1. Identification and analysis of economic, technological and institutional factors affecting the project in the present and in the future, defining competitive advantages and the project's investment attractiveness.
2. Identification of main stakeholders (company-government) and harmonization of their interests.
3. Construction of VAC variants and formation of VAC-based project programs.
4. Defining the effects for main stakeholders (company-state).
5. Choice of the variant of program implementation by economic effect for the company.

6. Justification and selection of the variant of program implementation by total socio-economic effects for the state.

7. Development of institutional and economic mechanisms of VAC project implementation.

The methodological approach to VAC formation taking into account the influence of economic, technological, institutional factors (in the case of tin industry in Kazakhstan)

VAC design and analysis in integrated companies with multiple stages include: identifying the correlation of technological processes, analysis of the VAC structure for business processes, study and analysis of the effects of factors (economic, technological, and institutional), research and evaluation of business processes in terms of their potential to create value based on the anticipated impact of the external environment, choice of areas and methods of value growth by stage by increasing efficiency of operating and project activity; maximization of the effect of the entire VAC through the development of institutional and economic mechanisms of VAC implementation.

The mining industry takes one of the leading positions in the economic structure of Kazakhstan. The country possesses significant reserves and resources of tin raw materials; the country explores a unique tin deposit, the largest in the Central Asia, yet the country has not established tin industry.

Non-ferrous metallurgy occupies a significant place among other industries in

Kazakhstan, including the production of copper, lead, zinc, titanium, magnesium, rare metals and rare earth metals, rolled copper and lead [6]. Currently, Kazakhstan is the buyer of Russian tin despite the fact that for decades it has developed its own mineral resource base and planned to produce tin in volumes exceeding current production in Russia [11]. The prospects of the tin industry are based on involving the Syrymbet tin deposit in exploitation. The project will help create a new technologically advanced sub-sector of nonferrous metallurgy. The project of tin deposit development has been implemented since 2001, the beginning of ore extraction and processing was moved up from 2011 to 2018.

Deposit exploration and development license until 2028 was issued by JSC Syrymbet, the Department of Kazakhstan investment company Lancaster Group. The field was discovered in 1985, active development was started in 2004. In 2012, exploration works were completed; semi-industrial technological pilot tests were carried out; technological regulations and design documents of the deposit development project were developed.

Deposit reserves were estimated according to the international JORC classification and amount to 94.5 million tons of ore, 463.5 thousand tons with average tin value of 0.49%. The ores contain tungsten (0.172%) which is valuable as a simultaneously extracted component, silver – up to 4 grams

per ton, gold –less than 0.15 grams per ton, molybdenum – 0.022%, zinc – 0.026%.

Syrymbet ore field is located in the Northwestern part of the Kokshetau median massif with a number of other deposits including large hydrothermal uranium deposits, intrusive tin and gold formations, skarn and porphyry copper manifestations, copper-nickel manifestations in layered gabbro, etc. [8]

The project aims to establish unique tin production in Central Asia using latest efficient technology and best environmental standards. The first-process project was funded by the Eurasian Development Bank. The project framework implies construction of a mining and processing complex with an open quarry and a dressing plant for processing complex ores and producing tin, amorphous silica, iron concentrate, alumina, and rare metals. During project implementation, in addition to new construction it is expected to conduct metallurgical recovery at the Irtysh chemical-metallurgical plant (ICMP) in Ust-Kamenogorsk, which will annually produce 4532 tons of rare earth metals including tantalum and niobium.

Economic factors affecting VAC are: the current status, structure and development prospects of the global tin market, market situation, main products, structure of world production, finding conditions.

Analysis has shown that over the past decade the annual world consumption of tin has been rising at a rate of 4%. In the structure

of world consumption, about 60% accounts for production of braze and alloys, 16–17% – tin, more than 14% – manufacture of chemicals, 2% – glass [7]. The tin industry is a strategic sector of the economy, whose role consists in providing raw materials for production of high-tech and science-intensive final products (engineering, construction, aviation, space and defense industry). Tin among all heavy metals is becoming more important due to environmental requirements and the need for replacement of toxic lead [18].

The areas of tin application have expanded considerably. Traditionally, tin is used as a safe, non-toxic, corrosion resistant coating in its pure form or in alloys with other metals. The past decade has shown that tin is necessary for introducing innovation technology and is applied in modern knowledge-intensive industries. According to a major producer of alloys, Cookson Group (London), manufacturers of electronic equipment around the world use alloys with up to 95% tin among useful components. States that made their choice in favor of development of communication and information technology had to prioritize the issues of restoring full functioning of the tin industry whose products suddenly became in demand on the global market due to its deficit. Tin market development performance depends on the output of alloys used in manufacturing electronic components and electrical and household

Table 1. Production of refined tin by leading producers (2015)

| No. | Company | Production volume, thou tins |
|-----|-----------------------------------|------------------------------|
| 1. | Yunnan Tin (China) | 75.5 |
| 2. | Malaysia Smelting Corp (Malaysia) | 30.3 |
| 3. | PT Timah (Indonesia) | 27.4 |
| 4. | Minsur (Peru) | 20.2 |
| 5. | Yunnan Chengfeng (China) | 16.6 |
| 6. | EM Vinto (Bolivia) | 12.1 |
| 7. | Guangxi China Tin (China) | 11.1 |
| 8. | Gejiu Zi-Li (China) | 11.0 |
| 9. | Thaisarco (Thailand) | 10.5 |
| 10. | Metallo Chimique (Belgium) | 8.9 |

equipment. The demand for tin is expected to rise by 3.5–4.0% annually, with the majority in Asian electronics markets, especially in China [2].

The common feature of the current state of exchange markets of most non-ferrous metals is excessive production and production capacity. The situation in terms of tin production is different. The tin market has gradually become very stable and favorable for producers with continued worldwide supply shortage [3]. Traditional markets of tin consumption is expected to retain good demand growth rates, which is difficult to meet due to existing production capacities. The growing Asian economies and progressive high-tech industries stimulate the demand for tin which is increasingly attractive for innovative industries.

According to the International Tin Research Center (ITRI)¹ the list of ten leading producers is fairly stable (*Tab. 1*).

¹ The top 10 tin producers in 2015. Available at: <https://www.itri.co.uk/market-analysis/news-2/the-top-10-refined-tin-producers-of-2015>.

The analysis of production volumes showed that 4 out of 10 world's leading tin producers are Chinese companies due to strong internal demand from automotive and electronics industries, as well as full state support.

After the improvement of world market conditions, operating mining companies began to expand their mineral resource base, in addition; new tin mining projects emerged, especially in Australia and Canada. The possibility of new competitors is low with the current leaders.

The total cost of development project in Syymbet is estimated at more than 70 million dollars, including credit resources accounting for 48.7 million dollars for a 10-year period. The establishment of an industrial complex for production of tin, tantalum, niobium and other rare metals will provide annual revenues of 45–50 million dollars.

Technological factors include: modern technology for tin ore extraction and enrichment, the possibility of using waste-free technology, rational use of natural

resources and planned useful component recovery factor, the possibility of complex use of mineral raw materials.

The Central Syrymbet mining field is expected to be subjected to surface mining as the depth of ore body formation is rather small and occurrence of ore bodies helps develop the reserves to the full depth with minimum volume of strip-mining. The operational period of the quarry according to adopted performance will be 13.4 years.

Technology developed for complex ore processing, ensures waste-free production with the extraction of more than 90% of mineral raw materials. Fine-grained valuable minerals, their close assemblage with other minerals, especially iron minerals, have a negative impact on their release from ore and complicates the enrichment and mineral recovery technology.

The main technological and economic options for Syrymbet deposit:

1. Production of weak (10% tin) concentrate with high recovery of 65% and further metallurgical recovery to top-quality tin;
2. Production of sellable concentrate (40% tin) and industrial products (4–5% tin) with lower total extraction of 50–55% and further metallurgical recovery to top-quality tin.
3. Production of sellable concentrate (40% tin) and industrial products (4–5% tin) with total extraction of 50–55%, further

metallurgical recovery of industrial products to sublimates, sale of sublimates and sellable concentrate.

4. Production of sellable concentrate (40% tin) and industrial products (4–5% tin) with total extraction of 50–55% and further sale of the resulting products to Novosibirsk Integrated Tin Works (NOK).

Evaluation of options for values of investment project efficiency indicators is presented in *Table 2*.

Comparison of four technological variants of ore processing at the Syrymbet deposit suggests that the most effective is the first option. Therefore, VAC with production of weak concentrate (10% tin) with high 65% recovery and further metallurgical recovery to high-quality tin is the best option for the manufacturer.

Institutional factors include the system of state regulation for mineral resource use and industry, system of taxation, industry development strategy, innovation development, the existing and planned measures of the state support for the industry etc.

In Kazakhstan, there are scientific and technological programs for support and development of mining and metallurgy, aimed at increasing the efficiency of economic potential, improving technological and industrial production level, developing finished technology cycles with finished products [5].

Table 2. Technological and economic indicators of assessing processing efficiency of Syrymbet tin ore deposits, dollars

| No. | Indicator | Measurement | Variants | | | |
|-----|---|-------------|----------|---------|---------|----------|
| | | | 1 | 2 | 3 | 4 |
| 1. | Product | | | | | |
| | Tin 1 | tons | 60594.4 | 51501.9 | | |
| | Rich concentrate (45,32% Sn) | tons | | | 77726.4 | 77726.4 |
| | Concentrate (4,9% Sn) | tons | | | | 448519.4 |
| | Alloys | tons | | | 27702 | |
| 2. | Revenue for the whole operation period | mln dollars | 1505.1 | 1279.3 | 1207.5 | 1074.0 |
| 3. | Investment costs | mln dollars | 104.8 | 102.5 | 94.4 | 76.1 |
| 4. | Production costs | mln dollars | 622.0 | 604.9 | 534.7 | 485.6 |
| 5. | Income | mln dollars | 802.3 | 595.3 | 600.0 | 529.7 |
| 6. | Income tax | mln dollars | 160.5 | 119.1 | 120.0 | 105.9 |
| 7. | Net income | mln dollars | 641.9 | 476.2 | 480.0 | 423.8 |
| 8. | Discounted cash flow (discount rate 12 %) | mln dollars | 190.5 | 116.2 | 125.6 | 117.0 |
| 9. | Internal rate of return | % | 35.5 | 27.2 | 29.5 | 31.9 |
| 10. | Discounted payback period | years | 4.84 | 6.26 | 6.73 | 5.29 |

The strengthening of positions of the tin industry of Kazakhstan on global markets amid unstable global economy requires measures to restore and develop the industry [17]. The country's public policy in tin industry development is aimed at stimulating tin production and establishing production of final high value-added products. The main objective of the industry development should be gradual establishment of new processing industries in the tin industry related to manufacturing of high-value-added products, providing both growth of production of high-tech products, expanding exports to foreign markets and meeting the needs of the domestic market.

The government of Kazakhstan adopted a new Law "On mineral resources and mineral resource management" (2010), Mining and

metallurgy development program for 2010–2014 (approved by the Resolution of the Government of the Republic of Kazakhstan no. 1144, dated October 30th, 2010), a modernization program for operating enterprises "Productivity-2020" (approved by the Resolution of the Government of the Republic of Kazakhstan no. 254, dated March 14th, 2011). They specify investment projects whose implementation will lead to an increase in domestic consumption of metal products. The programs provide sectoral and project measures of state support; measures for improving the legislation and eliminating administrative barriers; development of innovation and promotion of technological modernization; creating conditions for investment; resource provision; tax incentives, including VAT exemption

on sales exploration and geological works. A new action plan for the development of industries in the mining sector of the Republic of Kazakhstan for 2015–2019 (State program of industrial and innovative development of Kazakhstan for 2015–2019 (approved by Resolution of the Government of the Republic of Kazakhstan no. 1159, dated 30th October, 2014)) includes the development of Syrymbet rare metal, tungsten and tin deposits.

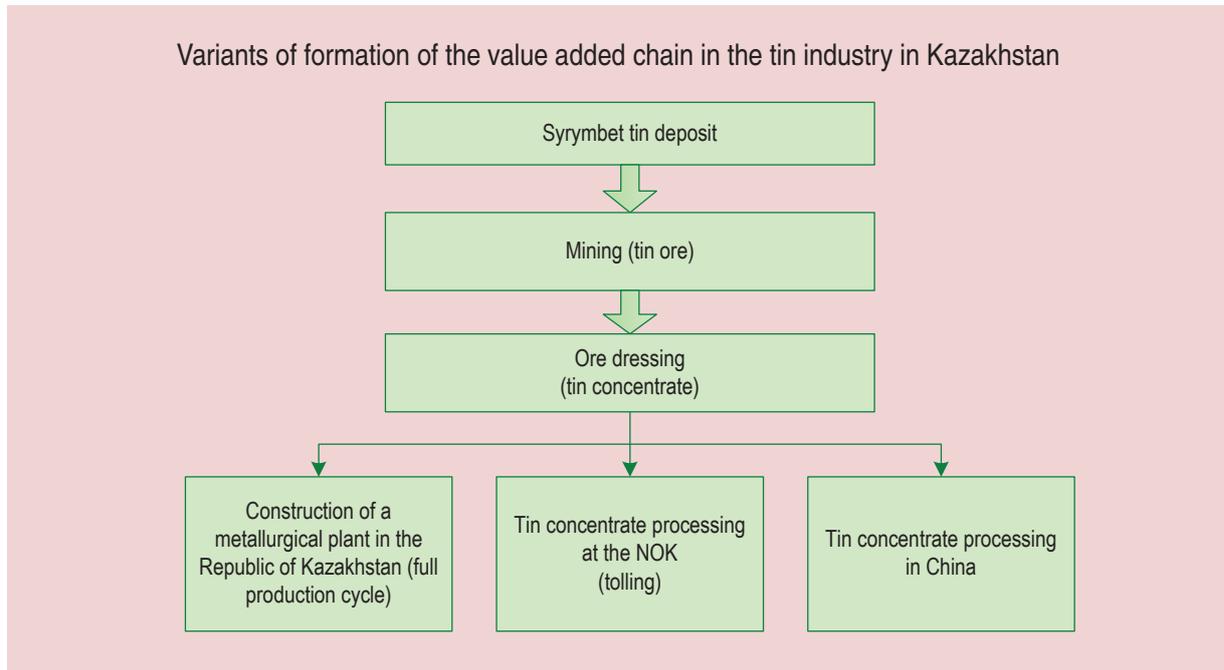
A new Concept of mining and metallurgical complex development in Kazakhstan up to 2030 takes into account best international practices in mineral resource management including state governance in the industry, introduction of new technology and standards, increasing investment attractiveness. The Concept also implies the expansion of mineral base reproduction, creation of modern system of mineral resource management, attraction of latest development technology, increasing the depth, comprehensive and rational processing of mineral raw materials [4].

In order to ensure sustainable development of the industry with the supply of tin in the internal and external market, the government can buy ready-made metal at fixed prices and also help establish stable cross-border flows of tin-containing products to the markets of Asia and Europe [3]. Kazakhstan's accession to the Eurasian Union and to the World Trade Organization (since June 22, 2015) opens up new possibilities for the tin industry.

Having analyzed conditions which stimulate innovation development of the metallurgical complex, we found out that these conditions are as follows: mineral resource base, establishing domestic industries for raw materials processing, development of steel consuming industries in Kazakhstan, global trends of increasing consumption of high-quality metal products, existence of leading companies in Kazakhstan for the production, processing and sale of metals on the world market, introduction of modern high-tech schemes for the processing and production of high quality metal that provides an opportunity to develop new sectors in the country (rare metals, radio engineering, nano-technology, etc.), addressing the issues of employment.

A special role for large projects in the mineral sector belongs to effects that emerge in related and associated industries. Such effects can be based on the possibilities of cross-border collaboration.

The border between Russia and Kazakhstan is the longest in the world. In general, favorable landscape conditions make it quite convenient for transportation. Half of Kazakhstan's regions have borders with Russia, they are crossed by 16 railways and about 200 roads [16]. The interests of the companies located in the border areas can be multinational. For example, the majority of Russian consumers of tin are located either in border regions or in areas with convenient transport links.



Among the long-term factors influencing the nature of cross-border cooperation an important role belongs to resource potential and environmental interaction. Experts and the public are paying increased attention to environmentally hazardous cross-border facilities in Atyrau region (Tengiz field and Kashagan East field), Western Kazakhstan region (Karachaganak), Orenburg and Chelyabinsk oblasts, and East Kazakhstan (mining and processing enterprises) regions [9].

Organizational-economic mechanism for the implementation of different versions of VAC for the tin industry in Kazakhstan

According to industry experts, the investors are interested in combining exploration, mining, processing and refining units in the same chain. The high level of competition

requires that companies include in their structure the elements of the whole value chain, creating a vertically integrated company and providing competitive advantage [11].

The design of VAC should be based on comparing the economic effect of independent production of a full cycle in the Republic of Kazakhstan and the effects of producing semi-finished products with options for cross-border cooperation [21] in creating the tin industry. Therefore, its creation in Kazakhstan could include the following options for an organizational-economic mechanism (*Figure*).

First, establishing a mining and metallurgical vertically integrated holding, i.e. organizing a full production cycle. This variant implies significant technological and

marketing risks, because such production in Kazakhstan is organized for the first time, it is very capital intensive and will require mandatory government support.

Second, full or partial integration (e.g., strategic alliances or partnerships) with the production of final products (tin solder) in Russia. The main negative factor requiring the participation of the Russian authorities is the bankruptcy of the Novosibirsk Integrated Tin Works (NOK).

In this case, the problem can be solved with the help of idle capacities of the plant (11 thousand tons), as well as the close proximity to the Chinese market. This creates a competitive advantage for such an option of VAC. For Kazakhstan it is more profitable to process concentrates on the NOC on the terms of tolling. This possibility is indicated by the lack of financial resources of the NOC and by extensive market power of tin concentrates suppliers, who can dictate the terms of payment, terms of contracts and the solvency requirements of processing plants. The alternative can be found in a strategic alliance with Russian consumers with the expansion of production in the Novosibirsk Oblast on the basis of former plants producing solders, babbitt, solder wire with flux. At that, the possibilities of cross-border cooperation are implemented and the main effects are generated in the chain on the territory of the Customs Union.

The third option is processing of concentrates in China, in this case there exist

certain marketing risks, a significant part of the effects of VAC will be lost for Kazakhstan's economy and will remain with Chinese manufacturers.

Conclusions

1. In the minerals and raw materials complex, value added chains are based on projects for development of mineral assets, so the specifics of mining projects defines the specifics of valuation of VAC. The specifics are as follows: geological conditions of deposits; selection of technical and economic solutions on this basis; specific risks, technological interconnection of the projects.

2. The algorithm for assessing the strategic investment project of sectoral nature in the mineral sector include the identification and analysis of economic, technological and institutional factors affecting the project now and in the future; identifying key stakeholders (business–government) and coordination of their interests; formation of variants of VAC and formation of programs of the projects; identification of effects for key stakeholders; choosing a variant of implementation of the program on the value of economic benefit for the company and on the sum of socio-economic effects for the state; development of organizational-economic mechanism for the implementation of projects in VAC.

3. Designing and analyzing VAC at the sector level includes determining the relationship of technological processes, the analysis of the structure of VAC broken down by business processes, studying and analyzing

the effect of a set of factors (economic, technological, and institutional), research and evaluation of business processes according to the potential of value creation taking into account the anticipated impact of the external environment, the choice of directions and methods for increasing the value in stages with the help of enhancing the efficiency of operating and project activities, maximization of the effect across VAC.

4. The most effective project for ore processing of the Syrymbet tin deposit is a project of VAC with obtaining weak (10% tin)

concentrate with high recovery of 65% and further metallurgical upgrading with getting a top quality tin.

5. Organizational-economic mechanism for implementing VAC in the tin industry in Kazakhstan may include the following options: the development of mining and smelting vertically integrated holding company (full production cycle), full or partial integration with the production of final products in Russia, and the processing of concentrates in China.

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Administration of Regional Budgets in 2016: the Crisis Has Not Been Overcome



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Abstract. Russian Prime Minister Dmitry Medvedev speaking in the State Duma with the report on the work of the Russian Government claimed that regional budget shortage has been eliminated and the number of regions with public debt exceeding revenues has been reduced [4]. This discussion makes the problem of proper assessment of sub-federal budgets relevant. Their deficit administration and accumulation of debts have become a steady trend in recent years. The past year has been marked by increased revenues and spending cuts, but even under these conditions most regions were unable to implement balanced budget policy: 54 constituent entities of the Russian Federation were running deficits with debts exceeding half their own revenues, which caused the weakening of investment and consumer demand. The situation is exacerbated by the decline in energy prices, destabilization of the Federal budget and a general decline in business activity in the country. The federal policy is also tightening: since 2014, there has been a steady decrease in financial support for territories, which forces regional authorities to address the issues of financing through local sources of revenues. Palliative measures taken by the Government of the Russian Federation provide only short-term alleviation of the situation but do not solve long-term problems. This, in particular, is evidenced by the growth trend of regions' market debt load renewed in 2016, despite attempts of Ministry of Finance to replace a significant part of market loans with budget loans. This article is a continuation of a series of publications started in 2010 in the ISED T RAS journal reflecting the results of administration of sub-federal budgets. The purpose for the present study is to identify the peculiarities of the budget

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process in 2016. Its scientific novelty is determined by a comprehensive analysis which helps assess the condition of territorial budgets by all key parameters and develop specific proposals on measures to eliminate negative systemic factors. The results of this analysis contrast with the results summarized by the Chairman of the Russian Government. The main conclusion is that there are no signs of any improvement in the regions' budget systems, which, in our opinion, is largely due to the fact that federal authorities adapt to the critical state of territorial budgets instead of systematically solving the problems. The article can be used by government authorities for developing the fiscal policy, experts in finance, students and researchers.

Key words: budget of RF constituent entity, revenues, expenditures, deficit, loans, public and municipal debt, debt load, increase in budget incomes.

Budget administration is the most important stage of the budget process, which carries out the distribution and use of budget resources necessary for sustainable socio-economic life of the country and its regions. Issues of budget administration can be associated with improper planning, untimely tax payments, flawed system of tax incentives for business, and intermittent inter-budgetary regulation. V.V. Gamukin distinguishes structural risks for budget revenues and expenditures. Thus, the mono-analogue base makes the budget dependent on an economic sector where basic tax is formed. The risk of cost structure may lie in the priority of the current budget at the expense of the development budget [5]. Issues related to administration of budgets of the RF constituent entities become clear when analyzing of the actual budget parameters.

In 2016, Russian economy did not demonstrate any significant signs of recovery as evidenced by a further decline in GDP, investment and consumer demand (*Fig. 1*).

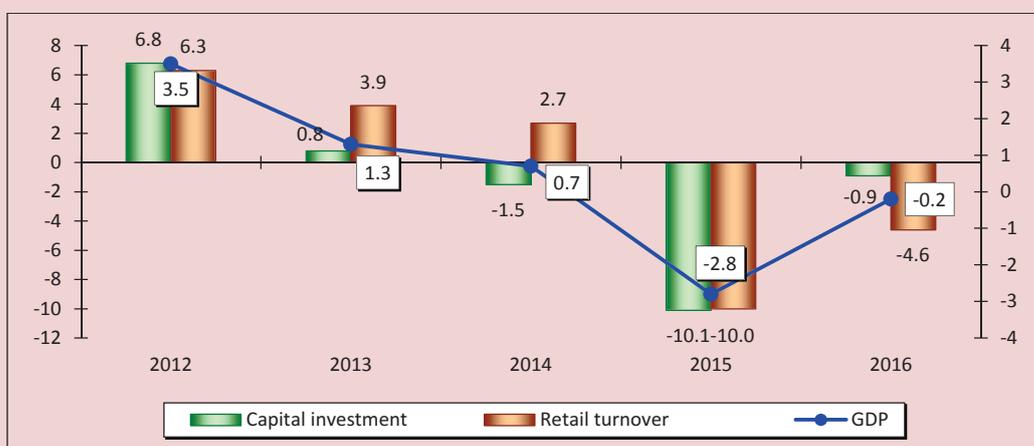
Forty percent of the RF constituent entities have demonstrated a decline in investment in fixed capital for two or three years in a row. This process has affected mainly large industrial and agricultural centers indicating a general decline in business activity in the country.

The continuing crisis phenomena are also confirmed by the population's living standards: in 2014, 27 regions experienced a decline in real incomes, in 2016, however, the figure rose to 78; the number of Russians with incomes below the living wage increased from 16 to 20 million comprising 13.5% of the total population.

The economic crisis also affected the state of the budget system, especially its key component – federal budget: the revenues have been declining for two years due to a 35% shortfall of oil and gas revenues as a result of collapse in world oil prices (*Fig. 2*).

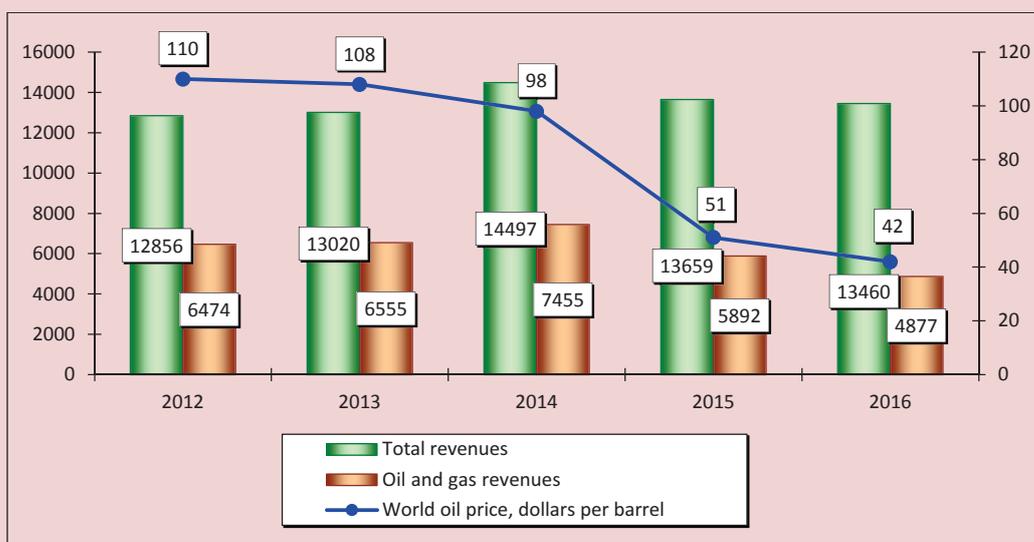
In the changed economic conditions, poor diversification of the federal treasury revenue structure resulted in a rise of deficit which reached 3 trillion rubles. To cover

Figure 1. GDP, investments and retail turnover growth rate in 2012–2016, % to the previous year in comparable prices



Source: data of the Federal State Statistics Service. Available at: <http://www.gks.ru/>.

Figure 2. Federal budget revenues in 2012–2016, billion rubles



Sources: data of Ministry of Economic Development of the Russian Federation. Available at: <http://economy.gov.ru/>; the Federal Treasury. Available at: <http://www.roskazna.ru/>; author's calculations.

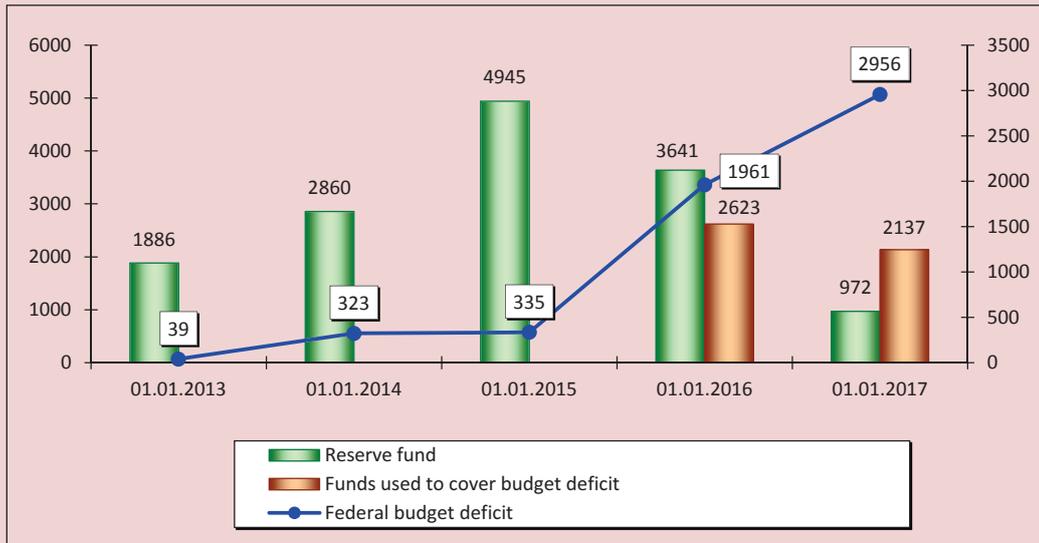
this deficit, in 2015–2016 60% from the Reserve Fund of the Russian Federation was allocated, which resulted in its four-fold reduction (Fig. 3).

Destabilized high level budget system did not release the tensions in regional budgets of the last years. Since 2012, when the majority of the RF constituent entities

became responsible for the implementation of the well-known Putin’s May Decrees, the average annual growth rates of sub-federal

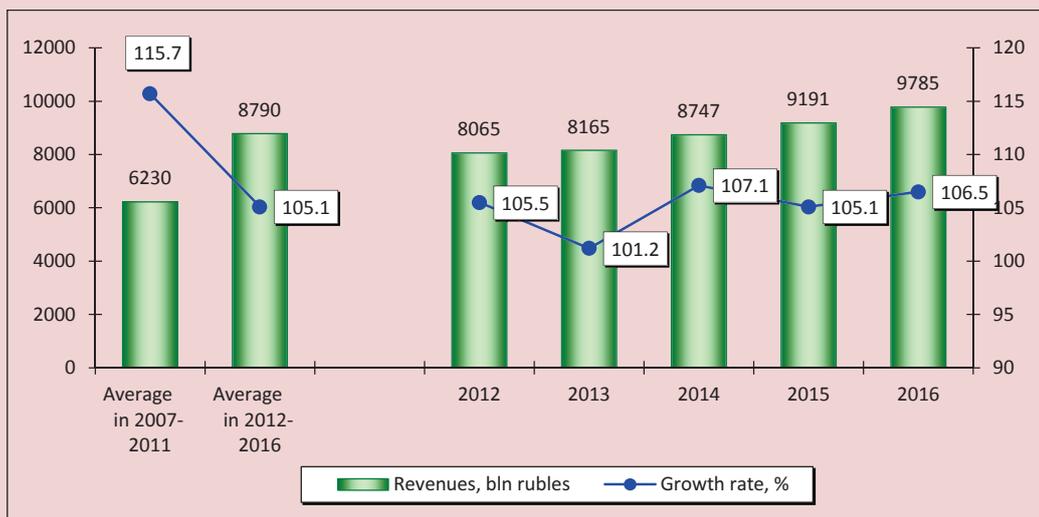
budget revenues decreased threefold (Fig. 4). It would be enough to say that during 2012–2016 the revenues increased by 28%, while

Figure 3. Reserve Fund of the Russian Federation and federal budget deficit, 2012–2016, billion rubles



Source: data of Ministry of Finance of the Russian Federation. Available at: <http://minfin.ru/ru/>; Federal Treasury.

Figure 4. Budget incomes of the RF constituent entities* in 2007–2016



* Hereinafter, to ensure comparability dynamics, indicators for 2014–2016 are presented excluding Sevastopol and the Republic of Crimea.

Sources: data of the Federal Treasury; author’s calculations.

Figure 5. Inter-budget transfers received by budgets of the RF constituent entities from the federal budget during 2012–2016, billion rubles



Sources: data of the Federal Treasury; Rosstat; author's calculations.

costs of education, most of which account for an increase in remuneration according to the Decrees, – by 45%.

A major factor in the slowing growth rates of territorial budget revenues was the roll down of financial support from the federal budget in the form of inter-budget transfers: during 2012–2016, their amount decreased in nominal terms by 8.5%; by 33.4% – in real terms¹ (Fig. 5).

The declining involvement of the federal budget in regional budgets makes the problem of finding one's own resources relevant; however, under the existing highly centralized budgetary system in Russia and the general economic stagnation the opportunities of regional authorities to build their own revenue potential are very limited. Real own revenues

of territorial budgets² were demonstrating downward dynamics due to the reduction in two budget-making taxes – individual income tax (IIT) and corporate tax (Tab. 1).

After a substantial decline in income tax receipts in 2013, which affected more than 80% of regions, in subsequent years positive dynamics of its growth were resumed. However, the regional image is highly differentiated: by the end of 2016, one third of the RF constituent entities did not compensate for the nominal reduction in payment fees, and two thirds – for the real reduction. Income tax loss became significant for regions with the status of donors to the federal budget. This directly affected the general decline in income tax revenues in real terms (Tab. 2).

¹ The article considers real indicators as those expressed in comparable prices of the reference 2016.

² Own revenues – tax and non-tax incomes excluding non-repayable revenue receipts.

Table 1. Own revenues of budgets of the RF constituent entities, 2012–2016, billion rubles

| Revenues | 2012 | 2013 | 2014 | 2015 | 2016 | 2016 to 2012, % |
|-----------------------------|---------------|---------------|---------------|---------------|---------------|-----------------|
| Own revenues*, total | 6384.5 | 6588.5 | 7143.1 | 7585.5 | 8238.4 | 129.0 |
| <i>In comparable prices</i> | <i>8772.3</i> | <i>8617.8</i> | <i>8878.9</i> | <i>8564.0</i> | <i>8238.4</i> | <i>93.9</i> |
| IIT* | 2261.5 | 2499.1 | 2680.9 | 2787.7 | 2992.5 | 132.3 |
| <i>In comparable prices</i> | <i>3107.3</i> | <i>3268.8</i> | <i>3332.4</i> | <i>3147.3</i> | <i>2992.5</i> | <i>96.3</i> |
| Corporate tax* | 1979.9 | 1719.7 | 1961.7 | 2099.3 | 2272.0 | 114.7 |
| <i>In comparable prices</i> | <i>2720.4</i> | <i>2249.4</i> | <i>2438.4</i> | <i>2370.1</i> | <i>2272.0</i> | <i>83.5</i> |

Sources: data from the Federal Treasury; Rosstat; author's calculations.

Table 2. Income tax revenues to the budgets of the RF constituent entities in 2012 and 2016, billion rubles

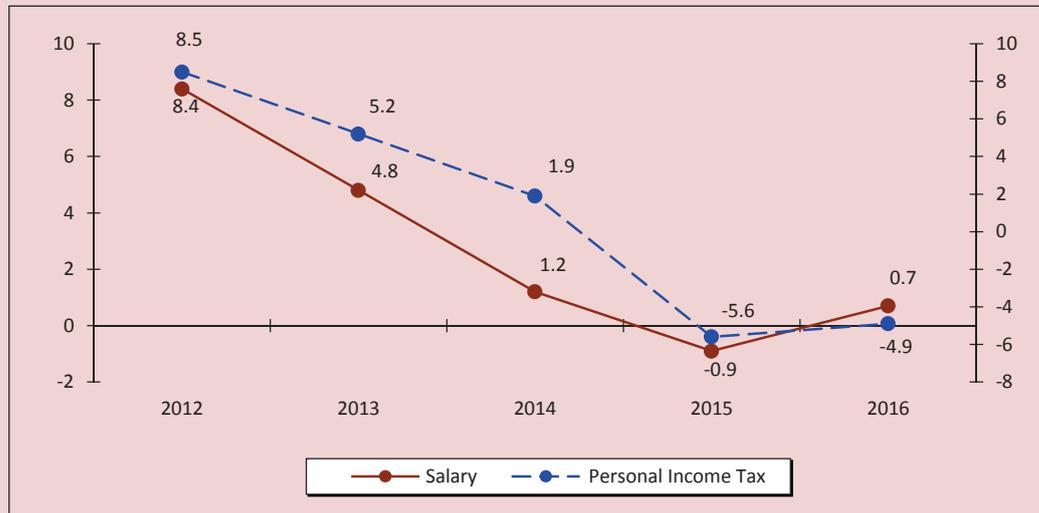
| Entity | 2012 | | 2016 | 2016 to 2012, % | |
|--------------------------------|-------------------|----------------------|--------|-------------------|----------------------|
| | In current prices | In comparable prices | | In current prices | In comparable prices |
| Krasnodar Krai | 43.2 | 59.9 | 46.0 | 106.5 | 76.8 |
| Kemerovo Oblast | 24.6 | 33.8 | 25.5 | 103.6 | 75.5 |
| Moscow | 545.9 | 760.9 | 571.8 | 104.7 | 75.1 |
| Sverdlovsk Oblast | 55.6 | 77.2 | 56.5 | 101.6 | 73.2 |
| Perm Krai | 35.5 | 48.5 | 34.3 | 96.6 | 70.7 |
| Orenburg Oblast | 24.8 | 33.1 | 23.3 | 94.0 | 70.3 |
| Samara Oblast | 45.3 | 61.6 | 41.8 | 92.3 | 67.8 |
| Khanty-Mansi Autonomous Okrug | 74.4 | 98.7 | 65.5 | 88.0 | 67.7 |
| Yamalo-Nenets Autonomous Okrug | 46.3 | 59.6 | 37.3 | 80.5 | 62.6 |
| Komi Republic | 17.7 | 24.2 | 16.5 | 93.2 | 59.7 |
| Tyumen Oblast | 105.9 | 141.5 | 74.7 | 70.5 | 52.8 |
| Arkhangelsk Oblast | 17.1 | 23.7 | 11.9 | 69.6 | 50.1 |
| Belgorod Oblast | 19.2 | 25.8 | 12.1 | 63.0 | 46.9 |
| Russian Federation | 1979.9 | 2720.4 | 2272.0 | 114.7 | 83.5 |

Sources: data from the Federal Treasury; Rosstat; author's calculations.

The results of ISED T RAS research on issues of fiscal security of territories showed that the pronounced downward trend of raising income tax in recent years was due to mechanisms of legal regulation and tax administration aimed at optimizing the tax load of largest corporations which are strategic taxpayers, rather than to the economic crisis [10, 15].

Since 2013, there has been a sharp reduction in the growth rate of real IIT revenues, which correlates with real wage dynamics. The decline in tax base for IIT in 2015 has been so profound that its slight increase in 2016 did not help get on a positive path of IIT revenues (*Fig. 6*). In addition, the payment fees in real terms have not reached the level of 2012 in 67 regions; a significant

Figure 6. Dynamics of growth of wages and IIT revenues to the budgets of the RF constituent entities in 2012–2016, % to the previous year in comparable prices



Sources: data of the Federal Treasury; Rosstat; author's calculations.

decline was noted in industrial centers due to growing underemployment (Kaluga, Kemerovo, Vologda, Arkhangelsk, Sverdlovsk oblasts, republics of Komi and Bashkortostan, the Khanty-Mansi Autonomous Okrug).

Summarizing the results of analysis of regional budget revenues we conclude that negative trends observed in mobilization dynamics of main revenue sources indicate a continuing problem in regions' economy and threats for stable replenishment of their budgets.

The policy of regional authorities in the sphere of budget expenditures, which reflected a nationwide trend, is based on the principle of fiscal consolidation which implies reduction in financing all major areas of expenditure (*Tab. 3*).

One of the main goals of fiscal policy is finding an acceptable ratio between productive and non-productive expenditures for the current level of economic development [17].

As a result of consolidation structural priorities of sub-federal budgets changed in terms of this ratio. For example, during 2012–2016, the share of development budget (capital expenditures, healthcare) decreased 1.4 times, while the share of non-productive costs in the form of social benefits to particular population categories and interest payments on market debts increased 1.5–1.8 times (*Tab. 4*).

Thus, while developed States declared priorities of investment in human capital [16], Russia is saving on the development

Table 3. Budget expenditures of the RF constituent entities, 2012–2016, billion rubles, in comparable prices

| Expenditures | 2012 | 2013 | to 2012, % | 2014 | to 2013, % | 2015 | to 2014, % | 2016 | 2016, % to | |
|------------------------------|-------|-------|---------------|-------|---------------|-------|---------------|------|------------|------|
| | | | | | | | | | 2012 | 2015 |
| Expenditures, total | 11464 | 11519 | 100.5 | 11455 | 99.4 | 10569 | 92.3 | 9780 | 85.3 | 92.5 |
| Federal | 698 | 714 | 102.3 | 718 | 100.6 | 673 | 93.8 | 616 | 88.3 | 91.5 |
| Economy | 2210 | 2263 | 102.4 | 2186 | 96.6 | 2068 | 94.6 | 1950 | 88.2 | 94.3 |
| Housing and public utilities | 1211 | 1180 | 97.4 | 1119 | 94.9 | 959 | 85.7 | 924 | 76.3 | 96.4 |
| Social sphere | 6997 | 7006 | 100.1 | 7052 | 100.6 | 6502 | 92.2 | 5954 | 85.1 | 91.6 |
| - education | 2813 | 3053 | 108.5 | 3048 | 99.8 | 2758 | 90.5 | 2510 | 89.2 | 91.0 |
| - culture | 353 | 377 | 106.7 | 396 | 105.0 | 347 | 87.6 | 335 | 94.9 | 96.5 |
| - healthcare | 1866 | 1636 | 87.7 | 1612 | 98.5 | 1507 | 93.5 | 1260 | 67.5 | 83.6 |
| - social policy | 1750 | 1717 | 98.1 | 1759 | 102.4 | 1673 | 95.1 | 1638 | 93.6 | 97.9 |

Sources: data of the Federal Treasury; Rosstat; author's calculations.

Table 4. Structure of separate types of expenditure of the budgets of the RF constituent entities in 2012–2016

| Expenditures | 2012 | | 2013 | | 2014 | | 2015 | | 2016 | |
|------------------------------------|---------|------|---------|------|---------|------|---------|------|---------|------|
| | bln RUR | % | bln RUR | % | bln RUR | % | bln RUR | % | bln RUR | % |
| <i>Productive expenditures</i> | | | | | | | | | | |
| Investment | 1118.6 | 13.4 | 1067.1 | 12.1 | 1012.5 | 11.1 | 949.2 | 10.1 | 942.2 | 9.6 |
| Healthcare | 1358.4 | 16.3 | 1250.9 | 14.2 | 1296.8 | 14.1 | 1334.5 | 14.2 | 1260.1 | 12.9 |
| <i>Non-productive expenditures</i> | | | | | | | | | | |
| Social benefits | 1004.1 | 12.0 | 1051.5 | 11.9 | 1150.5 | 12.5 | 1418.8 | 15.2 | 1746.0 | 17.9 |
| Interest expenditures | 74.6 | 0.9 | 90.2 | 1.0 | 121.7 | 1.3 | 149.0 | 1.6 | 153.7 | 1.6 |

Sources: data of the Federal Treasury; author's calculations.

budget thus increasing the poverty rate³, which prevents the creation of long-term preconditions for sustainable reproduction.

This conclusion is confirmed by the dynamics of costs of sectors of national economy. In 2016, these costs, adjusted for inflation, decreased in 55 RF constituent

³ According to Credit Suisse, during the period from the middle of 2015 to the middle of 2016 Russia became one of the three outsider countries by population's well-being [18].

entities; 20 regions including a number of economically developed ones did not reach the indicators of 2012 in absolute terms (*Tab. 5*).

One of the main factors which caused negative dynamics of expenditures on the economy was the redistribution of funding in order to absolutely complete the objective of increasing wages for certain categories of employees set in the May Decrees of the Russian President dated may 12th, 2012.

Table 5. Budget expenditures of the RF constituent entities on economy in 2012 and 2016, billion rubles

| RF constituent entity | 2012 | | 2016 | 2016 to 2012, % | |
|--------------------------------|-------------------|----------------------|--------|-------------------|----------------------|
| | In current prices | In comparable prices | | In current prices | In comparable prices |
| Novosibirsk Oblast | 24.2 | 32.0 | 23.4 | 96.7 | 73.1 |
| Krasnoyarsk Krai | 32.3 | 42.5 | 30.1 | 93.2 | 70.8 |
| Saratov Oblast | 12.3 | 16.6 | 11.6 | 94.3 | 69.9 |
| Belgorod Oblast | 27.6 | 37.0 | 25.1 | 90.9 | 67.8 |
| Primorsky Krai | 22.1 | 30.0 | 19.6 | 88.7 | 65.3 |
| Komi Republic | 12.4 | 17.0 | 9.5 | 76.6 | 55.9 |
| Yamalo-Nenets Autonomous Okrug | 41.8 | 53.8 | 29.6 | 70.8 | 55.0 |
| Tyumen Oblast | 80.8 | 108.0 | 49.6 | 61.4 | 45.9 |
| Krasnodar Krai | 66.1 | 91.7 | 38.1 | 57.6 | 41.5 |
| Russian Federation | 1605.8 | 2206.4 | 1949.6 | 121.4 | 88.4 |

Sources: data of the Federal Treasury; Rosstat; author's calculations.

It must be said that optimization of costs has least affected public control and administration authorities. For example, in the Northwestern Federal district in 2016, only the Novgorod Oblast reduced budget expenditures on supporting administrative

staff compared to 2012. The growth rate of administrative expenses outran the growth of total expenditures of regional budgets, and unit management costs in most areas exceeded the average value (*Tab. 6*).

Table 6. Management budget expenditures of constituent entities of the Northwestern Federal district in 2012 and 2016

| Constituent entity | 2012 | | 2016 | | 2016 to 2012, % | |
|-------------------------------|---------|----------|---------|----------|---------------------------|-------------------------|
| | bln RUR | share, % | bln RUR | share, % | Total budget expenditures | Management expenditures |
| Leningrad Oblast | 8.58 | 9.5 | 12.39 | 9.3 | 148.8 | 144.5 |
| Saint Petersburg | 19.34 | 5.0 | 27.19 | 5.4 | 132.1 | 140.6 |
| Kaliningrad Oblast | 3.03 | 6.1 | 4.03 | 6.6 | 122.0 | 133.0 |
| Murmansk Oblast | 3.93 | 6.6 | 5.21 | 7.4 | 118.9 | 132.6 |
| Arkhangelsk Oblast | 4.28 | 6.0 | 5.29 | 6.4 | 115.2 | 123.6 |
| Republic of Karelia | 2.01 | 5.7 | 2.45 | 5.8 | 118.5 | 122.1 |
| Vologda Oblast | 4.29 | 7.4 | 5.03 | 8.0 | 108.0 | 117.2 |
| Komi Republic | 4.82 | 7.0 | 5.63 | 7.2 | 113.2 | 116.8 |
| Pskov Oblast | 1.77 | 5.8 | 1.89 | 6.0 | 104.3 | 106.8 |
| Novgorod Oblast | 2.53 | 7.6 | 2.47 | 7.4 | 100.8 | 97.6 |
| Northwestern Federal district | 54.59 | 6.2 | 71.51 | 6.3 | 128.4 | 131.0 |
| Russian Federation | 510.4 | 6.1 | 616.3 | 6.3 | 117.2 | 120.7 |

Sources: data of the Federal Treasury; author's calculations.

Table 7. RF constituent entities with highest level of market debt in 2016

| Constituent entity | 2012 | | 2016 | | 2016 to 2012, times |
|--------------------------|---------|------|---------|-------|------------------------|
| | Mln RUR | %* | Mln RUR | %* | |
| Voronezh Oblast | 6079 | 48.0 | 18152 | 50.5 | 3.0 |
| Kostroma Oblast | 2735 | 28.2 | 11221 | 52.6 | 4.1 |
| Murmansk Oblast | 4000 | 46.6 | 11000 | 53.2 | 2.7 |
| Perm Krai | 0 | 0 | 11500 | 54.7 | x |
| Khabarovsk Krai | 2900 | 51.9 | 21818 | 60.5 | 7.5 |
| Jewish Autonomous Oblast | 480 | 31.8 | 3000 | 61.0 | 6.3 |
| Tambov Oblast | 3312 | 49.8 | 9410 | 65.3 | 2.8 |
| Sverdlovsk Oblast | 3600 | 17.4 | 47595 | 65.9 | 13.2 |
| Mari El Republic | 4703 | 62.1 | 9143 | 67.7 | 1.9 |
| Magadan Oblast | 250 | 18.9 | 8389 | 69.5 | 33.6 |
| Rostov Oblast | 5900 | 59.3 | 28114 | 69.8 | 4.8 |
| Kurgan Oblast | 500 | 18.3 | 10909 | 72.5 | 21.8 |
| Republic of Buryatia | 0 | 0 | 7591 | 75.1 | x |
| Nenets Autonomous Okrug | 0 | 0 | 3600 | 100.0 | x |
| Russian Federation | 438216 | 32.4 | 808509 | 34.4 | 1.8 |

* Share of loans in the structure of public debt.
Sources: data of Ministry of Finance; author's calculations.

Unfortunately, despite fiscal consolidation no significant changes occurred in debt issues in the Russian regions, although federal authorities took measures to reduce market debt⁴ of regional budgets: in 2016 for the first time, loans from the federal budget were transferred to debt refinancing and not to paying off budget deficit. However, 32 regions failed to replace market loans with budget loans, 20 of them had a share of loans exceeding half of public debt (*Tab. 7*). In 2016, only 12 regions had no commercial loans in the debt structure as they were given significant amounts of loans from the federal budget.

⁴ Market debt is presented by loans from commercial banks, interest rate on which in 2016 varied from 9 to 12%. Interest rate on loans from federal budget comprised 0.1%.

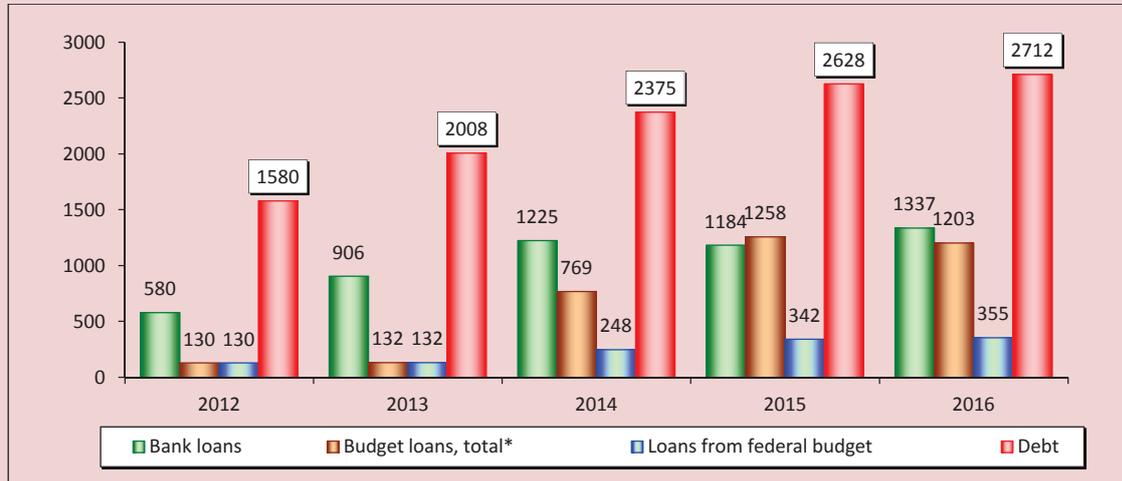
Federal loans did not reduce regions' demand for bank loans and did not stop debt accumulation. In 2016, there is a renewed trend of commercial loan priority, the amount of consolidated debt reaches 2.7 trillion rubles (*Fig. 7*).

In general, by the end of 2016 debt growth was observed in 60% of the RF constituent entities. The debt burden⁵ of budgets was slightly reduced from 35 to 33% (*Fig. 8*) which can hardly be called a success given a two-fold reduction in the debt of Moscow⁶. The number of regions with a debt burden over 50% has not reduced; in most of them the

⁵ The debt burden of a budget is measured as the ratio of debt to own revenues.

⁶ In 2016, Moscow's public debt reduced from 140 to 62 billion rubles, i.e. 2.3 times.

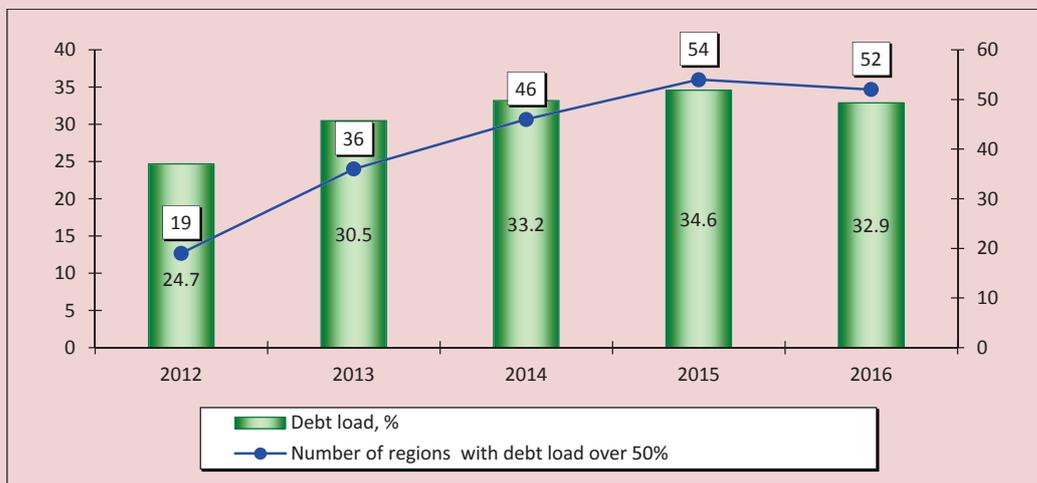
Figure 7. Received loans, public and municipal debt of the RF constituent entities in 2012–2016, billion rubles



* Budget loans include loans from federal budget and loans to replenish account balance provided by the Federal Treasury in 2014.

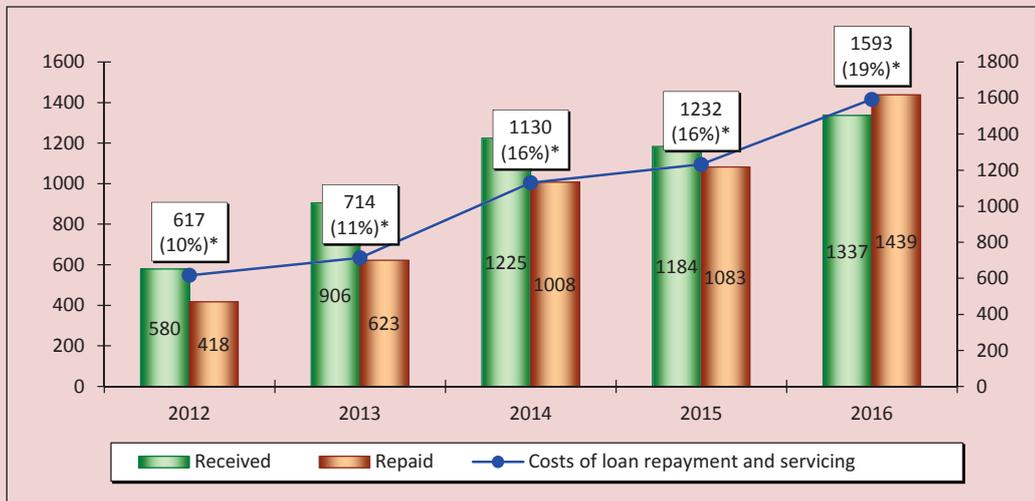
Sources: data from Ministry of Finance of the Russian Federation; Federal Treasury; author's calculations.

Figure 8. Debt burden on budgets of the RF constituent entities in 2012–2016



Sources: data of Ministry of Finance of the Russian Federation; Federal Treasury; author's calculations.

Figure 9. Bank loans received and repaid by budgets of the RF constituent entities in 2012–2016, billion rubles



* The figures in brackets represent share of expenditures for on loan repayment and servicing in own budget revenues.
Sources: data from the Federal Treasury; author's calculations.

debt burden exceeded 70%, and in 6 regions⁷ – 100% of own revenues (in 2015 – in 4 regions). Therefore, it is too early to refer to overcoming the debt crisis in Russian regions.

Another feature of the debt policy of the past year is the changed balance between commercial loan borrowing and repayment: for the first time, there were 102 billion rubles more loans recovered than loans provided, which resulted in an increase in debt value: 19% of own budget revenues was used for market loan repayment and servicing (Fig. 9).

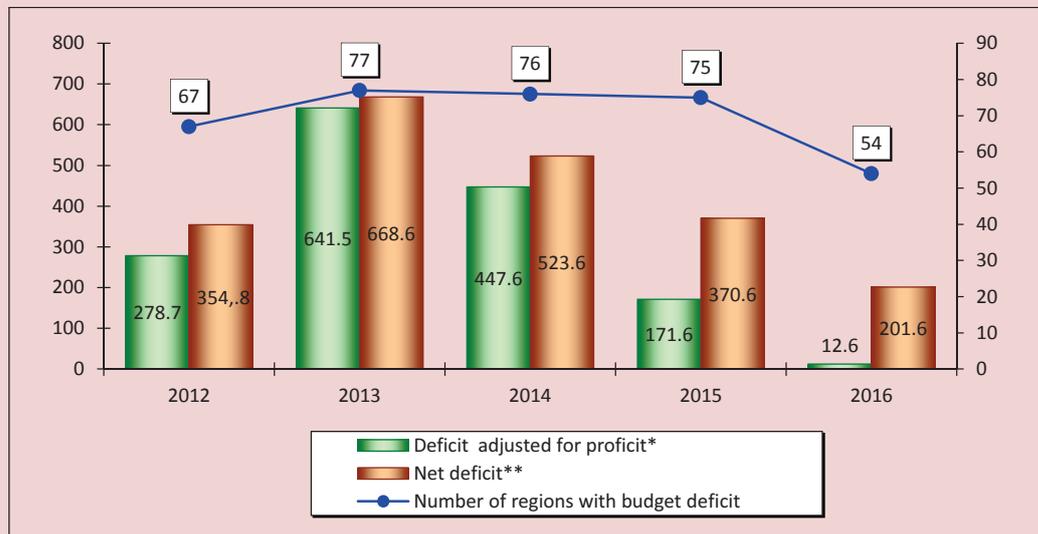
In 2016, expenditures on loan repayment and interest payments were second only to

expenditures on education and social policy. It means that for unconditional implementation of expenditure commitments regional authorities will be forced to borrow, which will inevitably lead to the escalation of market debt.

Prime Minister Dmitry Medvedev speaking at the Russian Investment Forum in Sochi claimed that “regional budget deficit decreased from 170 to 12.5 billion rubles” [3]. Is it really true? First, if we refer to regional budgets, i.e., territorial, republican, oblast’s budgets, their deficit, according to the Federal Treasury, decreased from 108.2 to 2.4 billion rubles. Second, due to restriction of consolidated budget revenues of the RF constituent entities and great budget surplus

⁷ Republics of: Mordovia (165%), Khakassia (119%), Karelia (101%); oblasts: Kostroma (124%), Astrakhan (107%), Smolensk (106%).

Figure 10. Budgets deficit of the RF constituent entities in 2012–2016, billion rubles



* Reporting data of the Federal Treasury.

** Author's calculations.

of Moscow⁸, it became possible to reduce the total deficit from 171.6 billion rubles in 2015 to 12.6 billion rubles in 2016. Third, at the end of 2016, 54 regions were unable to balance their budgets. Excluding the regions which implemented their budgets with a surplus, net deficit of sub-federal budgets amounted to 201.6 billion rubles, which is ten times more than the figures in the accounts of the Federal Treasury (*Fig. 10*).

In 2016, budget deficit was observed in 17 regions (*Tab. 8*). The list contains economically successful regions: city of Saint Petersburg with extensive commitments to hold 2018 FIFA World Cup; the Khanty-

⁸ Budget surplus in Moscow amounted to 116 billion rubles.

Mansi Autonomous Okrug and the Sakhalin Oblast, whose budgets lack tax payments due to a decline in oil prices.

Thus, fiscal consolidation has not helped most Russian regions to solve the problem of budget imbalance.

The results of analysis of sub-federal budget administration give reason for the following conclusions. There is no radical change in budget crisis of Russian regions caused by the need to implement election manifestos of the Russian President without financial support. The greatest achievement is a slight debt relief and slower growth rate of budget deficits in particular areas due to the restructuring of a significant share of commercial debt into budget debt. But budget

Table 8. RF constituent entities with growing budget deficit in 2016

| Constituent entity | 2015 | | 2016 | | 2016 to 2015, % |
|-------------------------------|---------|------|----------|------|-----------------|
| | Mln RUR | %* | Mln RUR. | %* | |
| Udmurt Republic | -7404 | 11.1 | -7945 | 10.8 | 107.3 |
| Omsk Oblast | -5155 | 6.5 | -5562 | 6.7 | 107.9 |
| Oryol Oblast | -2804 | 8.8 | -3228 | 9.9 | 115.1 |
| Yaroslavl Oblast | -4402 | 6.8 | -5083 | 7.8 | 115.5 |
| Kostroma Oblast | -3426 | 13.7 | -3981 | 14.8 | 116.2 |
| Belgorod Oblast | -2588 | 3.2 | -3059 | 3.7 | 118.2 |
| Republic of Khakassia | -5051 | 17.8 | -7186 | 27.1 | 142.3 |
| Nenets Autonomous Okrug | -2185 | 11.8 | -3381 | 23.3 | 154.7 |
| Lipetsk Oblast | -268 | 0.4 | -463 | 0.8 | 172.8 |
| Sakha (Yakutia) Republic | -4323 | 2.3 | -7539 | 3.8 | 174.4 |
| Arkhangelsk Oblast | -2789 | 3.6 | -5440 | 7.1 | 195.1 |
| Republic of Buryatia | -1222 | 2.3 | -2529 | 4.9 | 207.0 |
| Kamchatka Krai | -277 | 0.4 | -585 | 0.8 | 211.2 |
| Kursk Oblast | -445 | 0.8 | -2186 | 4.2 | 491.2 |
| Sakhalin Oblast | 10706 | 0 | -3263 | 2.1 | x |
| Khanty-Mansi Autonomous Okrug | 7267 | 0 | -9115 | 3.7 | x |
| Saint Petersburg | 7676 | 0 | -19325 | 4.0 | x |

* The ratio of deficit to budget revenues.
Sources: data from the federal Treasury; author's calculations.

loans are repayable, which in the following years will probably lead to a new round of market debt.

Let us distinguish the main trends characterizing the budget process in the RF constituent entities in 2016:

- declining real personal budget revenues largely due to a decrease in income tax receipts in regions specialized in mineral extraction, metallurgy and agriculture;
- reducing real IIT revenues indicating the declining social welfare of the Russian population;
- reducing grant in aid from the federal budget limiting the possibilities of non-debt financing of budget deficit;

– increasing structural imbalances in budget expenditures due to the cutting of productive costs;

– accelerating optimization of social sector financing which may entail reduced availability of public services and increased social tensions;

– increasing debt load of sub-federal budgets depriving the regions of the possibilities to draw on resources for implementing investment projects.

These steady trends will continue in the next budget cycle. It is obvious that due to negative trends in the socio-economic dynamics there are no simple solutions to the budget issue.

In most regions there is a pressing need for a complex system of industrial and investment potential management. Without this the economic activity will focus only on the current needs to the detriment of strategic development priorities. Unfortunately, as rightly pointed out by Doctor of Economics A.E. Dvoretzkaya, “fiscal authorities have no strategic vision of budget revenues since no serious measures to diversify the economy have been taken. A balanced budget cannot exist in an unbalanced economy [6]”.

Fiscal policy of Russian authorities has repeatedly been exposed to criticism from the expert community [2, 7, 8, 11, 12, 13], most of agree that the budget system of the Russian Federation does not contribute to the country’s development.

Despite statements of the Ministry of Finance of lack of financial resources [1] the results of the ISED T RAS research indicate that the country still has reserves for addressing the issue of the territorial budget crisis, which are as follows:

1. The reformation of individual income taxation through gradual establishment of differentiated rates for windfall revenues. As shown by the calculations, the introduction of progression only in respect of dollar billionaires is able to double IIT receipts to regional budgets [14].

2. Free budget balance accumulated in the treasury accounts as a result of errors and forecasting miscalculations of budget parameters. At the end of 2016,

free balance in the whole budget system of the country amounted to 1.6 trillion rubles including regional budgets – 0.4 trillion rubles.

3. Assessment of existing tax incentives concerning regional and local taxes (property taxes) and their partial or full abolition primarily for highly profitable economic entities. According to our calculations, in 2015 as a result of tax incentives regional budgets were missing 405.5 billion rubles, i.e. 40% of property payments.

4. Measures to recover accounts receivable of sub-federal budgets, which, according to the Federal Treasury, increased by one third during 2016 and amounted to 1.3 trillion rubles.

5. Increased responsibility of chief budget holders for the results of the implementation of expenditures. In 2016, amid fiscal consolidation the regions misused 588.6 billion rubles, i.e. 6% of allocations.

6. Legislation of distribution of inter-budget transfers from the federal budget among the RF constituent entities by the beginning of regional budget planning for the next financial cycle. Annual failure to comply with the proposed procedure leads to the disruption of the budget process in the regions, resulting in untimely distributed and unencumbered transfers returning to the federal budget. By the end of 2016, the regions returned 35.8 billion rubles of unencumbered subsidies and subventions, which is two times more than in 2015.

7. Prolongation of the policy of transforming market debt into budget debt, carried out by the Government of the Russian Federation in 2016.

8. Unification of a methodology for calculating revenues for taxation for achieving maximum transparency. Along with these measures, legislative changes should provide for greater transparency of activities of major taxpayers, especially regarding detailed financial statements which should provide the users with data on the efficiency of corporate management [20]. For example, results of the ISED T RAS analysis of activities of a revenue-generating enterprise in the Vologda Oblast – PAO Severstal – show that due to double standards of calculating the tax base, the effective income tax rate paid by the corporation in 2015–2016 comprised 4.5% instead of a 20% standard rate due to which the budget lost 23.4 billion rubles.

Imperfect mechanisms of budget management necessitates the assessment of regional powers and estimation of their revenue potential. It has been scientifically proven and practically confirmed that

sustainable development of federal, regional and municipal systems can provide balance between revenues and expenditures in the following proportions: 50% – to federal and 50% to region's consolidated budget [19]. The government's ignoring of this ratio resulted in reduction in the number of self-sufficient regions from 20 to 13 over the past decade. In our opinion, one of the ways to change the procedure of tax revenue distribution in the budget hierarchy is to transfer a share of value added tax (VAT) receipts to regional budgets, including through cancellation of VAT refund paid by raw material exporters from the federal budget, which will provide additional annual revenues amounting to 1.7 trillion rubles [9].

In conclusion, we come to the following conclusion. Although the discussion of issues related to the budget crisis of the RF constituent entities is far from being complete, one should admit that understanding the need for structural reforms to overcome this crisis is getting more relevant. In the long term, only through increased economic activity will it possible to reach the balance between territorial budgets.

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Socio-Cultural Reserves of Economic Growth: Productivity of the Work Chosen According to One's Calling



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Abstract. The article summarizes theoretical views on the essence of socio-cultural factors in economic growth. We single out their components (mental attitudes, morality, cultural traditions, professional recognition), which, when used effectively, promote the growth of work performance efficiency. We also consider theoretical and methodological approaches to the category of “professional calling”, define its essence and features (such as deep commitment to the chosen field of work, high responsibility and dedication in the profession, selflessness and creative attitude to the work, spiritual connection of man with the profession, positive mental attitude in the work). The aim of the research is to evaluate the impact of professional calling as a social and cultural phenomenon on the economic performance of work (for example, wages, efficiency and quality of work, motivation to work, etc.) that are directly linked to labor productivity as the basis for material reproduction and productivity of the economy. We analyze the sociological research conducted in 2014 and 2016 in the Vologda Oblast. The results allows us to identify groups of employees by work according to their calling and by work within their specialty: the first group includes those working within their specialty and according to their calling (39.7%); the second group – those working within their specialty but outside their calling (4.5%); the third group – those working according to their calling but outside their specialty (10.8%); the fourth group – those working outside their specialty and outside their calling (12.1%). Scientific novelty of the research consists in identifying the groups of workers in the region on the grounds of “working within one’s specialty” and “working according to one’s calling” and in determining the economic effects of each of the selected groups. In the current study, we empirically confirm the hypothesis that the work according to one’s calling gives a more pronounced economic impact than the work within one’s specialty, and is accompanied by the growth of satisfaction with work and life in general. We reveal that if the specialty and calling do not match, then those who chose their work according to their calling realize their labor potential more intensively and have higher wages. We prove that the economic effect of working according to one’s calling is expressed in a greater return on wages, which, on the one hand, broadens the tax base, on the other hand – increases consumer demand on the part of such workers. In addition, an increased level of implementation of the employment potential leads to growth of labor productivity. We conclude that it is necessary to take into account the phenomenon of professional calling in career guidance and in the work of personnel departments of enterprises and organizations.

Key words: professional calling, specialty, employment potential, implementation of labor potential.

Introduction

One of the topical issues of social sciences is to determine the effect of various factors on the socio-economic development of the society. In economic science, there are more and more allegations that, along with economic resources, non-economic ones

are equally important. The latter includes socio-political, geographical, psychological, infrastructural and other factors¹. Non-

¹ Ipatov P.L., Dines V.A., Rusanovskii V.A. Kontsept neekonomicheskikh faktorov v issledovaniyakh protsessov razvitiya natsional'noi ekonomiki [The concept of non-economic factors in studying the processes of national economy development]. *Ekonomika i upravlenie* [Economics and management], 2009, no. 3/6 (44), pp. 5-12.

economic factors highlighted by researchers include: information, “quality and productive labor, quality of life, level of culture, education, professional knowledge and skills, and health as components of human capital, which in fact have proven to be “motivators” of stable long-term economic development”² (Tab. 1). The impact of non-economic factors is indirect and multi-stage in nature and has a longer time lag in comparison with economic factors. Their neglect, as shown by economic practice, leads to untimely inadequate measures taken at different levels of regulation and forecasting of the national economy³.

In this article, we will focus on determining the impact of non-economic factors on territory's economic development selecting social and cultural resources including mental attitudes, life values, population's national and cultural traditions, and professional calling.

Materials and methods

The informational framework of the study includes data from sociological surveys on the

² Gorshkov M.K. Ob aksiomatičeskoj traktovke vliyanija neekonomičeskikh faktorov na ekonomičeskij rost [On the axiomatic interpretation of the economic factors' impact on economic growth]. *Ekonomičeskie i sotsial'nye peremeny: fakty, tendencii, prognoz* [Economic and social changes: facts, trends, forecast]. Volodga: ISERT RAN, 2014, no. 3(33), pp. 45-56.

³ Sedyukova E.A., Bezglasnaya E.A. Neekonomičeskie faktory i ikh vliyanie na uspešnost' modernizatsii ekonomiki [Non-economic factors and their impacts on successful economic modernization]. *Nauchnyi elektronnyi arkhiv* [Scientific e-archive]. Available at: <http://econf.rae.ru/article/6442> (accessed: 28.11.2016).

Table 1. Non-economic factors in economic growth

| Types of non-economic factors | Kinds of non-economic factors |
|--|--|
| Socio-political | Socio-political stability Interethnic and interfaith consent |
| Psychological | Entrepreneurial traits (enterprise) Motivation |
| Geographical and environmental factors | Geographic conditions Climatic conditions Light zone |
| Infrastructural | Scientific and technical, communication, educational, medical, cultural infrastructure |
| Socio-cultural | Mental attitudes Morality Cultural traditions <i>Professional calling</i> |

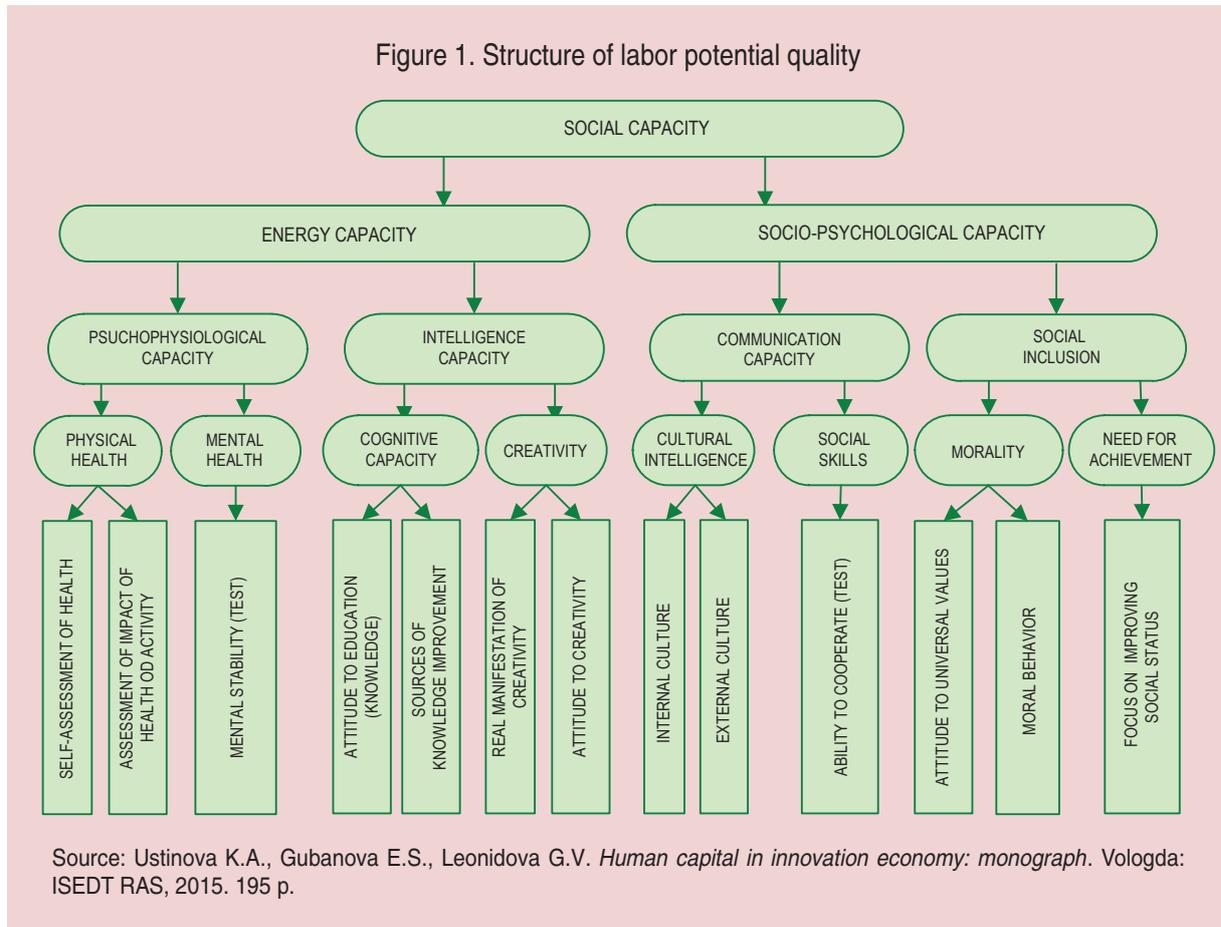
Sources: compiled by the authors from: Ipatov P.L., Dines V.A., Rusanovskii V.A. The concept of non-economic factors in studying the processes of national economy development. *Economics and Management*, 2009, no. 3/6 (44), pp. 5-12; Sedyukova E.A., Bezglasnaya E.A. Non-economic factors and their impacts on successful economic modernization. Scientific e-archive. Available at: <http://econf.rae.ru/article/6442> (accessed: 28.11.2016).

quality of labor potential in the Vologda Oblast conducted by ISED T RAS in the region in 2014 and 2016⁴.

To measure the qualitative characteristics of the working-age population in the context of monitoring, we used a technique⁵ based on

⁴ Survey method – questionnaires at respondents' place of residence. Sampling – 1500 people of working age. Sampling method: zoning with proportionate location of observation units. Sampling type: quotas or gender and age. Random samplim error: 3–4% at confidence interval of 4–5%.

⁵ Rimashevskaya N.M. O metodologii opredeleniya kachestvennogo sostoyaniya naseleniya [On the methodology of defining the population's quality]. *Demografiya i sotsiologiya* [Demography and sociology], no. 6. Moscow, 1993.



the concept of qualitative characteristics of the population (N.M. Rimashchanskaya). It helps evaluate eight basic qualities⁶ (physical and mental health, cognitive capacity and creativity, communication skills, cultural and moral levels, need for achievement) and calculate the integrated index of labor potential quality referred to as a social capacity in the presented methodology (Fig. 1).

⁶ Assessment of population’s labor potential quality in the Vologda Oblast is presented since 1997.

It should be noted that since 2015 the study of problems of professional calling had been supported by the Russian Foundation for Humanities together with the scientists from Institute of Sociology of the National Academy of Sciences of Belarus. The block of questions measuring the prevalence of the phenomenon was also used in the studies carried out by ISEDT RAS: “Labor potential quality in the Vologda Oblast” (2014, 2016), “The socio-cultural image of the region” (2015), “Professional calling” (2016). The

paper presents data from the sociological survey of the population in the Mogilyov Oblast in the Republic of Belarus conducted by Institute of Sociology of the National Academy of Sciences of Belarus in 2016.

Theory

The socio-cultural factors of economic development were addressed to by scholars such as P. Sorokin, A. Akhiezer, A. Auzan, N. Lapin, L. Ionin, N. Chernysh, M. Gorshkov, V. Yadov and others.

The main factors of any social change, according to the research by P.A. Sorokin, “lie in the socio-cultural phenomena and those social and cultural conditions in which they occur and function”⁷. The “socio-cultural” phenomena were referred to as everything “people get from other people through continued interaction with culture as a carrier of supra-organic values”. “Spiritual values” in this case are all derivatives of human consciousness (language, science and philosophy, religion, art, law, ethics, manners, morals, technical inventions, etc.). “Social culture” in his understanding is a basic category of supra-organic matter (social world)⁸.

Works by Akhiezer A. interpret the “socio-cultural environment” as external reality

⁷ Sorokin P.A. *Sotsial'naya i kul'turnaya dinamika* [Social and cultural performance]. Moscow: Astrel', 2006. 1176 p.

⁸ Sorokin P.A. *Chelovek. Tsvivilizatsiya. Obshchestvo* [Human. Civilization. Society]. Moscow: Politizdat, 1992. Pp. 14–16.

relative to an individual. Moreover, the author describes it firstly by “level of creative potential of people surrounding the subject, their level of self-reflection, for example, the level and scale of private initiative established by the pace of novelty, power, flow and nature of innovations, the content of mainstream values, moral ideal, etc.”⁹

Russian economist A. Auzan defined this factor as a kind of a “cultural code” (i.e. a set of images associated with any set of stereotypes) which can affect the economic development of countries¹⁰. This code, according to the theory of A. Auzan, promotes the understanding and accounting of behavioral responses of a particular people. Socio-cultural factors in this sense are particularly important for economic and political transformations¹¹.

American scientist L. Harrison defines culture as “a system of values, beliefs and attitudes shared by the members of the society and formed mainly by environment, religion, historical events and transmitted from generation to generation”¹², which covers

⁹ Akhiezer A.S. *Nekotorye problemy sotsiokul'turnoi dinamiki* [Some issues of socio-cultural performance]. *Mir Rossii* [Universe of Russia], 1995, no. 1, pp. 4-8.

¹⁰ Auzan A. *Natsional'nye tsennosti i modernizatsiya* [National values and modernization]. Moscow: OGI; Polit. ru, 2010.

¹¹ Auzan A.A., Arkhangel'skii A.N., Lungin P.S., Naishul' V.A., Voronchikhina A.O., Zvereva N.V., Zolotov A.V., Nikishina E.N., Stavinskaya A.A. *Kul'turnye faktory modernizatsii: doklad* [Cultural factors in modernization; report], 2011.

¹² Harrison L. *The Central Liberal Truth: How Politics Can Change Culture and Save It from Itself*. Oxford University Press, 2006.

many aspects of development of the human society and is close in content to the concept of civilization.

All the foregoing suggests that the use of the concept of “cultural (civilizational) code” in sociological research is associated with these approaches. According to Belarusian scientists, the research of the country’s civilizational code aims to study and provide recommendations on how to turn the country’s socio-cultural potential into economic results. “Maximum use of national and cultural characteristics can significantly improve the quality of life and affect the overall development of the society.”¹³

The essence of the typological approach to culture by V. Abushenko is that “the basis of different kinds of cultural choices of individuals and groups are value priorities. But they exist not on their own, but in conjunction with the activity component in the sense that it is implemented in people’s real practical activities and are fixed in repetitive patterns of behavior”¹⁴. One of the patterns of behavior, work behavior in particular, can be a special socio-cultural

¹³ The National Press Center presented a book “Belarus on the way to future: sociological dimension”. Available at: <http://minsknews.by/blog/2016/01/06/v-natsionalnom-press-tsentre-prezentovali-knigu-belarus-na-puti-v-budushhee-sotsiologicheskoe-izmerenie/> (accessed: 29.11.2016).

¹⁴ Abushenko V.L. Kul’tursotsiologiya: vozmozhnost’ inogo vzglyada na sotsial’nyu teoriyu [Cultural sociology: opportunities of a new view on social theories]. *Voprosy sotsial’noi teorii: nauchnyi al’manakh* [Issues of social theory: scientific almanac], 2008, vol. 2, issue 1(2). Moscow.

phenomenon such as choice of vocation (or professional calling).

The position of V.R. Shukhatovich is to explore the phenomenon of professional calling as a non-economic factor of economic growth, one of the components of economic development, representing a positive trend in the economy. Appeal to the phenomenon of professional vocation is due to the fact that in modern socio-humanistic concepts of non-economic factors which include “professional calling”¹⁵, it is often ignored.

Thus, the purpose for the study is to evaluate the influence of a socio-cultural phenomenon of professional calling on the economic performance of people’s labor activity (for example, wages, work efficiency and quality, motivation, etc.) which is directly linked to issues of productivity as the basis for material reproduction and productivity of the economy.

In scientific literature, professional calling is conceptualized as (*Tab. 2*):

- 1) work as a meaning and purpose of life (value);
- 2) a source of self-realization (motive);
- 3) a method of performing a professional role, which requires full dedication (work

¹⁵ Shukhatovich V.R. Professional’noe prizvanie: k voprosu o neekonomicheskikh faktorakh ekonomicheskogo rosta [Professional vocation: on the subject of non-economic factors in economic growth]. *Ekonomicheskie i sotsial’nye peremeny: fakty, tendentsii, prognoz* [Economic and social changes: facts, trends, forecast], 2014, no. 5 (35), pp. 108-192.

Table 2. Some approaches to the interpretation of the term “vocational calling”

| Approach | Author | Definition |
|--------------|-------------------|--|
| Axiological | S.Yu. Vishnevskii | Objective social necessity, the core of any profession without which it can exist but cannot develop efficiently. Qualitative characteristics of activities of individuals, communities, generation, society are expressed – rationally or irrationally – in understanding of its necessity (as the unity of social interests and needs, aptitudes), willingness to engage in professional activities and choosing real professional roles, statuses and institutional positions. |
| | A.N. Kosolapov | Attraction to a particular profession, awareness of one's potential abilities or capabilities in mastering this profession. |
| | S.A. Shavel' | Human's free choice based on ability to anticipate (the result of activities) and internalize social roles the person agrees to be associated with. |
| | E.V. Palei | Assessment of a profession through one's personal values. |
| | A.V. Mikhailov | The integrity of one's professionally significant, unique creative characteristics. |
| | K.V. Karpinskii | Professional activity which serves as an ultimate self-sufficient value performing the sense-making function in relation to holistic life; individual's understanding, experiencing and implementing one's work as a meaningful value. |
| Motivational | N.R. Saikhova | Integrated human characteristic manifested in stable positive, emotional, volitional, and selectively-cognitive attitude to a profession, willingness to self-realization in one's profession. |
| | A.F. Karavaev | A complex act of emergence and awareness of motives of professional choice. |
| | E.R. Khairullina | Highest expression of individual's professional focus. |
| | F. Tönnies | A phenomenon capable of forming a community-based type of social relations at different levels of institutional organizations. |
| Factor | V.R. Shukhatovich | A phenomenon reflecting the spiritual connection with a profession associated with deep devotion it, high responsibility, dedication, selflessness, creative attitude to work. |
| | L.N. Maksimova | A subjective factor in forming professional culture. |

Source: compiled by the authors from: [12; 14; 19; 20; 24; 26; 31; 34; 39].

behavior, non-economic factor in economic development)¹⁶.

In the early twentieth century, the phenomenon of “calling” was first addressed to by the founders of the sociology M. Weber and

E. Durkheim. In his works, M. Weber puts great emphasis on the importance of inner aspiration, sensuality and fulfilling one's professional calling¹⁷.

¹⁶ Karpinskii K.V. Professional'naya deyatel'nost' i razvitie lichnosti kak sub»ekta zhizni [Professional activity and development of an individual as a subject life]. *Lichnost' professionala v sovremennom mire* [Professional identity in modern world]. Moscow: Institut psikhologii RAN, 2013. Pp. 25-59.

¹⁷ Shutova E.A. Fenomen prizvaniya v rabotakh M. Vebera [The phenomenon of calling in works by M. Weber]. *Vestnik Chelyabinskogo gosudarstvennogo universiteta* [Bulletin of Chelyabinsk State University], 2009, no. 18, pp. 116–118; Weber M. *Selected works*. Translated from German. Moscow: Progress, 1990.

M. Weber who invented the concept of “vocational calling” in politics identified three reasons for “domination”:

- 1) the authority of “yesterday’s leader”;
- 2) the authority of “extraordinary personal gift” (charisma);
- 3) domination “due to legality”.

However, professional calling of a politician “in its highest expression” was associated by M. Weber with charismatic leadership which is inseparable from obedience based on faith in them, rather than on law or tradition (as in the first and the third case). According to Weber, politician’s calling is the inner core of charisma manifested at the sensory-emotional and rational (conscious) level¹⁸.

E. Durkheim interpreted vocational calling from the perspective of ethics with an emphasis on professionalism as an important characteristics of calling¹⁹. The ethical aspect of professional calling later became the subject of research for many scientists.

In particular, D. Gustafsson identified the traits of professional calling: high level of motivation and deep vision of goals²⁰. He concluded that work performance without calling does not have any moral and

humanistic roots as it causes the loss of true essence of work.

Vocation is studied in the framework of several scientific disciplines (*Tab. 3*).

In most scientific works and areas the phenomenon of vocation is associated with a specific profession (vocation in teaching, journalism, politics, etc.) or mission (Weber, Bourdieu, Hegel), meaning of life (E. Mounié, S. Frank, B. Vysheslavskii), and person’s inner duty (V.N. Lossky: vocation is *personal connection with God, human perfection*²¹; J. Fichte: *a scientist’s goal is to teacher the human race*²²; L.N. Kogan: *the purpose and meaning of life*²³), creative manifestation of human’s unique nature (N. Berdyaev, G. Simmel, J. Ortega y Gasse).

V. Shukhatovich considers vocation as a social phenomenon as it is “a product of human mind” and is able to form “trust among people”²⁴.

¹⁸ Weber M. *Izbrannye proizvedeniya* [Selected works]. Moscow: Progress, 1990. Pp. 707-735.

¹⁹ Durkheim E. *O razdelenii obshchestvennogo truda. Metod sotsiologii* [The Division of Labor in Society]. Moscow: Nauka, 1991. 575 p.

²⁰ Gustafsson D. *Bleik i pravoslavie* [Blake and Orthodoxy]. *Yazyk. Slovesnost’. Kul’tura* [Language. Literature. Culture], 2013, no. 1.; Gustafson J.M. Professions as «Callings». *The Social Service Review*, 1982, vol. 56, no. 4, p. 509.

²¹ Oчерк misticheskogo bogosloviya Vostochnoi Tserkvi. Dogmaticheskoe bogoslovie [Essay on the mystical theology of the Eastern Church. Dogmatic theology]. *Bogoslovskie trudy: sbornik vos’moi, posvyashchennyi V. Losskomu* [Theological works: the eighth collection dedicated to V. Lossky]. Available at: <http://bogoslovie.todn.ru/lossky/10/204/>

²² Fichte I. Lektsiya IV. O naznachenii uchenogo [Lecture 4. On the mission of the scientist]. *Neskol’ko lektzii o naznachenii uchenogo. Naznachenie cheloveka. Osnovnye cherty sovremennoi epokhi* [Some lectures on the mission of the scientist. The purpose of man. The main features of the modern era]. Available at: <http://vikent.ru/enc/2683/>

²³ Kogan L.N. *Tsel’ i smysl zhizni cheloveka* [The goal and meaning of man’s life]. Moscow, 1984. P. 184.

²⁴ Shukhatovich V.R. *Prizvanie kak sotsial’nyi i kul’turnyi fenomen: k voprosu o teorii i metodologii issledovaniya* [Calling as a social and cultural phenomenon: to the theory and methodology of research]. *Sotsiologiya* [Sociology]. Moscow: 2010.

Table 3. Areas of scientific research of the phenomenon of vocation

| Concepts | Representatives | Vocation is... |
|-----------------|--|---|
| Transcendental | S.L. Frank E. Mounié B.P. Vysheslavskii | a purpose, goal set by absolute existence |
| Sociological | M.Weber K.Marx J. Fichte P. Bourdieu S.Yu. Vishnevskii | a social phenomenon defining the human's focus on the society, the necessity of reproduction of social relations. an important feature of vocation is activity (social, professional, etc.) |
| Individualistic | C.G. Jung J. Ortega y Gasse | an integrated program of human existence encouraging people to choose their own path in life different from the generally accepted. |
| Ontological | G.F. Hegel J. Fichte N. Berdyaev | a holistic phenomenon whose existence is connected with the search for the meaning of life |

Sources: Vishnevskii S.Yu. Vocation as a socio-cultural issue: historical and sociological analysis: Doctor of Sociology dissertation abstract. Yekaterinburg: Ural State University, 2006; Ortega y Gasset J. *V poiskakh Gete* [In search of Goethe from within]. Translated by A.B. Matveev. Available at: <http://www.chat.ru/~scbooks/>

Professional vocation is deep dedication to profession, high responsibility and devotion, selflessness, creative attitude to work, spiritual connection of a human with their profession, as well as positive mental attitude in work (pleasure from work, satisfaction with work and life in general). "Vocation is the contact point of natural abilities and personal preferences"²⁵.

Adding to the ideas of V. Shukhatowich, we tried to answer the question about the impact of vocation on objective economic indicators of work activity (e.g., wages, work efficiency and quality, etc.) and the subjective perception of an individual's life and work. We empirically confirmed the hypothesis that

vocation gives a more pronounced economic impact than a job within one's specialty, and is accompanied by growing satisfaction with work and life in general.

Research results

Opinion surveys show that vocation job is characteristic of more than a half of the employed population of the Vologda Oblast (56.7% in 2014, 55.2% in 2016, according to the monitoring of the qualitative condition of labor potential²⁶) and a significant share of the population of the Mogilev Oblast in the Republic of Belarus (42%).

In terms of sectoral distribution, the largest share (over 70%) of those who have mental connection with their profession is in

²⁵ K. Robinson et al. *Naiti svoe prizvanie. Kak otkryt' svoi istinnye talanty i napolnit' zhizn' smyslom* [Finding your element: How to discover your talents and passions and transform your life]. Moscow, 2014. 304 p.

²⁶ Chekmareva E.A., Shabunova A.A. Rabota po prizvaniyu: vygodno li eto dlya ekonomiki? [Working according to one's calling: is it beneficial for the economy?]. *Sotsiologicheskii al'manakh* [Sociological almanac], 2016, no. 6, pp. 156-164.

the armed forces, culture and education (economic spheres which are associated with the sense of duty, “service” in public consciousness). Least prevalent (less than 50%) is vocation among agricultural and trade workers.

It should be noted that this study is unique as it is only conducted in Belarus and the Vologda Oblast; therefore, its factual basis is significantly limited. However, conducting several sociological surveys in the region gives an opportunity for generalizations and conclusions about prevalence (manifestation) of the phenomenon among the employees, its economic effects.

A distinctive feature of the research of professional vocation in the context of monitoring labor potential quality in the Vologda Oblast, which forms the scientific novelty, is the evaluation of employees’ self-fulfillment and qualitative characteristics on the labor market. Assessment of population’s use of qualities was carried out based on the method developed in the framework of the aforementioned approach²⁷. It is based on a block of questions such as “How much do you commit yourself at work? To what extent do you use your qualities and skills?” The calculations were made with the use of the following four-point scale: fully use

²⁷ Chekmareva E.A. Povyshenie urovnya realizatsii trudovogo potentsiala: rol’ zarabotnoi platy [Rising in labor potential: the role of wages]. *Ekonomicheskie i sotsial’nye peremeny: fakty, tendentsii, prognoz* [Economic and social changes: facts, trends, forecast], 2011, no. 2 (14), pp. 165-172..

(maximum) – 4 points; more or less fully (can use more) – 3; partially (not much) – 2; very little (minimum) – 1. Further, by dividing the actual number of points on the scale into maximum possible number and multiplying by 100% for each respondent on each of eight qualities we obtained a figure conventionally named “level of labor potential quality implementation”. The average level of implementation of labor potential of an individual socio-demographic group was calculated as arithmetic mean of the level of implementation of each of its member.

Based on the question proposed by V. Shukhatovich²⁸: “Do you work according to your degree obtained at professional educational organizations (university, college, vocational school)?” and “Does your occupation (main job) match your vocation?”, all working respondents, with the exception of those who did not receive a degree and those who were undecided (in 2016 – 32.9%), were divided into four groups subject to further detailed analysis:

- the first group – respondents working within their specialty and vocation (39.7%);
- the second group – respondents working within their specialty, but outside vocation (4.5%);

²⁸ Shukhatovich V.R. Professional’noe prizvanie: k voprosu o neekonomicheskih faktorakh ekonomicheskogo rosta [Professional vocation: on the subject of non-economic factors in economic growth]. *Ekonomicheskie i sotsial’nye peremeny: fakty, tendentsii, prognoz* [Economic and social changes: facts, trends, forecast], 2014, no. 5 (35), pp. 188-192.

- the third group – respondents working according to their vocation, but outside their specialty (10.8%);
- the fourth group – respondents working outside their specialty and vocation (12.1%).

For each group we estimated the quality of labor potential and its level of implementation, average salary, satisfaction with work and life etc.

The assumption about the emotional ties between human and their profession is confirmed by the responses of the working population of the Vologda Oblast (*Fig. 2*). One in every three respondents (74%) mentions this aspect of social-labor relations.

Highlighting the positive mental approach in the working life as a component of vocation, we believe that it gives, together with other components of the analyzed phenomenon, the economic effect which is reflected in greater economic returns from a higher level of labor potential realization, suggesting greater productivity (*Fig. 3*).

According to various research, vocation determines higher salaries, meaning larger tax base for the region's budget and, correspondingly, higher consumer demand from such workers. In socio-psychological terms, the effect is reflected in higher indices of life satisfaction, employment, working conditions (*Tab. 4*) and, despite the negative index, greater satisfaction with salary.

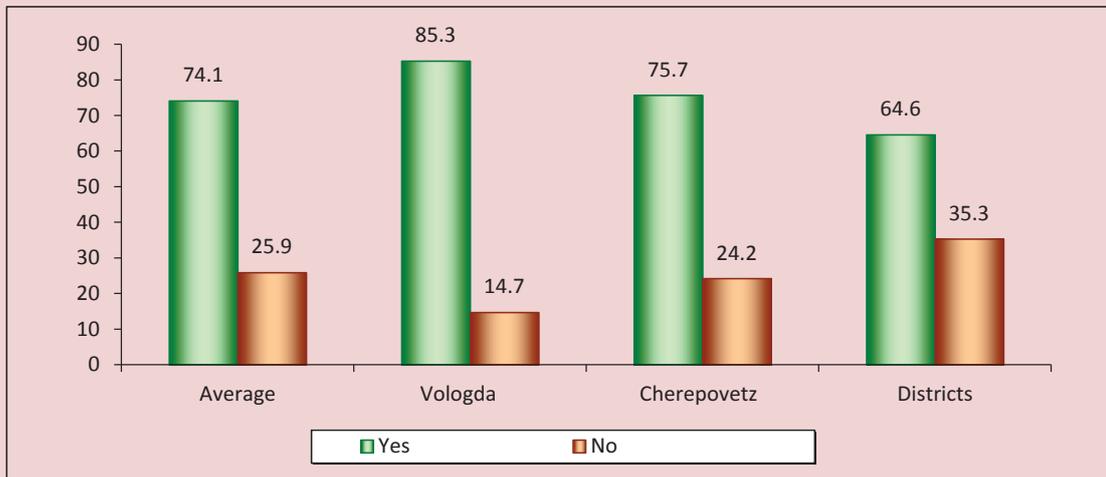
The measurement results showed that the first group is characterized by (*Tab. 5*):

- first, higher labor potential quality (the integrated index in this group is 0.704 against 0.670; 0.698; 0.685 units in the second, third and fourth groups, respectively);
- secondly, higher level of labor potential realization (level of labor potential quality realization – 83.0% against 80.5; and 76.1 to 82.4%, respectively);
- thirdly, higher salaries (the average salary in this group – 23725 rubles, in others – 20932, 21139, and 17170 rubles, respectively).

If profession and vocation do not match, those who chose vocation (third group) are characterized by more intense realization of labor potential and higher salary difference between.

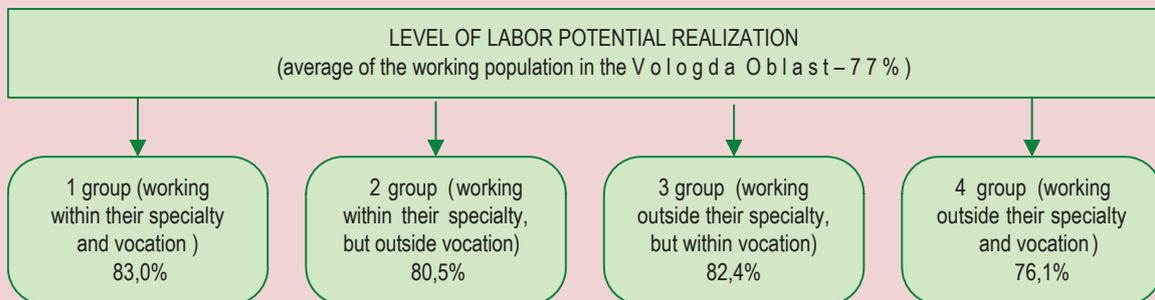
If we consider the subjective perception of life and work, there is an interesting phenomenon: the third group of respondents – those who Work outside their specialty, but within vocation comes at the forefront. These people experience a kind of “euphoria” from the fact that they found their calling and were not afraid to abandon their jobs in favor of a lifetime pursuit. Thus, in the third group of respondents, the average level of job satisfaction on a five-point scale in 2016 was 4.0 points, in the first group – 3.8 points, in the second – 3.2 points, in the fourth – 3.1 points. The level of life satisfaction in general in the third group is also higher:

Figure 2. Distribution of answers to the question: “Do you think there is spiritual and emotional connection with your profession (what is called a vocation)?” (% of respondents)



Source: data from population survey in the Vologda Oblast about their attitude to professional vocation (2016; 1500 people).

Figure 3. Level of labor potential realization among working and non-working population according to their vocation, %



Source: Monitoring a labor potential quality of the population in the Vologda Oblast; ISEDT RAS, 2016.

4.1 points against 4.0, 3.5, and 3.5 points, respectively. All this confirms the hypothesis of the study.

Discussion

Thus, we see that the phenomenon of “professional calling” demonstrates a positive trend. Of course, we must understand that we

cannot separate the selected factor from economic factors. However, it should be taken into account at all levels of management – from enterprise to state. One should contribute not only to the formation of these resources and expansion of their influence, but also to their effective use.

Table 4. Indices* of satisfaction with life and work in groups of working and non-working population according to their vocation

| Satisfaction with | Does your profession match your vocation? | | | | | |
|--------------------|---|--------|--------|--------|-----------|--------|
| | 2014 | 2016 | 2014 | 2016 | 2014 | 2016 |
| | Yes | | No | | Undecided | |
| Life | 0.506 | 0.692 | 0.088 | 0.333 | 0.264 | 0.510 |
| Work | 0.504 | 0.615 | -0.088 | 0.031 | 0.094 | 0.345 |
| Salary | -0.136 | -0.039 | -0.680 | -0.409 | -0.452 | -0.259 |
| Working conditions | 0.443 | 0.495 | -0.004 | 0.009 | 0.067 | 0.283 |

* Each index was obtained by subtracting the frequency of negative responses from the positive frequency and dividing the value by 100. The resulting index takes values from 1 to -1, while the minus value means the numerical superiority of negative statements.
Source: Monitoring of labor potential quality of the population in the Vologda Oblast; ISEDT RAS, 2014, 2016.

Table 5. Main characteristics of employee groups, working/not working within their specialty and vocation in the Vologda Oblast in 2016

| Indicator | Work within their specialty and vocation | | Work within their specialty, but outside vocation | | Work outside their specialty, but within vocation | | Work outside their specialty and vocation | |
|---|--|-------|---|-------|---|-------|---|-------|
| | 2014 | 2016 | 2014 | 2016 | 2014 | 2016 | 2014 | 2016 |
| Share of workers, % | 32.8 | 39.7 | 12.3 | 10.8 | 4.3 | 4.5 | 9.5 | 12.1 |
| Labor potential quality index, units | 0.702 | 0.704 | 0.697 | 0.698 | 0.667 | 0.670 | 0.654 | 0.685 |
| Average salary, rubles. | 20383 | 23725 | 20439 | 21139 | 16829 | 20932 | 15152 | 17170 |
| Average level of labor potential realization, % | 81.9 | 83 | 82.5 | 82.4 | 74.5 | 80.5 | 70.2 | 76.1 |

Source: data from of labor potential quality of the population in the Vologda Oblast in 2014 and 2016.

It is required to ensure substantial strengthening of career guidance with the youth, detect children's inclinations and abilities as early as possible and help them in determining their vocation.

It is necessary to account for this phenomenon in the work of each enterprise and organization, encouraging employees to work according to their vocation given higher levels

of their labor potential realization. Systemic work in this area should be focused more on the mandatory development in institutions of a well-functioning system of lifelong education enabling quick relearning, as well as establishment of labor market institutions ensuring rapid response to requests from its actors and increasing the flexibility of social and labor relations.

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Problems and Prospects of Spiritual and Moral Well-Being of the Russian People*



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Abstract. The article reviews statistical and sociological characteristics of spiritual and moral well-being of the Russian people during 2000–2015. The authors present their own system of indicators consisting of three components: personal, family and social well-being. Special attention is paid to issues of mortality caused by external causes, harmful addictions, family breakdown, abortion, crime and economic inequality. The article suggests there is a nonlinear correlation between the level of economic development and moral and psychological climate in the society. It shows that Russian society starting from 2000 is characterized by a trend of spiritual recovery; however, some indicators indicate stagnation or

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even deterioration. The general level of population's spiritual and moral health is far from perfect and is nowhere near the indicators of many foreign countries. The authors characterize the recent positive changes in these spheres and stress the need to pay even more attention to the social and educational component in the government policy. The authors believe that Russia can and should become a state where common efforts ensure a high level of person's spiritual and moral well-being, close to best global standards and surpassing them eventually. They offer specific events and courses of action to achieve this goal and recommended making better use of the mentioned indicators of human well-being when evaluating the success of the socio-economic development, as well as implementing integral indices comprehensively characterizing this sphere into management practice. It seems appropriate to thoroughly study people's moral and psychological condition based on statistics, sociological surveys and expert estimates, with further continuous monitoring. The authors touch upon the development of concepts on spiritual and moral well-being of the Russian population. It is argued that people's spiritual and moral improvement is a joint responsibility of state authorities and religious organizations, with further review of individual principles of their interaction.

Key words: spiritual and moral well-being, state, individual, family, society, children, human.

Introduction

Despite a significant success in the socio-economic development of Russia during the past 10–15 years the spiritual and moral condition of the society is still very far from perfect. In the early period of market reforms some of its aspects were paid more attention in strategic documents, others were not considered at all. Currently, however, public sentiment, scientific research¹ and the strategy of the country's authorities point to the need for systematic target policy in this sphere. It

has become clear that despite the moral and psychological environment in the society being only very slightly linked to the level of economic development this correlation is not always direct and linear; on the contrary, sometimes technological and economic advances may lead to cultural degradation. This is discussed in the works by E.V. Balatsky, N.A. Ekimova [1], A.A. Kuklin, E.V. Vasil'eva [9], A.V. Yur'evich [14] and others. "We need to be strong militarily, technologically, economically, but still the main thing that determines success is the quality people, the intellectual, spiritual, and moral quality of the society" – said Russian President Vladimir Putin².

¹ See, for example: [13; 16]; *Transformation and modernization: spiritual principles, goals, risks and chances*. Moscow: Institut ekonomicheskikh strategii RAN, 2011. Available at: <http://kpp-russia.ru/wp-content/uploads/2011/preobrazhenie-modernizacia-doklad-KPP.pdf>; Terebikhin V.M. *Society of solidarity in the Komi Republic: issues and prospects of establishment*. Official website of the Komi Republic Civic Chamber. Available at: http://op.rkomi.ru/dictionaries/mnenie_ekspertov/52980 (accessed: 24.05.2016).

² Putin V.V. Speech at the anniversary meeting of Valdai Discussion Club. *Official website of the Russian President*. 19.09.2013. Available at: <http://www.kremlin.ru/events/president/news/19243>, accessed 18.05.2016.

On the one hand, the inner world of a human which forms their goals, values, and behavioral standards is a very sensitive subject where rude ideological clichés are inappropriate. There are enough examples of it in the history. On the other hand, the state cannot ignore the sense-making, educational, and protective functions of education, health, culture, media, and nonprofit organizations which greatly influence the mental and physical condition of each person, family, and the society as a whole. The awareness of this is proved by the adopted regulations affecting the mental component of the Russian society³.

Any social deviation is a trouble for the person himself first of all, as they fail to fully reveal themselves, develop as a personality, and find the meaning in their lives. This is a tragedy for relatives and friends experiencing whose expectations collapse. Finally, it is a loss for the whole society which is deprived of its active member and a potential employee. That is why even from a purely utilitarian point of view, the country should be interested in long-term investment in improving

³ For example, *Principles of the state cultural policy of the Russian Federation*. Official website of the Russian President. Available at: <http://static.kremlin.ru/media/events/files/41d526a877638a8730eb.pdf> (accessed: 20.05.2016); *Strategy for the development of education in the Russian Federation up to 2025*. Official website of Rossiiskaya gazeta newspaper. Available at: <http://www.rg.ru/2015/06/08/vospitanie-dok.html> (accessed: 20.05.2016); *Strategy for the state national policy of the Russian Federation up to 2025*. Garant.ru Legal Information Portal. Available at: http://base.garant.ru/70284810/#block_1000 (accessed: 20.05.2016).

the spiritual and moral well-being of the population, not to mention dealing with these issues through the postulate that each soul is priceless.

Definition of terms

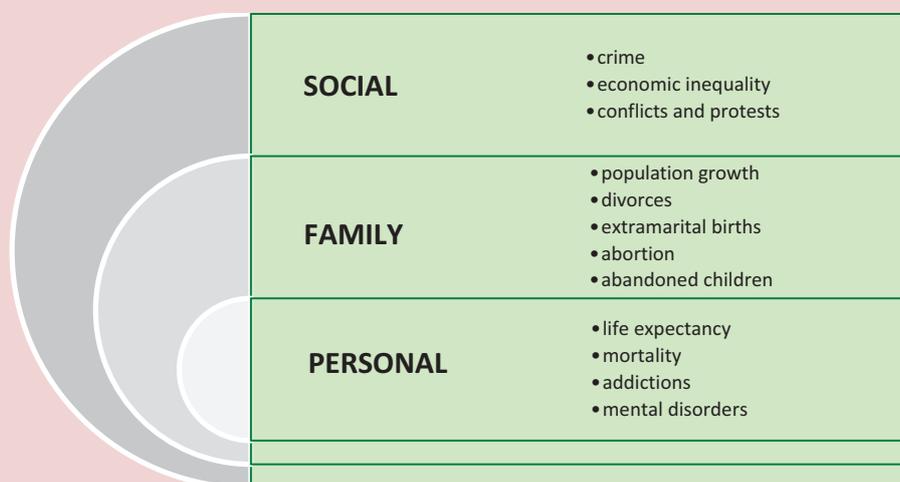
We understand spiritual and moral well-being of the society as correctness, lack of social “diseases”, closeness to the perfect image of social processes closely dependent on the values and motivational attitudes of a human⁴. Morality is referred to as ways, behavioral standards, people’s actions in interaction with each other; spirituality is considered as a system of highest ideals, aspirations of each individual, the direction of their soul. In this sense, spiritual and moral well-being is an important element of the concept of “health” which, according to the Constitution of the World Health Organization, is interpreted as a state of complete physical, mental, and social well-being⁵.

We offer to review the spiritual and moral well-being of the society at three levels – personal, family and social. This approach, in our opinion, will help distinguish between the phenomena in this sphere by degree of their influence, identify strong and weak

⁴ The terms “moral-psychological”, “socio-psychological” and “spiritual-moral condition/environment/health” are used in the present paper as partial synonyms to the term “spiritual and moral well-being”.

⁵ Constitution of the World Health Organization. Available at: <http://docs.cntd.ru/document/901977493>.

Figure 1. Structure and indicators of the spiritual and moral well-being of the society*



* Compiled by the authors (first published with slight differences: Styrov M.M., Tikhomirov V.V. Dukhovno-nravstvennoe blagopoluchie naseleniya Komi: nuzhna ser'eznaya strategiya [The spiritual and moral well-being of the Komi Republic: in need of a major policy]. Region, 2015, no. 7, pp. 2–4).

points more clearly and focus on them. We propose a system of indicators for a rapid assessment of each of the listed spheres⁶ (Fig. 1).

The system is not intended to be more comprehensive or supreme over other known approaches. It is based mainly on official statistics and is intended to show the most acute problems of the spiritual and moral condition of the society. However, it can serve

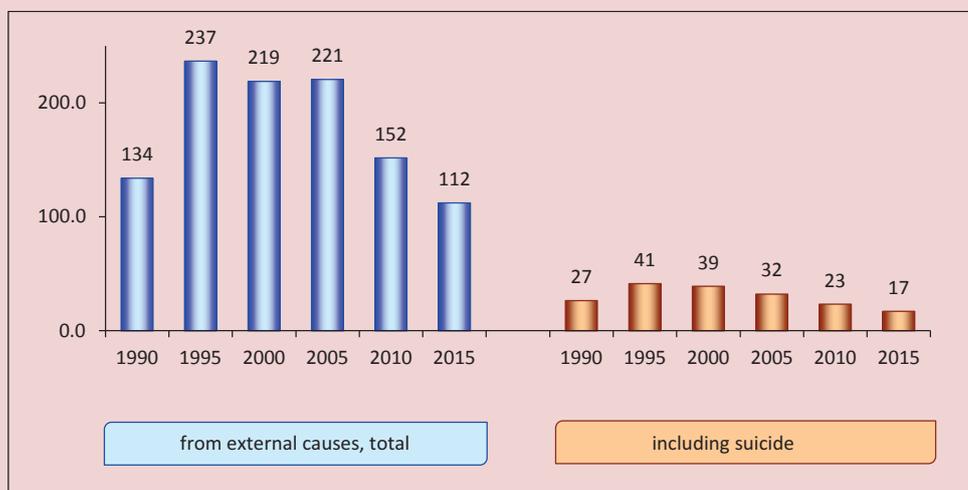
⁶ The authors are aware that neither statistical indicators, nor sociological surveys are able to fully reflect a subtle sphere of a human life such as their spiritual and moral condition. Moreover, statistics are always exposed to various errors and the results of sociological surveys are very subjective and strongly depend on the value scale the researchers adhere to. However, for lack of better information we have to use the one available comparing facts from various sources with each other and one's own observations if possible.

as a starting point for more in-depth study of each block including subjective assessments of public opinion polls⁷.

During 2000–2015 all three blocks demonstrated predominantly positive changes; however, most indicators still reflect certain imperfection. Some phenomena demonstrate a slowdown in an upward trend or even the worsening of the situation. Let us consider official statistics and sociological surveys.

⁷ On the example of family well-being we present in-depth analysis in the article: Styrov M.M., Tikhomirova V.V. Family life in Russia: success and challenges. *Proceedings of the Scientific Internet Conference "Pressing issues of the Russian society amid new modern challenges"* (Vologda, ISEDT RAS, March 27–31, 2017). Available at: <http://forum-ic.isert-ran.ru/viewtopic.php?f=27&t=175> (accessed: 27.03.2017).

Figure 2. Number of deaths from external causes in Russia, per 100 thousand people a year



Main trends

Personal well-being

Russia is currently demonstrating an upward trend in life expectancy – from 65.3 years in 2000 to 71.4 years in 2015⁸, which is certainly an evidence of both physical and mental recovery of the population. However, lack of will to live and motivation to creative work and personal development, and partly unfavorable living conditions suggest a very high level of mortality from external causes⁹, a wide scale of various addictions – alcohol, drugs, nicotine, toxic substance abuse, gambling, “digital” addiction.

⁸ Life expectancy at birth. *Rosstat*. Available at: http://www.gks.ru/free_doc/new_site/population/demo/demo26.xls (дата обращения: 07.06.2016).

⁹ External causes of death include murder, suicide, accidents, poisoning, drowning, fires, road accidents, etc.

Thus, in 2015, the number of deaths from external causes per 100 thousand people in Russia amounted to 112.3 people, including suicide – 17.1 people per year¹⁰. This is much lower than in previous years (*Fig. 2*), but 2–2.5 times higher than in the developed countries [5].

Primary incidence of alcoholism and alcoholic psychosis per the same 100 thousand people accounted for 74.6 people, which, of course, does not reflect the real scale of the

¹⁰ Hereinafter, if no other source is specified, numerical data in the text and in figures are taken from: Unified Interdepartmental Information-Statistics Service Rosstat. Available at: <http://fedstat.ru> (accessed: from 31.03.2016 to 30.01.2017); Russian regions. Socio-economic indicators. 2006: statistics book. Moscow: Rosstat, 2007; Russian regions. Socio-economic indicators. 2015: statistics book. Moscow: Rosstat, 2015.

problem¹¹. The level of mental and behavioral disorders remains high and accounts for about 2.5% of the total population. There is an acute need to improve speech and communication culture, reduce the use of bad language which is resorted to by two out of three Russians¹².

Family well-being

There are some significant improvements in this sphere, as evidenced, for example, by the increasing birth rate: during 2000–2015 – from 8.7 to 13.3 births per 1000 people a year. However, the level of natural reproduction only slightly exceeds zero (0.2–0.3‰¹³) and, according to forecasts, within the next few years may again become negative. This is explained by many various reasons: objective socio-economic issues, small number of people born in the 1990-s, Russia's transition to a modern “small family” type of population dynamics, as well as insufficient motivation of the population to continue the line and enrich their own kind, uncertainty about the future,

¹¹ Unfortunately, there are no valid data on bad habits: they are recorded only after committing an offence or applying to medical institutions. Moreover, there is no clear distinction between a taste, a habit and addiction. Yet sociological surveys help approximately estimate the prevalence of at a 30–35% level, alcoholism – 7–10%, drug abuse – 3–5%. Sources: *On smoking and breathing*. Public Opinion Fund. Available at: <http://fom.ru/Zdorove-i-sport/12483> (accessed: 20.05.2016); *On alcoholism and ways to fight it*. Public Opinion Fund. Available at: <http://fom.ru/Obraz-zhizni/11492> (accessed: 20.05.2016); *On drug abuse*. Public Opinion Fund. Available at: <http://fom.ru/Zdorove-i-sport/11685> (accessed: 20.05.2016).

¹² On bad language. Public Opinion Fund. Available at: <http://bd.fom.ru/report/map/d082925> (accessed: 20.05.2016).

¹³ Natural population growth in the Russian Federation. *Rosstat*. Available at: http://www.gks.ru/wps/wcm/connect/rosstat_main/rosstat/ru/statistics/publications/catalog/doc_1140096846203 (accessed: 08.06.2016).

focus on short-term selfish interests. Some of these factors are reviewed in detail in the works of L.A. Popova, for example, [11].

The divorce rate remains extremely high without any sign of improvement. During 2006–2015 there were 8.5 marriages and 4.7 divorces a year recorded in Russia per 1000 people. Despite inaccurate direct comparison of these figures due to age shifts it is still obvious that more than a half of all families break up. The reason the marriage principle “once and for all” is violated is the vagueness of moral foundations of patience and loyalty, alcohol abuse or other bad habits. Family breakdown usually demoralizes both spouses and negatively affects the mental development of children, creating fear and anxiety as evidenced by large-scale sociological studies [18]. Common-law marriage is very widespread due to which almost every fourth child is born out of wedlock¹⁴, about the same number are further raised in single-parent families¹⁵.

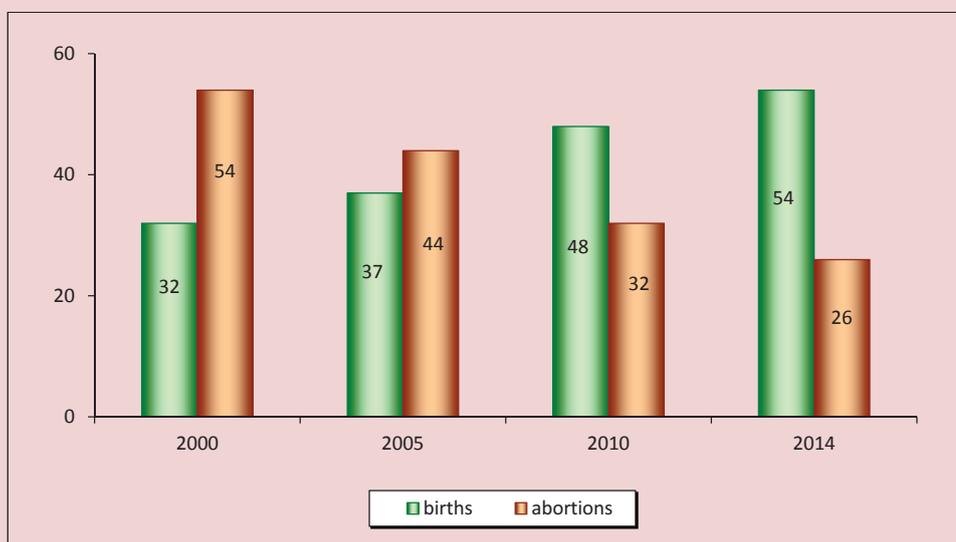
In Russia, there are 770 thousand children (i.e. every thirtieth; on average, one child from a regular school class or a kindergarten group) left without parental care¹⁶, the vast

¹⁴ *Russian demographic yearbook. 2015: statistics book*. Moscow: Rosstat, 2015. P. 68. Available at: http://www.gks.ru/free_doc/doc_2015/demo15.pdf

¹⁵ Russian population census 2010. Volume 6: number and structure of households. *Rosstat*. Available at: http://www.gks.ru/free_doc/new_site/perepis2010/croc/perepis_itogi1612.htm (accessed: 20.05.2016).

¹⁶ *Russian statistics yearbook 2015: statistics book*. Moscow: Rosstat, 2015. P. 191. Available at: http://www.gks.ru/free_doc/doc_2015/year/year15.rar

Figure 3. Number of births and abortions a year per 1000 women aged 15–49 years in Russia in 2000–2014*



* Compiled by the authors according to: Russian demographic yearbook. Pp. 64, 72.

majority of them are “social orphans” whose fathers and mothers are deprived of parental rights due to deviant behavior and failure to fulfil their duties. There is a number of cases of abuse against children, including those from wealthy families. Due to the ongoing prevention of family problems and child neglect the number of families in socially dangerous situation and registered at social services is currently reducing. But their number remains rather large: in 2011, there were more than 65 thousand families and about 120 thousand children being brought up in such families¹⁷.

¹⁷ *Socially dangerous situations of families and children: analysis of the term and assessment methodology*. Moscow: Variant, 2015. P. 5. Available at: <https://www.hse.ru/pubs/share/direct/document/147052524>

The large number of abortions raises serious concern: in 2014 – 5 abortions per 10 births per year – more than 800 thousand small shower (*Fig. 3*)¹⁸.

A good point is that the scale of the phenomenon is declining every year; however, Russia remains one of the world’s “leaders” in the number of abortions¹⁹. The roots of infanticide lie in unawareness of the value of human life, promiscuity, disregard for one’s health in the long term, irresponsible attitude

¹⁸ The figures reflect only official statistics. If illegal abortions and use of contraceptives is also considered, the real number of infanticides in the country according to some estimates is comparable to mortality rates during the Great Patriotic War [12].

¹⁹ Ul’yanov A.S. Abortions in Russia: how to part with embarrassing leadership? Orthodox popular Charity and Social Activity Portal MILOSERDIE.RU. Available at: <https://www.miloserdie.ru/article/aborty-v-rossii-kak-rasstatsya-s-pozornym-liderstvom/> (accessed: 08.06.2016).

to contraception, and sometimes in financial and family problems. Most Russians consider abortion an acceptable though undesirable means of preventing health pathologies, single motherhood, poverty²⁰ etc. Professionals are well aware of its distant negative consequences for physical and mental health of a mother and the whole family.

Social well-being

Positive features of social well-being include a high level of population's support for the government at the election, rising national identity and patriotism against the background of political turmoil. Despite the economic recession, the "index of happiness" of Russians has for several years been the highest in the past 25 years: more than 80% of people are happy²¹. Attention of authorities is now given to public sentiment, introduction into the school curricula of the Basics of Religious Cultures and Secular Ethics, increasing wages in the social sphere, etc.

However, no full social solidarity has yet been achieved. Both implicit and explicit confrontation between the authorities takes

place along with aggressive dissatisfaction with the country's internal and external policy, tensions in interethnic and interreligious relations. From time to time it is manifested in major social unrest and protests.

However, analysis of protest activity requires the distinction between two components. The first – constructive (evolutionary) caused by actual problems and implemented by legal methods. The second – destructive (revolutionary) led by artificial slogans and myths and relying on illegal mechanisms of power. It has been noticed that antisocial behavior of the second type is often determined by distortions in upbringing and family life of the "rebels" rather than by actual external difficulties [19]. Clarification of the correlation between these two components requires a separate in-depth study, so we do not present digital data.

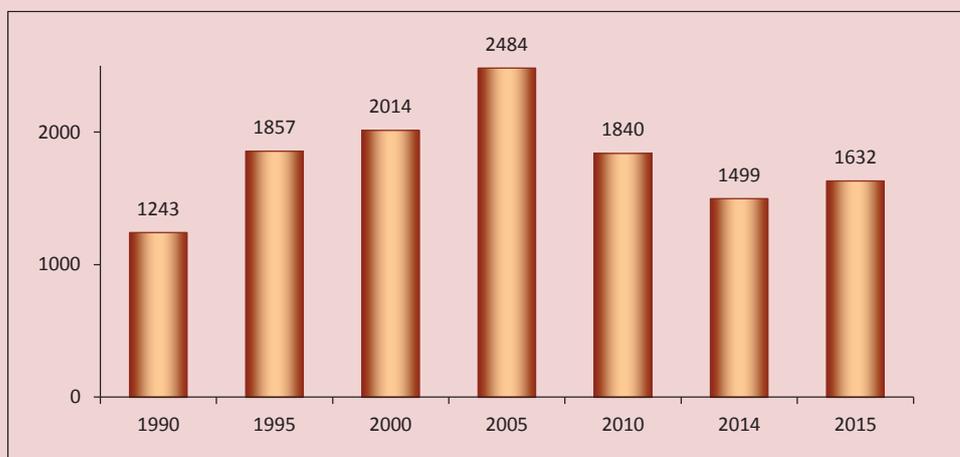
A major problem is the high crime rate – more than a thousand criminal offences per year per 100 thousand people including almost 8 murders (global average²² – around 6). This is explained by problems in the population's socio-economic well-being, especially in single-industry towns and rural areas, dysfunctional family relations, upbringing and children's socialization, long neglect of education and culture, and often – by negative media influence. In 2015, for

²⁰ In 2015, 86% of Russians considered an abortion morally acceptable, 51% of them – in any case at the woman's request, 35% – only under certain circumstances (The right of abortion. *Levada Centre*. Available at: <http://www.levada.ru/2015/07/02/pravo-na-abort/> (accessed: 07.06.2016)). According to other data, only 32% of Russians justify abortions (Ethical standards in modern Russia. Telephone survey of the Public Opinion Fund, June 22–23, 2013. Available at: <http://fom.ru/TSennosti/11069> (accessed: 08.06.2016)).

²¹ Index of happiness in Russia – 2016. *All-Russian public opinion centre*. Available at: <http://wciom.ru/index.php?id=236&uid=115976> (accessed: 27.01.2017).

²² *Global Study On Homicide – 2013*. United Nations Office On Drugs And Crime. P. 14. Available at: https://http://www.unodc.org/documents/gsh/pdfs/2014_GLOBAL_HOMICIDE_BOOK_web.pdf (accessed: 28.03.2017).

Figure 4. Number of registered crimes in Russia a year per 100 thousand people



Source: Interdepartmental Information-Statistics Service Rosstat. Available at: <http://fedstat.ru>

the first time after a decade of crime rate reduction a 10% increase was noted (Fig. 4). More than 50% of criminal offences are economically motivated: theft, burglary, robbery, fraud, drug trafficking. Almost every fifth crime is committed under alcohol influence.

An important factor in social unrest is an extremely high economic inequality resulting from dysfunctional income distribution system, underpaid low-skilled labor, inefficient measures of social security, people's passivity and breakdown, and often – from lack of solidarity and compassion in the society. Each tenth person has incomes below living wage, every twentieth person of working age is unemployed, the R/P 10 ratio (the ratio of the average income of the richest 10% to the poorest 10%) amounts to

15 or 16 (according to some expert estimates, taking into account hidden incomes – twice as much²³) with the unwritten international standard not more than 10. During 2000–2015, the population's per capita debt on loans increased in comparable prices from 1.1 to 72.6 thousand rubles, i.e. 65 times²⁴ (!). All this justifies the sense of injustice, creates an atmosphere of discontent and hostility, breeds personal and family problems.

Suggestions

The figures indicate a deep spiritual and moral decay of the Russian society. Of course,

²³ Kobayakov A. Bridging the gap. *Odnako Journal website*. Available at: <http://www.odnako.org/almanac/material/preodolet-razriv/> (accessed: 08.06.2016).

²⁴ Calculated by the authors according to data from: *Russia's Finance. 2002: statistics book*. Federal State Statistics Service. Moscow, 2002. P. 272; *Russian statistics yearbook. 2015: statistics book*. Rosstat. Moscow, 2015. P. 545; <http://top-rf.ru/places/324-zadolzhennost-po-kreditam-nadushu-naseleniya.html>

in many cases crisis phenomena are associated with poverty or depression caused by difficult life situations. Yet the main cause of this decay lies in the destruction of the most important centers of personal, family and social consciousness, i.e., erosion of the system of values, attitudes and behavioral motivations. Indeed, as evidences by practice, the cause of social deviancy is the loss of the meaning of life and moral degradation of rather wealthy and successful people.

However, it should be noticed there is a strong trend in spiritual recovery society starting from 2000. This suggests the awakening of people's inner forces, activation of self-preservation and purification mechanisms after critical situation of the 1990-s. Such cyclical nature of social consciousness is well known and is an object of study in the framework of the civilizational approach, in particular, in the works by B.N. Kuzyk [8]. Academician O.T. Bogomolov writes: "restore Russians' belief in noble ideals, revive the sense of pride in the history and great achievements of the past, awaken the spiritual and moral forces of the society – this is the most important task facing the country today"²⁵.

History indicates that the moral health of the society is a key factor in its survival and further development at critical moments.

²⁵ *Economy and public sphere: unconscious mutual impact*. Moscow: Institut ekonomicheskikh strategii RAN, 2008. 440 p. Pp. 6-7.

Population surveys confirm the citizens' concerns with the issues of psychological conditions in the country and the understanding of the need for positive transformations in this sphere²⁶.

In our view, the most important goal of fundamental development of Russia and each of its region and municipal unit is the preservation and strengthening of the long-term physical, social and spiritual health of the country's citizens. Russia must become a state where with joint effort of every citizen, the government and all organizations a high level of spiritual and moral well-being of a person is ensured, approaching best world indicators and exceeding them. The achievement of this goal will be evidenced by the country's stable position in top ten or twenty most prosperous countries by each of the target indicators discussed above (see Fig. 1) and/or the compliance of these indicators with threshold scientifically substantiated standards. Only in this case the nation's commitment to leadership on the international arena is justified.

It is necessary that the list of goals of the federal government, regional and local authorities include more vitals of human well-being rather than abstract economic indicators; for them to be used primarily for evaluating the success of the socio-economic

²⁶ What one must not but sometimes can do? *All-Russian public opinion centre*. Available at: <http://wciom.ru/index.php?id=236&uid=1434> (accessed: 07.06.2016).

development. A remarkable change would be the shift of the issues of human development in the structure of strategies, forecasts and programs of the socio-economic development from secondary and auxiliary positions to priority and target. In our view, it is useful to introduce into public administration one or more integral coefficients characterizing the public sphere. Attempts to develop and implement such indicators are made by many domestic researchers, for example, by V.V. Kossov [7], F.M. Borodkin and A.S. Kudryavtsev [2], M.V. Morev and V.I. Popova [10], E.V. Vasilyeva [4], O.A. Kozlova, T.V. Gladkova, M.N. Makarova, E.H. Tukhtarova [6]. Best known are the index of moral state of the society, composite index of macro-psychological state of the society developed by RAS Institute of Psychology under the coordination of A.V. Yurevich [15]. However, these indices do not reflect the blocks personal, family and social well-being separately; therefore they can be improved in this direction.

It is also necessary to conduct an in-depth study of people's moral and psychological condition based on both statistical indicators and public opinion polls and expert estimates, with further continuous monitoring (for example, an international scientific project of this kind – [20]). A number of scientists and public figures, in particular V.M. Terebikhin, advocate for the development of a full concept of spiritual and moral well-being of

Russia and each of its regions separately²⁷. It should be noted that in some countries, for example in Kazakhstan, the development of such programs is an important area of the public policy [17]. It may be also useful to estimate the total economic damage from the manifestations of moral ill-being in the society for a more compelling justification of priority areas of the state policy in this sphere.

In each area of spiritual and moral well-being of the Russian population (personal, family, social) a series of certain objectives (actions to implement them) should be achieved. Some of them are reflected in *Figure 5*. These, in turn, must be implemented in the form of specific activities performed by the authorities in cooperation with public organizations.

Interaction with religious organizations

However, it is clear that growing material wealth and the efforts of public authorities alone do not ensure people's genuine joy of life. Both millennial religious experience of the mankind and latest neurobiological studies indicate the importance of the spiritual component in the human nature, its inseparability with the Divine [22]. It is no accident that abroad when the training professionals, in particular doctors, these issues are currently given more and more attention [21].

²⁷ Terebikhin V.M. *On the problem of moral and spiritual development*. Viperson.ru. Available at: <http://viperson.ru/articles/terebihin-v-m-o-probleme-duhovno-nravstvennogo-razvitiya> (accessed: 20.05.2016).

Figure 5. Goals of the policy of raising spiritual and moral well-being of the Russian population*



Therefore in Russia it is also impossible to “heal” people’s souls without comprehensive interaction between the secular authorities with traditional religions. For example, about half of the population positively evaluate and wish more influence of the Russian Orthodox Church on the moral and spiritual life of the whole society, without considering that it interferes with political affairs²⁸.

²⁸ *The Church and the society: together or apart?* All-Russian public opinion centre. 24.06.2015 [http://wciom.ru/index.php?id=236&uid=115295, accessed: 20.05.2016]; Approval of the role of the Russian Orthodox Church in the state has risen to record levels. Levada Center. 19.02.2016 [http://www.levada.ru/2016/02/19/odobrenie-rol-i-rpts-v-gosudarstve-vyroslo-do-rekordnogo-urovnya, accessed: 20.05.2016].

Indeed, a religious person constantly strives for freedom from passions and addictions, for good relations with family and all other people, for proper implementation of public duties. The Church considers the root of all social problems in disbelief, violation of certain biblical Commandments: “give honor to your father and to your mother” (Exodus 20:12), “do not put anyone to death without cause.” (Exodus 20:13), “do not be false to the married relation” (Exodus 20:14), “do not take the property of another” (Exodus 20:15), “be full of pity” (Luke 6:36), “do not take overmuch wine” (Ephesians 5:18), “..... Let everyone put himself under the authority

of the higher powers” (Romans 13:1), etc. “... let us put off the works of the dark, arming ourselves with light, with right behavior as in the day; not in pleasure-making and drinking, not in bad company and unclean behavior, not in fighting and envy. But put on the Lord Jesus Christ, and do not give thought to the flesh to do its desires”, urges Paul the Apostle (Romans: 13:12–14). His Holiness Patriarch Kirill says: “Transfiguration is the goal that God assigned to the human race; our whole life should be focused on our own transfiguration, transfiguration of the world around us, transfiguration of personal, family, social relations, transfiguration and embellishment of the face of the Earth”²⁹.

These objectives mostly coincide with the government’s interests. Although public authorities do not deal with a soul in the afterlife, they give priority to the issues of material prosperity and international competitiveness; however they want to see a free intelligent personality, a good family man/woman, an honest worker, and a good citizen in every person.

Of course, the improvement of the society can only be achieved with joint effort. The goal of the Church lies in preaching and in practice to demonstrate the ideal of moral and

spiritual purity, testify to the divine destiny of every human being. “Fulfilling the mission of salvation of the human race, the Church does this not only through direct preaching, but also through good deeds aimed at improving the moral and material state of the world. A Christian’s life must be based on the idea that the world, the society, and the state are the objects of God’s love, for they are designed for transformation and purification based on the principles of God-commanded love”³⁰. Public authorities are responsible for helping people achieve this ideal through education, healthcare, culture, social security, and the media. But one must not forget that “the relations between the Church and the state should take into account the difference in their natures... The goal of the Church is eternal salvation of people, the goal of state is their well-being on earth”³¹. “A situation where the teachings of Christ are transformed into the state ideology is dangerous for both the Church and the state. Any ideology unites and divides people at the same time, opposes different community to each other” [3, p. 41].

Thus, when thinking about human fate must it is necessary to take care of both external conditions of human existence and

²⁹ Kirill, Patriarch of Moscow and all Russia. *Speech after a night service on Transfiguration of Jesus Eve at the Pskov-Caves monastery*. Official website of the Moscow Patriarchate of the Russian Orthodox Church. Available at: <http://www.patriarchia.ru/db/text/1252275.html> (accessed: 18.05.2016).

³⁰ *Principles of the social concept of the Russian Orthodox Church*. Official website of the Moscow Patriarchate of the Russian Orthodox Church. 09.06.2008. Available at: <http://www.patriarchia.ru/db/text/419128>, accessed: 18.05.2016.

³¹ *Ibidem*.

internal strengths and weaknesses of human mentality. This will require significant changes in the current system of socio-economic administration. It is faith in the high calling of a human being in general and in Russian

people in particular that was the main pillar of Russia as a civilization for millennia. It means that firm commitment to this belief can both transform the life in the country and proclaim right ideas to the world in the 21st century.

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Socially Oriented Taxation and How It Is Perceived (Case Study of a Survey of Economists-To-Be)



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Abstract. The article discusses the prospects for adapting unconventional tax mechanisms to tax administration in a secular multicultural state. The purpose of the study is to identify significant factors which determine the advisability of establishing socially oriented taxes as perceived by economists-to-be that do not possess enough information about alternative tax practices and mechanisms for their implementation. Scientific novelty of the research consists in the fact that it considers socially-oriented taxation in more detail; this type of taxation is suggested to be considered in conjunction with religious tax practices, which significantly complements existing ideas about the specifics of functioning of modern tax systems. The research methodology includes the use of the questionnaire method. The respondents are future economists – students of Saint Petersburg State University. At the first stage, we test the level of awareness of respondents about alternative tax practices. During the second stage, with the help of ordered logistic regression, we design a model that shows the degree of tolerance to socially oriented taxation. We prove that the level of loyalty in this question depends on respondents' perception of social responsibility, including the mechanisms for its practical implementation. In particular, of relevance are factors such as the willingness to give up part of personal income to support socially vulnerable groups; positive attitude toward non-state administration of socially oriented taxes; expectation of corresponding benefits on individual income tax. The survey proves that respondents who do not have enough knowledge about non-traditional tax practices show a high degree of willingness to take additional social obligations. We think that the results of the research have scientific significance in the context of development of ideas about current tax mechanisms, as well as religious and socially oriented tax. In addition, they can be applied in tax administration in secular multicultural states. We think that a promising direction for further studies in this area is to carry out surveys among economists-to-be in various regions of the Russian Federation, as well as to involve representatives of the academic and professional community in the debate on modernization of tax arrangements.

Key words: socially oriented taxes, religious taxes, Islamic taxes, zakat, tax mechanisms, alternative tax arrangements, Islamic tax system, Islamic financial system.

The idea of social justice is as old as time, or, to be more accurate – as a state. The latter, perhaps, is impossible without taxes. Thus, the genetic relationship of categories of social justice, taxes and the state is undeniable (see: [4; 8; 9], etc.). The development of forms and methods of tax collection reflects the evolution of public perception of the state's functions. Modern practice of building tax systems puts the emphasis on the social

aspects. The solvency of the tax-paying population has always been reflected in traditional tax systems; however, clear social orientation of individual mandatory payments to the state appears only at the beginning of the twentieth century. The implementation of social protection in terms of taxation may be exercised in various ways dealing with the determination of *administration terms* and *spending areas*. In the first case we are talking

about different models of socially oriented income tax, property tax and even indirect taxes. The second method, as applied to tax systems, is implemented in mandatory payments which form the revenues of the social insurance system.

Dynamic development of concepts of common prosperity and sustained economic growth, the growing crisis of the social insurance system and other challenges of the past decades gives relevance to the research of alternative approaches to taxation. Such research may be of particular importance for the Russian tax system whose social orientation, in our opinion, is poorly expressed (including the flat rate and absence of individual income tax exemption, as well as regressive mandatory contribution within the system of social insurance).

It is believed that social support for the poorest population groups as a function of tax systems in the framework of the taxation theory appears in the first half of the twentieth century, and in industrially developed countries – in the late nineteenth century (Germany) – the beginning of the twentieth century (Great Britain) [6, p. 49]. However, taking into consideration the phenomenon of religious taxes and fees this viewpoint does not seem so obvious. Thus, a tithe whose distribution purpose was always at least partly social had been collected since ancient times. Interestingly, one of the first Christian churches of Kievan Rus was called the Church of the Tithes. Saint Vladimir allocated a tithe,

a tenth part of the income of the knyaz's Treasury, to support the Church¹.

Religious taxes are currently widely implemented in Islam. It is noteworthy that zakat, a socially oriented cleaning tax is one of the five Pillars of Islam². The list and contents of Islamic taxes is a subject of intense scientific debate [1]. In particular, the tax nature of zakat is widely discussed: some scholars consider it a tax, others – a non-tax payment [24]. Thus, the nature of Islamic taxes is controversial not only from the point of view of modern interpretations of scriptures, but also regarding their tax nature. Islamic taxation is mainly considered from three perspectives: legal, institutional, and social. The greatest attention is paid to the legal aspects of collection and distribution of zakat [2], the modern interpretation of the Quran and Sunnah as applied to mandatory payments [12; 23]. The features of Islamic law in the context of religious taxation are considered by individual researchers in relation to secular states as well (for example, the USA [21]). However, the study of the practice of zakat in countries with predominant Muslim population is predominant. In particular, there are general guidelines of restructuring of Islamic tax systems according to the principles of levying

¹ See details in: The Church of the Tithes. Portal: pravoslavie.ru. Available at: <http://www.pravoslavie.ru/56220.html>.

² The Quran: Sura 9, Al-Tawbah (The Repentance). Available at: [http://islam-koran.com/Сурa_9?_Ат-Тaубa_\(Покаяние\)](http://islam-koran.com/Сурa_9?_Ат-Тaубa_(Покаяние)).

zakat [13] and their implementation in relation to the levying of zakat on Malaysian companies [25]. In the framework of analysis of the social role of zakat the positive role of zakat in overcoming poverty in Pakistan in 2004–2006 has been demonstrated [11], as well as in Kelantan State (Malaysia) in 2008 [19]. However, the social aspects of zakat in tax systems where it is not introduced at the state level are poorly represented in literature. The reconsideration of the theory and practice of religious taxes in the context of perception of socially oriented taxation in a secular multicultural state provides a new viewpoint to this issue, which determined the purpose and objectives for the present study.

The purpose for the study is to identify the significant factors determining the appropriateness of introducing socially oriented taxes in perception of economists-to-be (students of Saint Petersburg State University) with low awareness about alternative tax practices and mechanisms of their implementation. Therefore, main objectives include: analysis of characteristics of socially oriented taxation of the Islamic financial system in order to characterize conventional socially oriented tax for the purposes of surveying economists-to-be; formation and implementation of the program of this survey.

The scientific novelty of the obtained results lies in enriched interpretation of socially oriented taxation which is considered in conjunction with religious tax practices,

which significantly complements the existing ideas about the specifics of the functioning of modern tax systems. In particular, a new perspective of studying Islamic tax mechanisms, according to the authors, will help implement rich experience of interaction with Muslim taxpayers for establishing the actual areas of developing the tax policy of a secular multicultural state.

Specific features of socially oriented taxation in Islamic financial system

The beginning of the present stage of development of Islamic financial mechanisms traditionally dates back to 1960–1970³. Currently, there are all key elements of Islamic financial system available: financial markets, institutions, instruments, and supporting infrastructure. The system is characterized by a rapid development pace [15] but its structure has institutional and regional disparities: more than 90% of Islamic financial assets account for the banking sector [14]; a vast majority of resources is concentrated in the Middle East and Southeast Asia. We note that the prospects of introducing Islamic financial mechanisms are largely connected with religious demography. It is noteworthy

³ The first Islamic financial intermediaries appeared in Egypt and Malaysia. In 1973, the most important supranational institution was established – Islamic Development Bank (IsDB). In the late 1970-s–early 1980-s, the institutions of interest-free economy begin to expand internationally. The first non-Muslim country which in 1978 opened the Islamic investment company was Luxembourg. The first retail Islamic Bank in Europe started in 2004 in the UK. In the 21st century, Islamic financial industry is considered as a significant phenomenon of financial economy (for more details see: [10]).

that in Russia, the number of Muslims is estimated at 10% of the total population [22]. However, the potential of the Islamic financial system remains underestimated, including the regions with predominantly Muslim population. At the same time, the situation with Islamic taxation is different: Islamic tax mechanisms, unlike the mechanisms of the financial sector, do function [7].

We emphasize that Islamic finance are subordinated to the requirements of the Sharia Islamic Law. The unique features of the Islamic financial system reflected in specific taxation are related to the fact that priority is given to the ethical principles of public relations. Islam does not deny social inequality but insists on equal opportunities criticizing unjustified enrichment. In this context, the defining financial principles are: the prohibition of interest on loans, speculation, excessive risk, financing illegal activities, and, which is extremely important for our study, requirements to pay a special tax – zakat. Zakat serves as the center of the Islamic tax system, introducing a group of obligatory payments involving levying taxes on various objects and categories of payers with different exemption limit at graduated rates. These payments meet the uniform principles of tax collection and redistribution [7] including:

1. Mandatory payment which is a consequence of a Muslim religious duty. Thus, the repressive measures of external

compulsion to pay taxes are replaced by motivation techniques focused primarily on personal responsibility of taxpayers.

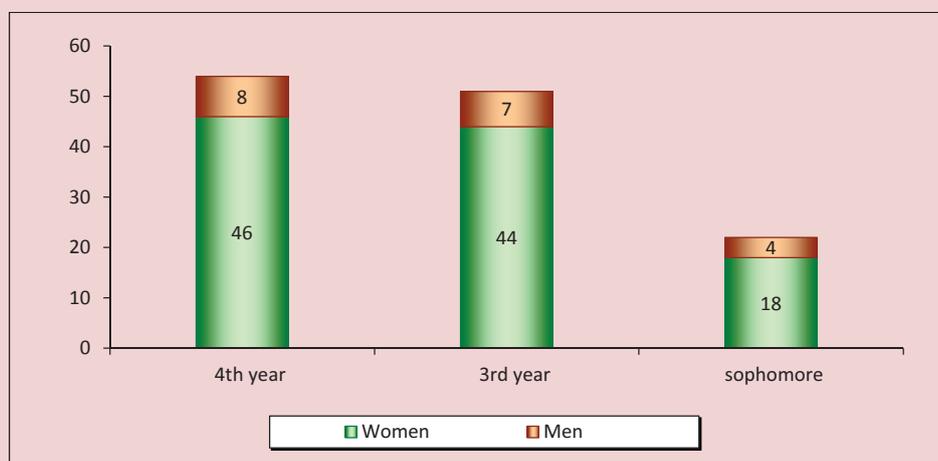
2. Regular and clearly defined payments. The amount and timing of payment of zakat meet the requirements of Sharia (represented in the Quran and Sunnah and their interpretations).

3. Targeted expenditure of raised funds (provided for in the Qur'an, see: Sura 9, At-Tawbah). Tax revenues can be used in favor of the following population categories: the poor; the needy; for those employed to collect zakat; for bringing hearts together for Islam; for freeing captives or slaves; for those in debt and for the cause of Allah and for the stranded travelers.

4. An opportunity to administrate beyond state institutions which traditionally ensure the legitimacy and mandatory tax collection in a secular society.

Abstracting from the religious aspect, it is possible to identify a number of essential features of zakat. First, zakat is a “purification” tax, not a donation, which is reflected in the motives and mechanism for its collection. Second, the taxation objectives are subject to the principles of social justice. Thus, from the financial point of view, zakat is a special tax aimed at supporting individual (especially disadvantaged) groups. Third, the payers of zakat are exclusively Muslims. Therefore, the regional structure of the Islamic tax system does not always correspond

Figure 1. The structure of respondents



Source: compiled by the authors.

to the administrative and territorial structure of modern countries. In addition, Muslims pay double taxes: zakat and traditional taxes in relevant tax jurisdiction. Zakat is part of the state tax system in Yemen, Libya, Malaysia, Pakistan, Saudi Arabia and Sudan. In nine more Muslim countries (Bangladesh, Bahrain, Egypt, Indonesia, Jordan, Iran, Kuwait, Lebanon and the United Arab Emirates), the state supports the institution of zakat by providing benefits to its payers (including mitigation of double taxation), as well as by taking part in spending the raised funds and (or) controlling their redistribution. In other Muslim countries zakat administration is carried out without state participation [3]. This situation is especially typical for countries where Islam

is a predominant religion. It is easy to assume that in Russia zakat is not part of the tax system. However, it is voluntarily paid by Muslims to non-state funds.

Methodology and data

For the research purposes we conducted a survey of economists-to-be – Ph.D. sophomore, third- and fourth-year students in Economics at Saint Petersburg State University⁴. All in all, 127 people answered the questionnaire. The sampling amounts to 870 people. The survey was conducted in April, 2015. The structure of respondents is presented in *Figure 1*.

⁴ Note that the questionnaire method is widely used in the research of Islamic finance system. However, these studies tend to focus on the financial industry [5; 16]. An interesting exception appears in the work by R. Mohdali and J. Pope [20] proving the hypothesis about the positive influence of religiosity on the degree of loyalty to pay taxes.

The questionnaire includes 20 statements comprising two semantic blocks: the first concerned the perception of social justice; the second – the respondents’ awareness about religious taxation with an emphasis on Islamic tax practice in the context of Islamic financial system functioning, which reflects the research subject (*Tab. 1*). Data was collected by the authors through questionnaires in paper form.

Note that the statements of the questionnaire can be structured in two groups:

- 1) depending on the content – into four blocks: a) the ethical framework of financial relations (1–5); b) mechanisms of support for socially vulnerable population groups (6–10); c) awareness of religious taxes and fees (11–15); d) awareness of Islamic finance (16–20);
- 2) by level of importance of the subjective factor – into two blocks: a) statements

Table 1. Content of the questionnaire

| Questions related to perception of social justice | Questions for estimating the level of awareness |
|---|--|
| 1. Financial; relations must comply with strict moral principles | 11. I am well informed about the specific features of religions taxes and fees |
| 2. The financial system should foster socially equitable distribution of income in the society | 12. Religious taxation is expedient regardless of the level of per capita income |
| 3. Financial support for socially disadvantaged population groups should be provided by the state | 13. Religious taxation makes economic sense in countries with a large percentage of religious population |
| 4. Financial support for socially vulnerable population groups is an indispensable element of corporate social responsibility | 14. Religious taxes and fees are usually charged by specialized religious organizations |
| 5. The entire society is responsible for the financial support for socially vulnerable population groups | 15. Religious taxes and fees are not included in the Russian taxation system |
| 6. A special tax aimed at supporting socially vulnerable population groups should be introduced | 16. I am well informed about the specific features of Islamic finance |
| 7. Collection and distribution of funds to support socially vulnerable population groups must be dealt with by specialized private funds with public and transparent reporting | 17. A key principle of Islamic finance is the prohibition of interest on loans |
| 8. I am willing to give up part of income to support socially vulnerable population groups | 18. Islamic finance exist in both Muslim and non-Muslim countries |
| 9. I am willing to donate to specialized non-state funds to support socially vulnerable population groups | 19. I am well informed about the specific features of Islamic taxes |
| 10. Expenditures to support socially vulnerable population groups should influence the individual income tax | 20. There are Islamic taxes in Russia |
| <p>Note. The authors deliberately did not include the question about respondents’ religions beliefs in the questionnaire as it would then be in some contradiction with the hypotheses about the awareness about alternative tax practices. However, this aspect was assessed in an indirect way. Respondents were asked to specify the region where they received secondary education. The regions were divided into two groups: 1) regions with predominantly Muslim population; 2) other regions. Accordingly, we introduced a dummy variable in the model, which, however, did not present any statistical significance.</p> | |
| Income: compiled by the authors. | |

concerning the subjective perception of the research subject including subjective assessment of awareness (1–10; 11–13, 16, 19); b) statements assessing the knowledge of religious taxation and Islamic finance (14, 15, 17, 18, 20).

Each statement implies the ranking of respondent's attitude from negative ("completely wrong", "rather not true") to positive ("rather true", "true"). In addition, the option "no answer" was also available. The distribution of answers is presented in *Table 2*.

The first phase of the study was to test the hypothesis that low respondents' awareness about alternative tax practices, including

Islamic tax, which is a significant phenomenon of the modern Islamic financial system.

The second phase we carried out modeling of tolerance to socially oriented taxation in the case of conditional tax resembling zakat.

The research hypotheses were formulated as follows:

H_0 : tolerance to the introduction of a particular tax does not depend on subjective (perception of social responsibility) and objective (gender, course of studies) factors.

H_1 : tolerance to the introduction of a particular tax depends on the factors under review.

Table 2. Distribution of respondents' answers

| No. of statement | Undecided | Completely wrong | Rather wrong | Rather true | Completely true |
|------------------|-----------|------------------|--------------|-------------|-----------------|
| 1 | 1% | 3% | 20% | 59% | 17% |
| 2 | 0% | 2% | 13% | 47% | 38% |
| 3 | 0% | 2% | 2% | 39% | 57% |
| 4 | 0% | 4% | 48% | 39% | 9% |
| 5 | 0% | 3% | 36% | 48% | 13% |
| 6 | 2% | 17% | 46% | 29% | 6% |
| 7 | 0% | 4% | 18% | 48% | 30% |
| 8 | 0% | 16% | 41% | 37% | 6% |
| 9 | 1% | 6% | 44% | 45% | 4% |
| 10 | 2% | 43% | 27% | 11% | 17% |
| 11 | 1% | 50% | 29% | 14% | 6% |
| 12 | 6% | 1% | 14% | 39% | 40% |
| 13 | 9% | 13% | 17% | 51% | 10% |
| 14 | 15% | 8% | 21% | 49% | 7% |
| 15 | 8% | 9% | 15% | 29% | 39% |
| 16 | 5% | 35% | 17% | 34% | 9% |
| 17 | 16% | 2% | 13% | 32% | 37% |
| 18 | 14% | 3% | 24% | 45% | 14% |
| 19 | 4% | 44% | 25% | 22% | 5% |
| 20 | 13% | 39% | 35% | 11% | 2% |

Source: compiled by the authors.

The modeling was implemented in the program Stata 11.

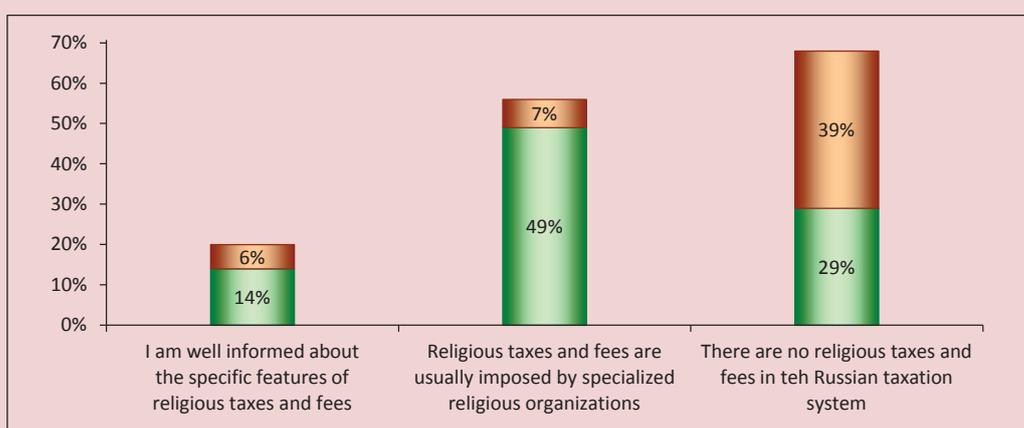
Our research is based on assumptions about low respondents' awareness of the research subject. This hypothesis has fully confirmed.

In particular, more than half of the students admit that they are not well informed about religious taxes and fees (*Fig. 2*).

The lowest awareness is noted in terms of Islamic taxes. Only 5% of respondents believe they are aware of the issue. At the same time, it is noteworthy that they mistakenly admit that these taxes do not exist in Russia. Thus, subjective assessment of awareness can be legitimately disputed (*Fig. 3*).

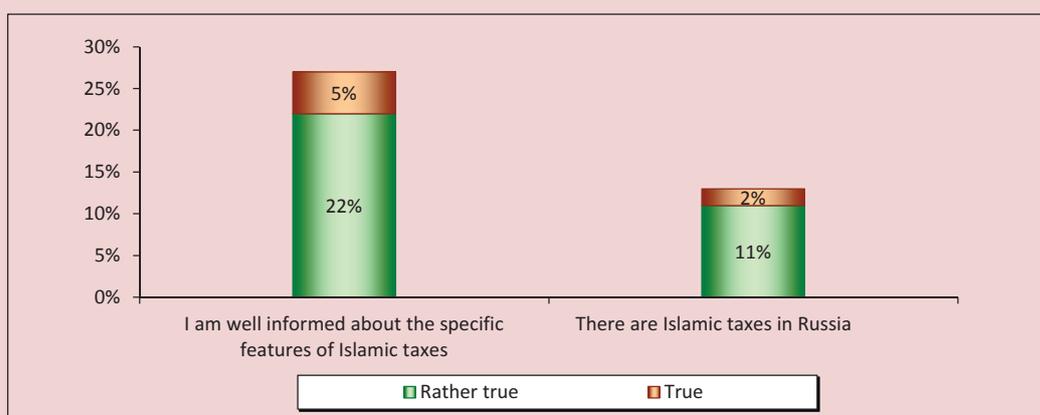
It is noteworthy that only 10% of students consider themselves aware of the specific

Figure 2. Awareness of religious taxes and fees



Source: compiled by the authors.

Figure 3. Awareness about Islamic taxes



Source: compiled by the authors.

features of Islamic finance. At the same time, 32% of respondents chose the correct answer that the key principle of Islamic finance is the prohibition of interest on loans. However, only 14% believe that the Islamic financial system operates in both Muslim and non-Muslim countries (Fig. 4).

Therefore, low subjective assessment of awareness in this case is only partly confirmed and can therefore be characterized as overly cautious. In our view, this can be explained by respondents' dissatisfaction with their knowledge of this subject and their potential interest in its further study.

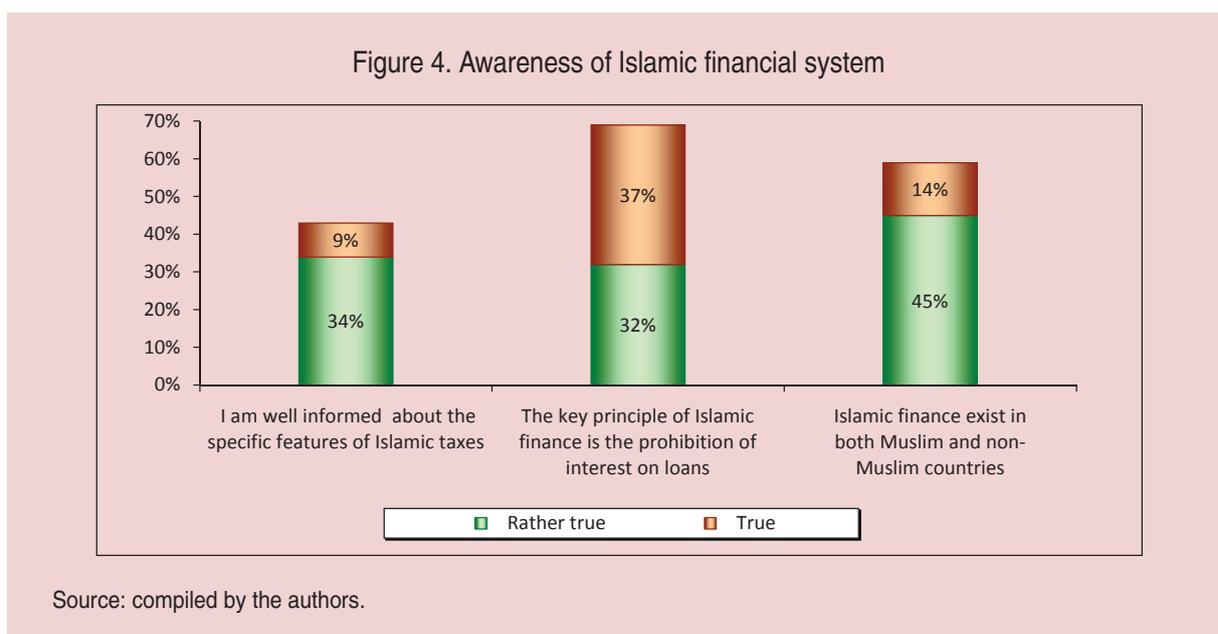
The testing of hypotheses about tolerance to socially oriented taxation in the case of conditional tax resembling zakat was carried out using the method of ordered logit.

To study the factors influencing loyalty in this matter we selected statement 6 of the

questionnaire (“A special tax aimed at supporting socially vulnerable population groups should be introduced”) the attitude to which was presented as an ordered variable (Y). Under the terms of the survey the variable could take one of four possible values with the lowest being “totally agree” with the imposition of the tax, and the highest – “strongly agree”. Statements which respondents found difficult to assess were excluded from the final model. Thus, it included 122 statements out of 127.

The initial set of factors proposed for characterizing the attitude to socially oriented taxes included:

- nine discrete ordered variables taking values: “1” – disagree, “2” – rather disagree, “3” – rather agree, “4” – agree: attitude of statements 1–5 and 7–10 of the first block of the questionnaire related to perception of social justice.



– a dummy variable corresponding to the gender of the respondent (“1” – for males, “0” – for women);

– two dummy variables corresponding to the respondent’s year of study (“1” – for third-year students, “0” – other; “1” – for sophomore students, “0” – other).

The selection of significant factors was based on Student’s t-test at five percent significance level.

The resulting model has the following form:

$$Y = -0,58 \times X_1 + 0,50 \times X_2 + 1,00 \times X_3 + 0,46 \times X_4 + 1,31 \times X_5.$$

Y – attitude to introduction of a special socially oriented tax implying one of the four options:

- 1) if $Y \leq Y_0$, then “totally agree”;
- 2) $Y_0 < Y \leq Y_1$, then “rather disagree”;

3) $Y_1 < Y \leq Y_2$, then “rather agree”;

4) $Y_2 < Y$, then “absolutely agree”;

X_1 – agreement on financial support for socially vulnerable population groups to be an indispensable element of corporate social responsibility (Statement 4);

X_2 – agreement on collection and distribution of funds to support socially vulnerable population groups to be dealt with by specialized private funds with public and transparent reporting (Statement 7);

X_3 – respondent’s personal willingness to give up part of income to support socially vulnerable population groups (Statement 8);

X_4 –view that expenditures to support socially vulnerable population groups should influence the individual income tax (Statement 10);

X_5 – sophomore students.

Table 3. Model of tolerance to socially oriented taxation

| Variable | Index | Standard error | z-test | Likelihood |
|-------------------------------|------------|-----------------------|--------|------------|
| X_1 | -.579599 | .2680124 | -2.16 | 0.031 |
| X_2 | .502654 | .2363988 | 2.13 | 0.033 |
| X_3 | 1.001874 | .2457274 | 4.08 | 0.000 |
| X_4 | .459762 | .1670974 | 2.75 | 0.006 |
| X_5 | 1.315009 | .4765873 | 2.76 | 0.006 |
| Isolation point | | | | |
| Y_0 | 1.595964 | 1.064465 | | |
| Y_1 | 4.453875 | 1.12938 | | |
| Y_2 | 7.111679 | 1.259993 | | |
| Likelihood function logarithm | -121.01352 | Pseudo-R ² | | 0,162 |
| | | LR-test | | 47.02 |
| | | Likelihood (LR-test) | | 0.0000 |

Source: compiled by the authors.

Detailed characteristics of the model⁵ are presented in *Table 3*.

Table 3 indicates that loyalty to the introduction of a conditional tax resembling zakat is positively related to agreement with statements 7, 8, 10 and negative – with agreement with statement 4. In other words, the level of tolerance in this case is determined by the willingness to give up part of the income to support socially vulnerable population groups, as well as by the level of trust in the relevant non-state organizations. The chances of agreement with the introduction of a socially oriented tax are significantly higher for sophomore students than for third- and fourth-year students. In our view, this result can be explained by the fact that younger students associate themselves with taxpayers to a lesser extent.

The study has shown that respondents' agreement with certain statements is statistically insignificant, including: agreement with the fact there is a need for financial relations to be complied with strict moral principles; the function of the financial system to foster socially equitable income distribution in the society; with providing financial support for socially vulnerable population groups; with responsibility of

⁵ The model was discussed by the authors at conferences: the 27th IBIMA conference: Innovation management and education excellence vision 2020: from regional development sustainability to global economic growth [17], and the ICAAT 2016 conference: 5th International conference on Accounting, Auditing, and Taxation [18].

the entire society for financial support for socially vulnerable population groups; with the willingness to donate to support socially vulnerable population groups at a certain time and with a certain amount. Interestingly, tolerance to socially oriented taxation is not affected by gender differences. It is particularly noteworthy that the majority of respondents shared the view that financial relations should contribute to equitable income distribution in the society (*Tab. 4*).

A significant share of respondents is willing to make regular donations to support socially vulnerable population groups. However, not all of them agree with the introduction of a special socially oriented tax. In our view, this suggests that the defining feature of any tax is its compulsory nature.

Conclusions

The study has confirmed there is statistically significant correlation between certain aspects of perception of social responsibility, including the mechanisms for its practical implementation, and the level of tolerance to socially oriented taxation. According to the survey, economists-to-be from Saint Petersburg, with low awareness of specific examples of implementation of alternative tax mechanisms in practice, demonstrate their willingness to take additional social obligations. Loyalty to introduction of conditional socially oriented tax resembling zakat is positively dependent on the following factors: willingness to give

Table 4. Attitude to the social role of financial relations

| Variant | Undecided | Completely wrong | Rather prong | Rather true | Completely true |
|--|-----------|------------------|--------------|-------------|-----------------|
| Forth-year students | | | | | |
| The financial system should foster socially equitable distribution of income in the society (2) | 0% | 2% | 19% | 46% | 33% |
| I am willing to give up part of income to support socially vulnerable population groups (8) | 0% | 22% | 26% | 41% | 11% |
| A special tax aimed at supporting socially vulnerable population groups should be introduced (6) | 2% | 24% | 46% | 21% | 7% |
| Third-year students | | | | | |
| The financial system should foster socially equitable distribution of income in the society (2) | 0% | 2% | 12% | 39% | 47% |
| I am willing to give up part of income to support socially vulnerable population groups (8) | 0% | 14% | 53% | 29% | 4% |
| A special tax aimed at supporting socially vulnerable population groups should be introduced (6) | 2% | 18% | 47% | 29% | 4% |
| Sophomore students | | | | | |
| The financial system should foster socially equitable distribution of income in the society (2) | 0% | 4% | 5% | 64% | 27% |
| I am willing to give up part of income to support socially vulnerable population groups (8) | 0% | 5% | 50% | 45% | 0% |
| A special tax aimed at supporting socially vulnerable population groups should be introduced (6) | 0% | 0% | 41% | 50% | 9% |
| Note. Brackets indicate the number of the statement. | | | | | |
| Source: compiled by the authors. | | | | | |

up part of individual income to support socially vulnerable population groups; positive attitude to non-state administration of socially oriented taxes; expectation of corresponding individual income tax exemptions.

The research results, developing the traditional understanding of tax mechanisms in the context of religious and socially oriented taxation, have both scientific and

certain practical significance. In our view, the experience of religious taxation may find successful application in tax administration in multicultural secular states including the Russian Federation. It is noteworthy that Islamic taxation mechanisms focused on effective motivation, rather than coercion, are implemented with the use of innovative techniques. For example, in Russia

advanced methods of zakat administration are implemented: the tax rate can be calculated using online calculators, fund transfers may be implemented with the use of a broad spectrum of payment tools (cash, bank transfer, credit card, cybercash, via SMS, etc.). Thus, maximum convenience is provided for the taxpayers, ensuring their

involvement and interest, which in turn is the key to overcoming economic disparities in the society. A promising area for further studies in this sphere are surveys of economists-to-be repeated in various Russian regions, as well as involvement of the representatives of the academic and professional community in the discussion of alternative tax mechanisms.

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Methodological Issues of Assessing the Resilience of the Working-Age Population Against Negative Environmental Impacts*



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Abstract. The purpose for the research is to study the resilience of regional human population against environmental impacts based on evaluation of quality indicators of environmental living conditions and promotion of population's health on the one hand, and on population's mortality for a number of causes related to environmental degradation on the other hand. Indicators of environmental degradation may include expanding industrial production, energy consumption, population density, growing number of motor vehicles etc. The study is initiated by the trends of the second epidemiologic transition according to which diseases and causes of mortality are mostly attributable to endogenous factors related to natural ageing of a human body, its declining age-related vitality and resistance to adverse external impacts including environment. The novelty of the research lies in assessment of both population's resilience against this kind of impacts in regions with varied concentration of population and facilities used for economic purposes, and causes of morbidity and mortality from this type of impacts. The system approach used for the research helps both take into account the multicomponent influence of factors over a substantial period of time (a ten year period) and assess their cumulative impact on the sustainability of population's self-preservation behavior. According to the research results, highly industrialized regions strengthen the negative dynamics of working-age population mortality. The situation is different in less industrialized regions where the population is sufficiently adapted to environmental impacts. According to econometric estimates, causes of cancer mortality are closely correlated with respiratory diseases and indicators of environmental impact – environmental pollution with vehicle emissions (exhaust fumes). The research results can be used in justification and adoption of strategic solutions in creating “new quality” of life. The application of research results is focused on making decisions based not only on their interpretation, from the standpoint of improvement or deterioration of the regional situation, but also on the regional assessment of resilience of the human population to environmental impacts adversely affecting population's health.

Key words: assessment, industrialized regions, resilience, environmental impacts, causes of morbidity and mortality, working-age population.

Introduction

According to the principles of sustainable development adopted at the UN Conference on Environment and Development in Rio de Janeiro in 1992, “the country's socio-economic development must be focused on improving the life of all its citizens, preserving natural resources, increasing penalties for environmentally destructive

activities”. However, the current industry management structure in many regions has not only marked the nature and pace of economic development but also predetermined high human-induced load on the environment. A downward trend in living conditions and, as a result, in people's health is constantly increasing; this is particularly evident in industrialized regions. The understanding by

local authorities and communities of this issue has caused environment and environment protection be among top priorities of Russia's development as they are essential in the process of establishing "new quality of life" which is focused on creating environment-friendly and comfortable living conditions for people, their work and recreation, as well as on increasing life expectancy and decreasing morbidity caused by unfavorable environment [15].

In general, the environmental impact on demographic processes is the manifestation of the influence of economic growth factors the indicators of which are industrial production, increase in the number of motor vehicles [24], level of energy consumption, rising population density [23], disposal of production and consumption waste [28], level of urban development and city density [22].

The degree of factor influence is determined by the intensity of their load on the environment. In this regard, we observe the reduction in the "biosphere¹ and environment² carrying capacity" and, as a

¹ *biosphere carrying capacity* – ability of a biosphere to restore its life-sustaining function depending on disturbing external – (the Sun and space) and internal factors of natural matter and energy cycle, human activity;

² *environment carrying capacity* – ability of the environment to digest, process wastes from a specific human activity within specific natural complexes and ecosystems; to level energy-related and physical production impacts by vital activity, natural matter and energy cycle in the structure of a natural complex differing from the structure and functions of a biosphere in a lower hierarchical level of system configuration.

consequence, the emergence of social risks, increase in population morbidity, reducing demographic and labor potential, reducing "quality" of the environment suitable for human activity.

Thus, creating favorable conditions for life and natural reproduction is currently of paramount importance, especially in densely populated regions with industrial production facilities as because human health is determined by three factors: heredity, quality of life and environment.

This issue has identified the main purpose for the present research focused on studying the viability (resilience) of the Russian working-age population against environmental impacts based on the evaluation of quality indicators of environmental living conditions on the one hand, and on population's mortality caused by disease and other factors, environment being among them.

The methodological framework of the research

Analysis of scientific literature has showed that the concept of "resilience" is used in a variety of subject areas and is considered as a state of an individual sphere of human activity. For example, Gavrikova A.V. introduces the concept of demographic resilience which is referred to as a state providing continuous renewal and growth of quantitative and qualitative demographic structures in relevant

historical and socio-economic conditions. According to the author, the most important components affecting demographic resilience are population dynamics, fertility, mortality, migration and social development of the population [5]. Gaifullin A.Yu. explores social resilience as a state of elements of the society in a certain area providing stability of functioning of the entire spatial social system and stable position of its actors, and counteracting internal and external threats in the long term [7]. Velichkovskii B.T. considers sustainability as a nation's viability through the correlation of social and biological mechanisms in the development of a demographic crisis and the changing health of the Russian population [3].

In the present study, sustainability is referred to as the ability of a system to be coincident in its characteristics before and after being exposed to a variety of factors and caused "shocks". From a theoretical point of view, the key role in human adaptation to changes belongs to external factors, while internal (social) factors no longer have a significant impact [14].

The methodological framework for studying the resilience of the working-age population against environmental impacts is based on key provisions of the general system theory including the study of population resilience within a population

system and its ability to self-sustained development considered as a key property of resilience [17].

The concept of environment as a combination of artificial and natural biological, physical, chemical, and social factors able to have a direct and indirect impact on the state of abiotic and biotic components of a biosphere including human beings, was formulated by Burdin K.S. in 1985 [2]. This concept is consistent with the assertion that population's health is a more objective criterion for evaluating the environmental effects than a simple comparison of concentration of specific pollutants with environmental and health standards [18]. It may be concluded that health indicators integrally take into account the complex and combined effects including unidentified pollutants which affect the human body.

Zaitseva N.V., Trusova P.V., Shur P.Z. and others emphasize in their work that exposure of a complex of chemical factors of air pollution, traffic noise and the impact of negative lifestyle factors causes unacceptable risks to human health which increase when a person reaches the age of 47 and becomes critical at the age of 58 [21].

Along with this, human life expectancy depends on many other factors. Demography and medicine traditionally divide factors of mortality into two components: endogenous

(internal causes) and exogenous (external causes) [27]. The first group includes natural causes of death – ageing, congenital defects and hereditary diseases. Exogenous factors are related to the influence of external environment. This group can include socio-economic factors, environment, and the effectiveness of the current healthcare system in the country.

According to the international statistical classification of diseases and health-related problems, external causes include road accidents, exposure to smoke, fire and flames, contact with venomous animals and plants, travelling and deprivation, alcohol intoxication, injuries from military actions, etc [13]. According to numerous experts, high mortality rate from circulatory diseases is related to the influence of psychological factors [4]. Velichkovskiy B.T. [3] identifies the “social stress” as a decisive factor in population’s health, especially in the period of system changes in the country.

Until the beginning of the 19th century many scholars noted the predominance of exogenous factors over endogenous. However, in the middle of the 19th century, ideas about the nature of negative impacts of various factors on human health began to change. According to the concept of epidemiological transition by A.R. Omran [26], changes in

the approach to determining the causes of morbidity and mortality [6] are due to the fact that the first place in the structure of the “new” pathology is occupied by diseases and causes of death primarily due to endogenous factors associated with natural ageing of a human body, its age-related decline of vitality and resistance to adverse external influences [9]. The latter is related to eco-biological causes including environment [6]. Later, this statement was presented in the report of the World Health Organization (WHO), which noted that the contribution of eco-biological factors in mortality rates is 20–30 % on the global average [10].

Methods

Assessment of population’s resilience against environmental impacts was conducted based on the methodology of Interfax–Era Agency environmental and energy rating. The perk of such a technique consists in the use of the system approach for assessing the multidimensional impacts of environmental factors over a considerable period of time, which helps estimate their aggregate impact on population’s health. Since sustainability in broad terms means the ability of a system to remain unchanged amid changes, the frequency and force of changes in homogeneous systems directly affect its stability and can be used for its evaluation. This assessment approach is based on the

fact that external and internal impacts affect the system and its parameters deviate from their “standards”. When these impacts recede system parameters return to their normal level. Frequent changes in basic parameters reflect the system’s “sensitivity” to impacts, i.e., its instability. Accordingly, the system’s stability can be defined by low variation of its key parameters [20].

Based on this approach, in order to obtain correct assessment of population’s resilience against negative environmental factors one must use standard deviation values of the number of deaths among people of working age per 100 thousand people in this age category from its average long-term level as variation parameters. The resulting figure will be the parameter variation; its value will help compare the indicator in different regions interpreting them in terms of viability and resilience in Russia as a whole.

The higher is the variability variation of these indicators, the more unstable is the population system. Thus, high variation of population’s resilience indicates a significant risk to people’s health.

In order to quantitatively estimate the changes in population resilience in the Russian regions we used data of Rosstat on various causes of death of the working-age population over the period 2005–2014. As

a result, we calculated the average long-term value level, the standard deviation and variation index according to the formulas below.

1. The mortality rate of the working-age population on average over 10 years is calculated by Formula 1:

$$CT' = 1/10 \sum_{1}^{10} CTt, \quad (1)$$

where CTt – mortality of the working-age population in a particular year defined as the number of deaths among people of working age per 100 thousand people in a given age category;

10 – number of years.

The standard deviation in mortality of the working-age population which illustrates the annual deviation of average mortality rate from the average for a certain period of time is calculated according to Formula 2:

$$CT'' = \sqrt{1/10 \sum_{1}^{10} (CTt - CT')^2}. \quad (2)$$

2. The population resilience index is calculated according to Formula 3:

$$V = CT'' / CT', \quad (3)$$

where V – variation index of population’s resilience against negative factors.

The calculation was conducted for each constituent entity of the Russian Federation (except for the Republic of Crimea and the city of Sevastopol) over a ten year period.

After that we calculated the index of total environmental impact by indicators of exhaust fumes and pollutant emissions into the atmosphere. In order to assess the degree of human-induced load related to concentration of economic activities and population within settlements, we added indicators of building and road areas to the calculations.

Based on the obtained average estimations of environment indicators and road and buildings areas we carried out the assessment of environmental impact according to the following formula:

$$TE = EA / \text{road} + EI / AB, \quad (4)$$

where TE – total environmental impact, tons/ha;

EA – average pollutant emissions from road vehicles within 10 years, thousand tons;

road – area of roads in an average of 10 years, thousand ha;

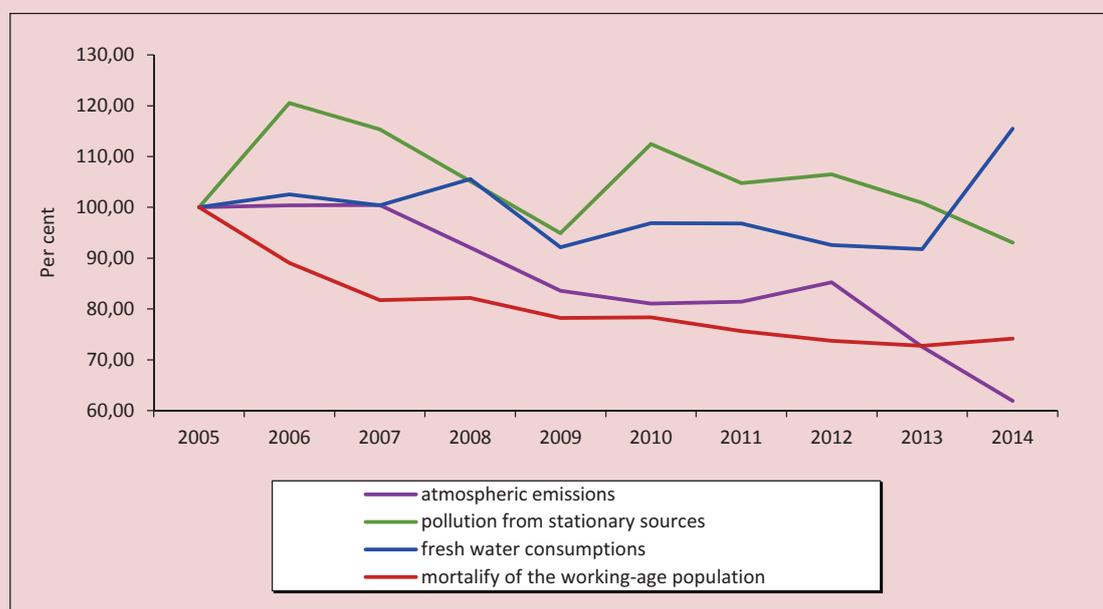
EI – pollutant emissions from stationary sources in an average of 10 years, thousand tons;

AB – built-up areas in an average of 10 years, ha.

Dynamics of socio-economic and environmental state of Russian regions are characterized by high differentiation which in the methodological context is quite difficult to measure when searching for a proper average trend by region. In this regard, analysis of correlation between the variation index of population's resilience (V) and total environmental exposure (TE) by region was carried out using the method of least squares. It seems that this method is the best for addressing the problem of smoothing experimental dependences and finding the average statistical patterns when studying time series with a considerable spread in values.

Analysis of the Russian regions' environment and the structure of mortality of the working-age population in the past decade mark an increased role of some factors and the reducing influence of others. Thus, if in the Soviet period capacity utilization was close to 100%, this mainly determined the state of the environment. However, amid the reforms of the 90-s, compression of industrial production volumes has ceased to have a dominant impact on the environment component. Factors associated with urbanization processes along with the related increase in the anthropogenic load on the environment in areas with dense economic activity and population began to come to the forefront by level of negative impact.

Figure 1. Performance of indicators of environment and mortality of the working-age population in Russia in 2005–2014, % (2005 = 100%)



Source: compiled according to the Federal State Statistics Service.

Despite the general trend of decreasing emissions into the atmosphere and reducing mortality (*Fig. 1*), air pollution in many regions of the Russian Federation is characterized as high, dangerous and very dangerous. This is evidenced by the annually published report of the Ministry of Natural Resources and Environment of Russia [11].

Experts note that air pollution is one of the key risk factors for human health [25] since the daily air consumption of an adult amounts to 12 m³ [18]. This is evidenced by almost repeating trends in these two indicators up to 2013. At the same time, most common air pollutants are dust, nitrogen oxides, carbon

monoxide, formaldehyde, hydrocarbons, and sulfur dioxide [8]. All these pollutant components form the base of exhaust fumes.

Analysis of the research results

Based on environmental variation indicators we assessed the degree of their influence on variation indicators of mortality of the working-age population for a number of causes. This approach helps evaluate the correlation between mortality of the working-age population on the one hand, with morbidity rates (tumors, infectious and parasitic diseases, circulatory diseases, digestive and respiratory diseases) caused by negative environmental impacts, on the

Results of correlation analysis of indicators of environmental impact and mortality from certain types of diseases

| Causes of disease-related mortality | Total morality of the working-age population | Environmental impacts | | |
|-------------------------------------|--|-----------------------|-----------------|----------------|
| | | <i>Emissions</i> | <i>Exhausts</i> | <i>Pumping</i> |
| Correlation index (R)* | | | | |
| External | 0.88 | 0.43 | 0.41 | 0.48 |
| Digestive | 0.77 | 0.63 | 0.61 | 0.58 |
| Respiratory | 0.86 | 0.54 | 0.53 | 0.55 |
| Circulatory | 0.85 | 0.60 | 0.62 | 0.58 |
| Cancerous | 0.71 | 0.44 | 0.52 | 0.44 |
| Parasitic | 0.42 | 0.13 | 0.11 | 0.14 |

* Correlation between mortality of the working-age population and disease-related mortality.

other hand, and indicators characterizing the quality of environment determining population's health.

On order to determine the degree of correlation we constructed the correlation matrix (*Table*) between different causes of morbidity resulting in mortality of the working-age population including environmental impacts.

The correlation analysis concludes that the greatest contribution to mortality of the working-age population is made by external causes ($R=0.88$). The correlation between mortality and circulatory diseases ($R=0.85$), respiratory and digestive diseases is also high (0.86 and 0.77 respectively).

We managed to trace sufficiently close correlation between environmental impact and disease-related mortality rates. According to the table, the consequences of environmental pollution with exhaust fumes include mortality caused by circulatory

($R=0.62$), digestive ($R=0.61$) and respiratory diseases ($R=0.53$). Pollutant emissions into the atmosphere from stationary sources have the greatest impact on population mortality caused by digestive ($R=0.63$), respiratory ($R=0.54$) and circulatory diseases ($R=0.60$). The consequences of water pollution include mortality caused by digestive ($R=0.58$), circulatory ($R=0.58$) and respiratory diseases ($R=0.55$). The correlation index of indicators of environmental impacts and causes of mortality from parasitic diseases indicates lack of connection.

The contribution of external causes in the mortality rate of the working-age population amounted to 20%, circulatory diseases – 23%, respiratory diseases – 19%, digestive diseases – 16% (*Fig. 2*).

Environmental factors with the most negative impact on health include pollutant emissions from exhaust fumes into the atmosphere (*Fig. 3*).

Figure 2. Contribution of major diseases to the mortality rate of the working-age population, %

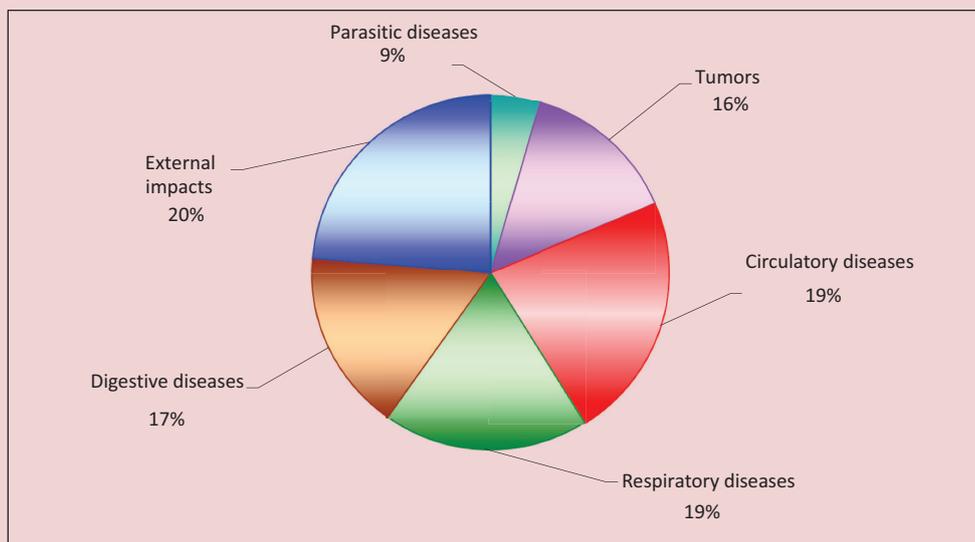
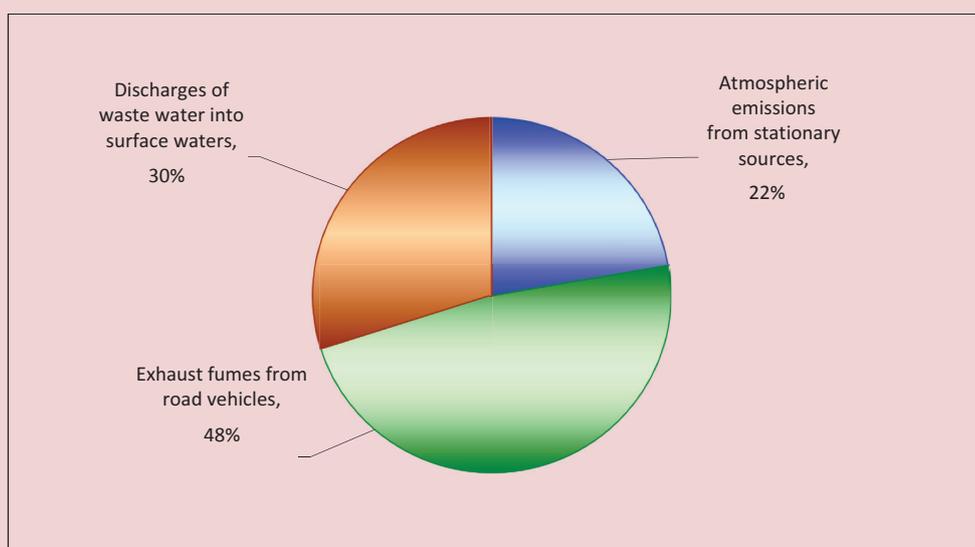


Figure 3. Contribution of negative environmental impacts to incidence of various types of diseases among working-age population, %



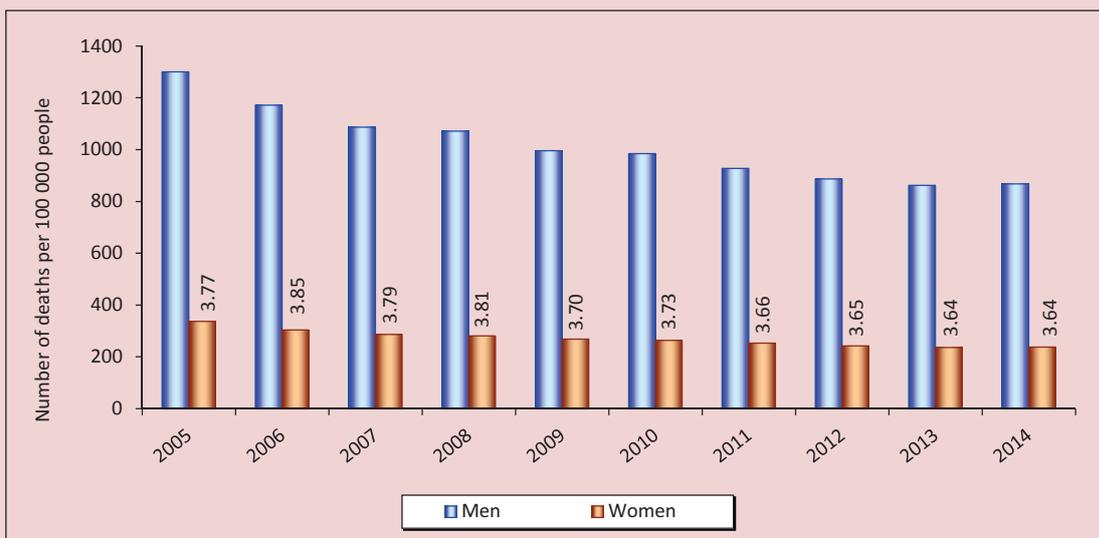
From the standpoint of gender, mortality caused by circulatory diseases among men of working age is much higher than that of women. The highest values of mortality index are characteristic of men aged 25–50, of women – aged 25–40 years. In general, during 2005–2014 the mortality rate in this age group increased by 1.6–2.4 times among men and 1.6–2.3 times among women [1].

During the analyzed ten-year period the mortality rate among men was more than three times higher than that of women (Fig. 4).

As for the territorial aspect, the negative environmental impact on health is particularly pronounced in densely populated regions with dense economic activity.

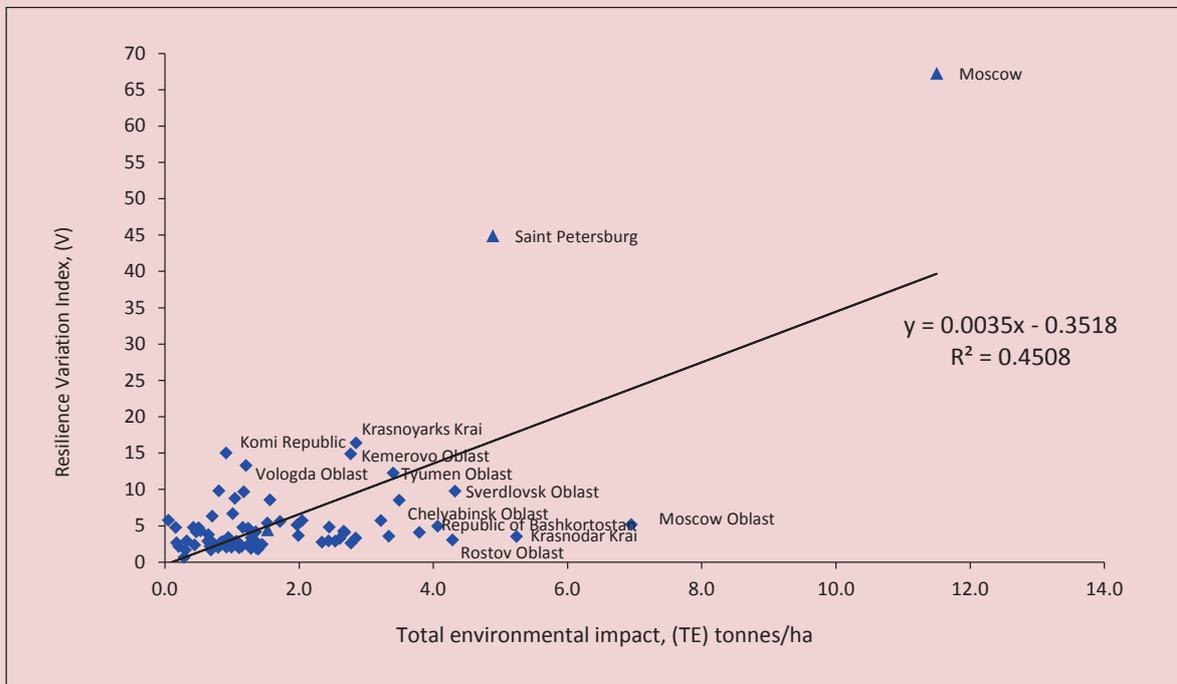
This is confirmed by the results of analysis of correlation between total environmental impacts and the variation index of population resilience in the regional breakdown, which is demonstrate in *Figure 5*. This is also confirmed by results of rating assessment of “the quality of life” in the Russian regions [19]. For example, regions such as Krasnoyarsk Krai, the Komi Republic, the Moscow and Sverdlovsk oblasts occupy leading positions in “economic development” by volume of production of goods and services. In these same regions the environmental situation is assessed as unfavorable: Krasnoyarsk Krai is ranked 85th, the Komi Republic – 82th, the Moscow Oblast – 65th, the Sverdlovsk Oblast – 69th. As for data on morbidity, in the group

Figure 4. Performance of the gender structure of mortality among working-age population in Russia in 2005–2014



Source: Demographic Yearbook of Russia. Rosstat.

Figure 5. Evaluation of the contribution to the total environmental impact to the resilience variation index in Russian regions, average of 2005–2014



of “morbidity” mortality of the working age population of the Moscow and Sverdlovsk oblasts are ranked 19th and 17th respectively by indicators of mortality of the working-age population. In other regions, the mortality rate is somewhat lower.

However, it should be noted that in these regions the population’s resilience is much higher than in denser populated regions with denser economic activities, which include Moscow and Saint Petersburg. This may indicate that the role of anthropogenic factors in human activities increases significantly with the concentration of economic

activities and population, becoming a greater threat to their health and life.

It should be noted that unfavorable environmental conditions in such cities as Moscow and St. Petersburg have an impact on the average general mortality in Russia to an extent that when removing these regions from the analysis list, statistical correlation between the index of total environmental impacts and the variation index of population’s resilience. However, as noted above, the method of least squares helps not only narrow the regional differences, but also provide adequate average pattern in Russia.

According to analysis results, the contribution of the total environmental impact to resilience variation in average of 10 years amounted to 45% (Fig. 5), the resulting elasticity index indicates that with a 10% reduction in the total environmental impact population's resilience against negative environmental impacts will increase by 0.03%.

Conclusion

The obtained results help identify and better understand the important functional components in the development of population's health and living conditions, as well

as its resistance to various negative impacts in regions with dense economic activity. Close correlation between environmental indicators and indicators of mortality characterizes a kind of "pressure" on population's health and their resilience against environmental factors. The possibility of using the proposed methodological tools of assessment by the governing bodies in decision-making helps make proper conclusions about the quality of environment in regions and its impact on population's health, and take effective measures to reduce the negative impact of environmental factors.

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Random and Regular Stock Price Change Depending on a Time Span



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Abstract. The purpose for the research is to identify the correlation between random (accidental) stock price changes and its well-known tendency to grow depending on a time span. In contrast to the works of other scholars on the issue of the random nature of stock prices the presentation of the issue is new in the current research. The research method consisted of identifying the criterion stock price change separation into random and regular components and further comparing the proportions between random and regular stock price change on the example of 10 stocks of the largest world-known companies from representing different economic sectors traded on New York stock exchange for several time spans: one day, week, month, quarter, half-year and one year. The main research results suggest that with the increase in time span the share of the regular origin of the stock price increases, but only up to a certain significant limit. The increase in the time period of analyzing the stock price changes (fluctuations) does not prove that the random character of stock price change has an unlimited downward trend. The scope of the research results has scientific and practical nature. On the one hand, these findings are useful in teaching students and market participants on the issue of securities market. On the other hand, in practical terms, this issue is interesting as understanding the patterns of changes in proportions between random and non-random (regular) nature of share price in the market can be used by market participants when setting their trading strategies for different time spans. The prospects of further research in this sphere cover the division of factors changing the stock price into regular and random, quantification of their influence on stock price dynamics, as well as issues of correlation between the investment time span and the risk of random stock price change beyond the estimated limits of its regular change.

Key words: stock price, upward trend, random change, regular change, time span, price limit, proportion, stock exchange.

The theoretical framework of the study and previous research

The study is based, on the one hand, on the random walk theory and, on the other hand, on patterns in stock market prices performance for relatively long periods of time, which in general is manifested in the increase in stock indices despite all known crisis events in the market and in the economy as a whole.

The issues of randomness in stock price performance are constantly in the center of attention of stock market theorists and

practitioners. To date, there are numerous articles on various aspects of the random nature of stock prices, which are based on the work of M. Porter [16], P. Samuelson [21], Y. Fama [12,13], W. Sharpe and other researchers. It is believed that theoretical studies on this issue have their origin in a famous work by Louis Bachelier [8], which is not entirely correct due to two circumstances.

First, this work by Louis Bachelier was written in the early twentieth century, forgotten for half a century and became known (“discovered”) only in the 50-s.

Because of this we cannot claim that the study of the random nature of stock price began with this author.

Second, the random nature of stock prices was known to economists before Bachelier (see, for example [20]). Even Marx, long before Bachelier, wrote that the share price is random in nature; and it was not his own discovery as in this case he only summarized what was already known by economists in the 19th century. “The market value of the stocks is partly speculative as it is determined by not only actual income, but also by the expected, pre-calculated income” [6, p. 10].

But for our study this position is important because it clearly demonstrates the approach to the volatility of stock prices in time, which is not purely random as is usually seen from the viewpoint of market actors and the above mentioned economic theorists. This approach means that stock price changes should be seen as a unity of its random and non-random (regular) change.

The followers of Marx’s teachings had the same understanding of the nature of stock price change. For example, R. Hilferding in his famous work “Financial capital” published in 1910 (the book was written mainly by 1905) also repeatedly stated: “... The same is for prices (stock), along with the aspects determining the price, we should distinguish those random aspects expressed in the changing ratio of demand and supply” [7, p. 190].

Since this approach to considering the stock price is typically missing, we can say that, in fact, there are no articles addressing the issue of finding the quantitative correlation between random and regular stock change. It can be reasonably assumed that this correlation should be different at time intervals significantly differing in duration.

Russian authors in their works (Alekhin [1], Berzon [2], etc.) usually state the stock price performance is characterized by random fluctuations and a growth trends, but there are no references to any approaches to identifying their correlation. In addition, it should be noted that the regular stock price fluctuation is usually understood only as an upward trend, although, logically, a downward trend is as possible as an upward trend. For example, the company’s relative worsening of the situation in the market, which can last for many years, inevitably leads to corresponding growth of its stock prices.

At the same time, works devoted to models of stock prices put the emphasis on the mathematical description of a random process of price changes, which implies «regular randomness» in the form of stock price fluctuations conforming to normal – or rather, lognormal, probability distribution, rather than randomness in general. Here the probability randomness itself takes the form of a special type of pattern being mathematically presented as the Wiener process and the Ito process. The lognormal distribution is always a one-sided pattern, i.e. a pattern with one

direction – stock price increase. But for different time intervals the law could be both stock price increase and its decrease. In addition, in mathematical models “regularity” is also expressed in constants not directly related to the variance, but indirectly dependent via a common (single) framework of stock price model calculations. In general, it should be noted that neither lognormality of probability distributions, nor constants due to their “permanence” under any of their “improvements” are not sufficient to identify the changing role of random and regular components with respect to different time intervals of a stock price fluctuating in time.

An upward or a downward trend in stock prices is rooted in the fact that a stock is a form in which capital exists in circulation as a commodity. The goal of any capital is to get maximum profit. Due to this profit capital constantly increases but due to changes in demand for its commodities the size of the functioning capital not only increases, but from time to time can be reduced. Therefore, the law of stock price performance in most cases is its permanent growth, but only in the form of its permanent accidental upward and downward fluctuations from its previous level.

“Randomness” is understood as variability the future result of which is unknown. In this case variability itself is random variability. That is why it is correct to claim that stock prices change randomly, i.e. no one knows (there is no law) what the stock price will be in the next or some other future point in time.

The effect of changing any object can be known in advance or unknown. The predictability of a future event usually takes place if there is a (known to a human) law of object variation or if this event is the result of purposeful human activity. The former is typical of many natural phenomena. For example, the law of gravitation controls the motion of the Earth around the Sun, therefore its future location can be predetermined. The latter is related to the situation where a person applying the laws of nature creates the necessary objects from the existing natural substances. The created thing object first existed only as a mental abstraction or a purpose but then it was embodied in a material object. Each produced commodity is a change in the natural substance the result of which was known even before the process of its production was finished.

Price variability is the inconsistency of its values over time. As the price of any commodity, stock price is volatile but this volatility is usually unknown in not predetermined. Quantitative values of stock prices at different points in time differ, although sometimes they may coincide. Stock price volatility is the reason for incremental yield, or the positive price variance, as well as the basis for the possible loss from stock purchase and sale which is totally undesirable for a market actor. Thus it is obvious that the latter wants to avoid the negative outcome in the future, which necessitates deeper research of the phenomenon of stock price changes.

There are two types of stock price changes: a change as an upward or downward price development and a change as a difference between its previous and next value.

The first type of change is randomness united with regularity. The randomness of each of these two types of changes has either a probability equaling 0.5, or one of the changes has higher probability, which means there are trends in upward and downward price development. In case of stock price there is an upward trend in price development, therefore the probability of stock price increase is higher than the probability of its reduction.

The second type of change is a randomness without probability, or randomness where of any possible change may have little probability significantly lower than 0.5. Randomness without probability is the same as infinitesimal probability that a ball will touch the surface in a particular point, i.e. in the limit this probability equals zero.

However, in the organized stock market the stock price only changes multiples of a particular interval determined by stock exchange. Therefore, each next possible price value for an individual transaction is known as it is the current price plus or minus the price change interval. But given the quantitative mismatch of selling and buying lots, as well as a large number of transactions per unit of time the average interval itself, i.e. the average price change from trade to trade, becomes a random value. In this sense, random price

change is the result of an accidental number of many “steps”.

Thus, any viewpoint in stock price change always reflects the unity of randomness and regularity. Speaking philosophically, we should say that stock price change is regular but its permanence is nothing less than randomness of the absence of the change process. On the one hand, a random event is always an event whose complexity of understanding exceeds the level of available scientific knowledge about it. Anything a human cannot explain is random. Therefore, deeper knowledge of stock price is a way to reduce the “sphere of randomness” characteristic of this price. On the other hand, randomness does not exist separated from regularity. Stock price is random but its volatility is regular. The most common direction of stock price change as an external (market, negotiable) form of capital which directly creates profit is also regular. Therefore, it is logical to assume that random stock price fluctuations are “islands” of regularities; in any kind of regularity related to the stock price there are built-in “natural” and certain “segments” of randomness.

Knowledge about the existence of proportionality between the random and regular components of stock prices can be useful for traders (speculators and investors) exercising their trade operations (strategies) at different time horizons.

The research hypothesis lies in the following: as time intervals are increased the

share of the random factor in the stock price decreases, while the share of the regular factor increases.

For the purposes of this study *random stock price change* is referred to as its change which is beyond the level taken as a standard of its regular change. We used stock price change for a given period of time calculated on the basis of yearly stock price changes as a *standard of regular stock price change*.

The chosen time intervals are: day, week, month, quarter, six months and year.

We randomly selected 10 largest world-known companies from various economics sectors traded on the New York stock exchange: General Electric Co. (1), Walt Disney (2), PepsiCo Inc. (3), Procter & Gamble Co. (4), Exxon Mobil Corp. (5) IBM (6), McDonalds Corp. (7), Johnson & Johnson (8), JPMorgan Chase & Co. (9) Deutsche Bank AG (10).

Price changes were analyzed during a

more or less crisis-free 2013. For each stock of the existing reports (Macrobond database) we calculated actual price variance from its “standard” for each selected time interval. The calculations of the values of this standard for each stock are presented in *Table 1*.

The calculation results are grouped into several tables which clearly demonstrate the whole course of reasoning to make certain qualitative conclusions about detecting both random and regular factors in stock price fluctuations based on the sequence of calculations. This suggests that random stock price performance also contains regular patterns.

Brief description of analysis technique

In order to obtain source information we did the following: 30 random samplings for a one-day interval, 4 random samplings for a one-week interval; all 12 months and four quarterly intervals with both half-years (six-month intervals) are taken.

Table 1. Calculation of the standard regular price variance by stock type for each time interval

| Type of stock 1 | Stock price change for 2013 (closing price 31.12.13 – opening price 02.01.13 (in absolute value)) 2 | Stock price change per day (Group 3) = (Group 2) / 360 days 3 | Stock price change per week (Group 4) = (Group 2) / 52 weeks 4 | Stock price change per month (Group 5) = (Group 2) / 12 months 5 | Stock price change per quarter (Group 6) = (Group 2) / 4 quarters 6 | Stock price change per 6 months (Group 7) = (Group 2) / 2 half years 7 |
|-------------------------|--|--|---|---|--|---|
| 1. General Electric Co. | 6.52 | 0.018111 | 0.125385 | 0.5433333 | 1.63 | 3.26 |
| 2. Walt Disney | 25.6 | 0.071111 | 0.492308 | 2.1333333 | 6.4 | 12.8 |
| 3. Pepsi Co Inc. | 13.76 | 0.038222 | 0.264615 | 1.1466667 | 3.44 | 6.88 |
| 4. Procter & Gamble Co. | 12.76 | 0.035444 | 0.245385 | 1.0633333 | 3.19 | 6.38 |
| 5. Exxon Mobil Corp. | 13.41 | 0.03725 | 0.257885 | 1.1175 | 3.3525 | 6.705 |
| 6. IBM | 6.52 | 0.018111 | 0.125385 | 0.5433333 | 1.63 | 3.26 |
| 7. McDonalds Corp. | 7.63 | 0.021194 | 0.146731 | 0.6358333 | 1.9075 | 3.815 |
| 8. Johnson & Johnson | 20.57 | 0.057139 | 0.395577 | 1.7141667 | 5.1425 | 10.285 |
| 9. JPMorgan Chase & Co. | 13.5 | 0.0375 | 0.259615 | 1.125 | 3.375 | 6.75 |
| 10. Deutsche Bank AG | 2.6 | 0.007222 | 0.05 | 0.2166667 | 0.65 | 1.3 |

Each stock price value is compared with the “standard” and the deviations are summarized according to their absolute value.

Results of random price change levels for each time interval were determined for all selected 10 stocks and then were averaged for each time interval.

The obtained results were compared in terms of periods of time; the level of randomness was taken as 100%.

“Cross” calculation results are presented in *Table 2*.

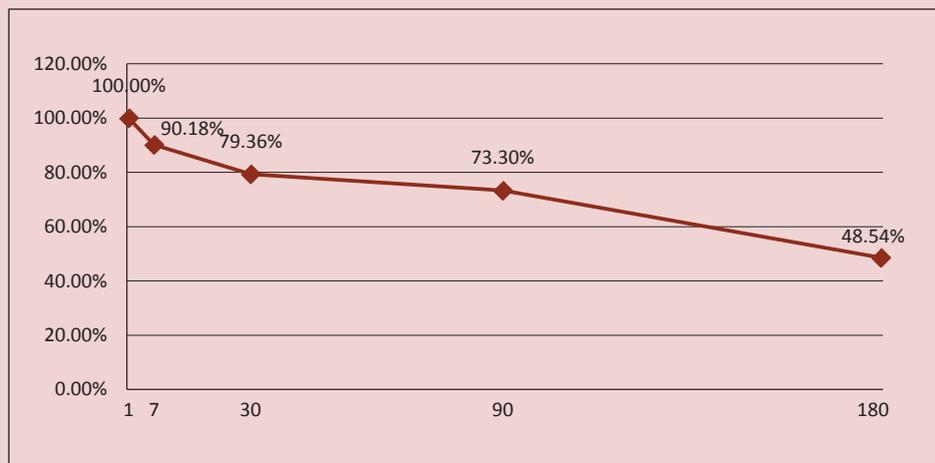
As the table shows, the share of random factor in stock price declines as the time interval increases, but to a different extent. Compared to the previous interval, random factor is always reduced by less than its value when the difference is a few time intervals from the daily interval.

Based on data from *Table 2* (column 2), i.e. with the available points, we built a graph of variance of the share of random factor in the stock price depending on the time interval (*Fig. 1*). In *Figure 1* and in subsequent figures,

Table 2. Share of random factor in stock price and its change by time interval

| Time interval | Average share of random factor in stock price change | Reduction in random factor against daily interval | Reduction in random factor against weekly interval | Уменьшение Reduction in random factor against monthly interval | Reduction in random factor against quarterly interval |
|---------------|--|---|--|--|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| Daily | 100.00% | - | - | - | - |
| Weekly | 90.18% | 9.82% | - | - | - |
| Monthly | 79.36% | 20.64% | 10.82% | - | - |
| Quarterly | 73.30% | 26.70% | 16.88% | 6.06% | - |
| Half-year | 48.54% | 51.46% | 41.64% | 30.82% | 24.76% |

Figure 1. Change in the share of random factor in stock price



the y-axis reflects the share of a random factor in the stock price in percent, the x-axis demonstrates time intervals in days.

Based on Table 2 and the illustration of the results in Figure 1 we can make the following preliminary conclusions. The share of random factor in stock price change over a week is approximately 90%; the share of random factor in stock price change during a monthly period is approximately 79%; the share of random factor in stock price change during a quarter is approximately 73%; the share of random factor in stock price change in a half-year period is approximately 49%.

Thus, it should be noted that the most significant decline in the share of random factor in stock price is observed not earlier than in half year. In our opinion, due to the fact that in half a year the company already has more reliable and more complete, compared to a month and a quarter, financial statements reporting the results of its operations. This period usually clearly reflects the increase (or decrease) in the company's operating capital. It is the company's capital that is the basis of regular growth in the price of its stocks. At the same time, when it comes to short time intervals, stock price change is random to a great degree. This can be explained by the fact that market actors in such a short time cannot "unanimously" assess the company's performance due to the fact that, on the one hand, there company's performance reports are insufficient, but most importantly, no one on the market, even the

company itself knows how it performed in such a short period of time.

The next step in the analysis is the calculation of the trend line by constructing different forms of regression equations:

Figure 2 – linear regression

Figure 3 – logarithmic dependence,

Figure 4 – exponential dependence,

Figure 5 – power dependence.

Thus, according to any of the applied regression models showing the general trend, we have:

1. With an increasing time interval the share of random factor in the stock price change decreases while the share of regular factors increases.

2. Ranging from one month to three months (quarter) the share of random factor is reduced significantly slower than the time interval expands from a quarter to a half-year interval.

3. Ranging from a month to a quarter the share of random factor is reduced by only six percentage points against about twenty points of its reduction during the period from one day to one month. Such a sharp slowdown in the share of random factor reduction can be explained by the fact that during the period up to a month the change has already "exhausted" the entire "stock of randomness", i.e., main opportunities of stock price fluctuations amid the absence of results of work of capital over a given period of time have already been tested. A further increase of the time interval to a quarter adds nothing to

Figure 2. Trend of the share of random factor according to the linear model

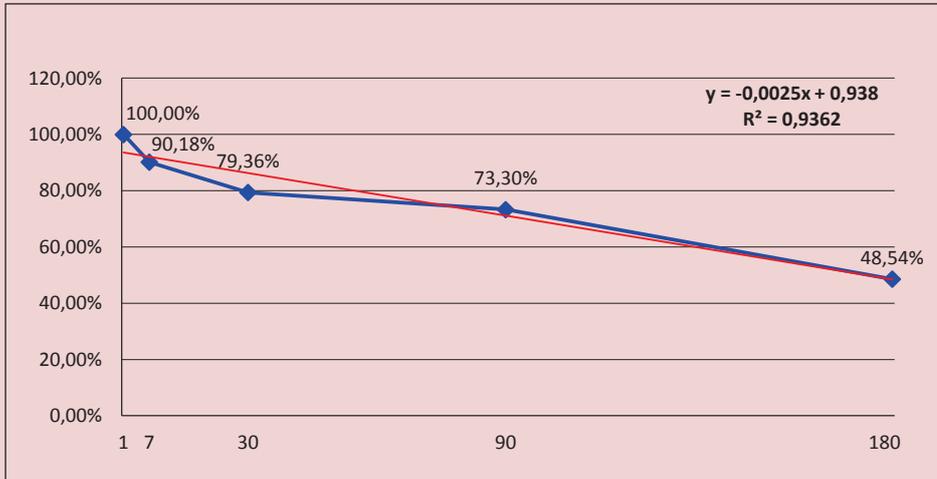
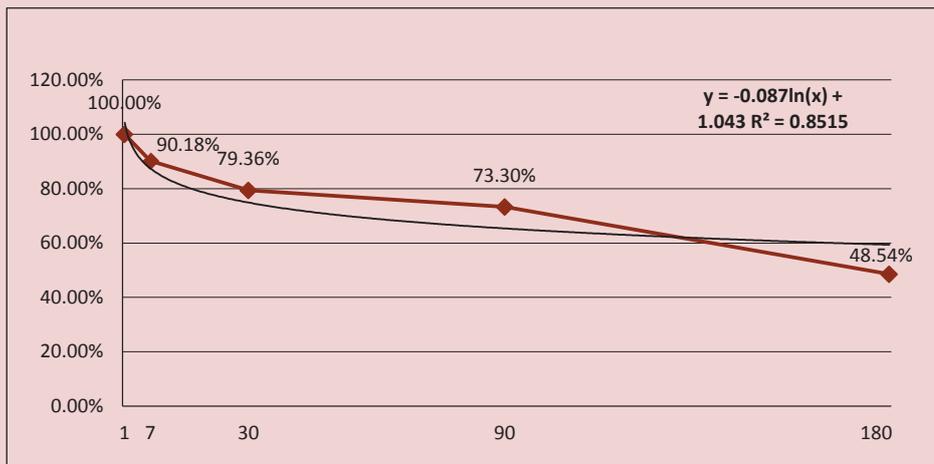


Figure 3. Trend of the share of random factor according to the logarithmic model



the “randomness” characteristic of the share price, but still cannot significantly reduce this potential as there is yet no significant information growth on the market about the economic efficiency of the company’s capital stock.

Analysis of the above models in terms of their statistical “quality” demonstrates that the actual dynamics of the share of random factor is better described by the exponential function as it has the highest R2 value (Tab. 3).

Figure 4. Trend of the share of random factor according to the exponential model

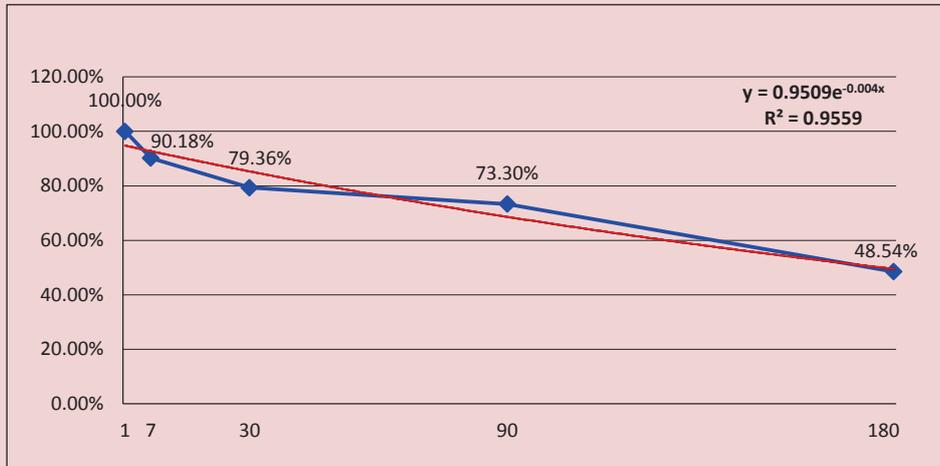


Figure 5. Trend of the share of random factor according to the exponential model

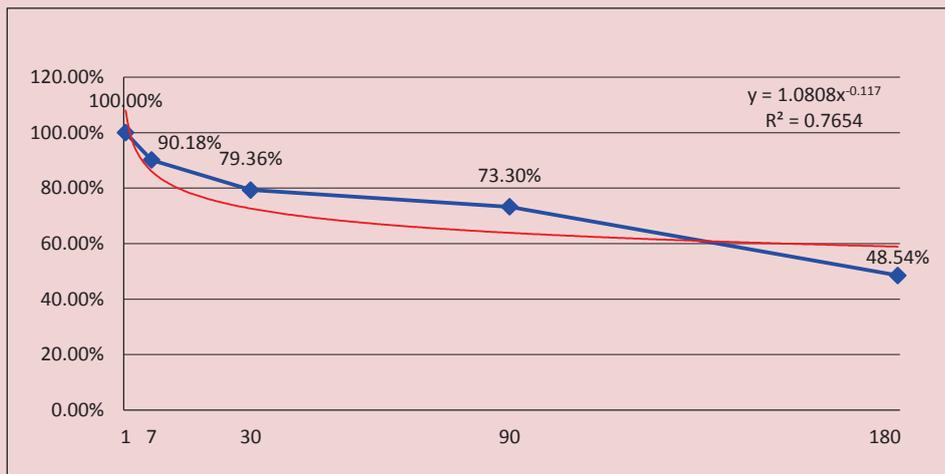


Table 3. Relative R2 values

| Linear function | Logarithmic function | Exponential function | Power function |
|------------------------|----------------------------|-------------------------|------------------------|
| $y = -0.0025x + 0.938$ | $y = -0.087\ln(x) + 1.043$ | $y = 0.9509e^{-0.004x}$ | $y = 1.0808x^{-0.117}$ |
| $R^2 = 0.9362$ | $R^2 = 0.8515$ | $R^2 = 0.9559$ | $R^2 = 0.7654$ |

Table 4. Forecast of the share of random factor in stock price change beyond a year

| Years | Days | Power function | Linear function | Exponential function | Logarithmic function |
|-------|------|----------------|-----------------|----------------------|----------------------|
| | x | y | y | y | y |
| | 1 | 1.08 | 0.94 | 0.95 | 1.04 |
| | 7 | 0.86 | 0.92 | 0.92 | 0.87 |
| | 30 | 0.73 | 0.86 | 0.84 | 0.75 |
| | 90 | 0.64 | 0.71 | 0.66 | 0.65 |
| 0.5 | 180 | 0.59 | 0.49 | 0.46 | 0.59 |
| 1 | 360 | 0.54 | 0.04 | 0.23 | 0.53 |
| 1.5 | 540 | 0.52 | -0.41 | 0.11 | 0.50 |
| 2 | 720 | 0.50 | -0.86 | 0.05 | 0.47 |
| 2.5 | 900 | 0.49 | -1.31 | 0.03 | 0.45 |
| 3 | 1080 | 0.48 | -1.76 | 0.01 | 0.44 |
| 3.5 | 1260 | 0.47 | -2.21 | 0.01 | 0.42 |
| 4 | 1440 | 0.46 | -2.66 | 0.00 | 0.41 |
| 4.5 | 1620 | 0.46 | -3.11 | 0.00 | 0.40 |
| 5 | 1800 | 0.45 | -3.56 | 0.00 | 0.39 |
| 5.5 | 1980 | 0.44 | -4.01 | 0.00 | 0.38 |
| 6 | 2160 | 0.44 | -4.46 | 0.00 | 0.38 |
| 6.5 | 2340 | 0.44 | -4.91 | 0.00 | 0.37 |
| 7 | 2520 | 0.43 | -5.36 | 0.00 | 0.36 |
| 7.5 | 2700 | 0.43 | -5.81 | 0.00 | 0.36 |
| 8 | 2880 | 0.43 | -6.26 | 0.00 | 0.35 |
| 8.5 | 3060 | 0.42 | -6.71 | 0.00 | 0.34 |
| 9 | 3240 | 0.42 | -7.16 | 0.00 | 0.34 |
| 9.5 | 3420 | 0.42 | -7.61 | 0.00 | 0.34 |
| 10 | 3600 | 0.41 | -8.06 | 0.00 | 0.33 |

However, if we try to continue calculating the share of random factor according to the models beyond a year, then, as follows from *Table 4*, starting from a certain time interval (on average within 1.5–2 years depending on the company) changes in the share of a random factor for different models do not always take on rational values.

Data from *Table 4* suggest that only in the exponential and logarithmic function further decline in the share of random factor dramatically slows down, which can be interpreted as the most suitable forms of correlation despite the fact that they have

the lowest R^2 paradoxical as it may from the point of view of the theory of mathematical statistics,.

Therefore, in our opinion, the most appropriate is the use of the exponential or logarithmic dependencies, the choice between which can be made by solving a certain task, rather than the problem in general.

Specific indicators of a particular equation entirely depend on the variety of characteristics of statistical sampling necessary for a trader: the source information database, the number of reviewed companies, time intervals.

However, regardless of which dependency is chosen by a market actor, the already presented forecast example shows that the share of random factor is reduced disproportionately to the increase in time interval, but to hyperbola, which suggests that the downward trend in random factor is quantitatively limited.

Theoretically, such limits derive from the fact that it is impossible to get rid of the randomness in stock price changes, no matter how the time interval is increased. Regularity exists only in unity with randomness. The “zeroing” of random factor would mean that something only became regular, which is impossible.

Thus, the research helps make two main conclusions:

1. The stock price always combines random and regular changes. It is impossible to get rid of the random nature of stock price changes, but one should not neglect the existence of regularities in these changes. A trader on the stock market relying only upon the understanding of the random nature of stock price changes may miss out on substantial benefit from the market situation where stock price follows substantial capital growth of the respective company. Conversely, blind chase for, for example, an upward trend emerged on the market interpreted as a price pattern could lead to major losses as this trend may be the result of random unilateral supply-and-demand disequilibrium for this stock, rather than the result of the company’s capital growth.

2. As time intervals increase, the share of random factor in stock price change tends to decrease, but only to a certain limit. It is generally believed that investment, i.e. long-term stock purchase, is a certain guarantee that its price will considerably rise. In fact, the unity of regularity and randomness in the stock price suggests that even over time it is impossible to get rid of randomness in the stock price. The moment the stock price increases will be random as the company’s capital increases due to both efforts of the company itself and favorable conditions for a relevant good or service on the market. The randomness hidden in the product itself already lies in the fact that the product “does not last” and can be replaced by new items. Hence, if the stock price rises within, for example, the investment period of five years there is no guarantee that it will grow in the case of a ten-year investment period. Stock price change regularity is the result of a random collision of numerous market factors; even a slight change in their configuration and extent again leads to random market price of a stock again.

That is why professional investors on the stock market usually “instinctively” understand that long-term investment is not impossible. Investment itself has some reasonable time intervals beyond which it turns into its opposite – speculation in random stock price changes with unpredictable outcomes.

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Migration in Times of Crisis: Can Entrepreneurship be a Solution? The Case of Brazilian Entrepreneurs in Lisbon (Portugal)



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Abstract. The planet watches a new planning phase of migration flows. In the era of economic globalization, restructuring of labor markets, social, cultural, political and economic transformations, the decision to migrate is linked to reasons such as the existence of pull factors in the destination, of a network linking origin and destination that minimize the constraints and dangers of the journey

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and, of course, economic aspects represented by the ability to achieve a “better life” with the gains obtained at the destination. It is clear that, although indispensable for the reorganization of the predominant mode of production in our society, the crisis we experience brings great challenges for the global economy. In this chapter, we analyze the importance of the female immigrant entrepreneurship that, faced with an economy that requires movement, could prove an economic and social potential that benefits from occasions and market segments little explored. This is because in the migration process, there may be new contexts for immigrants, which enables the development of its human capital. In other words, the material/intellectual accumulation of these individuals linked to its ability to reinvent themselves end up contributing to new economic arrangements.

Key words: migration, Brazilian women entrepreneurs in Portugal, crisis and resilience.

1. Introduction

One cannot understand the formation of a society and its cultural identity without taking into account population movements. That is, the effects of internal and external migration have been considered fundamental to characterize particular people.

Migration is a phenomenon that is increasing both internationally and nationally. According to a research by the United Nations, migration has surpassed 200 million people at the end of the millennium, which shows the importance of this subject for study.

In the 80s, Brazil ceased to be a country historically receiver of immigrants to decisively transformed itself into a country of emigrants, which led to a clear shift towards migration flows – international migration¹. This event reached also many other Latin American countries (Carvalho, 1996).

In this sense, it is possible to affirm that the international migration pattern changes for various reasons, as people seeking better life conditions, economic crisis in times

of war – increasing poverty – and natural disasters. People would also migrate to study and work. However, the economic factor is the main reason of international migration.

Many scholars defend entrepreneurship innovation as an element of income, since the entrepreneurial activity generates work and creates new markets, and may play a role in the host country economy, especially when the capital involved is high or a significant number of immigrants invests in opening their own business, exploring new economic opportunities. Immigrants, who arrive with new ideas, projects and technologies, if the context is favorable, contribute to revitalize and boost some branches of activity in certain territorial areas (GEM, 2004).

Therefore, the opportunity of migrants to establish their own businesses may provide an alternative to the crisis. The human capital, the work experience from their respective countries and the social capital that can be consolidated, contribute as important factors.

¹ According to Castles & Miller (1998), contemporary perspective on international migration is considered the phenomenon as a sum of variables that are important in the course of the process of global integration (economic, social, politic...). As well, international migration is constantly an origin and a consequence of various forms of differences and not being considered a single isolated event. It is a process that is part of human history, with relevance from the 40s, with special attention in the 80s.

Thus, understanding the migration from a sociological perspective and its relationship with the expressed entrepreneurship is one of the main questions of this chapter. Given the characteristics of the object, the theoretical discussions of academic literature and the concepts built by researchers in the field, it can be said that the present study is bibliographical. Nevertheless, the work is original and necessary, enlightening important issues, raising discussions on the relationship of women's migration and entrepreneurship and also considering the case of entrepreneurial Brazilians in Lisbon, Portugal.

Despite the crisis that Brazil and other countries currently experience, migration is still happening. Faced with an economy that requires dynamism, the immigrant entrepreneurship is an investment that can offer clear advantages. Given the lack of investment and entrepreneurial initiatives, especially in the areas of greatest need in the host country market, immigrant entrepreneurial activities can represent an economic and social potential that seizes opportunities in unsatisfied market niches.

2. Migration: concepts and prospects

According to Evangelista and Carvalho (2001), based on Sandroni (1999), and Todaro (1979) migration means a selective process that affects individuals possessing certain economic, social, educational and demographic characteristics. The relative influence of economic and non-economic factors may vary not only between nations and regions, but also within populations and defined geographical areas, moving from one region (migration area) to another (migration area).

By changing the size and composition of populations (distribution by gender, age and composition of workforce), migration is one of the foundations of population dynamics, along with birth and mortality. A distinction is made between international migration (between countries) and internal migration (between regions). [Evangelista and Carvalho, 2001, p. 1-2]

Still according to the above authors, it is possible to bring to this discussion a varied typology of population movements, which will vary according to the size of the places of departure and arrival.

We will then begin from the macro space, of planetary dimension, which considers the migration between different countries. As a basis for this discussion, this work will make use of the determinations of the United Nations, presented by Friedrich and Schultz (2008), at the time that the authors reflect on the temporality of international migratory movements, dividing them into short and long periods. The UN recommendation defines a "long-term migrant" as a person who moves to a country other than of his or her residence for a period of at least a year (12 months), so that the country of destination effectively becomes his or her new country of usual residence. From the perspective of the country of departure the person will be a long-term emigrant and from that of the country of arrival the person will be a long-term immigrant [...] while a "short-term migrant" is a person "who moves to a country other than of his or her usual residence for a period of at least 3 months but less than a year, except in cases where the movement to that country is for purposes of recreation, holiday,

visits to friends and relatives, business, medical treatment or religious pilgrimage. For purposes of international migration statistics, the country of usual residence of short-term migrants is considered to be of destination during the period they spend in it. (United Nations, 1998 s.18 apud Fassmann, 2008, p. 22-23).

Thus, one can say that the periods considered as migration are those of four months or more, and that of less than three months period are movements linked to tourism, leisure and business, another element that can be used to reaffirm the tourism condition. For the short period, it is evidenced by the agreements between the various nations that for this period, citizens belonging to the agreed countries do not need visas to circulate on its premises. As an example, we have the agreement between the EU and Brazil.

In this sense, a dialogue is necessary with the elements that regulate these causes and motives, which are mostly linked to the capitalist reproduction of companies inserted in this system. Seeking this understanding, Ravenstein also presented, in the nineteenth century, what he called 'migration laws', as stated Pacheco and Patarra (1997, p. 29):

"Migration laws" initiated a long history of analysis of population movements, marked by an association between economic activities and spatial displacements of specific social groups. [...] It is also noted that migration occurs in areas near industrial and/or commercial centers, spreading in circles, involving more areas of origin, in a rural-urban movement (Pacheco and Patarra, 1997, p. 29-30).

As the authors pointed out, the migration process should be understood as a predetermined process with steps to be always taken in the same order.

One can understand that the migration laws were prepared, or described, by Ravenstein, during an historical phase in which the growing industrial capitalism needed an explanation to stimulate the process of workforce expansion. For the European reality at that time, that also represented the beginning of urbanization.

Contextualizing with the present moment, it can be stated that the passage quoted above is in vogue. It does not explain the exchange of the countryside for the city, but rather, the change of address occurred for reasons stimulated by the presence of new areas of development. In other words, the migration flows continue to meet the capitalism, causing the spare army of the workforce to find itself in constant circulation.

In the specific case of Brazil, the official data about the internal migration flows can be seen on the population censuses, but it is important to note that there are some obstacles that ultimately hamper the understanding of this process, discussed below.

According to Lacomba (2008) the movement of people represents, in all periods of history, an important factor in the (re) production of various groups. That is, the consequences of internal and international migration and return migration have been considered relevant to determine migration flows, and their role in the face of new integration opportunities in the labor market.

In recent decades, the phenomenon of migration has played a strong role on the world. Which justifies a great attention of researchers regarding the characteristics and the temporality of the flows, processes, targets and the way immigrants build their social relations in the country of origin and in the countries of destination, in the framework of what current literature calls transnationalism² (Siqueira, 2006; Castles, 2009; Portes, 1999).

International migration presents its different points, such as the levels of evolution, the disproportionality of the continuation and evidence in today's globalized world, known as migratory pressures (FNUAP, 1998). The phenomenon of globalization has brought social changes not only to the northern hemisphere but also to the southern hemisphere, which intensifies tensions for migration and new displacements.

In the 80s, Brazil was hit by a deep economic crisis, with high unemployment, rising inflation, lack of security, among others. It was referred to as the "lost decade", in contrast to the "economic miracle of the 70s" (Sales, 1995). Brazil, given the panorama of the crisis, with a recession policy, including measures such as credit constraints, high interest rates, cuts in public expenses, and changes in the administration of salaries, led the Brazilian society to be encouraged to restore democracy and restore the rights of the citizens.

The process of globalization in the 80s contributed to many migratory movements

aim the United States, which have an important pole of interest to Latin American immigrants and also many Brazilians (Martes, 1999). At that time, the country entered a process of economic restructuring, the result of internal changes, driven by a (re) democratization. On the other hand, there was the international scene, which contributed negatively to the economic growth possibilities.

It is worth remembering that this reality of low growth, high inflation and lack of investment meant that more young adults started to seek alternatives for their social reproduction.

In the early 90s, the country observed the stabilization of its economy and strengthening of its democratic process. What is now called economic stabilization is represented by the initial period of the "Plano Real" (Presidents Itamar Franco and Fernando Henrique Cardoso), where the currency gets stronger, the inflation decreases and the access to credit is increased, structuring a new phase of national growth.

Among the characteristics at that moment, the increase of investment in infrastructure by the state and the policy of (re) distribution of income started in the Lula government increased the number of people engaged with the consumers.

In mid-2006, economic crisis emerged, which spread to the United States, initially in the US housing sector, which caused unemployment of a large proportion of migrants working in construction. There was a reduction of working hours and the amount earned per hour worked, which consequently led to reduced earnings. The crisis also hit

² Transnationalism points to the existence of social relations that cross national boundaries, creating a constant stream of people, goods, money, information, culture and practices (Castles, 2009).

those who, charmed by the credit facilities, decided to invest their savings in the purchase of real estates in that country and could not then honor its commitments due to the increase in the amounts of financing installments. For many of these emigrants, returning to their countries became the only alternative.

The economic crisis has spread rapidly to the rest of the world, and its effects are still being felt in many countries (Siqueira, 2010; Siqueira and Santos, 2012). Subsequently, the economic crisis reached Europe in 2008, when US bank Lehman Brothers decreed bankruptcy - a respected financial institution founded in 1850. The bankruptcy of the bank led to a wave of economic recession around the world, affecting the European Union in particular.

According to Brussee (2005) the crisis began in the 90s, caused by the lack of balance in the financial market which led to a vast number of investors with rapid payback commitment. This led these investors to acquire subprime³ titles, settling a financial crisis marked by surplus that involves the intention to profit at the great risk of installments for real states.

As a result of the attacks in the USA on September 11, 2001, the US immigration law becomes a national security issue, a more restrictive law to the entry of foreigners in the country. In addition, the financial crisis that hit the US in early 2006, directly affecting the real estate industry, affected consequently

³ Subprime loans are loans granted to customers who did not have good credit rating in the US. "(O Globo, 2009). Available at: <<http://oglobo.globo.com/economia/relembre-que-subprime-3144507#ixzz3wcC7HQXG> 1996-2016> Access: Jan. 8 2016.

many jobs, reducing the gains, especially many immigrants working in construction. In this context, many decide to return to their home countries (Siqueira, 2009). The first point of emigration of Brazilians to other countries, on a larger scale, was the city of Governador Valadares, Minas Gerais. In the 1960s, some valadarenses migrated to the United States in search of jobs in the secondary labor market⁴.

During the 1970s, a network started to be formed and, in the second half of the 1980s, it was consolidated, becoming one of the largest emigration flows of Brazilians to other countries. Later, other municipalities have become part of this flow. In addition, other countries such as Portugal, Italy, Spain and England joined the list of destinations for Brazilians (Siqueira, 2008, 2009, 2010; Siqueira and Santos, 2012).

Portugal, the second most popular destination for Brazilian immigrants, has been going through a severe recession, with a drop in economic indicators in recent years. The country was accepted as a member of the European Common Market in 1986 and, with the creation of the European Union in 1991, also became a member. Later, in 1999, the country joined the euro. Benefiting from the various sources of funding that have multiplied, the Portuguese government

⁴ Typically, Brazilian emigrants were busy with tasks that, in addition to low pay, were associated with a low social status. In other words, Brazilian would occupy jobs that Americans, with the economy booming, were not unwilling to take – House cleaning and activities related to construction, for example. However, considering the favorable exchange rate of the dollar in relation to the Brazilian currency, it was possible to the emigrant to work in the United States, save money and send to their country of origin, achieving an improvement in their standard of living.

has invested in infrastructure and sought to increase the productivity of traditional sectors of its economy.

The 2008 economic crisis found the country in a vulnerable situation with low rates of economic growth and high need for external financing of its public debt (Nunan and Peixoto 2012; Aguiar-Confraria et al, 2012; Amaral, 2010; Mota et al, 2010). The unemployment rate increased from 8.1% in 2007 to 12.9% in 2011, and among the immigrants living in the country, the rate increased from 9.6% to 17.0% over the same period. According to INE⁵, the unemployment rate in the first quarter of 2013, considering all the economically active population, was 17.7%. Although not disclosed, the unemployment rate among immigrants can be deduced as higher compared to 2011 data.

As Padilla mentioned (2009 apud Padilla and Xavier, 2009), “globalization has contributed to make Europe one of the most important destinations for immigration, including from Latin America”. Martínez Buján (2003) also refers to the recent phenomenon of “Latin Americanization” of immigration in Spain; the “Latin Americanization” of migratory flows in the Iberian Peninsula is mentioned by Padilha, 2006, and the “Brazilianization” of flows in Portugal. This migratory movement belongs to the dynamics of capitalism, the universal production, distribution of work and the advance of new technologies in the areas of communication and means of transport, events that have provided a consolidation of

⁵ National Statistics Institute (INE), agency responsible for the production of official statistics in Portugal.

the transnational space (Iorio and Ferreira, 2015).

If the “birth” of the immigrant is designed by its workforce (Sayad, 1998), it can be said that the social circumstances of an immigrant doesn’t only suit to serve as a worker in the host country. According to Ferreira (2012), as a social being, the immigrant will establish a set of relations as part of its integration course, whether in the family formation through family reunification or not; new habits or group organization (their social practices) that have to be analyzed whenever the economic environment that legitimized the accommodation in the destination changes and the return intention or re-emigration emerges as viable in the migration project.

The migratory phenomenon can be perceived by the displacement of physical and social space of a collective group or individuals that can be duplicated by categories of social networks with the possibility of return⁶ (Sayad, 2000). Indeed, in migration, the roles carried out by immigrants throughout their individual and social life; adopt, continuously, a “temporary”⁷ sense of transitory nature.

The return is of course the desire and the dream of all immigrants, is how to recover the

⁶ The return is particularly in the denomination and design of emigration and immigration. It is impossible to have a local immigration since there has been no emigration starting from another location; it is impossible to stay anywhere that does not have the counterpart of an absence elsewhere (Sayad, 2000).

⁷ We use the term temporary displacement to distinguish between the state “back” to the country of origin or “stay” in the host country. The shift takes this duality experienced by immigrants / migrants when the time factor hinders decision-making for the return, that is, the greater the time in the destination country, the lower the possibility of return.

vision, the light the blind misses, but, as blinds, they know that this is an impossible operation. The only option they have left is then taking refuge in an uneasy nostalgia or longing for the land (Sayad, 2000).

According to Rivera-Sanchez (2013) the return migration is a process that is part of the migratory movement and not as a final migration cycle. In other words, the return to the country of origin is not “definitive and permanent” but a stage of migration as it generates changes in individuals and locals, results of experiences during emigration.

3. Crisis x resilience: the case of brazilian entrepreneurial women

Whereas the migration process is linked to the process of social reproduction, as seen previously, it can be soon seen that the survival of the individual is a paramount element in the actions that each citizen will develop. As poetically spoken by Gonzaguinha (1983) “A man makes himself suffer; their dreams are castrated; Their dream is their life; And life is work [...] And without their work; The man has no honor; And without their honor; They die, They kill...”

Thus, the life of a man is linked to the job, and in that sense, we can understand the role of the market as defining behaviors of individuals economically actives. In time, it should reflect that labor supply is an element that has variations in time and space.

Inside the main economic model of the West, capitalism is important due to some features that are crucial in the process of (re) production of individuals.

Watching the capitalism of yesteryear and today, the economic evolution arises, on the contrary, as the result of gross inequalities in

initiatives and influences (not to mention the inequality in wills acquired or conquered). The partners are not located only in a network of free trade agreements, but also in a network of forces relations. Well, domination, intentional or not, has become an integral part of modern analysis (Perroux, 1974).

Reflecting about the characteristics related to capitalism presented above, it is important to understand the direct relationship between economic times (high and low production). They are the ones who define the elasticity of the population mass that will be inserted in the labor market. It should be noted that the population that suffers most from this change in productive behavior is precisely the population of less education or with a status of immigration, given that these are citizens who tend to occupy the lower-paid and most vulnerable positions in the variations Marketplace.

These variations often result in moments of crisis to Mészáros, and are a result of the internal organization of capitalism that lives constantly in crisis and thus “will become, at one point, much deeper, in the sense of invading not only the world of global finance, but also all areas of our social, economic and cultural life” (Mészáros, 2009).

With this reflection, it is understood that the crisis is something that will come inevitably and according to the author, these crises are necessary so that can be a (re) arrangement of the production process. In the process, once again, the citizens who are in the lower layers of the means of production area are the most affected. Thus there is a need for (re) invention of the production process. However, this population is one

which has the greatest facility to undergo a resilience process.

Epistemologically, the word resilience is originally from Latin, the word *resilio* means returning to a previous state, and is used in engineering and physics, to define the capacity of a physical body to return to its normal state after having suffered a strain on itself. The classic experiments that yielded the discovery of resilience construct were performed from the application of certain pressure to a wire, in order to determine its elastic deformation; when ceased the pressure, the material assumed its original condition (Yunes, 2003 cited Barlach et al., 2008).

As we can observe, resilience, quite objectively, is characterized by the ability of individuals, objects and phenomena to recover and return to their original situation or starting point. In less wealthy populations, this ability is inherent in the pursuit of survival of individuals.

Thus, this phenomenon of resilience or elasticity can be understood as the ability of populations that are automatically discarded in times of crisis by big business that provide underemployment. Thus, the individual will have the ability to reinvent itself, primarily through his or her own “creativity”. Entrepreneurship comes, then, as a creative response of immigrants seeking better working conditions and consequently life conditions.

Although we understand that entrepreneurship is a positive thing and it is good for the immigrant women to bring it to a destination, it is important the distinction between “opportunity entrepreneurship” and “necessity entrepreneurship”. According to

Andreassi et al (2011), people can be led to entrepreneurship by two possibilities: need or opportunity. The reasons that set the entrepreneur are present in two different groups, respectively: entrepreneurs by necessity and opportunities for entrepreneurs. Entrepreneurs by necessity are a “portion of the population involved in entrepreneurship without any other job option” (Andreassi et al, 2011, p. 89). Entrepreneurs by opportunities are structured in a part of the population that is “involved with entrepreneurship not because they do not have another option to work, but because they have identified a business opportunity they want to pursue” (Andreassi et al, 2011, p. 89).

Therefore, discussing the issue of entrepreneurship among immigrant women, their experiences and business strategies in the labor market, refers mainly to the needs created by the distance of the motherland and also the needs in the host country, plus the skills brought from the experience in the country of origin.

There are several concepts of entrepreneurship. One of the most prominent in the literature is the *Global Entrepreneurship Monitor*, stating that entrepreneurship means “any attempt to create a new business or new venture, for example, an autonomous activity, a new company or expansion existing enterprise, by an individual, group of individuals or companies already established” (GEM 2004).

Other authors defend entrepreneurship as an innovation factor, since the entrepreneur creates income and innovates. Another perspective relates entrepreneurship to self-employment gathering qualities to

enterprising people with risk capacity, because they employ people on their behalf. In addition, features are attributed to entrepreneurs, such as vision capability, power of persuasion and leadership.

The entrepreneurial activity generates employment, creates and produces new markets. It results important for the economy of the destiny country, once a set number of people invest in the opening of the business itself, considering the economic environment that provides the opportunity for exploitation. As suggested by Malheiros (2008) and Oliveira (2004), immigrants come up with new ideas, designs and technologies, potentials that invigorate and boost some branches in some territorial spaces (Malheiros, 2008).

In the case of female immigrant entrepreneurship in Lisbon, it arises as an alternative to the segmented labor market in the host country. The entrepreneurship becomes a relevant part for the immigrant population as a form of labor integration, which possibly preserves the profession that they had in the country of origin, generates new jobs, and develop skills and competencies.

We found that entrepreneurial initiative appears to be related to human capital, term used for human capabilities and intelligence capacities of the people.

The human capital theory is based on two streams: one considers the importance of the worker that, when trained, brings personal benefits, as well as new features for the organization, since there is an increase in productivity. The other stream is associated with one's own investment in building their "personal capital" from acquired knowledge about something and also from experiences

(Stein, 2003). Indeed, both streams can be complementary, as they start from the individual effort to improve their knowledge of a particular activity.

But one can consider that the difference is that, in the latter, the individual intends, by itself, to seek their own improvements while the first is the organization that promotes the benefits. However, in the migration process, there may be new opportunities for immigrants, and they may even develop their personal capital. In the case studied, of immigrant women, we believe that human capital is related to people who invest their time and experiences in their own training, so they can find better working conditions in the place chosen to immigrate.

In this context, Amartya Sen adds human capabilities to the concept of human capital. For him, the human capital theory considers the human being as part of the social process and what matters is that the individual can participate in their own process of undertaking "as a way to extend the human capacity to live a free and dignified life" (Sen, 1999, p. 334 quoted in Stein, 2003).

By definition, entrepreneurs are people and because of this, the cultural aspects related to the formation of Brazilian immigrants in Lisbon influence differently the social context. According to the authors, the United States and some Western European countries, because they are more favorable to such factors as risk, competition and individualism, entrepreneurship reaches higher levels than in countries where these characteristics are not as pronounced, as in Japan. Brazil's case, despite being recognized as one of the most entrepreneurial countries

in the world today (Minniti, Bygrave; Autio, 2006 cited Fontenelle et al), there are still cultural barriers as the creation and maintenance of a new business.

Thus, even though the theory of human capital assume their importance to boost entrepreneurship, some biases may arise, depending on the cultural characteristics of individuals. For example, an individual with a strong educational background can be influenced to formal employment and discouraged to take risks, while another individual with less education have higher propensity to engage in business activities in search of social ascent, precisely to compensate for the lack of investment in formal human capital (Fontenelle et al., 2011).

Sean seems to agree with the second current, the one that considers that the individual can pursue their own development and why not, of entrepreneurship. When referring to the “human capacity” as an important aspect of fostering human capital, it seems relevant to us, since the individual may be responsible for the achievements and accomplishments. Thus, Sean says that human capital is associated not only with a generation of economic changes, but also to the promotion of social and political development.

When human capital is boosted, it is necessary the interest of immigrants and also opportunities for information access. Lisbon seems to be a place where there is some facility from a commercial point of view, so that immigrants are able to open their own businesses. Also, Brazilian entrepreneurs bring the knowledge and labor skills necessary.

In this sense, Yáñez said that for the development of new capabilities, it is necessary that people have prior knowledge:

Accessing the opportunity to acquire a specific job training, has as a prerequisite the prior existence of capacities in terms of knowledge acquired, primary social connections (family, relatives and neighbors), with which is possible to gain access to information about the opportunities (Yáñez, 2001).

For immigrant women to expand their capabilities in relation to the beauty salon market, for example, they need the knowledge and the mastery of skills such as cutting hair and doing nails. Without these skills, it is difficult to use the hairdresser craft instruments optimally and also in the right way. The interest is the main reason that drives immigrants to seek new skills and abilities. Most of them starts investing in human capital to realize that you need to develop other capacities of educational and job training. For this to happen, external factors are important, such as the environment where the immigrant woman lives, the community in which she belongs and her family. These aspects can consolidate the momentum to develop new learning capabilities.

It is considered important the geographic space where the immigrant operates because if it is an area that has a history of struggle for immigration, the feeling of acceptance and opportunities for them is even greater. Regarding the role of the family, Yanez (2001) states that the family can play an important role regarding the orientation of the decisions those immigrants have to take in relation to human capital. In this regard, Schultz (1985)

explains that human capital can be enhanced by experiences from working in both the place of origin and at the place where the immigrants are.

The value of human capital depends on the additional welfare derived from humans. Human capital contributes to labor productivity and business capacity, valuable for production, agricultural or not, for domestic production, for time and other resources that students allocate to their education and for migration in search of better job opportunities and better living conditions (Schultz, 1985).

Thus, investment in human capital provides benefits that have to do with a greater knowledge of the subject and its applicability in order to obtain information about the working life. Once immigrants learn and develop their skills, they begin to have results in their work, since they are implementing new learning. In addition, the interest in finding a job related to the experiences they have developed in the countries of origin further consolidates the bonds between them.

Putnam (2001) explains that, by analogy to human capital, social capital is related to the network: the features of social organization, which are the networks, norms and trust and that facilitate coordination and cooperation for mutual benefit. Social capital increases the benefits of investment in physical and human capital (Putnam, 2001).

It is in this sense that social capital refers to social relations, regarding actions taken by people to facilitate interaction and collaboration between them. For him, civic

participation is essential for the formation of social capital. He explains that such participation is already a form of social capital where the more developed are these systems in a community, the greater the possibility that members can cooperate with them, in order to all profit (Putnam, 1993 cited by Franco, 2001). Consequently, the more channels of participation are created, the more capital will be produced.

Cooperation is an important factor in this process, not only because people – in the case studied – the immigrant women, can help each other, but mainly because cooperation can contribute to the achievement of certain activities, promoting the collective well-being. To the extent that there is collaboration between people, immigrants can achieve benefits that contribute to improving the job situation.

Putnam (2001) mentions that the confidence, networks and standards are dimensions that make up the social capital, are interconnected and tend to be cumulative. He explains that when a collaboration happens between people at work, this fact provides not only the interaction but also the emergence and maintenance of trust. The author adds that social capital is a ‘public good’. In other words, it is not the private property of those who benefit from it, but these social ties that are being created to maintain an integrated community.

Also according to the author, the networks of civic engagement foster norms of reciprocity, to mutual aid: a person does a favor for another that later, on another occasion, will also do the same to that person.

A society which is based on generalized reciprocity is more efficient than a society plagued by mistrust. Trust is the lubricant of social life (Putnam, 2001).

It is clarified that if people rely on others to carry out the activities, there is a tendency for collaboration between them, beyond the norms of reciprocity and networks of civic engagement.

Thus, women entrepreneurs, to foster social capital, facilitate the “opening” of information and access conditions to open their own businesses. This feeling of confidence by the people of your surroundings also consolidate the courage to undertake, and are being created what is called engagement networks.

The neighborhoods (and some other networks of civic engagement) are a trusted source, but can also be a source of suspicion. Promoting confidence in people who are known and distrust those who are not from the neighborhood or are from outside the network (Levi, 2001).

Once people get to know each other, they start to establish ties of interaction between them and from there they develop actions together, which helps to strengthen that confidence. On the other hand, those not within these activities or who are not part of the Brazilian community in Lisbon, for example, can be perceived as a factor of suspicion. But by becoming closer, they begin to create friendship and cooperation ties, and trust begins to be developed and conquered.

This means that in areas where the participation of community members is relevant, it is more likely that there is a sense of commitment to the organization of cooperation and interaction. These kinds

of actions are based on trust and standards that result in the promotion of social capital. Entrepreneurial Brazilian Women living in Lisbon, for example, benefit from the integration between them.

Franco (2001) also agrees that social capital is related to the ability of cooperation between societies. However, the personal characteristics of the individuals do not generate social capital. Instead, the way of organizing this group of individuals in society may favor or not the emergence and reproduction of social capital (Franco, 2001). For example, if certain people come together to discuss issues affecting their neighborhood, such as lack of security due to the small number of police force, they write proposals and send them to local authorities, with distribution of responsibilities between them in the execution of action. This fact can then produce social capital.

But the French sociologist Pierre Bourdieu (2000) understands social capital from another perspective, as a totality of resources from a group that is in a durable network of relationships, with institutionalized knowledge and mutual recognition. For him, the social capital consists of the following criteria: 1) participation in a group; 2) the existence of relations of material and symbolic exchange; 3) the degree of institutionalization; and finally 4) the resources within that group.

Having a network of relationships or belonging to a group is an important aspect of building social capital. It specifies that this feature distinguishes it from other types of capital, such as the cultural and economic capital, based on the individual level. The author exemplifies that groups like the

aristocracy, the family and a select club are stable groups and therefore institutionalized, and its members wish to maintain these ties. This is how the capital is built and integrates people in maintaining social ties.

Therefore, the lasting social bonds and interaction between group members are both important. These exchanges form the second capital resource discussed by Bourdieu (2000), which take place on a voluntary basis, but that create lasting bonds in both institutional aspects, which provide rights and claims, and in the subjective feelings such as friendship, respect and recognition. These benefits are gained and redeemed based on solidarity among the members of the group.

We believe that immigrant women can contribute to building human and social capital, in the sense that each reinforces its activities, in addition to co-operate and interact with each other. Thus, the chances of social capital relates to human capital are more likely to be higher.

4. Final considerations

Immigrant entrepreneurship represents an investment that offers clear advantages in front of an economy that requires dynamism. Given the lack of investment and entrepreneurial initiatives, especially in the areas of greatest need in the host market, immigrant entrepreneurial activities can foster the economic and social potential.

Therefore, migration can be understood by structural factors (economic, political...), where individual or collective decisions are consolidated by the social capital that enables migrants contacts with family, friends and community of origin. When making connections between the country of origin and destination, and this junction, between migrants and non-migrants in space and time, they do lead the web of social roles incorporated into interpersonal relationships, which lead to define migration as a social product.

Human capital also contributes to the Entrepreneurship, while people increment their skills, and innovate in the market. With this, immigrants can expand their capabilities according to job opportunities that arise or that they themselves can go creating, as well as strengthening social ties and social capital.

In other words, the entrepreneurship of migrants is of fundamental importance in times of crisis, in which its elasticity, or rather its ability to reinvent itself is a strategy used both in places that will absorb them as wealth-producing elements, or especially when these return to their origin. Therefore, when returning, besides the capital, they also bring in their luggage of lived experiences, transformed into social capital and which are used in an entrepreneurial way in their new activity of capital reproduction.

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The Study of Permanent Migration of Economically Depressed Regions



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Abstract. Russia's development in the post-Soviet period is characterized by enhanced interregional socio-economic disparities, emergence of different kinds of troubled territories including depressed areas. The group of depressed regions includes ten constituent entities of the Russian Federation where economic recession is accompanied by reduction in the number of residents and the population outflow as a result of permanent migration. The purpose for this research is to identify the specific features of migration processes in economically depressed regions and elaborate proposals to optimize migration policy. The information base of the research is represented by official data of Rosstat. The article analyzes the processes of permanent migration in depressed areas, proposes periodization of migration process in the post-Soviet period and defines the reasons for the occurred changes. The author identifies net migration indicators and population decline in depressed Russian regions by flows of permanent migration: interregional and international between neighboring and distant countries. Analysis of migration exchange with foreign countries was conducted with the help of migration intensity indices previously used only in studies of domestic migration. The formation of the territorial structure of permanent migration flows was mostly based on proximity to specific countries and traditional ties between regions. The author identifies the peculiarities of migration in economically depressed regions. Population loss is the result of interregional migration. International migration is characterized by

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migration gain due to CIS countries. The study indicates positive consequences of migration flows from countries of the former USSR: restoration of population losses as a result of natural decline, interregional migration and emigration to developed far abroad countries. The immigration flow to depressed regions slows down the process of resident population ageing reducing gender disparity. The author point to a better migration situation in regions of the Central Federal district attractive to migrants from the neighboring countries. The current immigration situation is the result of economic and social issues in depressed regions. The solution to the problem of migration requires joint effort of federal and regional authorities.

Key words: Russia, economically depressed areas, permanent migration, migration outflow, migration intensity index, post-Soviet period.

Introduction. The development of Russia in the post-Soviet period was characterized by significant transformational processes caused by rapid transition to market economy and its subsequent development. One of the consequence of radical transformations which affected almost all spheres of the society was the strengthening of interregional socio-economic differentiation, the emergence of different kinds of problematic regions.

One of the types of such regions is depressed regions which, during the process of transition from planned to market economy were characterized by relatively low economic performance, although these regions was developed in the past leading in a number of industries in the country. The main criterion of depression is usually production decline especially in industry [5; 15]. Often entire constituent entities have clear signs of depression.

The emergence of centers of regional economic depression in the post-Soviet period is due to issues of regions' adaptation

to new economic conditions and declining competitiveness of "old" industries. Negative changes in regional economy determined the social consequences as "total territorial depression in the Russian version always has an extremely powerful social "lopsidedness": the destruction of economic potential is followed by a rapid breakdown of social potential, with these processes driving each other" [4, pp. 252–253]. Production decline was accompanied by rising unemployment, declining living standards, spread of negative social phenomena, as well as various demographic issues (increasing mortality, reducing fertility, migration loss), etc.

Some authors propose that negative net migration is considered as one of the criteria of depression [7]. From our point of view, the use of net migration loss (as well as population's reproduction record) does not fully reflect the nature of regional depression as a primarily economic phenomenon. The level and pace of regional development influence migration processes [20]; however,

out-migration may be explained by long-term negative changes in the economy of specific regions and the influence of other factors (environment, local conflicts, proximity of attractive regions, etc.). However, the extent, course and results of migration processes are important indicators of regions' socio-economic issues, as informative as GRP volume and performance, investment activity, etc.

Identification of depressed regions.

Researchers propose different criteria to classify a certain area as depressed. The most requested indicators for allocating depressed regions are a decline in industrial production, level of unemployment, and GRP per capita. In order to determine the list of depressed constituent entities of the Russian Federation and further study their migration situation we use the following criteria.

1. Decline in industrial production. The criterion reflects the idea of depressed regions as industrially developed but having experienced production decline. From our point of view, a decline in industrial production to a 70% level compared to 1991 is significant.

2. GRP per capita is significantly below the national average. The process of industrial decline during the Soviet period was not always accompanied by a decrease in GRP per capita. It refers to regions where the decline in industrial production was combined with the development of other economic sectors

(primarily Moscow, Saint Petersburg) or occurred on the background of significant population reduction (Kamchatka Krai). It is incorrect to include in the list of depressed regions a region with GRP per capita equaling or exceeding than the national average. The category of depressed regions includes constituent entities with GDP per capita less than 70% of the national average.

3. Unemployment rate is above the national average. Production decline in industrial regions is accompanied by rising unemployment. Since last few years were characterized by crisis phenomena in the economy accompanied by changes on the labor market, the unemployment rate was calculated on average for 2008–2015

4. Industrial production per capita. The threshold value was taken to be equal more than 30% compared to the average level of industrial production per capita in Russia. This indicator is necessary to separate the regions without the industrial focus of the economy neither in the past, nor now which traditionally belong to underdeveloped regions from the list of all constituent entities of the Russian Federation (republics of the North Caucasus, Altai, Kalmykia, the Jewish Autonomous oblast).

According to the proposed methodology, the category of depressed regions in 2011–2015 includes ten constituent entities of the Russian Federation (*Tab. 1*). Depressed regions do not form large adjacent areas

Table 1. Economic and social status of depressed Russian regions*

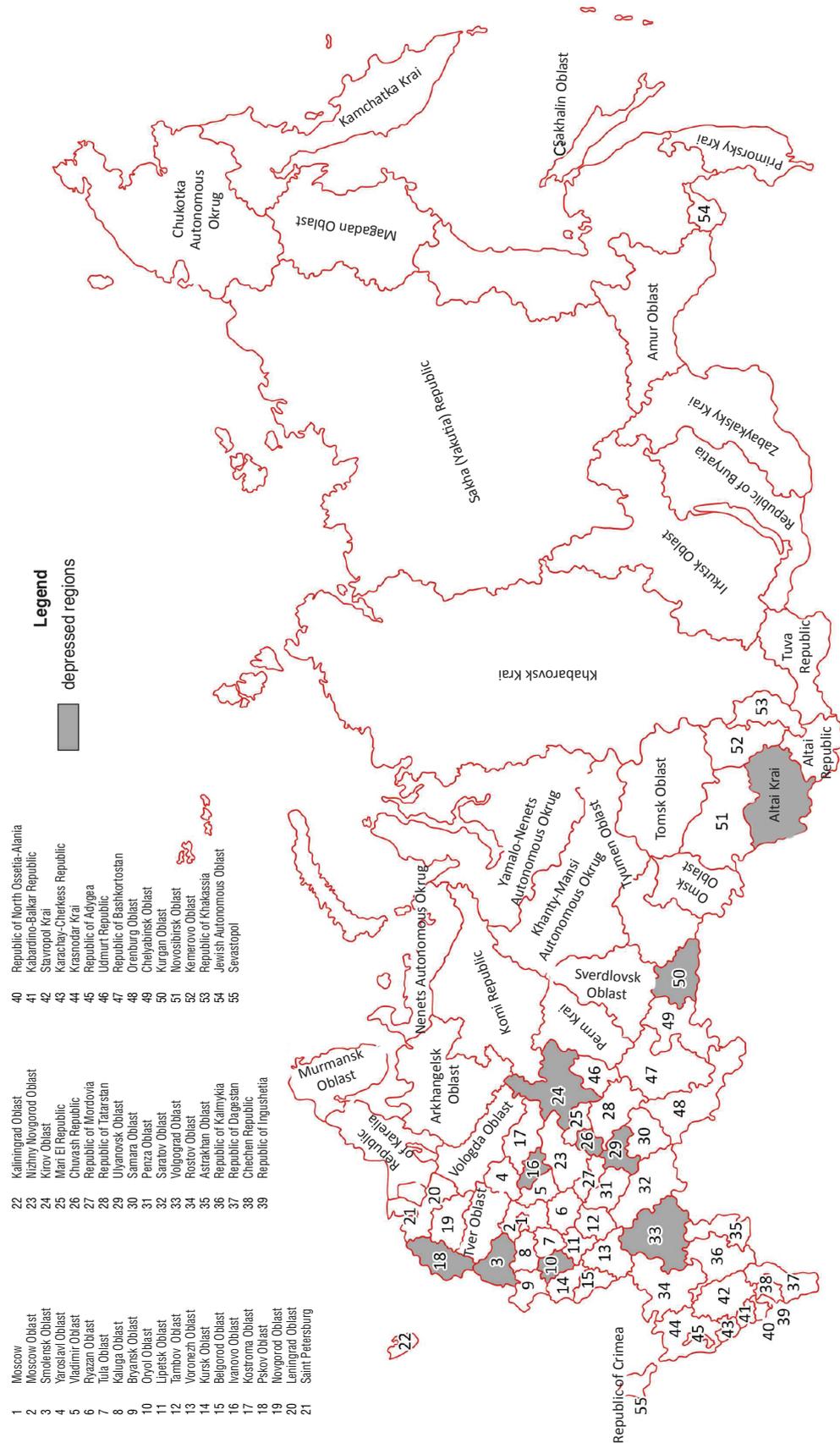
| Depressed region | Industrial production in 2015 compared to 1991 (in comparable prices), % | Industrial production per capita in 2015, in current prices | | GRP per capita in 2015, in current prices | | Average unemployment rate for 2008–2015 | | Population | | |
|------------------|--|---|------------------------------|---|------------------------------|---|--|--------------------------|--------------------------|-----------------|
| | | thousand rubles | in % to the national average | thousand rubles | in % to the national average | in the region, % | how much more than the national average, % | in 1991, thousand people | in 2015, thousand people | 2015 to 1991, % |
| Ivanovo Oblast | 33.9 | 114.3 | 34.1 | 165.5 | 37.2 | 6.44 | 0.15 | 1293.9 | 1033.4 | 79.9 |
| Oryol Oblast | 55.3 | 147.4 | 44.0 | 269.9 | 60.6 | 6.69 | 0.40 | 896.7 | 762.5 | 85.0 |
| Smolensk Oblast | 67.4 | 228.5 | 68.1 | 267.3 | 60.1 | 6.50 | 0.21 | 1158.1 | 961.7 | 83.0 |
| Pskov Oblast | 65.8 | 133.9 | 39.9 | 204.8 | 46.0 | 7.95 | 1.66 | 843.5 | 648.7 | 76.9 |
| Volgograd Oblast | 59.5 | 285.0 | 85.0 | 288.2 | 64.7 | 7.48 | 1.19 | 2631.0 | 2551.7 | 97.0 |
| Chuvash Republic | 56.7 | 135.8 | 40.5 | 202.4 | 45.5 | 7.31 | 1.02 | 1338.5 | 1237.4 | 92.4 |
| Kirov Oblast | 53.2 | 165.9 | 49.5 | 212.5 | 47.8 | 7.28 | 0.99 | 1650.3 | 1300.9 | 78.8 |
| Ulyanovsk Oblast | 57.6 | 209.3 | 62.4 | 239.2 | 53.7 | 6.59 | 0.30 | 1416.1 | 1260.1 | 89.0 |
| Kurgan Oblast | 54.6 | 123.1 | 36.7 | 207.6 | 46.6 | 9.41 | 3.12 | 1106.1 | 865.9 | 78.3 |
| Altai Krai | 64.2 | 122.1 | 36.4 | 206.7 | 46.4 | 8.46 | 2.17 | 2647.1 | 2380.8 | 89.9 |

* Calculated according to: *Russian regions. Socio-economic indicators. 2016: statistics book*. Moscow: Rosstat, 2016. 1326 p.; *Federal State Statistics Service*. Available at: http://www.gks.ru/wps/wcm/connect/rosstat_main/rosstat/ru/statistics/accounts/; http://www.gks.ru/wps/wcm/connect/rosstat_main/rosstat/ru/statistics/enterprise/industrial/#

throughout the country being mainly situated in the European part of Russia. The industry in these regions was unable to shift towards market economy unharmed due to objective reasons: predominance of “old” industries, entry to the market of the country’s competitors from abroad, reducing state demand, broken economic links with former Soviet republics. This was combined with absence in depressed Russian regions of explicit factors able to make the transition less harmful (export-oriented resource industries, capital status, etc.). The selected depressed regions are concentrated within the Volga and Central (3), Southern, Northwestern, Ural, Siberian (1) federal districts (*Fig. 1*).

Migration processes have their own specific features in depressed regions and require detailed consideration. There is experience of studying migration processes in the group of regions selected by similar issues of socio-economic development: border [8], earlier developed [9], oil and gas [13] etc. The consequence of the economic decline in depressed regions was population outflow resulting in permanent migration. The study of migration in depressed regions was carried out only at the level of some constituent entities [1; 2; 16]. A number of studies which review population issues associate the phenomenon of regional depression with different performance of the processes of

Figure 1. Depressed Russian regions



reproduction or migration [6], for which the use the concept of “regions, depressed relative to net migration”. There are also examples of regional demographic studies where subsidized regions are considered depressed [3].

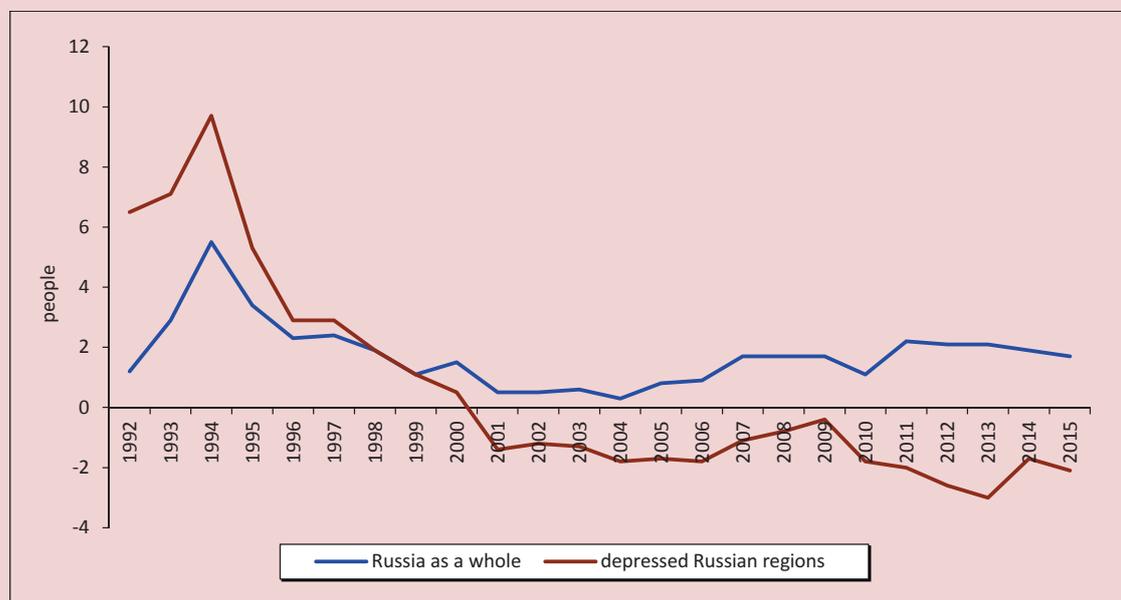
Migration flows and migration ties in depressed regions. Sources of information on permanent migration in depressed regions were data from the current record presented in statistics books and recalculated taking into account population census in depressed constituent entities. During the post-Soviet period, there were noticeable fluctuations in the recorded amounts of domestic and international permanent migration due to a change in migration flow and repeated revision of the migration registration procedure. This made useless the performance analysis of absolute values and indicators of migration intensity in regions [12]; however our research results have not been fundamentally affected since the change were related to all Russian regions and migration rates were calculated in general for a long-term period.

Population loss in depressed regions over the post-Soviet period was significant. During 1992–2015, the population of depressed Russian regions decreased from 15.0 to 13.0 million people despite net migration at the end of the 20th century. Natural population decline played a major role in the population decline during the post-Soviet period.

Performance of migration processes in depressed constituent entities in the post-Soviet period was uneven. In the 1990-s, depressed regions had higher migration rates than the national average (*Fig. 2*). During this period, most regions in European Russia experienced an unprecedented migration growth caused by forced migration from unstable regions of the former USSR, migration from the North. We believe that a significant part of migrants arriving in depressive subjects of the Russian Federation during the 1990-s were those who for decades had been leaving these regions, as well as their relatives, i.e., migration was largely return in nature. This is possible when people keep in touch with the region of departure and local residents who would help them settle. Such resettlement could occur in least economically prosperous regions. Thus, amid stress migration depressed regions which have been population donors for many years could count rely on migrant influx.

By the early 2000s, the migration potential of the Russian population was largely exhausted. There was a gradual transformation of politically motivated international migration into economically motivated migration of compatriots and representatives of the titular nations of the CIS [11]. However, depressive Russian regions having no distinct pull factors began to lose the competition for main migrant flows which as a result were channeled to other Russian

Figure 2. Migration gain (loss) per 1000 people in depressed Russian regions during the post-Soviet period*



* Compiled from: *Rosstat unified interdepartmental information-statistics system*. Available at: <https://www.fedstat.ru>; *Russian statistics yearbook: statistical compilation*. Russian State Statistical Committee. Moscow: Logos, 1996.

regions. In addition, the economic recovery in Russia in the 2000-s was accompanied by an increase in population outflow from depressed to more migration-attractive regions. Migration loss in depressed Russian regions in internal migration is not compensated by the inflow of migrants from neighboring countries. In the Smolensk Oblast, migration loss became apparent in 1999, in the whole group of regions of this type – since 2001. Since that time, the group of depressed regions annually loses population as a result of permanent migration, necessitating a more detailed consideration of migration

processes in 2001–2015. During this period, the population loss in depressed regions as a result of migration, according to current records, amounted to 339.3 thousand people. Net migration of the population in depressed regions formed as a result of interaction with other Russian regions and near and far-abroad countries.

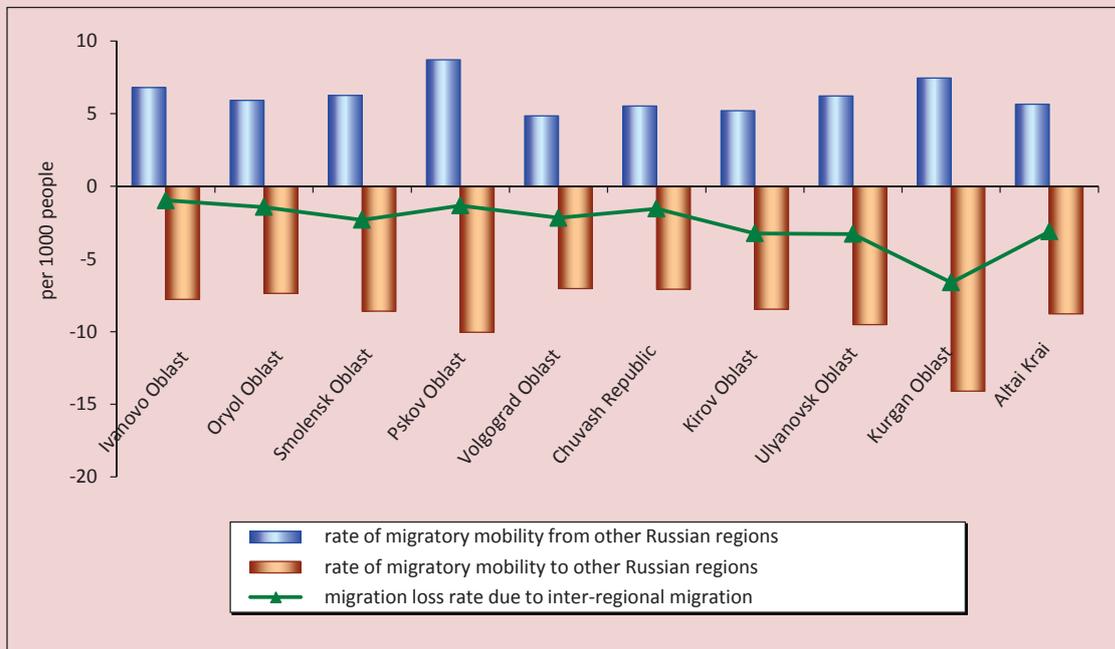
The comparison of migration and regions' population helps allocate Russian regions with the highest intensity of different migration flows during 2001–2015. The intensity of migratory departure in the group of depressed regions to other Russian regions

is higher than the national average, although it significantly differs by region. In turn, almost all the regions under review are characterized by relatively low intensity of interregional migration by arrival. The exception is the Pskov Oblast where the intensity of arrival from other Russian regions is slightly higher than the national average. The lowest rate of migration loss as a result of interaction with other regions is registered in the Ivanovo, Pskov, Oryol oblasts (*Fig. 3*). These Russian regions are located near metropolitan areas – the main centers of migrant attraction. Here constant migration to Moscow and Saint

Petersburg may be partially replaced with temporary forms [17]. The most significant population loss as a result of migration to other Russia regions was in the Kurgan, Ulyanovsk, Kirov oblasts and in Altai Krai. It should be noted that the study of migration conducted on the basis of population census indicate the under-record of migration from depressed regions [19].

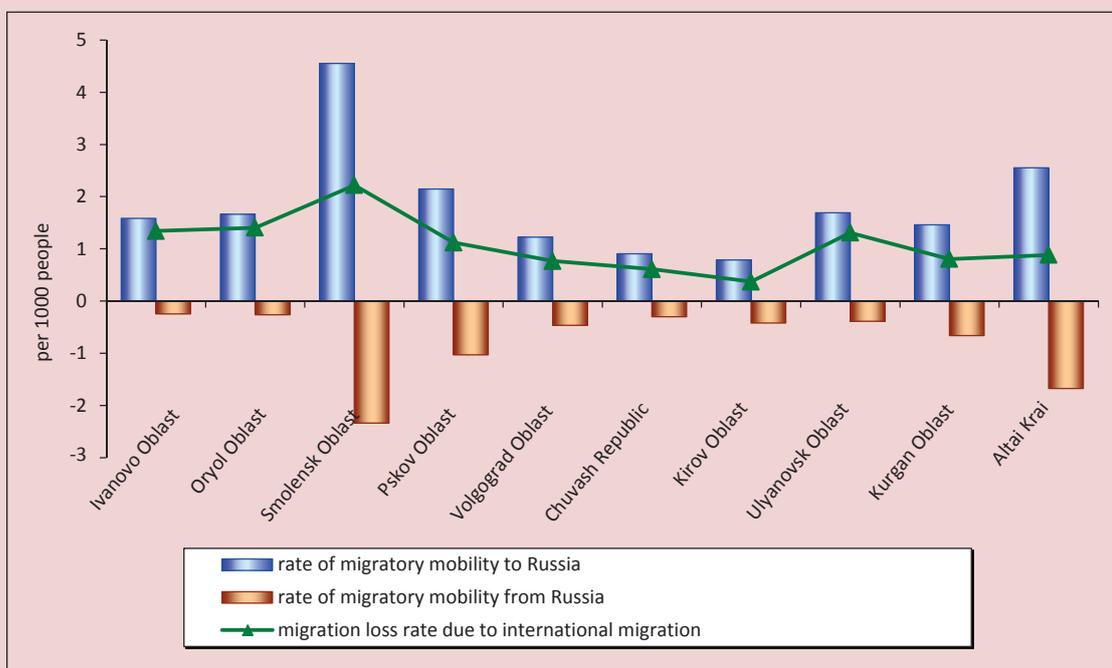
Compared to the rest of Russian regions, depressed regions demonstrate lower intensity of international migration. The lowest intensity of migration from abroad is marked in regions remote from the country’s borders

Figure 3. Inter-regional migration intensity in depressed Russian regions in 2001–2015*



* Compiled from: *Population and migration of the Russian Federation in 2015: statistical bulletin*. Moscow: Rosstat, 2016; Rosstat unified interdepartmental information-statistical system. Available at: <https://www.fedstat.ru>

Figure 4. International migration intensity in depressed Russian regions in 2001–2015*



* Population and migration in the Russian Federation in 2015: statistical bulletin. Moscow: Rosstat, 2016; Rosstat Unified Interdepartmental Information-statistical System. Available at: <https://www.fedstat.ru>

and major centers attractive for migrants (in the Kirov Oblast and Chuvash Republic). The population of border depressed Russian regions (Smolensk and Pskov oblasts, Altai Krai) is more involved in international migration (Fig. 4).

The highest migration growth due to permanent international migration is marked in the regions of the Central Federal district. The extent and territorial structure of migration with foreign countries also differ significantly between Russian regions as they are determined by the geographical position and traditional regional ties.

Migratory exchange of the majority of depressed Russian regions with far-abroad countries in the 2000-s was negative. The maximum population loss in the exchange with foreign countries is recorded in Altai Krai mainly due to emigration of ethnic Germans to West Germany. Some regions, primarily the Smolensk oblast, have insignificant migration gains in the exchange with far-abroad countries (Tab. 2).

The main volume of migratory exchange in international migration in all depressed regions accounts for neighboring countries. As for individual Russian regions, almost

Table 2. Permanent migration flows in depressed Russian regions in 2001–2015, people*

| Depressed region | Number of immigrants | | | Number of emigrants | | | Migration gain (loss) in relation to | | |
|-----------------------|----------------------|---|----------------------|---------------------|---|--------------------|--------------------------------------|--------------------------------------|-----------------|
| | from other regions | from CIS and Baltic countries and Georgia | from other countries | to other regions | to CIS and Baltic countries and Georgia | to other countries | other regions | CIS and Baltic countries and Georgia | other countries |
| Ivanovo Oblast | 112 755 | 25 164 | 1 118 | 128 766 | 2 862 | 1 181 | -16 011 | 22 302 | -63 |
| Oryol Oblast | 72 705 | 20 109 | 330 | 90 352 | 2 485 | 709 | -17 647 | 17 624 | -379 |
| Smolensk Oblast | 95 911 | 62 882 | 6 846 | 131 377 | 29 668 | 6 078 | -35 466 | 33 214 | 768 |
| Pskov Oblast | 93 381 | 21 849 | 1 168 | 107 529 | 8 986 | 2 027 | -14 148 | 12 863 | -859 |
| Volgograd Oblast | 192 109 | 46 068 | 2 464 | 278 099 | 8 468 | 9 825 | -85 990 | 37 600 | -7 361 |
| Chuvash Republic | 106 453 | 14 835 | 2 633 | 136 073 | 3 112 | 2 622 | -29 620 | 11 723 | 11 |
| Kirov Oblast | 110 801 | 15 833 | 947 | 179 618 | 7 026 | 1 869 | -68 817 | 8 807 | -922 |
| Ulyanovsk Oblast | 124 748 | 31 298 | 2 630 | 190 573 | 5 173 | 2 533 | -65 825 | 26 125 | 97 |
| Kurgan Oblast | 106 822 | 20 575 | 370 | 201 733 | 8 017 | 1 424 | -94 911 | 12 558 | -1 054 |
| Altai Krai | 213 025 | 89 189 | 6 966 | 330 109 | 32 620 | 30 341 | -117 084 | 56 569 | -23 375 |
| All depressed regions | 1 228 710 | 347 802 | 25 472 | 1 774 229 | 108 417 | 58 609 | -545 519 | 239 385 | -33 137 |

* Compiled from: *Population and migration in the Russian Federation in 2015: statistical bulletin*. Moscow: Rosstat, 2016; Rosstat Unified Interdepartmental Information-statistical System. Available at: <https://www.fedstat.ru>

all of them have positive net migration in the exchange between all CIS countries (with the exception of a small migration loss in the exchange of Altai Krai with Belarus). Analysis of the available data on the territorial structure of migration during 2004–2015 demonstrates that the main source of migration gain for the Ulyanovsk, Volgograd, Pskov and Ivanovo oblasts is Uzbekistan and it is typical for the whole Russia. For two depressed Russian regions – the Kurgan Oblast and Altai Krai – the main migration donor is Kazakhstan, the Chuvash Republic, for the Orel and Kirov oblasts – Ukraine, for the Smolensk oblast – Belarus. Since 2014,

Ukraine has been the main source of migrants for all depressed regions of the European Russia.

However, the share of migrants from selected countries in the total migration of each region does not fully reflect the real intensity of existing migratory flows as it depends on the population of the countries. For example, it is obvious that migration indices and the share of Uzbekistan in migration turnover will be higher than similar indicators for Moldova as the population of these countries varies considerably. To eliminate the influence of factors such as population of the territories and the absolute

Table 3. Countries with high IMTI values in exchange with depressed regions in 2004–2015*

| Depressed region | IMTI by immigration higher than 10 | IMTI by emigration higher than 10 |
|------------------|---|-----------------------------------|
| Ivanovo Oblast | Armenia, Moldova | – |
| Oryol Oblast | Armenia, Kyrgyz Republic, Moldova | – |
| Smolensk Oblast | Belarus | Belarus |
| Pskov Oblast | Armenia, Moldova, Estonia | Estonia |
| Volgograd Oblast | Armenia | Armenia |
| Chuvash Republic | Armenia, Tajikistan | – |
| Kirov Oblast | Armenia | Armenia |
| Ulyanovsk Oblast | Armenia | – |
| Kurgan Oblast | Kazakhstan, Kyrgyz Republic | Kazakhstan |
| Altai Krai | Kazakhstan, Kyrgyz Republic, Tajikistan | Kazakhstan |

* Compiled from: *Russian demographic yearbook, 2004: statistical book*. Moscow: Rosstat, 2005; *Russian demographic yearbook 2015: statistical book*. Moscow: Rosstat, 2015.

extent of migration flows on the indicator of migration intensity is possible through the use of Indices of Migrant Ties Intensity (IMTI), which are calculated by the formulas:

$$IMTI\ em = \frac{B_{ij}}{\sum B_{ij}} : \frac{S_i}{\sum S_i}$$

$$IMTI\ imm = \frac{P_{ij}}{\sum P_{ij}} : \frac{S_i}{\sum S_i}$$

where IMTI imm – index of migrant ties intensity (by immigration); IMTI em – index of migrant ties intensity (by emigration); B_{ij} – number of emigrants from region j to country i ; P_{ij} – number of immigrants in region j from country i ; S_i – average population of country j for the period; $\sum B_{ij}$ – total number of emigrants from depressed regions in the country under review; $\sum P_{ij}$ – total number of immigrants to depressed regions from the countries under review; $\sum S_i$ – total population of the countries under review [10].

This index is applied in the studies of internal migration to assess the intensity of relations between Russian regions [14]. We calculated IMTIs for migratory interaction of depressed regions with the CIS and Baltic countries, Georgia, the United States, Germany, and Israel. High indicators by immigration and emigration (more than 10) are typical for migration exchange of depressed regions with individual CIS countries (Tab. 3), as well as the exchange of the Pskov Oblast with Latvia and Estonia. Analysis of migration relations with the CIS countries demonstrated increased IMIT values for the Chuvash Republic and Israel. In most cases, high IMTIs are explained by the geographical proximity of the regions and specific countries and a low level of socio-economic development even compared to

depressed Russian regions, as well as small population size of some foreign countries.

Main conclusions. Depressed regions are traditionally assessed as problematic compared to more successfully developing Russian regions. It is obvious that a decline in economic indicators amid depression must increase population outflow as a result of permanent migration. The main characteristic of all depressed Russian regions and at the same time one of the manifestations of economic depression is the population decline as a result of internal migration. However, during the post-Soviet period, this trend was accompanied by an increase in stress and return migration after the collapse of the Soviet Union in the 1990-s and economic migration in the 2000-s. Being an part of the country attractive to migrants from the neighboring countries, depressed Russian regions during the post-Soviet period attracted migrants from the CIS countries. Amid reducing population in depressed Russian regions, immigrants are an important source of additional workforce for such regions, which would partially compensate, at least quantitatively, for the population decline caused by natural decline, interregional migration and emigration to developed far-abroad countries. The immigration flow to depressed regions provides significant quantitative results and slows down the process of resident population ageing reducing

gender disparity. The proximity to certain countries and traditional regional ties were of decisive importance in the formation of the territorial structure of permanent migration in the 2000-s.

It is possible to identify more favorable migration situation in the regions belonging to the Central Federal district, which, in our opinion, is due to the fact that depressed Russian regions situated close to the capital region are more attractive to migrants from neighboring countries. Immigrants may consider depressed regions as transit territories for further movement in Russia. In addition, the proximity of some depressed regions to the Moscow agglomeration makes it possible to replace permanent migration with temporary forms of labor migration.

The current situation in the sphere of migration is a consequence of problems in the economic and social sphere of depressed regions. While the existing regional disparities are preserved, part of the population of depressed Russian regions will inevitably be focused on being engaged in processes of permanent or temporary migration. For this reason, activities carried out by the authorities of depressed Russian regions aimed at reducing migration outflow of the youth and people of employment age do not always produce the expected results. The implementation of the migration policy in depressed regions should be linked to measures

of socio-economic development of these regions; the main goal should be to ensure the quality of life of the local population primarily by increasing wages, creating new jobs, and developing social infrastructure. At the same time, administrative mechanisms impeding temporary labor migration from depressed regions (restriction of registration and social services outside the region of residence, etc.) should be minimized. It is also necessary to consider the mechanisms of reallocating funds received by the budgets of the host regions from migrants' labor activity in favor of the regions providing the population of depressed regions.

A relevant aspect of the migration policy for depressed regions is the regulation of immigration from neighboring countries, primarily from the Eurasian Economic Union (EAEU). The obvious consequences of this migration manifested in both depressed and

other Russian regions include the reduction in labor costs and requirements to the working conditions. Replacement of local workers with foreign ones leads to the degradation of labor market of depressed regions where the already high unemployment rates increase migration outflow. Workers from depressed Russian regions are in competition with foreigners on the labor market of both their "own" regions and regions which are centers of attraction of temporary and permanent migrants across the country (capital, oil and gas regions, etc.); employers prefer foreign, often illegal, migrants [18].

Addressing migration and socio-economic issues of depressed Russian region is impossible without federal authorities. Certain measures to regulate migration in the regions are informational and promotional and must be supplemented with economic and administrative measures.

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