RUSSIAN ACADEMY OF SCIENCES
FEDERAL STATE BUDGETARY INSTITUTION OF SCIENCE
VOLOGDA RESEARCH CENTER OF THE RUSSIAN ACADEMY OF SCIENCES

ECONOMIC AND SOCIAL CHANGES:

FACTS, TRENDS, FORECAST

Vol. 11, no. 4, 2018

The journal was founded in 2008

Publication frequency: six times a year

According to the Decision of the Ministry of Education and Science of the Russian Federation, the journal *Economic and Social Changes: Facts, Trends, Forecast* is on the List of peer-reviewed scientific journals and editions that are authorized to publish principal research findings of doctoral (candidate's) dissertations in scientific specialties:
08.00.00 – economic sciences;
22.00.00 – sociological sciences.

The journal is included in the following abstract and full text databases:
Web of Science (ESCI),
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RePEc,
Ulrich's Periodicals Directory,
VINITI RAS,
Russian Science Citation Index (RSCI).

The journal's issues are sent to the U.S. Library of Congress and to the German National Library of Economics.

All research articles submitted to the journal are subject to mandatory peer-review.
Opinions presented in the articles can differ from those of the editor. Authors of the articles are responsible for the material selected and stated.

ISSN 2307-0331 (Print)
ISSN 2312-9824 (Online)

Internet address: **http://esc.vscc.ac.ru**

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.

The main purpose of the journal is to provide the scientific community and practitioners with an opportunity to publish socio-economic research findings, review different viewpoints on the topical issues of economic and social development, and participate in the discussion of these issues. The remit of the journal comprises development strategies of the territories, regional and sectoral economy, social development, budget revenues, streamlining expenditures, innovative economy, and economic theory.

Founder: Vologda Research Center of the Russian Academy of Sciences

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

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

MAIN RESEARCH DIRECTIONS

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

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

INTERNATIONAL TIES AND PROJECTS

In order to integrate scientific activities of the Institute's scholars into global research area, international scientific conferences are held on a regular basis; they result in cooperation agreements with different scientific establishments:

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

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

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

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

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

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

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

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

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

NEW PUBLICATIONS OF VolRC RAS

Ilyin V.A., Povarova A.I. *Public Administration Efficiency. 2000–2015. Contradictory Outcomes – an Expected Result: Monograph*.

While Analyzing the Past, to Think about the Future. Under the scientific supervision of Doctor of Economics, Professor V.A. Ilyin.

Ilyin V.A. *Public Administration Efficiency: Chief Editor's Point of View.*

Strategy and Tactics of Implementation of Socio-Economic Reforms: Regional Aspect: Proceedings of the Seventh Research-to-Practice Conference, Vologda, Russia, December 17–19, 2015.

Shabunova A.A., Guzhavina T.A., Dement'eva I.N., Kozhina T.P., Lastovkina D.A., Afanas'ev D.A. *Regional Civil Society: Development Dynamics: Monograph.*

Global Challenges and Regional Development in the Mirror of Sociological Measurement: Proceedings of the Online Research-to-Practice Conference. Vologda, March 14–18, 2016.

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DOI: 10.15838/esc.2018.4.58.1
UDC 323(470), LBC 60.3(2Rus)3

Pension Reform and Exacerbating Issues of the Legitimacy of the Government

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Abstract. In the first months of the new political season, which began after the March 2018 Presidential Election, the Government adopted and is currently discussing measures that received a very negative response from Russian society and many experts, especially against the background of election campaign promises and long-term goals of internal development that Vladimir Putin set out in his Address to the Federal Assembly on March 1, 2018. The greatest public response was caused by a draft law on raising the retirement age, although it should be noted that it is not the only one in the list of controversial administration decisions that bring to the fore the issue of compliance of state policy with the national interests or, in other words, the legitimacy of the government. The paper discusses scientific, theoretical and historical foundations of the legitimacy of the government. We present data on Russian national and regional studies of public opinion, indicating Russians' growing discontent with the first steps of the Government in the new political season coinciding with Putin's last (according to the Constitution of the Russian Federation) presidential term. We provide calculations and opinions of experts from various

For citation: Ilyin V.A., Morev M.V. Pension reform and exacerbating issues of the legitimacy of the government. *Economic and Social Changes: Facts, Trends, Forecast*, 2018, vol. 11, no. 4, pp. 9–34. DOI: 10.15838/esc.2018.4.58.1

fields of science and social activities proving the ill-considered and contradictory management decisions of recent months, which create conditions for a potential decrease in Russians' trust in the President and, in general, for the aggravation of the socio-political situation in the country.

Key words: legitimacy of the government, pension reform, social stability, public opinion.

August 8, 2018, representatives of a number of patriotic, veteran, parental, and trade union organizations of Russia made an official address to the President of the Russian Federation in their letter which was signed by active figures of the public, science, culture, and mass media; in the letter, they urged Vladimir Putin **"to denounce the course that is leading the country to an abyss"** and **"to dismiss the most odious figures of the Government, Presidential Administration, Central Bank, State Duma, Federation Council and other public authorities of the Russian Federation and subjects of the Russian Federation, who help implement the policy of Russia's geopolitical opponents"**[1].

The very fact that such a document has been conceived largely reflects the situation of the first months of domestic political life after the election of the President of the Russian Federation. We recall that this period was marked by the reforms and draft laws on raising the retirement age, increasing fees for passports, for registration of vehicles and for the purchase of goods in foreign online stores. Draft laws on raising taxes on tobacco and alcohol products, and utility tariffs in 2019 are under discussion. At the same time, fines for abuse of the right to hold rallies were introduced...

One of the high-profile events was the decision to increase the value added tax (VAT) from 18 to 20%, although, according to the Public Opinion Foundation (FOM), 34% of Russians believe that the increase in VAT will bring the economy more harm than good (19% held the opposite point of view); 57% of citizens believe that this reform will adversely affect their personal well-being (a different opinion is expressed by only 4% of respondents)[3]. According to experts, "the value added tax is one of the most convenient for the government, as it relates to easily administered (i.e. collected) taxes. No doubt, its raising is painful for business. And, of course, business will try to shift the weight of the tax increase to consumers, i.e. to citizens, by integrating the increase in the prices of goods and services. And, of course, this cannot but increase inflation and lower people's living standards, and not once and not for a short time"[4].

Other laws were adopted – less well-known to the general public, but no less important for peoples' living standards and the quality of life.

> In Russia, very little attention is paid to the well-being of the economy. And a lot of attention is paid to the well-being of the government. And the government feels good when it can collect more taxes. So they don't have enough money, then they will collect more. It's perfectly natural for them... **As long as people don't take to the streets, the government can charge them more and more... But looking for money in an empty pocket is generally a bad option. Money should be made and not looked for. We need to develop the economy so that it brings more taxes due to the growth of the tax base**[2].

[1] The letter is published on the website of the information portal RIA "Katyusha" (Available at: http://katyusha.org/view?id=10398). The address to the President was signed by 22 people, including well-known representatives of the public, *science, culture and the media. Full text of the letter is given in Appendix 1.*

[2] Interview with economist A. Movchan, director of the economic policy program at Carnegie Moscow Center, July 5, 2018. *Official website of Carnegie Moscow Center.* Available at: http://carnegie.ru/publications/76757

[3] *About VAT increase: FOM press release from July 2, 2018.* Available at: http://fom.ru/Ekonomika/14058

[4] Byalyy Yu. Pension farce-2018. *Information Agency "Krasnaya vesna"*, 29.06.2018. Available at: https://rossaprimavera.ru/article/365b3ffa?gazeta=/gazeta/284

All these initiatives do not really make any economic sense. They pursue geopolitical and, I would say, cannibalistic goals, because the owners of money, the prototype of the world government, set the task of reducing population and especially the population in the Russian Federation, because it is necessary to "clean" our vast territory in today's shortage of free territories. And, of course, the world oligarchy is interested in Russia's natural resources. So everything is very logical and has nothing to do with any economic or financial considerations[5].

In particular, on July 28, State Duma deputies approved in the final reading the draft law "On the creation of special administrative regions" (in fact, these are offshore zones near Vladivostok and the Kaliningrad Oblast, in which there is a zero rate on income received by an international company); on July 30, the President signed the law "On the abolition of fines for non-return of foreign currency earnings" (in fact, it is the abolition of the pre-existing requirement for the return of foreign currency earnings, or, as experts note, "you can draw an analogy: I drive a car. Speeding fines were abolished, and it turns out that this is not the abolition of fines, but the abolition of traffic rules on the permissible speed"[6]).

The above-mentioned steps the Government made in the first months of Putin's fourth presidential term so far are poorly consistent with his election promises and fully explain the fact that in recent months people's support of the head of state sharply decreased, and a wave of protests has swept across the country[7].

MGIMO Professor **V. Solovey**: "Every day I receive several letters from correspondents from provincial Russia. They describe the same thing: "We held a rally against the pension reform. We took to the streets for the first time in ten years. There were representatives of all parties. And most importantly, they say: we are very angry. And we won't calm down. And we're going to get angrier"[8].

According to the VTsIOM and Levada-Center, in April – May 2018, the level of approval of the President was about 80% *(Tab. 1)*. In July – August, it declined to 63–67%. The share of people willing to take part in protests at the beginning of the year was 8–16%, in the middle of the year – 28% (an almost two-fold increase according to VTsIOM and four-fold according to Levada-Center).

Similar dynamics of public sentiment is observed at the regional level. Thus, according to the monitoring of public opinion conducted by VolRC RAS, the level of support for the President in July – August decreased from 70 to 66%, and the share of people willing to take part in protests increased from 16.5 to 20.4% (the highest rate since the beginning of the year).

The steps taken by the Government in the first months of the new political season, as well as the corresponding reaction of the general population are increasingly making us think about the problem of the legitimacy of the current government and its political, social and economic course. Here it is appropriate to recall that the author of the term "legitimacy" – German sociologist, philosopher and economist M. Weber – said that legitimacy is "recognition of the government by its subordinates, their voluntary consent to submit to it"[9].

[5] Katasonov V.Yu. Demo-destruction. *Gazeta "Zavtra"*, 2018, no. 31, August 1. Available at: http://zavtra.ru/word_of_day/domorazrushenie_2018-08-01

[6] *Ibidem*.

[7] In late June – early July 2018, in 85 cities of Russia, protests against pension reform were planned (source: Rallies against raising the retirement age: where and when. *News Agency Klerk.ru*. June 26, 2018. Available at: https://www.klerk.ru/buh/news/475452/?utm_referrer=https%3A%2F%2Fzen.yandex.com).

[8] Program "Dissenting opinion". Radio "Ekho Moskvy", aired on August 3, 2018. Available at: https://echo.msk.ru/programs/personalno/2251806-echo/

[9] Shpakova R.P. Legitimacy and democracy (Weber's lessons). *Politicheskie issledovaniya*, 1994, no. 2, pp. 169-174.

Table 1. Dynamics of support for the President and protest moods

	2012	2013	2014	2015	2016	2017	2018							
							Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.
VTsIOM data														
Level of approval of the President's work	63	63	81	87	82	84	no data	no data	no data	81	80	73	64	63
Share of people ready to take part in protest actions*	18	20	17	20	24	22	16	16	16	20	19	29	no data	no data
Levada-Center data														
Level of approval of the President's work	66	64	82	86	76	82	80	76	80	82	79	no data	67	no data
Share of people ready to take part in protest actions**	16	17	13	12	13	14	no data	no data	8	no data	no data	no data	28	no data
VolRC RAS data														
Level of approval of the President's work	52	55	64	69	68	67	no data	69	no data	68	no data	70	no data	65,9
Share of people ready to take part in protest actions***	17.9	17.3	17.0	19.0	20.6	18.6	no data***	15.1	no data	16.1	no data	16.5	no data	20.4

* The wording of the question: "If in our city/rural area there are mass protests against declining living standards and unfair actions of the authorities, or rallies in defense of your rights, will you personally take part in them or not?" (answer: "I will, most likely"; % of respondents).
** The wording of the question: If in our city/rural area there are mass protests against declining living standards or rallies in defense of your rights, will you personally take part in them or not?" (answer: "I will, most likely"; % of respondents).
*** The wording of the question: "In your opinion, can the protests against growing prices and low standard of living take place in your settlement? Will you personally take part in them?" (answer: "yes, most likely yes"; % of respondents).

The experience of the Time of Troubles has shown that the existence of the Russian state is impossible without legitimate, strong, and centralized government. An alternative to autocracy was the boyar strife, and then there was complete anarchy. Overcoming the consequences of the Time of Troubles was associated with the restoration of legitimate state power, able to protect the country from external enemies and ensure order and stability within its borders[10].

The delegitimation of royal power in the Muscovy in the early 17th century was due not only to discontinuation of the Rurik dynasty and other attendant circumstances (natural disasters, poor harvests, and lean years). Among other things, it was the deepest crisis of public administration under Ivan the Terrible who ruled with the help of immoral and repressive methods[11].

In Russian history, there were many examples of how the legitimacy of the government (or rather its absence) led to the collapse of the Russian state. Perhaps one of the first such examples can be found in the reign of Boris Godunov (1587–1598) – a legally elected ruler, whose actions, however, did not become legitimate in Russian society, which ultimately led to civil unrest and the convening of Zemsky Sobor, which marked the beginning of the reign of the Romanov dynasty (1613).

[10] Lantsov S.A. Legitimacy crises in Russian political history. *Vestnik SPbGU. Ser. 6*, 2014, no. 1, pp. 92-101.

[11] Trunov R. The vanishing legitimacy. *Information Agency "Rosbalt"*, March 20, 2018. Available at: http://www.rosbalt.ru/russia/2018/03/20/1689721.html

Nicholas II and his entourage did not want to notice that traditional legitimacy based on faith and traditions ceases to meet the ideas and expectations of a significant part of society. In other words, in the conditions of that time, the prerogatives of the Emperor had to be limited, and in fact backed up by real constitutional and parliamentary institutions. However, political concessions made under the pressure of the First Russian Revolution were regarded by the autocracy as a temporary respite. The Supreme power won that battle, but, deprived of public trust and support, it remained the only guilty party in all past and future tribulations – from Bloody Sunday and the Battle of Tsushima to the Lena Massacre and the great retreat of the Russian army in 1915[12].

The legal power of Emperor Nicholas II (1894–1917) did not save him from the loss of legitimacy, which resulted in his abdication and the revolution of 1917, which was the beginning of a qualitatively new era of Russian and world history and the bloody Civil War.

The election of Boris Yeltsin as President of the RSFSR and President of Russia was quite legitimate (in 1991 and 1996), but everyone knows how "legitimate" was the power in the period that was called the "turbulent 1990s" for a reason. Discrediting democracy and creating real prerequisites for authoritarianism – such were the main socio-political results of the Russian reformers of the time[13].

Thus, we see that compliance with formal procedures that make the government legitimate does not act as a guarantor of its safety. In turn, the legitimacy of the government is a factor on which its existence depends no less than on legality. However, recent draft laws made by the government suggest that the current public administration system ignores the importance of legitimacy. Whether due to its being at the helm for almost 20 years, or due to the lingering virtual absence of an alternative to the political choice… There are also tougher opinions: some experts believe that, to put it mildly, contradictory reforms of the government are nothing but systematic and purposeful activities of the collective West to destroy the Russian state by the hands of internal political and financial elites. That is, practically the same mechanism that worked in the early 1990s and which continues to work with other countries is now being used. Thus, experts provide a number of

At the final stage of "perestroika", Yeltsin proved himself as a political leader, widely using populist methods and techniques in the struggle for power. He took into account the changes in the mood of the population, promising what was most expected of him at the moment. Of course, Yeltsin's personal views and political goals changed, but populist political technologies remained the main means of achieving them. The interests of the struggle for power of Yeltsin himself and those who directly surrounded and supported him began to take precedence over the long-term national and state interests of the country. Having established control over the power structures of the RSFSR, Yeltsin and his entourage began to oppose their union center led by Mikhail Gorbachev. In fact, the Russian leadership acted together with the separatist elites of a number of Soviet republics, primarily the Baltic ones. Such a policy inevitably led to the collapse of the Soviet Union, which broke apart along those artificial borders that had been established and repeatedly changed under the Communist regime. Neither Yeltsin nor his associates and advisors considered the fact that such a scenario was contrary to the fundamental interests of Russia itself… Through his actions Yeltsin weakened the state, democracy, and economy. It was evidenced by the tragic events of October 1993, which revealed the existence of a deep crisis of legitimacy in post-Communist Russia[14]…

[12] *Ibidem.*

[13] Simonyan R.Kh. Is there any special "Russian path"? (polemic notes). *Sotsis*, 2013, no. 7, p. 143.

[14] Lantsov S.A. Legitimacy crises in Russian political history. *Vestnik SPbGU. Ser. 6*, 2014, no. 1, pp. 92-101

> We are clearly moving according to the plans favored by the U.S.…We are waiting for new unpopular tax reforms, for example, the tax on private subsidiary plots. According to the plan, all the deficits of the budget will be replenished not by the elite, but by common people. This is a return to the path of Tsarist Russia. Everything will be stretched in time, but our main path, from which we will not turn, is a complete dismantling of the social state. This is the real "multi-way" option ... We are a semi-colony of the West and China. Our policy is dual: the true vector is directed toward the West, and "patriotism" is left for internal use"[15].

facts showing that the increase in the retirement age in different countries is held in the same way and under the dictation of the International Monetary Fund[16]:

✓ "Fact # 1: In 2016, the IMF recommended Moldova to raise the retirement age. Moldovan President Igor Dodon called the pension reform in Moldova "social genocide" and said that the abolition of the pension reform is one of the priorities of his work. On July 1, 2017, the government of Moldova raised the retirement age to 63 years for men and women.

✓ Fact # 2: In 2016, the IMF recommends the Republic of Belarus to raise the retirement age. President Alexander Lukashenko called the IMF's conditions for obtaining a loan humiliating and unacceptable: "We have no right to reduce the people of Belarus to poverty". And then he signed a decree on the first stage of raising the retirement age-for three years.

✓ Fact # 3: In 2017, the IMF recommended raising the retirement age in Russia. The continuation of this story is already known to all of us..."

> We are not ready to raise the retirement age. Granted, we have a growing life expectancy, but for men it is 65 years. If we establish 65 years as the retirement age, then excuse me, but how will that be? You work until you turn 65 and then you just kick the bucket or what[17]?

In the series of innovative ideas adopted and discussed by the cabinet of ministers, special attention should be paid to the reform of the pension system – certainly the most resonant event of the last months of domestic political life in the country. riticCal articles on this occasion often quote Putin's promise: "While I am President, the retirement age will not be raised. During my term in office, the retirement age will not be raised"[18]. But we would also like to draw attention to the fact that during his last live phone-in session with the nation, Putin quite clearly formulated the purpose of any steps taken by the Government in relation to the standard of living and quality of life of current and future pensioners: **"I want to emphasize <u>once again</u>, the key task in the entire pension system is to raise the welfare and income of pensioners considerably"[19].**

The opinion of the Russian society on the draft law on raising the retirement age can hardly be called controversial. On the contrary, it is quite unanimous. The petition against the reform was signed by almost three million people. <u>According to FOM, 80% of Russians are against the pension reform</u>, while the proportion of those who share this opinion is more than 70% in all age groups. In most cases, people <u>are afraid they just will not live</u>

[15] Odintsov A. Pension reform: the fatal mistake of the Kremlin. Sulakshin Center (Center for Scientific Political Thought and Ideology). Available at: http://rusrand.ru/analytics/pensionnaya-reforma-rokovaya-oshibka-kremlya

[16] Skok A. To live up to retirement. *Gazeta "Zavtra"*, 2018, June 28. Available at: http://zavtra.ru/blogs/dozhit_do_pensii

[17] Transcript of the Direct Line with V. Putin, September 27, 2005. *Official website of the President of the Russian Federation*. Available at: http://www.kremlin.ru/events/president/transcripts/23190

[18] Transcript of the Direct Line with V. Putin, April 16, 2015. *Official website of the President of the Russian Federation*. Available at: http://www.kremlin.ru/events/president/news/49261

[19] Transcript of the Direct Line with V. Putin, June 7, 2018. *Official website of the President of the Russian Federation*. Available at: http://kremlin.ru/events/president/news/57692

to see their pension *("We are afraid that we will not live up to our retirement age", "in our country people don't live so long", "we pay contributions to the pension fund, but the men do not make it to their retirement age, and the money is lost", "we will wear ourselves out, and then immediately die of exhaustion – who will then get those contributions from the money we earned?", "if the retirement age is raised, we will die at work")*. Forty-nine percent of citizens believe that "raising the retirement age is unacceptable in principle" (27% believe that the pension reform is necessary, but "not now and not in this way). The results of the FOM study also show that 64% of Russians discuss pension reform with their friends, colleagues, etc. and in the course of these discussions, they are much more likely to hear arguments "against" (57%) than "for" (only 1%).

Interesting information can be drawn from the answers of Russians to the question of why, in their opinion, the Russian Government has decided to raise the retirement age. Here are the most common answers[20]:

1. 26% *"the budget must be replenished"; "the budget is bursting at the seams"; "the budget does not have enough money"; "there is not enough money for subsidies to state companies"; "Russia is preparing for war, new revenues are needed" " the state has to spend a lot – on the construction of Crimea, and on Syria"; "there is not enough for Syria and Ukraine"; "it is necessary to compensate for the costs of the World Cup".*

2. 15% *"Shortage of people of working age"; "because of the demographic situation"; "there are few people who are working, they will not be enough to provide for pensioners"; "there are few working people per one pensioner"; "now there are few of those who work and make contributions to the Pension Fund".*

3. 11% *"It was done so as to reduce the amount of pensions"; "so that there would be fewer retirees"; "we are driven into bondage, they won't let us live up to our retirement"; "it is done in order that the people didn't receive pensions, they don't care if we die at work"; they would let us die rather than let us retire"; "so that few people lived up to retirement".*

And this is how many people share the official point of view of the Government:

1. 4% *"People now live long"; "men and women began to live longer"; "life expectancy is increasing"; "the government believes that people now live longer".*

2. 3% *"For the purpose of raising retirement pensions"; "it is done for us, pensioners, so that we could receive more money".*

3. 1% *"Other countries have long raised the retirement age"; "retirement age is raised all around the world"; "we are following the example of Europe"; "it is the influence of the West".*

4. 1% *"The time has come"; "it is high time to raise the retirement age"; "it is already time".*

Thus, the opinion of the Russian society on raising the retirement age does not need additional comments. It could be assumed that the pension reform is a really unpopular step (and rightly so), but a necessary one at that. As Prime Minister Dmitry Medvedev put it, "it's like a bitter medicine. People don't want to drink it, but understand that if they don't drink this medicine, everything can end much worse"[21].

[20] *Raising the retirement age: citizens' response: FOM Press Release,* June 29, 2018. Available at: http://fom.ru/Ekonomika/14057

[21] Koshelenko A. Medvedev compared the pension reform to a "bitter medicine". *Moskovsky komsomolets,* 2018.10.08. Available at: https://www.mk.ru/politics/2018/08/10/medvedev-sravnil-pensionnuyu-reformu-s-gorkim-lekarstvom.html?utm_referrer=https%3A%2F%2Fzen.yandex.com

The official point of view of the Government (in particular, the Minister of Labor and Social Protection of the Russian Federation M.A. Topilin) comes from the fact that "Now there is the only window of opportunity... there will be no other period in the near future, when the number of entering the market is reduced. Only after 20 years, 22–23 years"[22]. However, this thesis is categorically refuted by numerous scientific studies and expert assessments[23] that makes it quite clear that **there is no need for this reform and the goals it pursues will not be achieved, because to achieve them we need completely different mechanisms** (some conclusions of the experts are presented in *Insert 1*).

Thus, according to experts, "in the case of pension sequestration, the Russian authorities will allow men to live on pensions **only 9% of their lives instead of the current 16%**, which will be **"an absolute world record of social inhumanity of the government"**.

The monthly pension raise of one thousand rubles promised by the Government is also unable to improve the standard of living and quality of life of pensioners, because for the pensioner to "return the lost money, **the pension must be increased by more than five thousand rubles per month"**, and if we proceed from the government reform plans **"a man should live already in retirement for 70 years, and a woman – for more than 100 years"**... These are the parameters of the government's pension reform project. **It is obvious that they are not just not targeted, but they do not even take into account the President's goal of achieving "a significant increase in the welfare and income of pensioners".**

> The previous "May decrees" of the President dated 2012 were safely "forgotten" for six years (one-time payments to state employees in January – February of this year before the Presidential Election are not taken into account). It is clear that the failure to execute the May 2018 decrees could lead to the growth of social tension, dissatisfaction with the leadership of the country, the emergence of protest actions, etc. Those who are standing at the helm will inevitably be reminded of the previous "decrees". That is why such importance is attached to the implementation of the "May decrees" of the President voiced this year: in order to preserve their positions, the authorities vitally need to ensure the successful implementation of at least the visible part of at least the most important aspects of these decrees from a social point of view...It must be understood that in the absence of significant foreign investment, the country's economy is a closed system with a certain "volume and weight"... All redistribution takes place within the system, without affecting its volume and weight[24].

It should be noted that the fact that the authorities disregard the interests of the general population is not the first time. The same experiments with the calculation and payment of pensions continue for virtually the entire post-Soviet period *(Insert 2)*[25]. These include long-term problems of defrauded investors, the reform of RAS, optimization of health and education, etc.

[22] Topilin explained the necessity of the pension reform due to the opened "window of opportunity". *News channel "Interfax*, July 16, 2018. Available at: http://www.interfax.ru/business/621179

[23] See for example:

1. Byalyy Yu. Pension farce-2018. *Information Agency "Krasnaya vesna"*, 29.06.2018. Available at: https://rossaprimavera.ru/article/365b3ffa?gazeta=/gazeta/284
2. Samsonova T. What is the injustice of the pension reform? *Portal "The Question"*, July 29, 2018. Available at: https://thequestion.ru/questions/403263/v-chem-nespravedlivost-pensionnoi-reformy
3. Bashkatova A. *NG* calculated how much money the pensioners will receive as a result of the reform. *Nezavisimaya gazeta*, 2018, June 20. Available at: http://www.ng.ru/economics/2018-06-20/4_7248_minus.html
4. Deferred pension for those who retire early after raising the retirement age. *Portal "Tochka otscheta"*. Available at: http://skolkozarabativaet.ru/novost-dnya/otlozhennaya-pensiya-dlya-dosrochnikov-posle-povysheniya-pensionnogo-vozrasta/
5. Tsyplyaev S. Pension maneuver: an interview on the radio "Ekho Moskvy" from July 7, 2018. Available at: https://echo.msk.ru/blog/tsuplyaev_s/2235806-echo/
6. Obukhova E., Pakhunov K., Ivanter A. This is a reform, baby! *Ekspert,* 2018, no. 26 (1080), June 25
7. Skok A. To live up to retirement. *Gazeta "Zavtra",* 2018, June 28. Available at: http://zavtra.ru/blogs/dozhit_do_pensii

[24] Obtaining an international passport will cost five thousand rubles: why is it so expensive? *Moskovsky komsomolets*, 2018, June 19 (opinion of A. Korenev, analyst at GK "Finam"). Available at: http://www.mk.ru/social/2018/06/19/oformlenie-zagranpasporta-oboydetsya-v-5-tysyach-rubley-pochemu-tak-dorogo.html

[25] Byalyy Yu. Pension farce-2018. Information Agency "Krasnaya vesna", 29.06.2018. Available at: https://rossaprimavera.ru/article/365b3ffa?gazeta=/gazeta/284

Insert 1

Expert assessments of the pension reform

Excerpt	Source	About the author
According to Rosstat, the average life expectancy of men exceeds the new retirement age of 65 years ***in only 37 most prosperous Russian regions out of 85! That is, in the rest 48 regions of Russia, men will basically die out, not having lived up to the prospects of future pension…*** *In 2017, the WHO identified that the age of healthy working capacity (average for men and women!) in Russia is 63.4 years!* ***That is, the majority of Russian men and women, if they live up to the new retirement age, they will already be ill!***	Byalyy Yu. Pension farce-2018. *Information Agency "Krasnaya vesna"*, 29.06.2018. Available at: https://rossaprimavera.ru/article/365b3ffa?gazeta=/gazeta/284	Yuriy V. Byalyy, candidate of sciences (physics and mathematics), vice-president for science at the International Public Foundation "Experimental Creative Center" (Kurginyan Center MOF-ETTs), deputy editor-in-chief of the journal *Rossiya XXI*
There are no reasonable demographic arguments for an immediate increase in the retirement age for men. *Given the demographic characteristics, one may discuss raising the retirement age for women only, but if the same is not discussed for men, it is unlikely to be accepted in society unambiguously. In addition, there may be undesirable indirect effects – in particular, the birth rate may decrease.*	Shirov A.A., Potapenko, V.V. Aboout a fair pension system *Ekspert,* 2018, no. 24, June 11-17, p. 53.	Aleksandr A. Shirov, doctor of sciences (economics), RAS professor, deputy director of RAS Institute of Economic Forecasting, head of the laboratory for analysis and forecasting of production potential and intersectoral interactions Potapenko V.V., junior researcher at RAS Institute of Economic Forecasting
The assumption that an increase in the retirement age will improve the welfare of pensioners seems doubtful. The situation of those who would soon retire would worsen. These generations will receive almost 200 thousand rubles less for each deferred year. *Compensation of the "losses" for them will come after about 10 years after a delayed retirement; they will be at a disadvantage for years. Today's pensioners will receive an additional increase for the year in the amount of not 12 thousand rubles, but twice less, because these 12 thousand already "contain" the planned indexation caused by inflation. And today's working pensioners still do not have any pension raise.*	Bashkatova A. *NG* calculated how much money the pensioners will receive as a result of the reform. *Nezavisimaya gazeta*, 2018, June 20. Available at: http://www.ng.ru/economics/2018-06-20/4_7248_minus.html	Anastasia Bashkatova, deputy head of the Economics Department of *Nezavisimaya gazeta*
There are no reasons that would justify a reform that changes the retirement age so radically. *Our analysis, which seems impartial, shows that the economy in this case is not only likely to win nothing, but it can even lose – due to rising costs for preferential types of pensions, unemployment and, most importantly, the potential reduction of the wage fund, which is the basis for the formation of the Pension Fund.*	Obukhova E., Pakhunov K., Ivanter A. This is a reform, baby! *Ekspert,* 2018, no. 26 (1080), June 25.	Evgeniya Obukhova, editor of the "Economics" Department of the journal *"Ekspert"* Konstantin Pakhunov, correspondent of the journal *"Ekspert"* Aleksandr E. Ivanter, first deputy editor-in-chief of the journal *"Ekspert"*
There are no demographic grounds for such an increase in the retirement age. After raising the retirement age, people will enjoy their "well-deserved retirement" less than under Khrushchev, *says Anatoly Vishnevsky, director of the Institute of Demography.* *But after the sequestration, the life expectancy of Russians after retirement will be shorter not only than that under Khrushchev, but it will be the shortest in the world. Publicist Sergei Parkhomenko proves it when comparing the indicator of "state greed" in different countries – that is, the share of life that different governments allow their people to live after retirement.* ***Today, in developed countries, the average man lives about 20% of his life after retirement. And in the case of pension sequestration, Russian authorities will allow men to exist on a pension for only 9% of their lives instead of current 16%. And it will be an absolute world record of social inhumanity of the state.***	Sergeyev M. Initiators of the pension reform go astern. *Nezavisimaya gazeta*, 2018, July12. Available at: http://www.ng.ru/economics/2018-07-12/1_7264_pensia.html	Mikhail Sergeyev, head of the department of economics at *Nezavisimaya gazeta*

The man will have five more years to work before retirement, which means that he will not receive 60 monthly pensions. Now the average size of an ordinary pension is 14 thousand rubles. So, the "pension maneuver" will deprive him of 840 thousand rubles. He will live an average of about 13.5 years (162 months). It is this value, which shows how much an average pensioner will live after retirement, should be used in the calculations, rather than the average life expectancy that is significantly dependent on mortality in childhood and adolescence. ***Pensions must be raised by more than five thousand rubles per month, because only on this case will the pensioners, in the course of these 162 months, get back the money they lost due to the fact that the retirement age was raised by five years.*** *Exactly the same calculation for women shows they will lose 1 million 334 thousand rubles in eight years. For women, average life expectancy after retirement at 63 years is about 19 years. So, for compensation it is necessary to increase pension payments by six thousand rubles a month. These calculations do not take inflation into account. We have learned the lesson well that "money today" and "money tomorrow" is different money. The Government promises pensioners a "generous" increase of as much as a thousand rubles per month.* ***In these conditions, to compensate for the loss, men need to live 70 years after retirement, and women – more than 100 years!***	Tsyplyaev S. Pension maneuver: an interview on the radio "Ekho Moskvy" from July 7, 2018. Available at: https://echo.msk.ru/blog/tsuplyaev_s/2235806-echo/	Sergey A. Tsyplyaev, candidate of sciences (physics and mathematics), professor, president of the Foundation "Respublika", dean of the law faculty at the North-West Institute of Management of the Russian Federation Presidential Academy of National Economy and Public Administration
In European countries, the retirement age is mainly 65–67 years. However, it should also be taken into account that life expectancy is much longer there. For example, in Germany it is 81.1 years, in France – 82.7 years, in the UK – 81.6 years, in Spain – 83.4 years, in Italy – 83.5 years. In Russia, the average life expectancy is 70.6 years. If we take into account that Russians on average live 11–12 years less than people in Western Europe, then they should retire earlier in order to live an approximately proportional number of years after retirement. ***In this sense, the current retirement age – 60 years for men and 55 years for women – is in line with "Western" standards. If we now set the retirement age for men at 65, this means that 46% of Russian men will not live up to their retirement at all.*** *The second important difference is the size of the pension. In Russia, the average pension is 14,000 rubles, the average salary is 41,600 rubles; that is, the replacement rate (the ratio of the average pension to salary) is 33.7%. In the European Union, this figure is on average 58.3%, and in some countries even exceeds 70%; for example, in Spain – 72.3%, in Italy – 83.1%, in Denmark – 86.4%. In many developing countries, the replacement rate is also significantly higher than the Russian 33.7%; for example, in Argentina – 71.6%, in Brazil – 69.5%, in China – 76%, in India – 87.4%...* ***If we want to be equal to other countries, let us first try and reach their level in other important parameters of the pension system such as life expectancy and the replacement rate of pensions, and then we will begin to raise the retirement age.***	Mironov M. What is the injustice of the pension reform? Available at: https://echo.msk.ru/blog/mmironov/2224872-echo/	Maksim Mironov, economist, professor IE Business school (Madrid)

As we can see from the facts (see Insert 2), pensioners are not the first to become the object of various experiments, the purpose of which is patching holes in the budget or the implementation (by any means) of the "May decrees" of the President. This explains why **Russia is one of the world's outsiders in terms of the standard of living and quality of life of pensioners.**

Thus, in the Global Retirement Index[26], Russia consistently ranks 40th out of 43 possible, second only to Brazil, Greece, and India *(Appendix 2)*. According to the Global AgeWatch Index[27], Russia ranks 65th (out of 96 countries; *Appendix 3*). The results of sociological research we conducted at the regional level also reflect the quality of life of Russian pensioners[28]. Thus, for people of pre-retirement age, the main motive for working after they have retired is "the need for additional earnings" (84%), and the most urgent problem for current pensioners is "the small size of pensions" (68%).

For comparison, we note that "according to Bloomberg Billionaires Index, as of August 1, the fortune of the richest people in Russia increased by 14 billion USD... Oil and gas companies earned in the first half of 2018 an additional trillion rubles of pre-tax profit, which is 50% more than a year earlier ... The profit of the entire banking system in 2018, taking into account the sanitized banks, will be 1.3 trillion rubles"[29]. Looking at these figures, it is easy to guess who the beneficiary of the entire economic course in Russia is and why the problem of social inequality has been and still remains a key disease of our country for at least 25 years. "This state of affairs is catastrophic no less and no more than everything that has been happening in the country since 1991. If we talk about whether people realize it or not, there is a great and smoothly working propaganda machine, created by the bourgeois clan and owned by it, the machine which daily, weekly, and monthly introduces horse doses of media anesthesia in the mass consciousness, forcing people to switch to anything other than their vital interests"[30].

The actual consumer attitude toward one of the most socially vulnerable population groups absolutely contradicts the essence of the social welfare state and Article 7 of the Constitution of the Russian Federation.

"In a socially responsible society, which according to the Constitution is one of the characteristics of our country, pension, proceeding from its purpose, should be understood **in a fundamentally different way**. This is not just the money to support the life of a person whose biological resources have been exhausted and who has become incapacitated, and therefore equated in this respect to the disabled and other categories that require public support. The average life expectancy after retirement, which

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[26] The Global Retirement Index is calculated by the French company Natixis Global Asset Management since 2013, it includes developed and emerging economies that are members of the International Monetary Fund, Organization for Economic Cooperation and Development and BRIC.

The Index is calculated on the basis of 18 indicators that are divided into four sub-indices: finances in retirement, material wellbeing, quality of life, and health. The sub-indices reflect four key aspects of pension provision: financial means for a comfortable life in retirement, access to quality financial services to ensure the safety of savings and the increase in income, access to quality health services, and a clean and safe environment.

[27] The index of quality of life of the elderly (Global AgeWatch Index) is a global study of countries by quality of life and wellbeing of older people. It is calculated using the methodology of the international non-governmental organization HelpAge International since 2013 on the basis of statistical data obtained from national institutions and international organizations that are accumulated in the United Nations Population Fund (UNFPA). The last "round" of the study was conducted in 2015.

[28] The sociological survey "Quality of life of the elderly" was conducted by VolRC RAS in April 2018 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); 1,500 respondents over 50 years of age participated in the survey. The representativeness of the sample is ensured by the observance of the proportions between the urban and rural population, the proportions between the inhabitants of settlements of various types (rural communities, small and medium-sized cities), age and sex structure of the Oblast's adult population. The method of the survey was a questionnaire poll by place of residence of respondents. Sampling error does not exceed 3%.

[29] Semin K. Wool. *Gazeta "Zavtra",* 2018, no. 31. August 1. Available at: http://zavtra.ru/word_of_day/sherst_2018-08-02

[30] *Ibidem.*

plays a major part in the current argument in favor of raising the retirement age, is not a decisive regulatory principle. The motive of regulation here is different **– to provide financial support to older people not due to the fact that they have reached the age limit from which the average life expectancy of a pensioner begins, but due to the fact that these people have fulfilled their duty to society and therefore have the right not to depend on the need to have external sources of their existence through work**. This is approximately the same as the pension provision of military people, where the criterion is the length of service, and not the life expectancy after retirement. The transition to a pension in this sense does not require that a person should work till they become decrepit, which is why, in response to the increase in life expectancy, from time to time it is necessary to legally shift the retirement period in accordance with the average life expectancy, as follows from the logic of the arguments of the Government. In a truly social state, the retirement period is not extended if there are no extraordinary circumstances. It is stable and provides the people who fulfilled their duty to society with fruits of development of health care and increase of financial welfare in the form of increase in term of life, instead of using this increase in the government's own favor"[31].

However, the real actions of the Government (see Insert 2) quite fit into the idea of the future as seen by the ideologists of neoliberal reforms, according to whom "people no longer need to cling to those institutions that guaranteed survival (for example, family, church or corporation) ... the government should not guarantee the workers any rights ... capitalism and competition are the only engines of progress, the welfare state is an absolute brake on the development in the post-industrial world"[32].

> The risk of the pension reform lies not in the possibility of people's revolting against it, but in a step-by-step destruction of scarce skills and traditions of harmonizing the public interest. The result will be a drop in public confidence in all existing institutions. This is called the crisis of public administration, that is, the threat to statehood is stronger than the threat of rebellion. The instigators of the rebellion can be imprisoned, but it will not be possible to imprison the instigators of the fall of trust. And so, the process of decay in society will continue[33].

Such, in particular, is the opinion of V.S. Nazarov, director of the Financial Research Institute of the Ministry of Finance of the Russian Federation, who also argues that "*the pension system is flawed. First, it undermines incentives to work: the higher the pension, the more people are motivated to stop working with the onset of retirement age and indulge in idleness. Second, the people are irresponsible and they do not accumulate funds for old age. ... Fourth, the pension system is a detriment to democracy: elections are inevitably won by those who propose pension rise through increasing taxes and borrowing. Fifth, due to the presence of the retirement age as a boundary, the potential of full functioning of a person as a labor market unit is limited"*[34]...

Under the circumstances, the nature of the legitimacy of the government plays a fundamental role in preserving the legitimacy of the Russian government (which is of paramount importance given the ongoing de facto anti-social government reforms and the extremely negative possible consequences of such a policy, as the lessons of history show us). And, before answering the question "what is the basis of the legitimacy of the government in modern Russia?" it is necessary to make a small digression and recall the classical typology of legitimacy developed by the founder of the concept M. Weber.

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[31] Lyubinin A. Pension "melodies" of the football summer. *Gazeta "Zavtra"*. 2018.06.08. Available at: http://zavtra.ru/blogs/pensionnie_napevi_futbol_nogo_leta

[32] Ivanov A. Introducing the author of the pension reform. *Gazeta "Zavtra"*. 2018.24.06. Available at: http://zavtra.ru/events/avtor_pensionnoj_reformi_znakom_tes_

[33] Ivanov A. Introducing the author of the pension reform. *Gazeta "Zavtra"*. 2018.24.06. Available at: http://zavtra.ru/events/avtor_pensionnoj_reformi_znakom_tes_

[34] *Ibidem*.

Insert 2

"Pension experiments in the Post-Soviet period[35]

1990: The law "On state pensions in the RSFSR", according to which the budget ceased to be the source of pension payments, and insurance contributions of employers and employees became the source of pension payments.

1995–1998: pension was divided into the following parts: basic minimum (social), insurance (depending on the length of service and the level of insurance premiums), and non-state (formed by individual contributions of the employee) that was allowed to be managed by non-governmental funds (NGF) and management companies. Russian citizens for the first time faced sudden "losses" of the newly established NGFs together with their pension money.

2000: "Main directions of socio-economic policy of the Government of the Russian Federation for the long term" (also known as the Gref Program "Strategy 2010"). It was rejected due to its being inconsistent with Article 7 of the Constitution, but it seriously proclaimed the goal of abolishing the "welfare state" in Russia and shifting to the so-called "subsidiary state", when the government assigned only minimum "targeted" assistance to the poorest, and the rest of the citizens were given the right and opportunity to try to earn a living and save for old age on their own.

2001: M. Zurabov's pension reform program, according to which the pension was to be divided into distributive and accumulative parts, and the size of both parts was both uncertain and non-guaranteed. The distributive part was to depend on the state budget, and the accumulative part was to be invested in any assets and depend both on the amount of money accumulated on the individual account of a future pensioner, and on the profitability of investing this money – again, by non-governmental funds. At the same time, the uncertainty of the future pension was hidden from its recipient by the fact that it was calculated not in monetary terms, but in some kind of "pension rights", the cost of which should be calculated annually by the government.

2005: monetization of benefits, under which key benefits (free travelling by public transport in places of residence and a free-of-charge minimum of necessary medicines) were replaced with tiny monetary compensation, which was quickly devalued due to inflation. Mass protests with the closure of federal highways and even the seizure of buildings of local administrations did not cancel the monetization, but forced the government to dramatically increase budget spending on compensation in the form of additional payments to pensions.

[35] Byalyy Yu. Pension farce-2018. *Information Agency "Krasnaya vesna"*, 29.06.2018. Available at: https://rossaprimavera.ru/article/365b3ffa?gazeta=/gazeta/284

2007: Due to the deficit (including the deficit that formed allegedly as a result of the failed "monetization of benefits") accumulated in the Pension Fund of Russia, Zurabov proposed to cover the deficit with the money of those Russians who had not chosen a non-governmental pension fund and whose pension money is by default managed by Vnesheconombank, a Russian government-owned development bank. That meant actual confiscation of their savings money. Such a radical attempt to openly steal citizens' money stunned even the most notorious liberals in the government, and Zurabov's idea was rejected.

2008: The so-called pension co-financing program was introduced. Its essence was to encourage the growth of the accumulative part of the pension according to a simple scheme: the annual investment citizens make in their savings account in the amount of 2–12 thousand rubles is co-financed by the government in the same amount, that is, it is doubled. It was allowed to join the "co-investment program" until the beginning of 2015. However, in 2013, the Pension Fund of Russia changed the formula for calculating the pensions and at the same time ceased to inform the citizens about the size of their individual pension account. And in 2014, pension savings that were already on the accounts in were "frozen" altogether, and all 22% of employers' contributions from the salary fund were directed to the Pension Fund of Russia to the general insurance pension account. This "freeze" has since been extended annually and is still in force.

2010: the formation of the basic part of the pension (that is mandatory for payment to each pensioner regardless of earnings and length of service) was finally abolished; the pension now consists only of insurance and accumulative parts.

2015: another pension innovation was introduced: the government refused to maintain personal pension accounts in rubles and actually returned to Zurabov's long-standing idea to calculate some kind of "pension points", which the government transfers into real rubles (and only the government-supervised accounting agencies know how and by what calculation it is done) only after a person retires.

Finally, in recent years, it has been revealed that many non-governmental pension funds (NGPFs) were engaged in outright fraud with the money of their depositors (in 2015, the licenses of several NGPFs of the bankrupt owner of "Bank Rossiysky Kredit" A. Motylev were revoked; in 2017 – the licenses of M. Gutseriev's "Binbank", V. Belyaev's "Bank Otkrytie", the brothers Ananyev's "Promsvyazbank" were also revoked. In 2018, it turned out that the O1 Group owned by Boris Mints used the pension savings of the depositors of its NGPF to buy other pension funds and created the largest group of NGPF under the general name "Budushcheye" [the Future]. And then it began to invest the pension money in large development projects, that is, to build, run and sell luxury commercial real estate. In May 2018, when things got really tough with this scam, Mints fled to London with his family).

Weber, in whose writings the problem of domination and subordination is one of the main topics, said that "there are three pure types of legitimate domination. Their legitimacy can be:

1) of a rational nature, i.e. based on the belief in the legality of the established order and the legality of the exercise of domination on the basis of this legality (legal domination);

2) of a traditional nature, i.e. based on the ordinary belief in the sanctity of traditions and on the belief in the legitimacy of the authority based on these traditions;

3) of a charismatic nature, i.e. based on outstanding manifestations of holiness or heroic power, or exemplary personality and the order created by these manifestations (charismatic domination)"[36].

Modern researchers also highlight the ideological legitimacy, which is based on "the moral confidence of individuals in the value of a socio-political system and its proclaimed principles...". American political scientist D. Easton writes that ideology as a source of legitimacy is on the one hand, a certain form of expression of the needs and requirements of individuals (the so-called expressive aspect of ideology), and on the other hand, it is an undoubted means of control in the hands of political leaders over the behavior of these individuals (the so-called "instrumental" or "manipulative" aspect of ideology). At the same time, the "instrumental" and "manipulative" aspect of ideology is predominant, because regardless of the nature of ideology (mystified, illusory or realistic), it captures the imagination of people, unites their efforts and encourages them to act in the direction that political leaders find convenient[37].

The traditional type of legitimacy is characteristic of the monarchic form of government, when according to the established tradition power is inherited (a typical example – the reign of Ivan the Terrible). In the Soviet Union there was a mixed type of legitimacy, which was based on the charisma of party leaders, and a powerful ideological "machine".

> The legitimacy of the former political institutions – the Congress of People's Deputies and the Supreme Council – in the new conditions was questionable, and Boris Yeltsin's charismatic legitimacy was rapidly melting away as the severe economic consequences of liberal reforms were manifested. The October days of 1993 were a rare example in history: legitimacy and formal legality came into conflict with each other. With the adoption of the new Constitution of the Russian Federation in December 1993, legal and rational mechanisms of legitimation of political power were turned on. However, the question of its legitimacy remained relevant until the end of the 1990s[38].

There is an opinion that the adoption of the Russian Constitution in 1993 was nothing but Yeltsin's attempt to "restore" the legitimacy of the government; to shift it to a new "path" due to the fact that the former grounds (ideological, charismatic, traditional) lost their force.

Has much changed over the past (almost 18-year) period of Putin's presidency? **The current government in Russia has the characteristics of all the above types of legitimacy, except for rational and legal. Formal election procedures only ensure its legality (legitimacy of election), but throughout the rest of the period (from elections to elections) the actions of the Government are extremely controversial, they do not contribute to solving the key problems associated with the achievement of social justice and overcoming social inequality and therefore do not work to strengthen the legitimacy of power in the estimates of the population.**

The legitimacy of power in Russia is supported by other factors. It is known, for example, that in Russian society, the head of state has always had a special status (traditional legitimacy) in the

[36] Weber M. *Wirtschaft und Gesellschaft: Grundriss der verstehende Soziologie*. 5., rev. Aufl. Tubingen: Mohr, 1980. Kap. III. Die Typen der Herrschaft. S. 122-176.

[37] Demidov A.I., Fedoseev A.A. *Fundamentals of political science*. Moscow, 1995. Available at: https://www.gumer.info/bibliotek_Buks/Polit/Demid/05.php

[38] Lantsov S.A. Legitimacy crises in Russian political history. *Vestnik SPbGU. Ser. 6*, 2014, no. 1, pp. 92-101.

Historically, Russia has always tended to autocracy, and therefore in the institution of the presidency there is the traditional element, some similarity with the monarchical form of power. This feature of the Russian system of power is not similar to either Eastern despotism or Western democracy[39].

Moreover, in the political consciousness of the people, the dominant factor is not how the country is governed, but who it is governed by. That is, not the leader is integrated into the system, but the system adapts to the leader. This is the Russian system of democracy, unlike that in Washington or Berlin, but, paradoxically, it turns out to be the only functioning and real institution for modern Russia[40].

We can discuss the division of power for as long as we want; we can discuss the nuances of their mutual deterrence and balancing, but we will always keep in mind that our country has a constitutional institution that stands above these democratic "games" and, in fact, determines the vector of development of modern Russia[41].

minds of the people, while Putin himself has for many years been the most charismatic person among the top officials in the country; he exercises manual control, and citizens pin their hopes and aspirations on him (charismatic legitimacy). Experts note that "the entire political system lives under the umbrella of the President's rating. Our entire system of government gets its legitimization through Putin, who is trusted by the majority of the population"[42].

The signs of ideological legitimacy of the current government consist in maintaining a tense situation on the geopolitical arena. The image of "Russia as a besieged fortress" consolidates society and often justifies the absence of significant changes in the dynamics of the standard of living and quality of life, which, in addition, is supported by fairly effective information warfare against its own people.

The manipulation of public consciousness has reached the limit: instead of thinking about development, we were forced to discuss the pension reform, which absorbed all the information space, but which will still be adopted in the way convenient to our "masters". If people do not understand this, then the country that has no brakes will go downhill. The cost of clarification may become too high[43].

Let us recall, for example, that United Russia obtained constitutional majority in the State Duma, and after that, two years later, was able to carry out the pension reform, even though all opposition parties were against this draft law.

✓ Following the results of the election to the State Duma on September 18, 2016, Russian and foreign[44] experts noted that "the government

[39] Zuikov A.V. The institute of presidency in Russia: constitutional model, modern realities and prospects of development. *Konstitutsionnyi vestnik*, 2008, no. 1 (19), p. 171.

[40] Tretyakov V.T. A report at the round table "Institute of presidency in Russia: legal basis and role in the modernization of society". June 8, 2011. Available at: http://education.law-books.ru/index.php?page=kruglyj-st ol

[41] Silvestrov S.N. A report at the round table "Institute of presidency in Russia: legal basis and role in the modernization of society". June 8, 2011. Available at: http://education.law-books.ru/index.php?page=kruglyj-stol

[42] Putin's and Medvedev's ratings fell due to the pension reform (interviews with VTsIOM experts). *News "DailyStorm"*. Available at: https://dailystorm.ru/news/reytingi-putina-i-medvedeva-upali-iz-za-pensionnoy-reformy

[43] Odintsov A. Pension reform: the fatal mistake of the Kremlin. Sulakshin Center (Center for Scientific Political Thought and Ideology). Available at: http://rusrand.ru/analytics/pensionnaya-reforma-rokovaya-oshibka-kremlya

[44] Foreign media on the 2016 election to the State Duma of the Russian Federation (source: newspaper Kommersant.ru, September 19, 2016. Available at: http://www.kommersant.ru/doc/3093506):

"Even before the election, the Kremlin made sure that the election was held as it was desirable for it ... the election was held against the background of such a political climate, when all the oppositionists are branded as "traitors" who stab a "besieged" Russia and its President in the back" (source: *Frankfurter Allgemeine Zeitung* (Schmidt F. Keine oppositionelle Partei schafft es in die Duma. *Frankfurter Allgemeine Zeitung* 18.09.2016. Available at: http://www.faz.net/aktuell/politik/ausland/europa/in-russland-schafft-es-keine-oppositionelle-partei-ins-parlament-14442041.html).

"The results are not expected to lead to any dramatic changes; the established political parties are all broadly supportive of the country's president, Vladimir Putin, and the low turnout suggested more opposition-minded urban Russians simply stayed at home" (source: *The Guardian*. Russian election unlikely to loosen Putin's grip on power. *The Guardian* 18.09.2016. Available at: https://www.theguardian.com/world/2016/sep/18/russia-votes-in-election-unlikely-to-loosen-putins-grip-on-power).

deliberately used the tactics of reducing the turnout: with a lower turnout, the share of the controlled electorate voting for the "party of power" and its candidates is greater... The United Russia party improved its relative result almost everywhere compared to the results of the vote as of December 4, 2011. However, due to the low turnout in absolute numbers of votes, the result of United Russia everywhere is lower than December 4, 2011"[45]. The Communist party leader G. Zyuganov at a meeting with the President of the Russian Federation after the State Duma Election noted that "almost 45 million people voted for the party of power in 2007, this is a very powerful and an extremely important support... This year, according to official statistics, 28.5 million people voted for the party of power; and the party lost 17 million votes"[46].

✓ Our calculations (carried out according to the official data of the Central Election Commission of Russia) show that the percentage of support of United Russia in the 2016 election in comparison with the parliamentary election of 2011 increased by 5% (from 49 to 54%), but in fact it has lost almost four million votes (3.85 million people) and in comparison with the 2007 election – nearly 16 million (16.19 million people)[47].

In comparison with the parliamentary election of 2011, "the increase in the number of those who voted for the United Russia party on September 18, 2016 is noted only **in 15 out of 83** constituent entities of the Russian Federation.

If we compare the results of voting with the 2007 election, we will see that the increase in the number of votes cast for United Russia was noted only **in 5 out of 83** regions of Russia[48].

Thus, the election to the State Duma of the 7th convocation, on the one hand, was held according to formal rules, which ensured the legality of the constitutional majority of United Russia in the Parliament. However, on the other hand, numerous calculations and assessments of experts do not allow us to say the election was a sign of rational and legal type of legitimacy of the government.

Today the situation is similar. A classic sign of the crisis of the legitimacy of power is the strengthening of coercive methods of enforcement, but this is not necessary at present. They are successfully replaced by methods of "information management of society"[49]. Therefore, it is no coincidence that experts note (and we cannot but agree with them) that "the announced broad discussion concerning pensions, unfortunately, has not begun, except for TV-stories about active elderly citizens"[50]. However, it is one thing when this "weapon of mass destruction" is used, say, against ideological opponents in hybrid warfare (which has an official name – "soft power" – a form of foreign policy strategy involving the ability to achieve the desired results on the basis of voluntary participation, sympathy and attractiveness, as opposed to "hard power", which implies coercion). It is quite another thing when it is applied against its own

"The lowest turnout for the last quarter of the century, in addition to apathy, is due to the fact that rather than traditionally hold the election in December, when, according to statistics, people are more likely to give their votes to the opposition, the Kremlin postponed the elections to September, when many go on vacation" (source: *The Wall Street Journal*. Ferris-Rotman M. Putin's party shores up power in parliamentary elections amid weak turnout. *The Wall Street Journal* 18.09.2016. Available at: http://www.wsj.com/articles/russians-head-to-polls-to-vote-for-new-parliament-1474184676).

45 Lyubarev A. (expert of the Committee of Civic Initiatives). Low turnout saved the United Russia Party. *Information Portal "Gazeta.ru"*, October 16, 2016. Available at: https://www.gazeta.ru/comments/2012/10/16_x_4813741.shtml

46 Transcript of the meeting of the President of the Russian Federation with party leaders, held following the election to the State Duma. *Official Website of the President of the Russian Federation*. Available at: http://kremlin.ru/events/president/news/52957

47 Ilyin V.A. Russian President got a constitutional majority in the State Duma of the seventh convocation. E*conomic and Social Changes: Facts, Trends, Forecast*, 2016, no. 5, pp. 9-26.

48 *Ibidem*.

49 Malinetskii G.G. Interdisciplinary ideas in sociology and the challenges of the future. *Sotsiologicheskie issledovaniya,* 2015, no. 4 (372), pp. 152-161.

50 On the discussion on the future transit of power (editorial). *Nezavisimaya gazeta*, 2018, August 2. Available at: http://www.ng.ru/editorial/2018-08-02/2_7280_red.html

people for the purpose of justifying or disguising the reforms that go against national interests and the Constitution...

Thus, we see that the legitimacy of the modern government in Russia has many foundations, but none of them can be called strong and corresponding to the historical moment of time, which requires thinking and acting "one step ahead". The legitimacy of the Russian government is based on anything (the leader's personality, information-based methods of management, mental traditions...), but not on real actions that would be positively perceived in society and in the scientific community.

When the only mediator in the country is the President, the situation becomes very dangerous. And the danger lies not only in the fact that if the President is withdrawn from the negotiations, there will be no mediator and the war will be inevitable. First of all, the danger consists in the fact that the weakness of social institutions significantly reduces the level of social trust between all members of society. And the lack of trust entails the lack of those traditions, the culture that can be the only reason for normal economic growth. **Without trust there is no economy, there is no politics, without trust there is only war**[51].

At the beginning of Putin's last six-year presidency, the current government is starting to play dangerous games with legitimacy, which (as historical experience shows) can lead to very serious negative consequences. This threat is twice as strong if we recall the key "components of success" that ensured Putin's landslide victory in the 2018 presidential election:

1) concrete election promises (as a necessary condition for increasing the trust of citizens);

2) mobilization impulse (as the keynote of the entire election campaign);

3) current public sentiment (people are "oriented" toward bringing the economic and political situation in the country in order, they are waiting for this and are ready to actively participate in it).

Today, many people expect that the President will intervene and significantly change the contours of pension reform. This, in particular, is evident from the data provided by FOM: 35% of Russians believe that the pension reform will not go according to the Government's plan, "a softer version will be adopted (with a lower retirement age or with a longer transition period)"; the proportion of people who believe that the pension reform will take place exactly as it was planned by the Cabinet of Ministers is two times lower (19%).

The pension reform is, of course, an "unpleasant" decision, and the President decided to distance himself from it by transferring the development of the draft law to the Government. **The head of state will subsequently make "some amendments" and "maybe even punish the Government"... It has been planned that way... This is a very primitive form of governing the country...**[52]

Political scientists dubbed Putin "president of hope". The path that Russia will have to go through in the next six years will not be smooth. Government and society who have absolutely no trust in each other will have to find a compromise and make mutual concessions. Bureaucracy will put pressure on the people, the people will desperately resist. The role of mentor will be attributed to the head of state. Our future depends on how Putin will solve the contradictions that have accumulated in Russia[53].

Some experts believe that "if the situation gets really complicated in a few years, then the President will have the opportunity to make a move and just change the Government"[54].

[51] Khaldei A. The main problem of the pension reform. *Gazeta "Zavtra"*. 2018.09.07. Available at: http://zavtra.ru/blogs/glavnaya_problema_pensionnoj_reformi

[52] Putin's and Medvedev's ratings fell due to the pension reform (interviews with VTsIOM experts). *News "DailyStorm"*. Available at: https://dailystorm.ru/news/reytingi-putina-i-medvedeva-upali-iz-za-pensionnoy-reformy

[53] The President of hope. *Allpravda information portal,* March 9, 2018. Available at: http://allpravda.info/prezident-nadezhdy-59257.html

[54] Putin's and Medvedev's ratings fell due to the pension reform (interviews with VTsIOM experts). *News "DailyStorm"*. Available at: https://dailystorm.ru/news/reytingi-putina-i-medvedeva-upali-iz-za-pensionnoy-reformy

However, if earlier such a "move" was unexpected, and it largely contributed to the strengthening of Putin's authority in society (let us recall, for example, how this tool "worked" in 2015, when the country was experiencing a large-scale cancellation of suburban electric trains), then today such actions of the President are logical (it is no coincidence that in 2016, during a direct live TV phone-in, Vladimir Putin was asked: "Is it profitable to maintain such a weak Government?"[55]). Therefore, there is no guarantee that personal intervention of the head of state and even a significant adjustment of the pension reform project could preserve the disappearing legitimacy.

Concrete and rather intensive actions of the Government in the first months of Putin's fourth presidential term increase social tension in the country, create conditions for the development of the threat of social explosion instead of the mobilization breakthrough in the internal development that Russian society is long expecting.

In view of all the above arguments and facts that characterize the modern system of public administration in Russia, it can be stated that the question of the sustainability of its legitimacy in the future remains very unclear. And, as a result, the future of the Russian statehood itself becomes unclear.

Current actions of the ruling class in Russia are usually considered in the context of the future transit of power, which is inevitable, as some experts believe, or quite possible, as others explain. The main focus of the discussion is whether the successor will receive the full power or whether it will be distributed among the various centers, the major one of which will remain in the hands of the current group and its leader. That is why the State Council, the Security Council and some other bodies like the big KGB are mentioned periodically.

But all this is tactic, and as for the strategy, the contours of which were outlined by Putin himself – to change quickly, so as not to lag behind other countries – no one seems to be willing to undertake that. Perhaps top officials think that the main thing is to remain at the helm, and the rest will be dealt with later. However, a sharp drop in the ratings of all power institutions only because of one unpopular reform shows that there may not be enough time for all these tricks[56].

"The patience of the people is not infinite". This phrase ends the letter, which we mentioned at the beginning of the article. This address to the national leader and guarantor of the Constitution contains all the long-term expectations, people's impatience and, at the same time, the requirement to radically change the situation in order to implement national interests and fulfill election promises... and the President should take these words very seriously.

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[55] Transcript of the Direct Line with V. Putin, April 14, 2016 (question from E. Ivanova, Nizhny Novgorod). *Official website of the President of the Russian Federation*. Available at: http://www.kremlin.ru/events/president/news/51716

[56] On the discussion on the future transit of power (editorial). Nezavisimaya gazeta, 2018, August 2. Available at: http://www.ng.ru/editorial/2018-08-02/2_7280_red.html

Appendix 1

Президенту Российской Федерации
В. В. Путину

Уважаемый Владимир Владимирович!

08.08.2018 г.

Мы, представители патриотических, ветеранских, родительских, профсоюзных организаций России, выражаем свое категорическое несогласие с ключевыми направлениями экономической и социальной политики правительства РФ. Для нас очевидно, что истинная причина нехватки денег на выполнение социальных программ и обязанностей государства, в частности, на выплату пенсий — это вовсе не антироссийские санкции и даже не демографический кризис (вызванный политикой правительства РФ в 1990-годы), а, в первую очередь, система распределения доходов и бюджетных трат, сложившаяся в начале 1990-х годов под влиянием МВФ и Всемирного банка. Основу этих доходов составляет природная рента — т.е. общее достояние народа России. Между тем, по оценкам ведущего экономиста России, академика-секретаря отделения экономики РАН Дмитрия Львова, по состоянию на 2004 год «92% доходов от собственности РФ распоряжаются 7% населения, а если внимательно проанализировать дифференциацию в рамках этих 7%, то окажется, что основная доля богатства страны находится в руках 12 семей» (Вестник Российской Академии наук. Т. 74. №3. С.С. 209-218). За последние годы ситуация принципиально не изменилась, что воспринимается абсолютным большинством народа как несправедливость.

Повышение пенсионного возраста прямо предписано России в череде других стран с «формирующейся рыночной экономикой», руководящими письмами МВФ, членом которого РФ является с 1992 года. Так, в Докладе МВФ по РФ № 17/197 2017 года прямо указано, что «пенсионная реформа, в частности, повышение установленного в законодательстве пенсионного возраста, может способствовать компенсации влияния негативных демографических тенденций на рынки труда», причем эта фраза повторяется несколько раз. Хорошо известно, что практически во всех странах мира, где проводится «курс реформ» по указаниям МВФ, появляются серьезнейшие экономические проблемы. Как правило, это сильное обострение социальных вопросов, массовое обнищание народа и полная подчиненность национальных экономик «благодетелям» из наднациональных структур.

Другим ярким примером исполнения рекомендаций МВФ является т.н. бюджетное правило, согласно которому существенная часть доходов сырьевых корпораций вместо инвестирования в национальную экономику и социальную сферу отправляется на Запад. Продолжающийся, вопреки отчетам, развал промышленности и сельского хозяйства, кризис ЖКХ, катастрофическая зависимость целых регионов от банков и корпораций, в залоге у которых находятся тысячи объектов жизнеобеспечения, фактическая приватизация социальной сферы, развал системы первичной медицинской помощи с помощью т.н. оптимизации — это прямые следствия этой политики. Мало того, транснациональные корпорации через своих агентов в банковском секторе внедряют, вопреки Конституции и законам РФ, элементы тотального контроля над личностью, перехватывая функции государства под предлогом цифровизации и модернизации.

Точно таким же образом МВФ и другие наднациональные структуры навязывают России выгодную им политику в части разрушения образования, культуры, науки и социальной сферы, в которые инкорпорируются чуждые русскому народу и другим народам нашей страны «ценности» вроде ювенальной юстиции, абортов и легализации содомии. Отсюда и очевидная беспомощность власти в области контроля за информационным пространством — в частности, телевидением и социальными сетями, которые превратились в средство манипуляции людьми, рассадник антиобщественных и антигосударственных стереотипов и ценностей, отсюда же — несамостоятельный, подражательный Западу характер нашей киноиндустрии и шоу-бизнеса.

Мы, патриоты России, категорически возражаем против продолжения этой колониальной политики, выгодной исключительно геополитическим противникам России и статистически ничтожному меньшинству сверхбогатых людей. Голосуя за Вас, народ избирал не эффективного менеджера глобального олигархата, а Президента, который будет защищать нашу страну, наши интересы, наш народ и наши святыни от агрессии «мирового правительства». Ваше решение сохранить у власти бригаду «чикагских мальчиков», слепо верующих в мантры МВФ и Всемирного банка, ведущих нас в цифровое, ювенально-содомитское «завтра», в котором уже не будет места ни свободной творческой личности, ни нормальной семье, ни вере, ни Родине, ни культуре — вообще ничему из того, ради чего живет русский человек — вызвало огромное разочарование в народе. Очевидная неспособность этой команды выполнять социальные обязанности государства (о мобилизации всех сфер жизни и рывках в новый технологический уклад с таким правительством даже говорить смешно), его откровенная зависимость от владельцев сырьевых компаний и банков создают нездоровый фон, на котором может развиться опасная для государства революционная ситуация.

Призываем Вас отказаться от этого курса, ведущего страну в пропасть, запустив процесс национализации Центрального банка и выхода из-под контроля МВФ с отменой «бюджетного правила» по примеру стран, руководство которых реально заботится о национальном суверенитете, а также отправив в отставку наиболее одиозных деятелей Правительства, Администрации Президента, Центрального банка, Государственной Думы, Совета Федерации и других органов государственной власти РФ и субъектов РФ, обеспечивающих реализацию политики геополитических противников России. Терпение народа не безконечно!

С уважением,

Председатель
Координационного Совета
Патриотических Сил СПб и ЛО — Боцвин В.И.

Председатель Гражданского комитета возрождения
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доктор физ.-мат.наук, заслуженный деятель науки РФ
лауреат госпремии СССР — Фурсей Г.Н.

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Appendix 2

Global Retirement Index, %

Country	2017						2016						GRI dynamics + / – 2017 to 2016
	Ranking	Global Retirement Index	Health	Finances in retirement	Quality of life	Material well-being	Ranking	Global Retirement Index	Health	Finances in retirement	Quality of life	Material well-being	
Norway	1	86	89	73	92	91	1	80	90	72	91	95	
Switzerland	2	84	87	77	92	81	2	84	88	77	92	80	
Iceland	3	82	84	70	88	88	3	80	86	68	88	81	
Sweden	4	80	88	69	91	75	5	79	86	68	91	74	
New Zealand	5	80	85	79	91	66	4	80	85	78	90	68	
Australia	6	78	85	77	84	66	6	78	86	77	81	70	
Germany	7	77	86	66	82	76	7	78	87	67	82	80	
Denmark	8	77	84	59	94	75	12	77	85	59	92	75	
Netherlands	9	77	89	64	81	75	8	78	91	68	80	76	
Luxembourg	10	76	92	62	77	77	13	76	92	69	75	71	
Canada	11	76	87	73	81	65	10	77	87	73	82	70	
Finland	12	76	81	65	92	68	11	77	82	66	91	72	
Austria	13	75	85	55	86	77	9	77	86	63	86	77	
Ireland	14	74	82	71	83	64	16	72	83	68	82	58	
Belgium	15	73	82	62	78	70	15	73	82	61	78	71	
Czech Republic	16	72	70	68	75	76	18	71	71	67	74	73	
USA	17	72	87	71	78	57	14	73	87	71	79	59	
UK	18	72	83	58	81	68	17	71	84	56	80	68	
France	19	71	90	61	79	61	20	71	89	60	78	60	
Israel	20	71	76	70	79	61	19	71	77	69	78	62	
Malta	21	70	77	65	68	72	23	69	74	65	66	71	
Japan	22	70	88	56	65	74	21	70	88	55	64	76	
South Korea	23	68	73	76	53	75	22	69	72	76	52	79	
Slovenia	24	68	78	64	66	66	24	67	79	62	63	67	
Slovakia	25	66	65	68	71	60	26	64	65	68	69	56	
Estonia	26	65	63	74	64	58	27	63	63	73	60	60	
Singapore	27	64	70	79	60	51	25	65	68	79	60	56	
Poland	28	64	62	69	65	60	29	62	63	68	61	56	
Italy	29	63	82	53	69	52	28	62	83	53	68	51	
Hungary	30	59	60	60	54	64	33	57	60	58	47	63	
Lithuania	31	58	53	68	67	48	30	59	54	70	62	50	
Portugal	32	58	74	62	53	47	34	56	74	61	48	45	
Spain	33	57	87	63	77	27	37	54	81	63	74	22	
Latvia	34	57	46	68	69	48	32	57	51	68	61	50	
Cyprus	35	54	62	52	60	44	36	54	65	53	55	45	
Chile	36	54	69	78	77	21	31	59	70	80	76	28	
Mexico	37	52	51	64	74	30	35	54	52	64	75	35	
China	38	50	47	66	41	49	38	47	47	66	38	43	
Turkey	39	45	53	53	37	39	39	47	57	55	34	44	
Russia	**40**	**45**	**36**	**41**	**58**	**47**	**40**	**46**	**40**	**40**	**54**	**52**	
Brazil	41	41	52	57	82	12	41	44	54	60	86	13	
Greece	42	40	70	49	52	14	42	39	75	50	43	14	
India	43	12	3	53	7	17	43	12	4	49	5	18	

Source: 2016 GLOBAL RETIREMENT INDEX 2016, 2017

Ranked according to the place of the country in the rating of 2017; the index is calculated on the basis of 18 indicators that are divided into four sub-indices: finances in retirement, material wellbeing, quality of life, and health. The sub-indices reflect four key aspects of pension provision: financial means for a comfortable life in retirement, access to quality financial services to ensure the safety of savings and the increase in income, access to quality health services, and a clean and safe environment.

Appendix 3

Global AgeWatch Index

Country	Global AgeWatch Index		Income security		Health status		Capability (Educational attainment and employment of older people)		Enabling environments	
	Rank	Score	Rank	Score	Rank	Score	Rank	Score	Rank	Score
Top 10 countries										
Switzerland	1	90.1	27	77.3	2	81.3	2	75.0	1	83.7
Norway	2	89.3	2	89.4	16	73.5	1	76.3	4	80.1
Sweden	3	84.4	7	83.5	12	75.2	5	65.6	6	79.4
Germany	4	84.3	15	80.9	11	75.6	3	68.4	11	78.6
Canada	5	84.0	10	82.9	4	80.3	10	61.2	9	78.9
The Netherlands	6	83.0	5	85.9	13	74.8	12	59.6	5	79.6
Iceland	7	81.8	4	86.6	8	78.2	18	54.5	10	78.8
Japan	8	80.8	33	75.1	1	83.9	7	62.7	21	75.0
USA	9	79.3	29	76.3	25	70.1	4	65.7	17	76.8
UK	10	79.2	14	81.5	27	69.3	20	53.6	3	81.8
Russia and its neighbors in the rating										
Croatia	61	44.0	67	50.5	49	55.3	56	30.0	72	58.9
Dominican Republic	62	43.7	80	30.1	39	61.0	57	29.9	43	67.3
Lithuania	63	43.2	53	63.8	65	44.2	21	50.0	90	52.6
Belarus	64	42.1	50	65.1	84	28.6	66	27.0	44	67.1
Russia	***65***	***41.8***	***30***	***76.2***	***86***	***27.1***	***25***	***48.4***	***82***	***55.5***
Serbia	66	41.7	49	65.8	62	45.3	80	21.2	67	60.2
Bangladesh	67	41.1	71	47.2	71	37.7	76	24.2	41	67.5
Montenegro	68	39.7	61	56.3	56	49.1	82	20.6	70	58.9
Paraguay	69	38.9	79	35.9	50	54.4	54	30.6	77	57.5
Nepal	70	38.2	64	53.0	79	31.2	74	24.9	59	63.2
Bottom 10 countries										
Iraq	87	23.2	60	59.1	75	32.8	92	11.9	92	49.6
Uganda	88	23.1	92	15.0	92	22.1	45	34.4	70	58.9
Rwanda	89	22.7	93	12.0	81	30.0	90	13.8	13	78.2
Zambia	90	22.3	89	18.8	91	24.7	67	26.2	84	54.8
Tanzania	91	15.9	94	9.3	69	39.8	89	13.8	88	54.5
Pakistan	92	12.7	95	6.4	78	31.8	70	25.8	81	56.0
West Bank and Gaza Strip	93	12.3	81	24.7	73	36.6	96	1.8	63	62.3
Mozambique	94	4.5	84	22.8	94	18.9	94	4.5	96	45.1
Malawi	95	4.1	96	5.6	95	18.8	84	19.0	94	48.4
Afghanistan	96	3.6	83	23.3	96	7.1	91	12.1	95	47.0

Source: **Global AgeWatch Index 2015:** *Insight report 2015*

The rating is based on a statistical analysis of 13 indicators of the quality of life and well-being of older people, combined into four groups:

1. Income security (access to sufficient income and the ability to use it independently to meet basic needs at an older age). Includes pension coverage, old age poverty rate, relative welfare of the elderly and GNI per capita.
2. Health status (life expectancy at 60, healthy life expectancy at 60, и психологическое благополучие).
3. Capability (educational attainment and employment (ability to overcome problems, characteristics of abilities of elderly people). Includes employment, education and active life after 60.
4. Enabling environments (older people want to have freedom of choice, to live an independent life). Includes social connections, physical safety, civic freedom, and access to public transport.

These groups of indicators were chosen because they were identified by older persons and policy makers as key components of the well-being of the older population. For each group, countries are rated from 1 to 100 (using tenths of a fraction). The higher the score, the higher the country is ranked in this area. The overall Index is calculated as the geometric mean of the four areas and thus shows how close a country is to the ideal value. For example, the overall index value of 35.0 points means that the well-being of the elderly in the country is only 35.0% of the ideal (100).

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DOI: 10.15838/esc.2018.4.58.2
UDC 338.26, LBC 65.05

Strategic Planning – the Way toward Sustainable Development of the Russian Economy

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Abstract. The current ambitious goals in the field of economic development set out within the framework of a new political cycle require new approaches and instruments of economic policy formation. Strategic planning, which, along with the improvement of market mechanisms, is widely implemented in the practice of public administration in many developed countries of the world, becomes a system-forming factor for such a policy. Within the framework of the present paper, we provide a substantial analysis of the place and role of strategic planning in addressing structural and technological modernization issues and in ensuring high dynamics of economic growth in Russia. We assess the content of Federal Law 172 "On strategic planning in the Russian Federation" adopted in 2014. We revealed the main reasons why the law is still not implemented in economic policy. We show that the absence of clear goal setting, strategic development priorities and their resource provision in fact impedes the process of the country's transition to an innovative development model. On the basis of the analysis, we formulate major directions of further

For citation: Lenchuk E.B., Filatov V.I. Strategic planning – the way toward sustainable development of the Russian economy. *Economic and Social Changes: Facts, Trends, Forecast*, 2018, vol. 11, no. 4, pp. 35–47. DOI: 10.15838/esc.2018.4.58.2

improvement of the strategic planning system in Russia. We define the main outline of the system of strategic planning documents and put forward methodological approaches to their coordination. We focus our attention on the need to integrate a long-term financial and budgetary strategy into the strategic planning process. In the theoretical aspect, the results of our study confirm an important role of the state and strategic planning in the formation of a competitive and dynamic economy. In practical terms, they can be used by public authorities to further improve the efficiency of strategic planning in Russia and revise Federal Law 172.

Key words: strategic planning, structural modernization, forecast, socio-economic development strategy, state program, indicative plan.

Introduction

The Presidential Address to the Federal Assembly (March, 2018) and May Decrees (May 7th, 2018 no. 204) announced the key development objectives of the Russian economy within the new political cycle, the most important of which are – ensuring growth rates above the world average and overcoming the lagging of key participants in geopolitical competition; creating a high-performance export-oriented sector based on new technology, increasing productivity, etc. The urgency of objectives for Russia's sustainable development is beyond doubt, as well as the fact that their solution requires a transition to a new development model based on the revival of the real sector of the economy based on advanced technological innovation. We are talking about restructuring the economy to create new growth sources.

The complexity and scale of objectives requires coordinated interaction between the state, business and society, which is possible to achieve with clear goal-setting, definition of development priorities and their resource provision, and formation of an appropriate institutional environment. We are talking about a new quality of public administration – the main system-forming factor, without which all competitive advantages of the country are unable to provide the expected result [1, p. 20]. The strengthening of public administration means, first and foremost, the strengthening of strategic and project development in the economy, of its core – strategic planning.

Strategic planning as a qualitatively new system of public and municipal administration opens up an opportunity for the country to adequately respond to the challenges of the time and strengthen its economic and political position through consistent transition to an innovation-oriented development model which ensures sustainable dynamic growth and high competitiveness of the Russian economy based on advanced formation of basic production of a new technological structure [2].

The "market or plan" discussion has already taken the second place. The global practice confirms that achieving long-term goals of socio-economic development is impossible without using strategic planning methods firmly established in the management system of leading Western countries such as the US, France, Japan, South Korea, and China both at the macro-, meso- and micro-levels [3, 4, 5, 6]. It is based on the tools of strategic planning and program management that these countries address the most important socio-economic problems, the objectives of accelerated reindustrialization and innovative development. Moreover, many researchers note that the need for state regulatory intervention in economic development is particularly acute in critical periods, in particular amid economic crises and the need for structural adjustment [7, 8] .

For example, strategic planning in the United States aims to select the main priorities for the development of the national economy at the federal level and building relations of the federal government with state administrations, business and society. At the national level, the areas of development of the society, markets and technology are determined, which should be given preference etc. [9, 10, 11].

Countries such as France and Japan are also on the path of choosing priority industries in terms of the importance of their development for the economy in general. These countries develop long-term and five-year development plans, combining methods of indicative and policy planning [3, 12] .

The unique experience of building a large-scale planning system was accumulated within the Soviet system, which ensured the transformation of the USSR into a second superpower of the 20th century. Unfortunately, in the course of market reforms this invaluable experience was almost completely destroyed. Of course, the principles of planning in market economy are fundamentally different from those of the state-planned economy [13]. However, today, in the context of new large-scale, primarily scientific and technological challenges and the complexity of the socio-economic problems to be solved, the need to revive the fundamental scientific foundations of planning is manifested with renewed vigor. In order to do this, "the state must resolutely overcome the doubts about the awareness of the need for an active impact on economic processes by all, including administrative measures, and the fear of losing market innocence" [14, p. 95].

In this regard, it is necessary to focus once again on the main problems of returning to strategic planning in Russia, identify methodological approaches to building a system of strategic planning documents at different levels, and determine the areas of improving the organization of strategic planning processes and their legal support.

The revival of strategic planning in Russia

In post-Soviet Russia, the revived interest in strategic planning began at the end of the 2000s together with the understanding that the prospects for the development of the Russian economy are associated with the solution of a whole range of structural problems that are not addressed within the framework of market self-regulation, as evidenced by the experience of the transformation of the Russian economy over the past 25 years. First of all, it affected the structural problems arising in the military-industrial and technological spheres, which are, as a rule, of a long-term strategic nature and cannot be adequately solved within the framework of three-year budget planning. The established practice of development and implementation of federal target programs for the development of certain sectors of the national economy and industry did not provide a proper economic result, there was a weak correlation between them and the available resources [15, p. 8]. For many years, the Russian government, considering the progress of the Federal Target Programs (FTP), noted their unsatisfactory performance, but at the same time, it was not considered guilty as it was believed that the business community involved in their implementation is not subject to the state. However, if the business community decides to participate in FTP, it means it assumes certain obligations and is obliged to fulfill them and be both financially (fines, penalties) and administratively (revocation of licenses, bankruptcy and nationalization) liable [16, p. 46].

It has become clearer that there is a need to create a new set of management tools that would help solve the following objectives:

– to extend the temporal depth of state forecasting and planning beyond the terms of the budget cycle (more than 3 years), providing the implementation of long-term solutions (with implementation period of 6 years or more) in the framework of interrelated medium and short-term objectives subordinate to a common goal;

– to determine the sequence of development of long-term and medium-term documents of state strategic planning and their interrelation on the purposes and priorities, regulating the frequency of their development and adjustment;

– to regulate the terms of documents preparation of state strategic management and measures of the budget policy among themselves;

– to balance planned activities which require significant costs in terms of resource and organizational capabilities (energy, transport, demography and national security projects);

– to clearly focus Russia's constituent entities on activities that meet the interests of the country as a whole according to the goals of Russia's socio-economic development;

– to identify long-term guidelines for business (in the formation of new promising markets for goods and services, development of transport infrastructure, energy and mineral resources, labor market, social infrastructure, science and technology), helping reduce the risks in making long-term investment decisions.

The result of realizing the need for new tools of economic development management was the development and adoption of Federal law no. 172 "On strategic planning in the Russian Federation" (hereinafter – Federal law), dated 28.06.2014. Within the framework of the document, the system of strategic planning is defined as a tool for formation of long-term state priorities, implementation of global and large-scale objectives, ensuring consistency of plans of central and regional authorities, local governments, linking decisions taken in the process of state strategic management with budget constraints for the medium and long term.

It should be noted that in general, Federal law FZ-172 is of a framework nature and is intended to introduce new aspects into the system of state's influence on economic processes in three areas: in the list of strategic planning documents, in a clear definition of the nature of these documents and their content, as well as the procedures for their development and adoption. An attempt to consolidate all these areas in one law is a fairly new pioneer business in the scale and diversity of directions of Russian legislative practice [17, p. 19].

Along with the traditionally developed documents describing the future of the socio-economic development of the country, regions and industries in one form or another, such as Presidential Address to the Federal Assembly, the Strategy of socio-economic development of the Russian Federation, the National security strategy of the Russian Federation, sectoral and regional strategies and forecasts of socio-economic development, the list of strategic planning documents includes a number of new documents such as the Strategy of spatial development of the Russian Federation, which, in fact, revives the schemes of productive forces, the Strategy of scientific and technological development of the Russian Federation designed to form a technological vector of development in the context of the objectives of the dynamically developing scientific, technological and industrial revolution 4.0. The list of forecasts has been seriously expanded which includes the forecast of the country's scientific and technological development, strategic and budget forecasts for the long-term period in the whole country, in its constituent entities and even in municipal units. Thus, the emerging system of state strategic planning is of a forecast-planning nature, it should be based on long-term forecasting (with invariable scenarios) to form a long-term strategy (with specific goals, with one planned scenario), implemented through medium-term and short-term plans [18, p. 255].

A number of scientific papers [2, 4, 14, 15, 16] currently contains a detailed analysis and evaluation of the Law on strategic planning in Russia, which focuses on the content and regulation of the procedure for preparing a package of strategic planning documents,. In this regard, of greatest interest today is the identification of problems hindering the use of strategic planning tools in the framework of the country's economic policy. A number of methodological issues related to ensuring the interrelation of strategic planning documents in a single system, their resource support, formation of organizational and management infrastructure for strategic planning, establishment of control methods and mechanisms of responsibility of all participants in the strategic planning process remain relevant.

Issues of implementing FZ-172 "On strategic planning in Russia"

Despite the key government decisions, the adopted Federal law has not yet been implemented in economic policy and public administration. The administrative bodies of the Ministry of Finance, Ministry of Economic Development, Ministry of Industry and Trade of the Russian Federation are in no hurry to create its full legal, organizational and management infrastructure, believing that in modern conditions the forecast mechanisms do not provide accurate reliable development guidelines. Four years after the publication of the Federal law no. 172 "On strategic planning in the Russian Federation" it was not possible to form a correlated package of documents defining the prospects of the country's development for the period up to 2030, which was originally supposed to be developed by the beginning of 2016.

Although the time frame for the development of basic strategic planning documents were adjusted, it is already quite obvious that they are being disrupted again. Thus, the Strategic forecast of the Russian Federation is not presented – a document that should reveal a system of scientifically based ideas about the strategic risks of socio-economic development and threats to Russia's national security and form the basis for the development of National security strategy of the Russian Federation and strategic documents (strategies and doctrines) in the field of the country's foreign and defense policy. Despite the fact that the forecast does not consider the prospects for the development of certain sectors of the national economy and industry, the assessments of global risks contained in it have an impact on the prospects for the development of the country's military-industrial complex, which are implemented in the arms program.

The Strategy of long-term socio-economic development of the Russian Federation for the period up to 2030 – the most important document formulating the main objectives of country's socio-economic development in the context of the desired future shape of Russia and the conceptual direction of addressing the objectives required to achieve the targets of development – has not yet been presented for discussion and approval. As a result, there are no guidelines for the development of strategies and programs for the most important sectors and industries of the national economy and country's regions. The constant postponement of development of the basic document – Strategy of socio-economic development of the Russian Federation – indicates that the Ministry of economic development has lost the competencies and expertise to develop a document of this scale [15, p. 9].

Nowadays, the objective of strategic goal-setting is addressed through the approved National security strategy of the Russian Federation, the Economic security strategy of the Russian Federation and Presidential decree no. 204 "On national goals and strategic objectives of the Russian Federation up to 2024" (May 7th, 2018). However, the format of the Decree cannot replace the Strategy of long-term socio-economic development – the basic document of strategic planning, which contains a system of long-term priorities, goals and objectives of public administration, ensuring sustainable and balanced socio-economic development of the country.

The development of strategic planning documents is often contrary to the procedure and sequence of formation of strategic planning documents established in Federal law no. 172, which dilutes the essence of developed documents, making them meaningless, inconsistent with each other and inefficient. It is especially evident in the framework of strategic planning in the sphere of science and technology. It would be logical to assume that amid dynamically developing scientific and technological progress, the strategy of scientific and technological development of Russia should determine the direction of the country's technological development, set the objectives of development of key technology of the new emerging technological mode, which would be capable of forming the core of modern industrial production and determine the ways of development of new emerging high-tech markets. Instead, the Strategy of scientific and technological development of the Russian Federation adopted in 2016 (Decree of the President of the Russian Federation no. 642, dated 01.12.2016), focuses on fairly general and extensive issues – the search for answers to big challenges facing the state, society and science today, on the institutional features of the latter. The document turned out to be quite long and declarative, it does not contain any target indicators.

Addressing the objective of developing new advanced technology and new markets has been reduced to the level of development of the National technology initiative (NTI) – a comprehensive long-term program aimed at ensuring the leadership of Russian companies in promising global markets in the next 15–20 years. However, the practice of forming NTI raises many issues related primarily to the choice of NTI topics, which was formed behind the scenes, without proper correlation with the directions of technological modernization of the main sectors of the national economy. The main sources of NTI funding have not been identified despite the fact that the objectives of this level require significant financial costs [19].

It is paradoxical that the development of the long-term Forecast of scientific and technological development was launched only at the end of 2017, but has not yet been completed. And when discussing the draft Forecast it was revealed that its development is linked to the scenario conditions outlined in the already adopted Strategy of scientific and technological development of the Russian Federation. Although it is the Forecast of scientific and technological development that should be the basis of the system of documents of strategic planning in science and technology, which is determined by the provisions of Federal law no. 172.

The most important reason for the poor quality of strategic planning documents in science and technology is undoubtedly lack of a basic document – the long term Strategy of socio-economic development of the Russian Federation, which determines the type of economy we are building. The discourse related to the transition to an innovative development model has been observed for almost two decades but the economic policy is still aimed at maintaining "raw material" economy.

In the absence of a basic Strategy, the Strategy of spatial development, whose draft is currently being discussed in various government agencies at the federal and regional levels, would be an unusual decision. Such a Strategy should form a system of spatial priorities and identify the place of strategies and programs for the development of territories in the system of strategic planning. In fact, it should give an idea of the development and deployment of productive forces and their resettlement, further determine the regional profile, the territorial proportions of the economy, link development of the resource base with the needs of corporations and the population, and justify the placement of infrastructure systems, etc. [20, p. 485].

However, the unresolved issues within the framework of the basic Strategy of socio-economic development such as the main areas of structural modernization of the economy, which determine its future appearance, make it difficult to solve the problem of rational allocation of production potential and definition of rational economic specialization of territories and regional development in general.

From the point of view of the logic of strategic planning, the issue of the position of Article 20 of Federal law no. 172 also raises questions, here the basis of the Strategy of spatial development includes the Foundations of the state policy of regional development (Decree of 2017). We can fully agree with the opinion of E.M. Bukhwald who focuses on a certain logical incorrectness in the preparation of Federal law no 172 as it is still considered that the policy is based on the strategy, rather than vice versa. First, the "Strategy of spatial development ..." should be developed, and then, in order to detail it, the "Framework for regional development policy" containing a system of specific goals, institutions and policy instruments, as well as resources to ensure their practical implementation [17, p. 21].

However, since the above-mentioned sequence is still enshrined in the law, it should have to be implemented. In this regard, it should be expected that the Strategy of spatial development will develop and specify the key provisions of the "Framework...", for example, they will offer specific ways and mechanisms to overcome the high level of differentiation of regional development, ensuring equal opportunities for the realization of citizens' rights based on balanced sustainable socio-economic development of Russia's constituent entities and municipal units. However, this did not happen in the present version of the draft Strategy. One can only hope that this will be done in the final version of the Strategy.

Despite the absence of basic strategic planning documents, the number of strategic planning documents at the regional and even municipal level, which are not coordinated by goals, priorities, and forecast parameters, both among themselves and with higher-level strategic documents, is increasing. They have different depth of detail and do not take into account the inter-regional and inter-sectoral restrictions.

The situation is no better in the sectoral economy. More than 40 state programs for the development of various spheres and sectors of the national economy are under implementation, including the programs for the development of high-tech industries, most of which were adopted before the publication of Federal law no. 172, and the validity of which ends in 2020. The status and purpose of strategies for the development of civil sectors, which should be developed by the end of 2018 is not clear.

Today the country has a huge number of strategic planning documents that are not correlated and do not form a single system, which creates serious risks of loss of financial, labor and natural resources, of further deepening of interregional imbalances.

In our view, the situation is explained by a number of reasons.

First of all, the implementation of strategic management in the economic policy is hampered by ideological limitations of the economic mainstream formed in the country, based on the postulates of the institutional theory and the Washington consensus. As a result, there is lack of necessary understanding of the role of strategic planning documents in solving structural problems of socio-economic development. It is not surprising that the main goal of the developed documents (strategies and programs), even at the sectoral and regional levels, is to improve the mechanisms to support private business initiatives, rather than to form and justify the desired image of the future national economy as a whole, as well as its most important areas of activity, industries, and regions. Accordingly, the documents lack the investment component – the main projects whose implementation ensures the real development of the economic potential of industries and regions.

There are still serious contradictions between planning and financial structures, which are guided by different poorly aligned goals, priorities and principles of work against the background of the loss of competencies (relative to the Soviet period) by the Ministry of economic development for the development of large-scale documents of inter-sectoral and inter-regional form, the formation of which requires substantial and organizational coordination of activities of a large number of participants.

As a result, today there is a clear gap between budget planning and economic planning. In fact, the economic policy is reduced to the macro-economic stabilization and maintaining fiscal balance as a condition for foreign investment inflows. In such a model the budget policy is a priority in relation to the objectives of economic growth and structural modernization of the economy. Accordingly, strategic planning as a tool for solving structural problems of the national economy loses its prior importance.

The package of documents on the strategic planning process proposed by the Ministry of economic development, even at the methodological level, lacks the mechanisms for inter-sectoral and inter-regional coordination of strategic planning documents. It is unclear how strategic planning documents (strategies, programs, national projects) that are being developed should and can be linked to available resources and how best solutions can be selected. As a result, this selection is based on lobbying the processes by stakeholders.

The methodology of consistent development of the chain of strategic planning documents: forecast – strategy – program (plan) – project (specific objective) and their implementation has not been fully developed yet. There are no correlated target indicators of such documents. The current system of public administration also lacks effective control and responsibility for the implementation of political, economic, and management decisions, without which planning remains a forecast with consistently high risks of inaccuracies and errors. The phrase that came down from the Soviet period remains relevant: "A plan without a forecast is a bureaucratic action; a forecast without a plan is a literary work" [14, p. 81].

The structure of strategic planning lacks the framework of a full strategy for the development of fundamental and research science, scientific and technological solutions of the rather distant future, which is explained by the reduced role of the Russian Academy of Sciences in the implementation of scientific foresight and scenarios for the country's development, taking into account the latest technological structures and the "New industrial revolution 4.0".

It is also important that the attempt of a transition to strategic planning in the country is carried out in extremely complex geopolitical and geo-economic conditions, in a situation where the possibilities of foreseeing the situation in the future are very limited, and all kinds of risks are very high [2, p. 5]. Many factors affecting the economy are beyond the zone of internal influence, which makes it difficult to develop reliable both long-term and short-term forecasts. In such circumstances, the opinion of the state authorities is that the practice of transition to strategic planning is premature, it is more productive to adopt anti-crisis stabilization plans with a one-year (short-term) planning horizon. However, successful global experience demonstrates the opposite – strategic planning aimed at solving structural problems of economic development increases the stability of the national economy and reduces the impact of external factors on economic growth.

The main areas of improving the system of strategic planning

In order to move away from the practice of developing forecasts, strategies and programs in the form of "literature works", which dilute the content and benefits of using strategic planning tools in the framework of the economic policy, it is necessary to identify the main directions for further improvement of the strategic planning system. Of course, it should be built on the basis of full-scale implementation of the logic and ideology of Federal law no. 172 "On strategic planning in the Russian Federation" and Government Decree no. 1050, dated 15.10.2016. "On project activity in the Government of the Russian Federation". At the same time, in our view, the following objectives come to the fore.

First of all, it is necessary to complete the formation of the general outline of state strategic planning of the country's socio-economic development. The foundation and framework of such a strategic planning system should be strategic documents such as:

- The national security strategy;
- The strategy of economic security;
- The strategy of socio-economic development for 15 years;
- The strategy of scientific and technological development;
- The strategy of long-term spatial development;
- The plan of national economic development including development programs of the most important sectors of economy and macro-regions;

• The main areas of the unified state monetary policy and the strategy for improving the budget system;
• The plan of government activities;
• The three-year budget;
• The medium-term public procurement plan.

The core of the main strategies can be supplemented by the strategies for the development of particularly important strategic sectors, state corporations (especially those engaged in the national security, defense, scientific and technological breakthroughs), regions and macro-regions, strategic economic and geographical zones (the Arctic zone, Siberia, the Far East), and territories of advanced development.

In the system of state strategic planning, it is necessary to clearly identify its basic elements: macro-economic planning; determination of long-term trends in the structure and proportions of economic development, return on a new basis of balance sheet methods; management of the public sector, state corporations, and state property. They should objectively determine the image and paradigm of public administration, the list of its objectives and functions, and the structure and mechanisms of functioning. This may entail .. changes in the structure (hierarchy) of federal executive authorities, bearing in mind the logic of formation, adoption and execution of political, economic and management decisions with a clearly defined system of responsibility. Planning structures, defining strategic goals and priorities and ways of their realization become prior.

It is obvious that it is necessary to restore the logical sequence of development of strategic planning documents, realizing that the Strategy of long-term socio-economic development of the Russian Federation (up to 2030 or 2035) is the most important basic element of the entire system of strategic planning of economic development. In the course of its development the most important long-term development priorities, the expediency of formation of national projects and state programs for the development of priority economic sectors, the spheres of regions' activity should be justified. The core document should finally be finished; only after its adoption could other strategic planning documents be developed or refined, including science, technology and spatial development strategies, sectoral and regional strategies, and national projects and programs.

The objective of increasing the level of resource balance of the adopted projects and programs can be addressed in the course of the development of a long-term national program of socio-economic development (for two presidential terms), formed on the basis of draft strategies for the development of individual sectors and industries, as well as territorial formations. The implementation of such a national program and the clarification of parameters of economic development and investment projects should be based on three-year indicative plans as a basis for the development of a three-year budget. In this regard, it seems appropriate to make specific additions regarding the formation of such a plan in Federal law no. 172.

The deployment of the system of strategic planning should ensure the systematic use of the resources available to the state for the modernization and new economic industrialization based on the new emerging technological structure. This requires a cross-cutting correlation between the Strategy for technological development and the rest of strategic planning documents. Moreover, it seems appropriate to develop a five-year program of economic modernization based on the development of advanced technology of the new emerging technological structure, providing measures for advanced development of its components of production and technological complexes, creation of a favorable macro-economic environment and formation of relevant institutions and management circuits [20, p. 487].

Given that scientific and innovation activities should penetrate all spheres of the economy, it is necessary to focus on creating an effective scientific and technological progress management system. We can fully agree with the opinion of academician S.Yu. Glaz'ev who notes that the currently implemented approach to managing science as a separate branch in the format of a ministry is obviously ineffective. For cross-cutting stimulation of innovation activity in all economic spheres it is advisable to create a special supra-departmental institution responsible for the development and implementation of the state scientific, technical, and innovation policy, coordination of activities of ministries and departments for its implementation [20, p. 488].

It is equally important to improve strategic planning efficiency by incorporating a long-term financial and budgetary strategy into the process. In the current practice, the forecast of the main parameters of the budget system is based on forecasting the performance of various sectors of domestic economy and Russian regions, which forms the budget strategy, determining the amount of financial resources that can be used to achieve the goals of the state policy, i.e. the budget strategy is a passive result of the forecast. In fact, however, fiscal and financial (monetary) strategies can and should be a real tool, the results of which should be reflected in the socio-economic forecast options.

In fact, the purpose of the budget strategy and the monetary policy strategy is to determine financial resources which can be used to achieve the goals of national socio-economic development.

Long-term budget planning as part of the overall financial policy should solve a number of important objectives [22, p. 106]:

– ensure stable and sustainable program expenditures of the budget system (the budget of enlarged government) according to the set goals and priorities;

– ensure stable and sustainable program expenditures of regional budgets within the framework of inter-budget relations and budget alignment;

– provide clarification of parameters of the budget system, taking into account the changing macro-economic global trends;

– determine the comparative efficiency/expediency of using certain elements balancing the system (the choice between reducing and increasing costs, increasing and reducing the tax burden, increasing and reducing public debt, changing the parameters of sovereign funds) in relation to a specific projected socio-economic situation;

– set the "ceiling value" of program costs, including direct budget and tax expenditures;

– introduce new programs (aggregation of existing programs, formation of blocks of programs) in the medium and long term based on a clearly established mechanism;

– provide risk assessment of long-term socio-economic development as an independent unit in each scenario of the budget strategy (primarily external risks) and the degree of exposure of the budget system to external shocks.

The program approach to budget planning definitely provides an opportunity to increase the efficiency of expenditure, since under this approach, budget funds are allocated for specific goals and objectives. At the same time, it imposes new increased requirements to the quality of the state programs under development. First of all, we are talking about deeper and clearer elaboration of program targets and their indicators, resource and financial support up to specific investment, scientific, technological or organizational and managerial projects. According to the current practice of development and implementation of state programs, such elaboration is not carried out. This is partly because today's programs represent a different form of presenting budget plans and budgetary reporting, rather than the implementation of the program-target method as such [22, p. 106; 107].

There is a need to clarify the institution able to carry out strategic planning functions without focusing on departmental and regional interests. It should be noted that the Council for strategic planning and projects under the President of the Russian Federation cannot replace the authority with the relevant competencies and powers since it is largely an expert-analytical structure unable to perform power and administrative functions. Therefore, there is a need to establish a real body of power and management, which, along with the key structures of regulating domestic and foreign policy, institutions of supreme power, will be part of the ministries and federal services, reporting directly to the President of the Russian Federation. The Ministry of economic development clearly cannot cope with this function.

To sum up, it should be noted that the proposed measures to accelerate the implementation of strategic planning tools in the process of formation and implementation of the economic policy, in our opinion, are the main ones, but they do not address all the problems to be solved to turn strategic planning into a target impetus to the growth of the Russian economy and the quality of life.

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Received August 9, 2018.

DOI: 10.15838/esc.2018.4.58.3
UDC 339.9, LBC 65.5

Science and Technology Development in Russia and China: Comparative Analysis and the Prospects of Cooperation

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Abstract. The relevance of the article consists in the fact that taking into account modern global economic changes and the specialization of the Russian economy, it (the economy) is searching for ways to integrate optimally into the international division of labor; at the same time, cooperation with China becomes

For citation: Lavrikova Yu.G., Andreeva E.L., Ratner A.V. Science and technology development in Russia and China: comparative analysis and the prospects of cooperation. *Economic and Social Changes: Facts, Trends, Forecast,* 2018, vol. 11, no. 4, pp. 48–62. DOI: 10.15838/esc.2018.4.58.3

important. The main idea and goal of the study is to conduct a comparative analysis of science and technology development in Russia and China and to identify prospects for their cooperation in the modern world economy. Scientific novelty of the work consists in the fact that it analyzes the state of international cooperation in science and technology, and this analysis takes into account the overall situation in trade and economic cooperation, and manifestations of science and technology cooperation in trade; besides, the analysis takes into account science and technology cooperation factors such as the place of countries in the global innovative development, the presence of similar national priorities of science and technology development, and similar types of policy documents. Our typology of manifestations of science and technology cooperation includes spatial, sectoral and institutional parameters. We propose to take into account the specifics determined by modern trends in global economic development. The use of these approaches should contribute to the maximum integration of the priorities of science and technology cooperation between Russia and China and help the countries become leaders in the world market. In the course of the study we use comparative, causal, economic and statistical analysis, analysis of policy documents, and analysis of science and technology cooperation on geographical, sectoral and institutional parameters. Science and technology cooperation factors that we identify and the typology of manifestations of such cooperation are the main results of our study.

Key words: international science and technology cooperation, Russia and China, cooperation priorities, global economic environment, manifestations of science and technology cooperation, typology of manifestations, position of countries in the international division of labor, cooperation prospects.

Modern world economic context as a determinant of science and technology development

Speaking about the prospects of Russian-Chinese cooperation on science and technology, we should proceed from the specifics of the current period in the development of global economic relations. It consists in the gradual shift of the center of gravity from the hegemonic countries of the world economy to its so-called periphery and is expressed in the following:

– a growing range of global economic challenges that the Russian economy has to deal with, such as the imposition of international economic sanctions, which determines the shift in emphasis in cooperation with the countries of the Asia-Pacific region;

– an increasing importance of the role of emerging economies in the global economy;

– strengthening the cooperation between emerging economies, their unification in the form of new integration entities (Shanghai Cooperation Organization (SCO), BRICS, Eurasian Economic Union), against the background of traditional integration associations becoming weaker (EU, etc.); China increased its share in the structure of Russian exports (in the course of 10 years, from 4.5 to 10.9% in 2008–2017) and imports (from 13.0 to 21.2%)[1];

– the emergence of international infrastructure mega-projects.

In particular, the increasing role of emerging economies in the world economy is a particularly relevant statement for Asia where their largest representatives – China, India, Malaysia, Thailand, Indonesia, and Vietnam – are situated; they are characterized by rapid growth promoted, among other things, by their

[1] Calculated from: Customs statistics of foreign trade. Website of the Federal Customs Service of Russia. Available at: http://stat.customs.ru/apex/f?p=201:7:571014685148678::NO (accessed 20.04.2018).

"Asian accumulation cycle". The aggregate GDP based on PPP of the seven largest emerging countries (including the BRICS nations: Russia, Brazil, China, and India; as well as Mexico, Indonesia, and Turkey) in 2013 exceeded the combined GDP of the G7 (35.0% of world GDP vs. 32.4%). By 2017, this ratio was 37.5% and 30.6%. China's GDP based on PPP has been ahead of the U.S. since 2014 (in 2014: 16.5% of world GDP vs.15.8%; in 2017: 18.2% vs. 15.3%)[2].

At the same time, both Russia and China have significant reserves of resources *(Fig. 1)*. The BRICS and SCO associations, a significant contribution to which is made by China and Russia, are not as comparable to the associations of developed countries in terms of their contribution to world GDP as they exceed them in terms of their share in the structure of the world's human and mineral resources. For instance, the population of SCO is three times larger than the EU and NAFTA taken separately, and the population of the BRICS is twice as large. As for mineral resources, it would suffice to mention energy sources. In terms of natural gas reserves, the SCO and BRICS outstrip NAFTA in more than three times, and EU – in thirty times. BRICS and the SCO have large reserves of coal, especially in comparison with the EU. Thus, with regard to resources, they are leaders.

New international infrastructure mega-projects include the Silk Road Economic Belt and the 21st Century Maritime Silk Route Economic Belt [1, pp. 119–120].

In general, according to S.Yu. Glazyev, a new world economic order is being formed [2, p. 26]. Russia and China are major participants of this process. One of the most important factors for Russia is the necessity to remain competitive in the global economy, become the most important participant in international science and technology cooperation, and occupy a worthy place in the international division of labor, especially when the world economy is shifting toward a new technological order, developed economies use advanced technologies, and emerging economies start to use them.

With this in mind, Russia's international economic cooperation with China serves to strengthen the countries' positions in the world economy. In this regard, the purpose of our paper is to identify priorities of and prospects for the development of science and technology cooperation between Russia and China in the modern world economy. Scientific novelty and significance of the work consist in the fact that it provides a comprehensive vision of the manifestations of Russian-Chinese cooperation in science and technology, taking into account current trends in global economic development.

Comparative assessment of the level of scientific and technological development in Russia and China

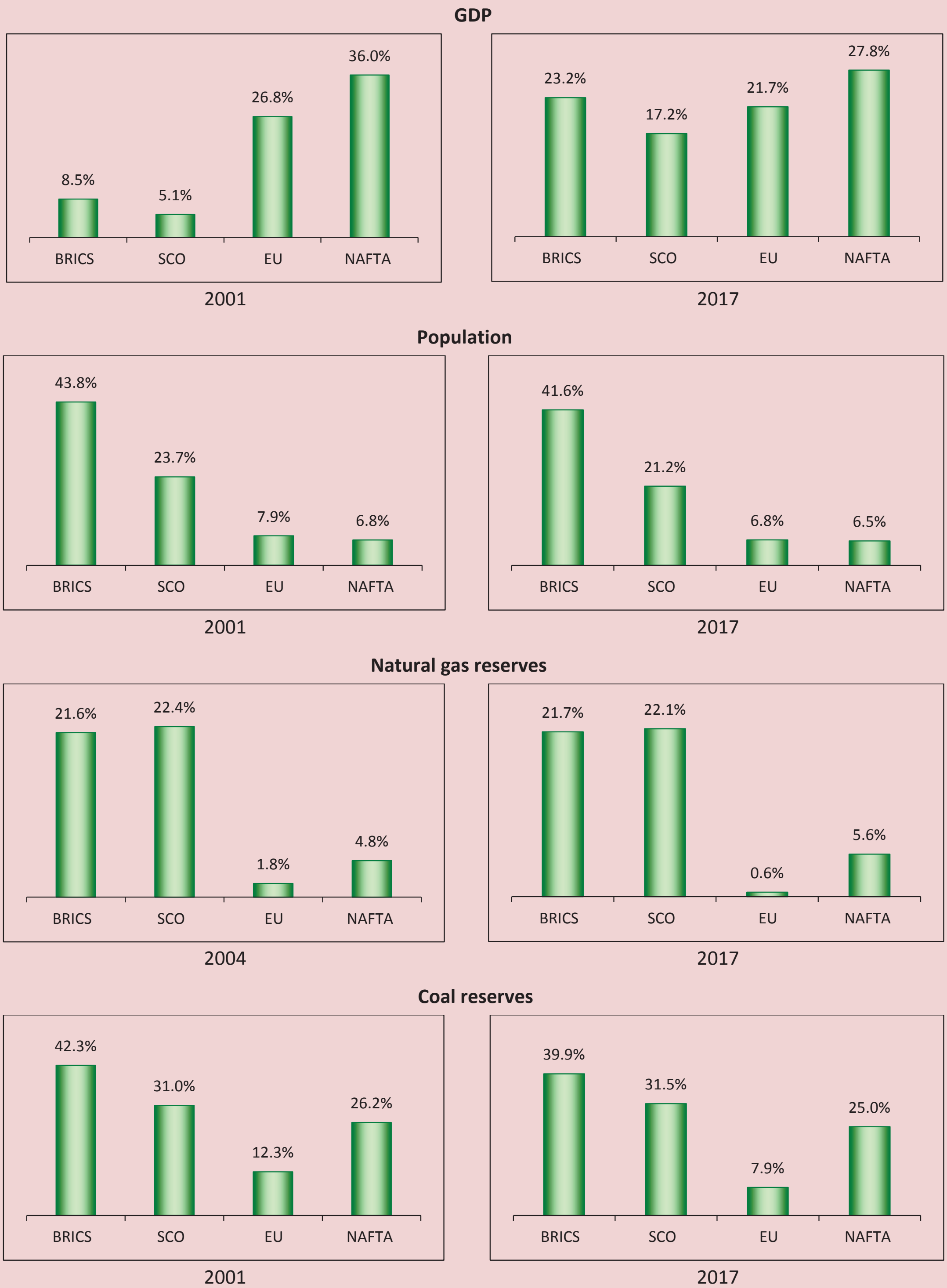
In terms of the level of scientific and technological development, China is significantly ahead of Russia on a number of indicators. In global economic cooperation, China is a leader in many respects: in terms of GDP, exports, international investment, population (and hence human resources) *(Tab. 1)*.

China occupies a leading position in the global manufacturing industry, too *(Tab. 2)*. It is a world leader in the production of machine tools, motor vehicles, computers, electronics and optics, and industrial robots [3, pp. 12-18].

Such leadership depends largely on the innovation policy carried out in the country. The rating on the indicators of innovative development is shown in *Table 3*.

[2] India vs. China: the race of innovation has already begun. *Vesti. Ekonomika*. 22.07.2015. Available at: http://www.vestifinance.ru/articles/60402 (accessed 16.04.2018).

Figure 1. Shares of associations of developed and emerging economies in the structure of world GDP and world reserves of resources, %



Source: compiled and calculated from: World Economic Outlook Database, April 2018. International Monetary Fund. Available at: http://www.imf.org/external/pubs/ft/weo/2018/01/weodata/index.aspx; Indicators. World Bank website. Available at: http://data.worldbank.org/indicator; BP statistical review of world energy. BP website. Available at: https://www.bp.com/en/global/corporate/energy-economics/statistical-review-of-world-energy/downloads.html (accessed 14.07.2018).

Table 1. Russia and China in global economic relations, 2017

Indicator		Russia	China
GDP, trillion USD (share in the world)		1.5 (1.9%)	12.0 (15.0%)
GDP growth (2017 to 2001)		4.64-fold	8.94-fold
Population, million people (share in the world)		145 (1.9%)	1386 (18.4%)
GDP per capita, USD		10608	8643
Exports, billion USD (share in the world)		353 (2.0%)	2263 (12.8%)
Imports, billion USD (share in the world), 2017		238 (1.3%)	1842 (10.3%)
Foreign direct investment, billion USD (share in the world), 2016	inflow	38 (2.2%)	134 (7.7%)
	outflow	27 (1.9%)	183 (12.6%)

Sources: compiled and calculated from: World Economic Outlook Database, April 2018. International Monetary Fund. Available at: http://www.imf.org/external/pubs/ft/weo/2018/01/weodata/index.aspx; Data center. UNCTADstat. Available at: http://unctadstat.unctad.org/wds/ReportFolders/reportFolders.aspx?IF_ActivePath=P,5&sCS_ChosenLang=en; Indicators. World Bank website. Available at: http://data.worldbank.org/indicator (accessed 10.07.2018).

Table 2. China's share in global manufacturing production [3]

Production	Share, %
Metalworking machines	27.6
Motor vehicles	29.6
Computers, electronics and optics	34.1
Industrial robots	29.6

Table 3. Global innovation index 2017 and its components: the place of Russia and China in the world*

Indicator	Russia	China
Global Innovation Index (rank), including:	45	22
Institutions	73	78
Human capital & research	23	25
Infrastructure	62	27
Market sophistication	60	28
Business sophistication	33	9
Knowledge & technology outputs	45	4
Knowledge creation	22	5
Patents by origin/bn PPP$ GDP	15	1
High- & medium-high-tech manufactures, %	51	14
High-tech exports less re-exports, % total trade	44	1
ICT services exports, % total trade	76	77
Creative outputs	62	26
Creative goods exports, % total trade	49	1

* Sub-indices of the global innovation index are shown in bold.
Source: Dutta S., Lanvin B., Wunsch-Vincent S. *The Global Innovation Index 2017: Innovation Feeding the World (10th Edition)*. Johnson Cornell University, INSEAD, World International Property Organization, 2017. 432 p. Pp. 209, 281.

The Russian and Chinese economies are roughly comparable in terms of "institutions" (73rd and 78th places) and "human capital & research" (23rd and 25th places). China is a leader in the rest of the sub-indices; and in some cases it is ahead of many other economies (see Tab. 1). But according to some particular indices, the Russian economy is not inferior to the Chinese economy. For example, in terms of infrastructure, they include "information & communication technologies" (36th vs. 48th position), "electricity output" (25th vs. 51th); in terms of market sophistication, they include "ease of getting credit" (40th vs. 55th), "microfinance gross loans, % GDP" (60th vs. 73rd), "ease of protecting minority investors" (52nd vs. 98th), "applied tariff rate" in trade (66th vs. 76th); in terms of business sophistication, this is the proportion of women employed in high positions (Russia ranks second), "intellectual property payments, % total trade" (16th vs. 32nd), "ICT services imports, % total trade" (35th vs. 99th); in terms of knowledge and technology outputs, they include "intellectual property receipts" (37th vs. 67th), "ICT services exports, % total trade" (76th vs. 77th), "FDI net outflows" (24th vs. 45th).

Our analysis shows that, China has made significant progress in innovative development for 2006–2018.

Another global rating assesses the global competitiveness of manufacturing *(Tab. 4)*.

Over the years (2010, 2013, 2016), China is the leader in the global manufacturing competitiveness index (see Tab. 1). It is the largest owner of supercomputers; in China in 2016, their number became the same as in the United States and their quality was even higher. However, in this regard, Russia is also among the top ten countries. China ranks 4th in the number of patents, being inferior only to Japan, the U.S., and the European Union [4, pp. 15-16].

It should be noted, however, that China's leadership in world production (see Tab. 2) and the absolute indicators of its global manufacturing competitiveness (see Tab. 4) are largely related to the enormous amount of human capital (i.e. population) (see Tab. 1).

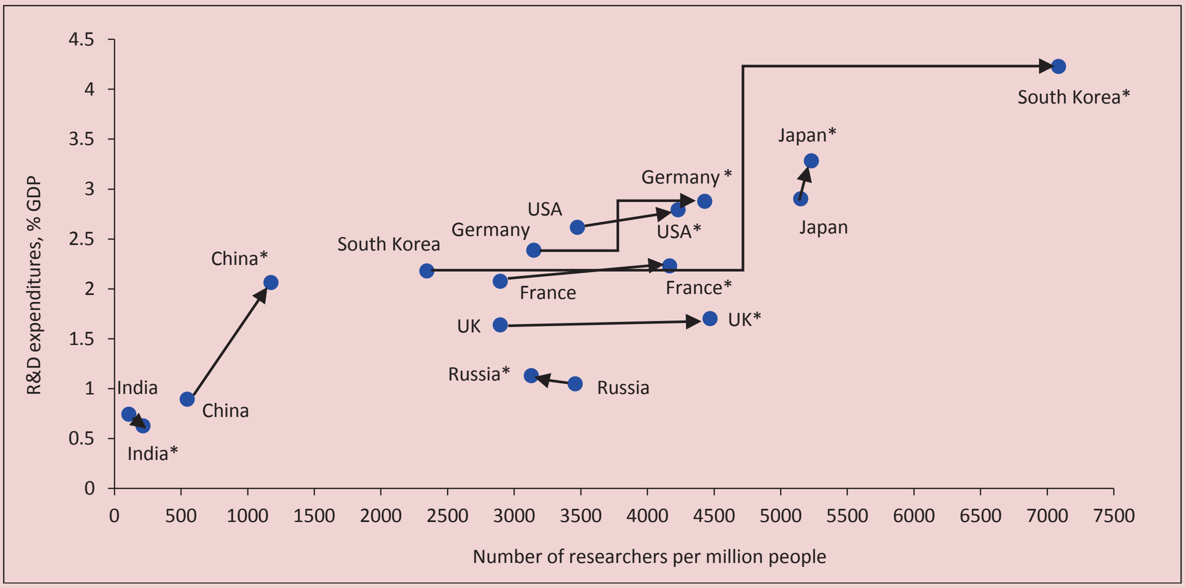
If we consider the dynamics of the two main indicators of research potential such as R&D expenditure in % of GDP and the number of researchers per one million population – for the period from 2000 to 2015, then it is clear that South Korea is a leader in these indicators and has the greatest dynamics of their development *(Fig. 2)*. Its R&D expenditure in % of GDP for 15 years has doubled, and the number of its researchers has tripled. Japan and Germany rank second; they have been more successful in increasing these figures than other G7 countries. The United States follows them with a slight lag: it also managed to increase both indicators. The change in the indicators of France and the UK was mainly due to a 1.5-fold increase in the relative number of researchers. Despite the fact that according to this indicator Russia is significantly closer to the level of developed countries than China and India, of all the above countries Russia is the only one that has experienced a decrease in the number of researchers during this period. China managed to achieve the level of the UK and France in this indicator by doubling its R&D expenditure.

Table 4. Indicators of global manufacturing competitiveness in Russia and China

Indicator		Russia	China
Global manufacturing competitiveness (rank), 2016		32	1
Number of supercomputers		7 (8 place)	168 (1 place)
Number of researchers per million population, people	2000	3459	547
	2015	3131	1177
Ratio of research and invention expenditure to GDP, %	2000	0.985	0.893
	2015	1.132	2.067
R&D expenditures per capita (PPP), USD (2016)		259	322

Sources: compiled and calculated from: 2016 Global Manufacturing Competitiveness Index Report highlights. Website of Valve Manufacturers Association. Available at: http://c.ymcdn.com/sites/www.vma.org/resource/resmgr/2016_mow_presentations/MOW_2016_-_Dollar.pdf (accessed 20.06.2017); [4]; World Bank statistics (http://data.worldbank.org/indicator) and UNESCO statistics (http://data.uis.unesco.org/Index.aspx?DataSetCode=SCN_DS&popupcustomise=true&lang=en#) (accessed 10.07.2018).

Figure 2. Ranking of countries by number of researchers and R&D expenditure, in 2000 and 2015 (*)



Name of the country without "*" means 2000, with "*" – 2015 (number of researchers in the US and France–2014).
Source: World Bank statistics. Available at: http://data.worldbank.org/indicator. Accessed 10.07.2018.

At the same time, we should not forget that, although Russia lags far behind China in terms of patent applications, this indicator does not reflect such aspects as the economic importance and quality of patents. China has sharply increased its R&D expenditure, but it should be noted that Russia is making efforts to increase remuneration of researchers (a relevant document has been adopted, and conditions are being created: funding is organized in a decent amount through research foundations in order to improve the quality of research), efforts are taken to increase the share of young researchers. In addition, the high shares of the Chinese economy in the global structure of various manufacturing industries largely reflect not only and sometimes not so much the scientific and technological as the economic success of China, whose economy has managed to master many technologies thanks to entrepreneurial spirit and an active catch-up modernization, when many transnational corporations, being attracted by the low cost of labor, placed their manufacturing in China, and the Chinese gradually managed to master these technologies.

Differences and common points in the vision of scientific and technological development in Russia and China

Currently, both Russia and China are in the global trend of innovative development. Russian researchers point out (in particular, on the example of the pharmaceutical industry) that the program for industrial development will be successful in the case of innovative development of the industry [5, p. 125]. Chinese researchers, for example, Xu Bai and Yun Liu, also emphasize that it is important for emerging economies to implement innovation, R&D investment strategies, allocate resources rationally, and manage R&D effectively [6, p. 14]. China's current five-year development plan (since 2016) considers sustainable economic development, innovative growth and economic modernization as prime goals, as earlier [7, pp. 27, 29]. Along with industrial development, China is also considering the issue of moving toward a low-carbon economy [8, pp. 187-188]. Studies show that technological progress is an effective means of reducing carbon emissions [9, p. 14]. There is a potential for international research cooperation (for example, in medicine), too [10].

In China, the need to modernize and improve its scientific and technological level was recognized back on the eve of economic reforms (Deng Xiaoping spoke about it in 1978) [11, p.5]. In the early 2000s, new directions for the development of China were integrated into a scientific development concept aimed at changing the growth model in the direction of intensive, innovation [12, p. 22]. In the mid-2000s, special attention was paid to strengthening the link between production, education and science [13, p. 487]. Xi Jinping, speaking at the 19th Congress of the Communist Party of China, pointed out that China is to implement modernization by 2050 [11, p. 5]. It is expected that a "basic socialist modernization" of China will be carried out in 2020–2035. In economic development, it is planned to shift the focus from "rapid" to quality development. It is planned to continue the construction of an "innovation power". It also planned to integrate the Internet and artificial intelligence with the real economy [14, pp. 61, 63].

China's experience in supporting innovative development is of interest, too. For instance, special tax incentives are granted to "enterprises of new and high technologies", to "enterprises that service advanced technologies", and to small innovative enterprises [15, p. 44]. An important prerequisite for scientific and technological development is the interest on the part of the corporations in acquiring and applying R&D results [16, p. 21]. This is due to the fact that the barriers hindering the development of science and technology sphere in China, included a low level of investment in science and innovation, problems in the allocation of resources for innovation, and inefficient relations between science and manufacturing [17, p. 55]. In fact, Russian scientific and technological development is facing the same problems.

The focus on scientific and technological development will enable China to shift from an extensive to intensive model of economic growth, and Russia – to ensure economic growth and reduce its dependence on exports of energy resources [18, p. 90].

The focus of Russia and China on innovative development largely determines the change in their role and place in the world economy. Therefore, it is necessary to pay special attention to the prospects and needs of scientific and technological cooperation of the partner countries, taking into account the current world economic situation and common interests in strengthening their positions in the international division of labor.

General points in the development of the regulatory framework of scientific and technological development in China and Russia.

China has adopted the "Medium and long-term state program for scientific and technological development" for the years 2006–2020, which involves the implementation of large research projects, development of industrial innovation and commercialization of know-how [16, p. 9]. The Chinese Academy of Sciences launched a Program of action aimed at improving the international competitiveness and addressing key problems of the national economy [19, p. 21]. In Russia, in turn, the expected results of the state program "Development of science and technology" (for 2013–2020) include the creation of scientific and technological reserve demanded by economic sectors, expansion of the practical application of scientific research findings, the country's achieving leading positions in patent activity. At the end of 2016, the Science and Technology Development Strategy of Russia (Decree of the President of the Russian Federation dated December 1, 2016) was adopted; it aimed at ensuring Russia's transition to advanced digital, intelligent production technologies and materials, environmentally friendly and resource-saving energy, personalized medicine, highly productive agriculture, finding solutions to techno-, biogenic and other threats, and to ensuring transport and communication connectivity of the country. Also, the Russian state program "Development of the industry and increasing its competitiveness for the period up to 2020" is aimed at creating a competitive, sustainable, structurally balanced industry, capable, among other things, of developing advanced industrial technologies and oriented toward the formation of new markets for innovative products.

We should also point out the National Technology Initiative (until 2035) – a long-term program aimed to create conditions to help domestic companies become leaders in the markets of high-tech industries, which will determine the world economic structure in the next 15–20 years. Among the priority areas of NTI are ten markets, which are based on the priorities of scientific and technological development of Russia identified in the Science and Technology Development Strategy of the Russian Federation (adopted December 1, 2016). Since 2017, the Russian Export Center is implementing the program "Made in Russia", which involves voluntary certification and labeling of products aimed at supporting exports.

Currently, China has an industry development plan "Made in China 2025", aimed at creating efficient industry capable of producing goods with high added value, comparable to the goods of developed economies. The plan is aimed at the development of internal production innovations and creation of local brands. It is planned to provide support to 10 key production sectors (chip manufacturing, shipbuilding, machinery and robotics, railway communication, energy equipment, cars that use energy-saving technologies and new energy sources, regenerative medicine, etc.)[3].

In China, a special fund for development of small and medium-sized innovative enterprises was established in 2012. Zones of new and high technologies (China National High-Tech Industrial Development Zone), or technology parks are the main organizational form of infrastructure support for the innovative development of small and medium-sized businesses[4].

In the Russian economy in this field, Federal Law "On industrial policy" (dated December 31, 2014) provides for the creation of industrial parks, industrial technology parks and industrial clusters. To date, 79 regions have industrial parks and industrial technology parks that are operating, being under construction or planned to be constructed[5].

[3] India vs. China: the race of innovation has already begun. *Vesti. Ekonomika*. 22.07.2015. Available at: http://www.vestifinance.ru/articles/60402 (accessed 16.04.2018).

[4] Information about the tools to support innovation and stimulate demand for innovation in China. Innovation: information portal of the Ministry of Economic Development. Available at: *innovation.gov.ru/sites/.../gosudarstvennoe_regulirovanie_innovacionnoy-2.doc (accessed 19.5.2017).*

[5] List of Russia's industrial parks 2018. Available at: http://russiaindustrialpark.ru/industrialparks_catalog_perecheny_spisok_russia (accessed 25.04.2018).

Thus, we can distinguish the following **common points** in scientific and technological development in Russia and China:

– substantial resources for economic growth and scientific and technological development;

– understanding of the high importance of scientific and technological development for sustainable economic development, innovative growth, modernization of the economy, increasing the competitiveness of national goods in the domestic and international markets, optimal integration into the international division of labor, which is reflected in the strategic policy documents of economic development;

– the need to implement scientific and technological developments in different ways and through international cooperation, and this benchmark is laid in strategic policy documents.

We can highlight the following distinctive features:

– different resources for economic growth: in Russia it is, first of all, natural resources (mineral resources, forest, etc.), and in China – human resources;

– different specialization in the world market: Russia exports mostly energy resources, China – machinery, equipment and vehicles;

– different goals of scientific and technological development: China plans to turn from a world center for assembly of products into a high-tech economy, Russia has to address the issues of import substitution, reducing dependence on energy exports and achieving stable economic growth;

– difference in the development of the high-tech sector: high-tech developments in Russia are of a higher level, but their prevalence is often low; in China, developments can be medium-tech, but they are actively implemented and used in the world market. In this sense, the Chinese practice of introducing high technologies and the Russian experience of their creation can be the subject of exchange of experience.

Typology of scientific and technological cooperation between Russia and China

Russia and China have extensive experience in scientific and technological cooperation. This cooperation was particularly active during the Soviet period and subsequently intensified since the 2000s. Currently, Russian-Chinese scientific and technological cooperation has a wide range of manifestations, which can be classified by a number of parameters.

<u>Institutional parameter.</u>

1. Bilateral cooperation. It includes the above intergovernmental and other agreements (between the Russian and Chinese academies of sciences).

2. Multilateral cooperation. For example, in the framework of BRICS and SCO agreements. In particular, BRICS is developing cooperation in the scientific and technological field in a multilateral format. To date, the BRICS member states, in accordance with the BRICS Research and Innovation Initiative, have launched the BRICS framework program in the field of science, technology and innovation and adopted the Regulations on the BRICS Working Group on Research Infrastructure and Mega-Science Projects (and its meeting was held). The BRICS Network University has a potential for research collaboration; its participating institutions provide education in at least one of its six priority areas: energy, computer science and information security, the study of the BRICS countries, environment and climate change, water resources and neutralization of pollution, and economics[6].

[6] BRICS Network University. Available at: https://nu-brics.ru / (accessed 26.6.2018).

Branch-wise parameter.

Russia cooperates with Chinese scientific organizations on a wide range of natural sciences: physics (energy conversion, astrophysics, diagnostics of structures of micro- and optoelectronics, x-ray and neutron radiation, plasma physics, microwave radiation), geology (tectonics, oil and gas presence), ecology (industrial pollution of the atmosphere), chemistry (chemical protection of plants), industrial technology (technological products made of polymeric materials, work with promising materials, anti-corrosion coatings, diamond synthesis, etc.)[7]. We can provide examples of collaboration between leading scientific organizations such as the Institute of Physics and Technology of the Russian Academy of Sciences and Peking University, the Institute of Atmospheric Physics of the Russian Academy of Sciences and the Institute of Atmospheric Physics of the Chinese Academy of Sciences, etc. And the result of such cooperation is joint ventures, which use joint high-tech developments. Thus, RAS Institute of Problems of Chemical Physics and the Chinese Academy of Engineering Physics established a joint Chinese-Russian industrial company Sichuan Mianyang Lier for the production of plant protection chemicals, organic intermediates, technological products made of polymeric materials. RAS Institute for High Temperatures and Great Wall Corporation established the "Tigol" joint venture, which manufactures equipment for coating titanium nitride and other advanced materials[8].

In addition to academic science, scientific and technological cooperation in the real sector is carried out in the field of mechanical engineering. First of all, it is power engineering. The construction of Tianwan Nuclear Power Plant by Rosatom is an example of a project successfully implemented in China. At the end of 2017, the 3rd power unit of Tianwan NPP was launched (the 1st and 2nd units were launched in 2007). Currently, the 4th power unit is under construction. Given the fact that Rosatom is involved in the construction of nuclear power plants in India (Kudankulam), Vietnam (Ninh Thuận), China (Tianwan), Bangladesh (Rooppur)[9], we can speak about the leadership of Russian technologies on the world market of NPP construction[10].

Another area is the aircraft industry. In particular, Russia and China have launched (in 2014) a project to assemble the Russian civil short-haul aircraft SSJ100 in China[11]. In 2016, an intergovernmental agreement was signed on the joint creation of a wide-body long-haul passenger aircraft seating 250–300 people, which, thanks to its modern characteristics, can occupy a significant market share in Russia and China, as well as in third countries. At the same time, an intergovernmental agreement was signed on cooperation in the creation of a promising civilian heavy-lift helicopter AHL, which can be used in difficult climatic conditions, the development of which will be carried out by the Chinese state company AVICOPTER with the assistance from Russian Helicopters. It is estimated that the demand for it in China by 2040 may be more than 200 vehicles[12].

[7] International cooperation agreements of RAS. RAS website.

[8] International cooperation agreements of RAS. RAS website.

[9] NPPs under construction abroad. Website of Rosatom. Available at: http://archive.rosatom.ru/aboutcorporation/bild_npp_2/ (accessed 20.02.2017).

[10] Unit 3 of Tianwan Nuclear Power Plant has been launched. *Website of Rosatom*. 30.12.2017. Available at: http://www.rosatom.ru/journalist/news/sostoyalsya-energopusk-bloka-3-aes-tyanvan-kitay/ (accessed 25.04.2018).

[11] Russia launched the production of parts for SSJ-100 to be assembled in China. *RIA Novosti*. 10.12.2014. Available at: https://ria.ru/east/20141210/1037599125.html (accessed 03.05.2018).

[12] M. Klimentyev. Russia and China signed dozens of cooperation agreements. *RIA Novosti*. 25.06.2016. Available at: https://ria.ru/world/20160625/1451799581.html (accessed 03.05.2018).

Spatial parameter.

More than 30 academic institutions cooperate with scientific organizations of China within the framework of interinstitutional direct agreements; it is mainly the central institutes of RAS, but there are also successful examples of cooperation with regional institutes. For instance, the Joint Institute of Geology, Geophysics and Mineralogy of the Siberian Branch of RAS cooperates with the Institute of Geotectonics of the Chinese Academy of Sciences: they collected data on the geology of South China, North Vietnam and Burma, on the basis of which an original model of tectonics of Southeast Asia was developed. The Institute of Metallurgy of the Ural Branch of RAS in collaboration with the Institute of Chemical Metallurgy of the Chinese Academy of Sciences established a joint venture for the production of anti-corrosion coatings on the basis of powder metallurgy technology[13]. Besides, another development by the Ural Branch of RAS in the field of metallurgy (control of processes in blast furnaces, increasing their service life) has already been implemented at enterprises of Shandong province. The Ural Agricultural Research Institute cooperates with Chinese scientific institutions on the cultivation of seed crops and livestock.

Cooperation is also carried out in the form of joint technology parks: by 2010, technology parks have been established in Quhua, Harbin, Changchun, Shenyang, and Moscow ("Druzhba"), as well as Yantai zone for industrial development of new high technology. So, the founders of technology park in Changchun are the government of Jilin province, the Chinese Academy of Sciences, Novosibirsk Oblast Administration, and the Siberian Branch of RAS [20, p. 15]. In some cases, Chinese companies become residents of Russian special economic zones and industrial parks. For instance, in the Tula Oblast, a plant of the Chinese company Great Wall, the anchor investor of Uzlovaya Industrial Park, is being constructed. In the Lipetsk Oblast, the largest investor of the Lipetsk special economic zone is the Chinese automotive concern Lifan[14].

We can also mention the Moscow – Kazan high-speed railway project, which was taken up by a consortium of design institutes led by Mosgiprotrans and Nizhegorodmetproekt with the participation of China Railway Eryuan Engineering Group. In this case, in terms of production (both rolling stock and equipment for the tracks), localization is expected[15].

In the case of the Sverdlovsk Oblast, cooperation is carried out mostly with Heilongjiang province, which contributes the most to the scientific and technological cooperation with Russia [13, p. 466]. The regions have been cooperating in the economic sphere for a number of years. Back in 1991, an agreement was signed on friendly relations between the Sverdlovsk Oblast and Harbin. In 2016, the governments of the Sverdlovsk Oblast and Heilongjiang province signed an agreement on trade, economic, scientific, technological and humanitarian cooperation. Yekaterinburg and Harbin alternate annually as a venue for the international exhibition "Russian-Chinese EXPO"[16]. In 2017, during a visit of the Chinese delegation to the Sverdlovsk Oblast, an agreement on scientific and technological cooperation was signed between the Ural Branch of RAS and the Academy of

[13] International cooperation agreements of RAS. RAS website.

[14] Zhoga G. A flying railroad car. *Ekspert-Ural,* 2015, no. 30, pp. 10-16.

[15] Zhoga G. *Ibidem.*

[16] Cooperation with China. Website of the Ministry of International and Foreign Economic Relations of the Sverdlovsk Oblast. Available at: http://mvs.midural.ru/kitai (accessed 20.02.2018).

Sciences of Heilongjiang province. It involves establishing joint innovation centers, which will serve as a platform for joint research. The Ural Branch of RAS was a partner of the organizing committee of the international exhibition of scientific and technological achievements held in 2017 in Harbin (the administrative center of Heilongjiang)[17]. In July 2018, the first academic assembly of scientific and technological cooperation between Russia and China (co-organizers are the Federal Agency for Scientific Organizations of Russia, the Ural Branch of RAS, the Office of the Plenipotentiary Representative of the President of the Russian Federation in the Ural Federal District, Heilongjiang Academy of Sciences, China) was held within the framework of Innoprom and the 5th Russian-Chinese EXPO.

Prospects for the development of Russian-Chinese scientific and technological cooperation

Many researchers point out favorable prospects of economic cooperation with China. So, it is emphasized that the Silk Road Economic Belt (SREB) initiative provides an opportunity for the revival of the economic potential of Asian countries [21, pp. 43-52]. According to N.I Atanov, the Eurasian Economic Union will take certain segments of the Eurasian common market in the framework of SREB [1, p. 119].

In the context of global economic challenges such as international economic sanctions, the possibility of optimal integration of the Russian economy into the international division of labor in the new conditions is associated with the development of economic cooperation with China, a country that has similar interests in relation to integration into the global market. Amid rapidly changing international economic relations (in particular, between Russia and Western developed economies, between the U.S. economy and other economies, including Chinese, etc.), Russia will have to intensify the development of a new approach to bilateral strategic partnership with China.

Scientific and technological development of the economy is of great importance for efficient integration into the international division of labor. As the analysis has shown, both Russia and China consider the scientific and technological factor as the one that determines global competitiveness of their economies, as well as their place and role in the world economy as a whole. Both Russia and China have an understanding of the importance of developing innovative potential, have a rich experience of such development, and have created a broad institutional framework for this.

The prospects for the development of Russian-Chinese scientific and technological cooperation are due, among other things, to some "complementarity" of scientific and technological development in the sense that Russia has a developed scientific and fundamental base, and China has developed a system for implementing R&D results [13].

The prospects for the development of scientific and technological cooperation between Russia and China are related to the potential areas of development of the market of scientific and technological products of associations such as BRICS and SCO, in the framework of which Russia and China interact.

Besides, the promising areas of scientific and technological cooperation include the search for and implementation of a wide range of optimal forms of Russian-Chinese scientific and technological cooperation at the level of scientific organizations, enterprises, and scientific units of enterprises. The analysis allows us to identify the following promising forms of cooperation: interinstitutional direct

[17] Chinese interest. *Nauka Urala*, 2015, no. 16.

contracts, technology parks and joint innovation centers, joint production of high-tech companies, joint exhibitions of scientific and technological achievements, provision of engineering services to the partner country, joint development of models (as, for example, in civil aviation), use of opportunities of the international multilateral program in the field of science, technology and innovation adopted within the framework of BRICS.

Technology parks are a modern form of Russian-Chinese scientific and technological cooperation. We can highlight the following problems of the Russian-Chinese technology parks in the Russian territory: high risk in the implementation of commercial high-tech projects, incompleteness of Russian technologies in terms of their use in the production process, lack of experience, lack of knowledge of partners and the absence of risk insurance, lack of governmental support of innovative activities [20, p. 17].

Given the need for a permanent reliable representative in China, in terms of sales of the Russian scientific and technological product, technology parks will be more effective if it has a branch (representative office) in the Chinese territory.

Thus, international scientific and technological cooperation takes into account the overall geo-economic picture and its manifestation in world trade and production; it also takes into account scientific and technological cooperation factors such as the place of countries in global innovation development, the presence of similar national priorities of scientific and technological development and similar types of policy documents. The proposed typology of manifestations of scientific and technological cooperation includes spatial, sectoral and institutional parameters. It is proposed to take into account the specifics determined by modern trends in global economic development. The use of these approaches should contribute to the maximum integration of the priorities of scientific and technological cooperation between Russia and China in the achievement of their leading positions in the world market.

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Received May 14, 2018.

MODELING AND FORECAST OF SOCIO-ECONOMIC PROCESSES

DOI: 10.15838/esc.2018.4.58.4
UDC 330.322.012, LBC 65.049(2)

Regional Aspects of Investment Processes: an Empirical Analysis of the Distribution of Capital Resources in the Far Eastern Federal District

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Abstract. The paper estimates the dynamic investment function on the basis of the flexible accelerator model according to the data for 2000–2016 for the Far Eastern Federal District and its constituent entities. In general, the dynamics of investment in the Far Eastern Federal District are significantly influenced by the change in expected demand with an average investment accelerator value of 1.78. Having assessed the partial adjustment parameter, we see that on average per year, investments cover 40% of the difference between the actual and desired capital stock in the Far East, and the parameter increases over time. This indicates that the gap between the desired and actual capital stock in the economy of the Far Eastern Federal District increased during the study period due to the growth in demand. This gap is larger for the resource-based regions like the Republic of Sakha (Yakutia) and the Sakhalin Oblast; it is due to a higher level of expected output driven by high external demand. The rise in the cost of capital as a factor in the demand for investment on average leads to a slowdown in investment dynamics in the region. Using the seemingly unrelated regressions model, we obtain the values of tightness and direction of interregional relations. We reveal that the increase in the inflow of investments into the Sakhalin Oblast has a negative impact on the investment dynamics in other regions of the Far Eastern Federal District; the highest competition for investment resources is observed in the Republic of Sakha (Yakutia) and Khabarovsk Krai. We conclude that the flexible accelerator model less efficiently describes the dynamics

For citation: Isaev A.G. Regional aspects of investment processes: an empirical analysis of the distribution of capital resources in the Far Eastern Federal District. *Economic and Social Changes: Facts, Trends, Forecast*, 2018, vol. 11, no. 4, pp. 63–76. DOI: 10.15838/esc.2018.4.58.4

of investment processes in the regions of the Far Eastern Federal District with a high hydrocarbon rent; and, consequently, dynamic processes are determined mainly by exogenous factors in relation to the region. However, since the flexible accelerator model adequately characterizes the economy of the Far Eastern Federal District, the latter is able to support the endogenously reproducing economic growth without relying solely on external demand.

Key words: regional growth, investments in fixed capital, flexible accelerator model, Far East.

Introduction

Capital investment is one of the central objects of regional economic analysis. In most studies on the problems of regional growth and spatial convergence, investment flows are based on the well-known postulates of the neo-classical theory which states (see [1]) that: a) capital is completely mobile in space and is equally available at any point, b) the geographical differences in the price of a unit of capital good are due only to transport costs, c) capital is located where there is the highest return rate.

Much less attention is paid to dynamic characteristics of the regional economic system itself and the role they play in capital flows. Taking into account such dynamic properties, implying the presence of feedbacks and lag responses, helps model regional economic processes characterized by endogenous, self-reproducing growth. In particular, endogeneity is reflected through a dynamic investment function based on assumptions that the desired capital stock is a function of the expected level of output; expectations in turn are formed on the basis of the previous experience. At the same time, the pace of adaptation of the actual volume of private capital to the desired level is decisive. Contrary to the prevailing paradigm, this rate is not always proportional to the difference in return rates of capital prevailing in certain regions.

In the past decade, the Far East has been the object of close attention of federal authorities. When developing plans for the development of the Russian Far East by the highest political circles of the country, the main objective was defined – ensuring the region's accelerated development compared to the average Russian indicators up to 2025. This objective was not new. Despite the fact that in the modern Russian history the program of the Far East development was adopted in 1996, in fact, the state began to purposefully redistribute large-scale resources for the region's development only after 2007.

At the Eastern Forum on Economics – 2017, new priorities for the development of the Far East were identified – creating an economic and social environment that exceeds the average Russian indicators in its parameters. At the same time, barriers to attracting private investment to the region – underdeveloped infrastructure, high negative migration, tariff and tax barriers – were identified.

In Russian scientific publications, the regional investment aspect is mainly covered in works devoted to the processes of regional convergence. Among the works studying the factors in growth and convergence of the Russian regions (including investment standing out), we can note [2]; [3]; [4]. At the same time, there is lack of research into investment processes at the regional level, taking into account the endogenous nature of economic growth, feedbacks and lag dependences.

The study aims to identify the conditions that have a stimulating and disincentive effect on attracting private investment in the regions of the Russian Far East through building and assessing the dynamic investment function based on the model of a flexible accelerator. The application of this function will help reveal empirically whether the export-oriented economy possesses the mechanisms of endogenous growth. The relevance of the chosen area is supported by the need to find ways to improve the effectiveness of the regional investment policy.

The article is structured as follows. Section 2 presents the analysis of investment processes in the Far Eastern Federal District (FEFD) for the period 2000–2016. Section 3 describes the basic investment model for further assessment. Section 4 discusses the selection of data and assessment methods. The results of analysis are presented in Section 5.

1. Retrospective analysis of investment performance in the Far Eastern Federal District

Since the beginning of the 21st century, the Russian Far East has experienced both periods of rapid investment inflow and their subsequent sharp reduction. In 2000–2011, the inflow of investment in the macroregion increased by almost 3.9 times. In fact, the growth rate during this period was one of the highest in the national economy. After 2011, there was a sharp decline in investment activity – in 2016, the volume of capital investment amounted to 64.2% of the 2011 level. The period of growth in investment activity was also characterized by an increase in government investment. In peak 2011 investment from the consolidated budget of the Russian Federation accounted for almost a quarter (23.5%) of total investment in the Far East. The growing state attention to the macro-region is evidenced by the fact that in that year the Far East accounted for more than 17% of all budget investment of the Russian Federation, while the contribution of the macro-region to the overall national product was only 5.6%. Large-scale public investment was mainly associated with constructing infrastructure in the framework of preparing for the APEC Summit in 2012 in Vladivostok.

The period of the investment boom is associated with the implementation of a number of other major investment projects in the Far East: preparation for the development of hydrocarbon deposits of the Sakhalin shelf and Yakutia, construction of the Eastern Siberia–Pacific oil pipeline, and the Sakhalin–Khabarovsk–Vladivostok gas pipeline. Building the infrastructure of Sakhalin projects was carried out at the expense of foreign (including offshore) investment, while the construction of the pipeline infrastructure was financed by large national companies with state participation. A sharp investment decline is due to the fact that the main construction projects in all of the above projects were completed by 2012[1].

The predominance of extractive and transport sectors in the structure of investment turned the Far East into a raw-material-based region by the end of the first decade of the 21st century. Mining is the only sector that has demonstrated an increase in investment until 2016. In that year, its share was 39.3% of the total investment in the Far East.

As for the investment performance in constituent entities of the Far Eastern Federal District, the situation differs dramatically depending on the profile of a certain constituent entity (*Tab. 1*). Thus, raw-material-oriented regions (Republic of Sakha (Yakutia), the Magadan and Sakhalin oblasts), investment during 2000–2016 had an upward trend. On the contrary, in the most structurally diversified Primorsky and Khabarovsk krais, the

[1] This is evidenced by the fact that investment reduction amounted to 65.8% in “Transport and communication” during 2011–2016.

Table 1. Growth rates of capital investment in constituent entities of the Far Eastern Federal District for 2000–2016, %

Constituent entity	2000–2016	2000–2011	2011–2016	Share in FEFD in 2016, %
Sakha (Yakutia) Republic	333.3	302.5	110.2	27.9
Kamchatka Krai	167.8	208.1	80.6	3.4
Primorsky Krai	221.3	849.5	26.0	12.5
Khabarovsk Krai	169.6	379.7	44.7	11.7
Amur Oblast	523.2	617.0	84.8	13
Magadan Oblast	300.2	242.4	123.9	3.9
Sakhalin Oblast	483.0	551.3	87.6	25.2
Jewish Autonomous Oblast	935.1	в 19.5 раз	47.9	1.3
Chukotka Autonomous Oblast	220.1	521.8	42.2	1.0

Sources: compiled from: *Russian regions. Socio-economic indicators. 2017: statistics book*. Rosstat. Moscow, 2017. Pp. 592–642; *Russian regions. Socio-economic indicators. 2010: statistics book*. Rosstat. Moscow, 2010. Pp. 932–956.

investment situation deteriorated significantly after 2011. In Primorsky Krai, the volume of capital investment in 2016 was only 26% to the level of 2011, in Khabarovsk krai – 44.7%. It should be noted that a significant share of investment in Primorsky Krai in 2011 was federal budget investment allocated to the region by non-economic criteria. Investment in the Amur Oblast – another region of the Far Eastern Federal District with a diversified economic structure – also decreased after 2011 but state investment in the construction of the Vostochny spaceport largely compensated for the decrease.

The characteristics of the investment performance of the Far East would not be complete without analyzing the ratio of investment and gross value added produced by the macro-region. The ratio is traditionally one of the most difficult in the analysis of the economic performance due to the variety of the cause-and-effect relations. It is known that investment demand is a component of aggregate demand, indicated by gross value added (GVA). At the same time, investment is a driver of supply, increasing (updating) the basic production capital. The overall GRP performance and capital investment of the Far Eastern Federal District is demonstrated in *Figure 1*.

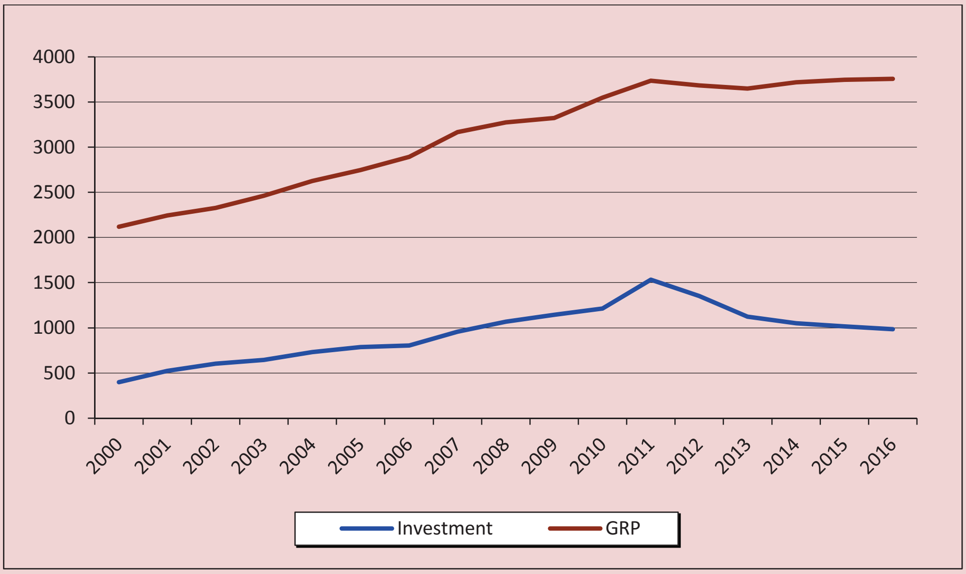
The figure suggests two conclusions. First, the increase in investment in year t is accompanied by an average smaller increase in GRP in the same year (this is well observed until 2010). Second, investment has certain inertia, i.e. a relatively long-term impact on GRP produced in the Far East. In other words, the increase (decrease) of investment at the time period t does not lead to a proportionate increase (decrease) in GRP in this, as well as several subsequent periods ($t+1$, $t+2$,...). Thus, a sharp decline in investment after 2011 led to stagnation of the economic growth rather than to its fall after investment.

The author of the article, together with A.V. Belousova in the study [5] calculated the multiplicative effect of investment (I_t) on GRP (Y_t) in the Far Eastern Federal District based on the model with a geometrically distributed lag:

$$Y_t = a_0 + b_0 I_t + b_0 l I_{t-1} + b_0 l^2 I_{t-2} + \\ + \cdots + b_0 l^i I_{t-i}, \quad (1)$$

where b_0 is a short-term multiplier, $0<l<1$. The authors revealed that the short-term investment multiplier is 0.45 rubles GRP per 1 investment ruble, while the long-term multiplier (the sum of all coefficients for variable I in equation 1) is 1.91 rubles GRP for the same investment ruble. In the first year of investment, only 18.2% of its long-term impact

Figure 1. GRP and capital investment in the Far Eastern Federal district, in 2016 prices, bln RUB



Sources: compiled by: *Russian regions. Socio-economic indicators, 2017: statistics book*. Rosstat. Moscow, 2017. Pp. 592–642; *Russian regions. Socio-economic indicators. 2010: statistics book*. Rosstat. Moscow, 2010. Pp. 932–956.

is realized (coefficient b_0 in equation 1). It is this "inertia" that explains the performance of the two macro-indicators after 2011 (investment cuts and subsequent stagnation of economic growth).

Since FEFD regions can be quite clearly divided into resource and diversified ones, it is expected that the response of their economies to investment will be different due to their different economic structure. Indeed, the calculations show that for a group of resource regions (Sakha (Yakutia) Republic, the Magadan and Sakhalin oblasts, the Chukotka Autonomous Oblast), the long-term multiplier is higher. At the same time, in the first year of investment in resource regions, only 14% of their long-term effect is realized, while in other regions of the Far East – 27%. This can be explained by the fact that investment in resource regions is mainly allocated to extractive infrastructures, while in regions with a diversified economic structure – to machinery and equipment. The latter traditionally have higher depreciation, but their effect on regional production affects faster than in the case of buildings. In addition, in the case of Primorsky Krai, there was another time-limited effect of state investment in infrastructure. In the short term, the latter lead to a surge in construction activity in the region, which fades after the project is completed[2]. Consequently, production of public goods also has a short-term effect on regional economic growth[3].

2. Investment and capital formation: theoretical aspect

The study of the performance of capital has a long history and is related mainly to two theoretical problems: 1) determination of the optimal amount of capital stock, i.e. the search for the function of demand for capital of profit-

[2] Over the period from 2011 to 2015, there was almost a twofold (47.6%) decline in GVA in "Constructions".

[3] For more detail on the structure and performance of capital investment in FEFD by sector see [5].

maximizing enterprises, and 2) the search for a mechanism for regulating capital stock, i.e. how the current capital stock adapts to the optimal or desired, level.

The theory of investment behavior of companies was developed in the second half of the twentieth century. One of the first fundamental works was the work by T. Haavelmo [6], which for the first time reflected the problems of specification of the function of demand for investment. Subsequently, this theoretical problem was solved by D. Jorgenson [7] who proposed the neoclassical demand function of the profit-maximizing company for investment. He also showed that a special case of the demand function is the flexible accelerator model. J. Tobin formulated the investment theory according to which the level of investment should depend on the ratio of the present value of fixed capital and the reconstructive value. The value of this ratio – ***q*** – gave the name of the Tobin theory of investment[4].

The theoretical platform on which the empirical model of this study is based lies in the model of a flexible accelerator. This model is convenient as it explicitly reflects the mechanism of adjustment of the value of fixed capital. According to the model, the driving force of capital formation is demand. Let the goal value of fixed capital K_t^* be proportional to the expected output level I_t^*:

$$K_t^* = vY_t^e \,. \tag{2}$$

The actual level of capital, K_t, however, cannot instantly adapt to the level of the goal stock due to the inertia of adaptation costs. Thus, capital in the form of equipment requires time for planning, delivery, installation, and adjustment. Capital in the form of buildings requires even longer time periods for construction and commissioning. According to the flexible accelerator model, which is a special case of the model of adaptive expectations, capital in the current period can only be partially adjusted to the desired level:

$$K_t - K_{t-1} = (1-\lambda)(K_t^* - K_{t-1}), \tag{3}$$

where λ is the parameter (pace) of partial adjustment. The left side of equation (3) is the net investment in year *t*. The level of actual investment is equal to the amount of net investment and the amount of retired assets:

$$I_t = K_t - K_{t-1} + \delta K_{t-1}, \tag{4}$$

where δ is the depreciation rate.

The following investment function can be obtained from equations (2)–(4):

$$I_t = (1-\lambda)vY_t^e - (1-\lambda-\delta)K_{t-1}. \tag{5}$$

Taking the first differences in equation (5) we obtain:

$$\begin{gathered} I_t - I_{t-1} = (1-\lambda)v\Delta Y_t^e - \\ - (1-\lambda-\delta)\Delta K_{t-1}. \end{gathered} \tag{6}$$

By expressing ΔK_{t-1} through equation (3), and (1-λ-δ)K_{t-2} through equation (5), we obtain a basic model of a flexible investment accelerator:

$$\begin{gathered} I_t = (1-\lambda)v\Delta Y_t^e + \\ + (1-\lambda)v\delta Y_{t-1}^e + \lambda I_{t-1}. \end{gathered} \tag{7}$$

Although this model reflects the relations between investment and expected output (demand), the cost of using capital is represented only by the depreciation parameter. It also does not address other important economic variables that affect investment behavior. From an empirical point of view, this model

[4] In domestic science there are fundamental studies in investment design and evaluation of the effectiveness of projects at different stages of development. See, for example [8].

is an advantage for regional studies as there is no need to use comparable time series of fixed assets, for which data on regional level are missing.

A significant contribution to the study of the impact of capital use costs on investment demand was made by D. Jorgenson made. He justified that these costs include not only depreciation δ, but also the interest rate on the borrowed funds used to purchase capital r_t and losses caused by changes in the prices of capital goods. As a result, the full opportunity costs of acquiring an additional unit of capital is the sum of these components $\delta + r_t + \Delta p_t^k / p_t^k$.

Model (7) can be extended by including factors affecting investment through the partial adaptation parameter (pace of adaptation) in it. After [9], [10], [11] and [12] let us take:

$$1 - \lambda = a_0 + \sum a_i X_i / (I_t^* - I_{t-1}), \quad (8)$$

where a_0 is the autonomous adaptation pace, X_i is the independent variable *i* that affects investment demand. An implicit assumption here is that the effects of these variables are manifested through a change in the adaptation pace. In other words, if a variable adversely affects investment demand, its effect will be reflected through reducing the adaptation pace to the desired level of capital. It follows from equation (4) that $I_t^* = K_t^* - (1-\delta)K_{t-1}^*$. Then the modified model of the flexible accelerator will take the form:

$$I_t = a_0 v \Delta Y_t^e + a_0 v \delta Y_{t-1}^e + \\ + (1 - a_0) I_{t-1} + \sum a_i X_i. \quad (9)$$

In this form, the model is a more flexible tool since investment is a function not only of changes in the expected demand ΔY_t^e, but also of a number of other relevant variables. Coefficient *v* here acts as an investment accelerator.

3. Data and assessment methods

In this study, model (9) is assessed though statistical data for the period from 2000 to 2016 in the basic 2008 prices. Nine constituent entities of the Far Eastern Federal district were united into six regions: Sakha (Yakutia) Republic, Primorsky and Khabarovsk krais, the Sakhalin Oblast, North-Eastern region (part of Kamchatka Krai, the Magadan Oblast, and Chukotka Autonomous okrug), and South-Western region (the Amur Oblast and the Jewish Autonomous okrug). Joining the entities in the North-Eastern region was dictated by the general limited transport accessibility (lack of rail and road[5] communication with the rest of the regions), rather than by the structural features of their economies. Attributing the Jewish Autonomous oblast to the Amur Oblast is caused by the small-scale of the economy of the former against the background of the surrounding constituent entities. All initial data of the model are taken from the website of the Federal State Statistics Service.

Gross investment minus investment of budgets of all levels are taken as capital investment I_t. They can be called private investment, but to be correct, they are referred to as off-budget investment because in fact they include the funds of companies with state participation. The models of investment behavior in general and the model of flexible accelerator in particular are based on the prerequisite of profit maximization, which immediately excludes budget investment allocated mainly for infrastructure creation (public goods – as in the case of preparation for the 2012 APEC Summit) from consideration. Since the purpose of state-owned companies is ultimately to make profit (mainly pipeline infrastructure), it is incorrect to exclude them from consideration.

[5] Despite the Kolyma road connecting Magadan and Yakutsk, this factor was considered insignificant.

The expected demand is an unobservable variable. The studies use different approaches to its assessment. Thus, the model of adaptive expectations is used in [9]. In [10], the first-order autoregressive model AR (1) is used for this purpose. The original approach is proposed in [11], where the expected output is determined via a state-space model based on a combination of the consumption equation and the partial adjustment equation. Finally, in the works [12], [13], [14], [15] real output is used instead of expected demand. This study also applies this approach. Thus, the variables δY_{t-1}^{e} and ΔY_{t}^{e} are constructed based on the actual GRP values: GRP_{t-1}, and ΔGRP_t (= GRP_t – GRP_{t-1}), respectively.

The explanatory variables include the indicator of change in the price of capital goods in the previous period ($PRICE_{t-1}$) to assess the impact of the factor of investment appreciation in the regional and temporary breakdown. In the Jorgenson model, this factor is presented in the form of growth rates, whereas in this work, we construct an analogue of the average level of the price of a capital good unit. It was based on the cost of a fixed set of consumer goods in the base year as a percentage of the national average. This was done in order to reflect the level of prices in each region in relation to the average for the Russian Federation. Thus, for the base year 2008, this level was the minimum in the Amur Oblast (110) and the maximum in the Chukotka Autonomous okrug (200) (for FEFD as a whole – 130). Based on this, we calculated the values for the entire study period through the index of prices of capital goods. The index is calculated as a weighted average of the price index of construction and installation works and the price index of manufacturers of industrial products in the relevant regions, where the share of investment in buildings and structures and investment in machinery and equipment, respectively, served as weights.

As shown above, the costs of using capital include the bid rent, which in equilibrium equals the percentage. In the present study, this variable is not included in the number of explanatory variables for several reasons. First, theoretically, it should not differ for users of capital in different regions, which limits its use to one-dimensional time series models.

Second, it is difficult to use earnings per capital unit as a variable because of difficulties in obtaining reliable estimates of time series of capital assets at the regional level. Data on value of fixed assets by constituent entity are publicly available, but information on their performance in comparable prices is available only for the national economy as a whole. In research practice, the estimation of the capital value is based on the method of continuous inventory. However, this method requires data on capital investment over a long period of time (several decades), as well as assumptions about the function of physical depreciation of capital to calculate the depreciation rate δ. In this case, the value of fixed capital at time *t* can be calculated using formula (4).

Third, even if reliable estimates of returns per unit of capital are obtained for FEFD regions, the issue of correct interpretation of their impact still arises. In theory, an increase in *r* has a negative impact on investment performance, as it is treated as a rental rate. However, according to statistics, bank loans as sources of investment account for a small share in the Far East, while the share of own funds is high[6]. Therefore, it is impossible to accept the hypothesis about the negative influence of this variable on investment. In case of detecting statistically significant influence, it will be difficult to interpret the indicator. Due to these aspects, this indicator is not among the explanatory variables in this paper.

[6] Moreover, the structure of the “raised funds” statistics indicator includes funds of superior organizations.

The estimated regression equation for region i takes the following form:

$$I_{it} = c_0 + c_1 \Delta GRP_{it} + c_2 GRP_{it-1} + + c_3 I_{it-1} + c_4 PRICE_{it-1} + e_{it}. \quad (10)$$

where c_0 – constant, $c_1 = a_0 v$, $c_2 = a_0 v\delta$, $c_3 = (1 - a_0)$, $c_4 = a_1$.

According to model (9), indices c_1 and c_2 are expected to be positive, c_3 is expected to be in the range (0,1). According to the hypothesis of the negative impact of increase in the price of capital goods on investment performance, it is expected that $c_4 < 0$.

It is expected that equation (10) for two types of objects – FEFD as a whole and its separate regions – will be estimated. The model for the Far Eastern Federal District is estimated by two types of data: 1) aggregated data for the district as a whole and 2) panel data for each constituent entity. The system of equations for each region (see below) is estimate through the second type of objects.

We should also focus on the methods of assessment. The least squares method (LSM) provides efficient unbiased estimates in the absence of autocorrelation of residuals (under the condition of the Gauss–Markov theorem). In the case of model (10), this condition is obviously not fulfilled since there is the lag dependent variable among the explanatory variables in the equation. To exclude first-order autocorrelation, we use the autoregression model AR (1), or the autoregressive distributed lag model (ARDL), evaluated through using nonlinear methods.

The estimation of FEFD as a whole based on one-dimensional time series was carried out using the ARDL model[7] (1,0). For the case of panel data of LSM with fixed or random effect is not suitable for the above reasons. In addition, there is the problem of endogeneity in models of this type (in this case, the relations between investment and growth rate of the economy). Therefore, the assessment was carried out through the generalized method of moments (GMM) which is devoid of these shortcomings. The two-step GMM is the variant of the method of instrumental variables, where the instruments are the explanatory variables with lags.

To estimate the parameters for each of the 6 regions, the method of seemingly unrelated regressions (SUR) proposed by A. Zeller [16] is applied. SUR is used to estimate the region-specific parameter vector based on a system of six equations AR (1) for each region. Zellner demonstrated that if there is a simultaneous correlation of residual terms of the system of equations, it is possible to obtain estimates of parameters β based on the generalized LSM, which are more effective than the estimates obtained on the basis of individual equations:

$$\hat{\beta} = (X'\Omega^{-1}X)^{-1}X'\Omega^{-1}Y,$$

where X is a block-diagonal matrix of explanatory variables modified according to AR(1)-process, Y is a vector of dependent variables, Ω is a covariance matrix of residues, each element of which is estimated from AR(1) models residuals for each individual equation.

In addition to obtaining more effective estimates, SUR helps track inter-regional relations that arise as a result of economic interactions between regions.

4. Discussion of empirical results

Table 2 presents the results of ARDL and GMM assessments for FEFD as a whole. The corresponding *t*-statistics are given in brackets. In the case of GMM there is no closest analogue of the R^2 determination coefficient, therefore the values of J-statistics are used, which can

[7] The values in brackets indicate that explanatory variables in the model are a dependent variable with lag 1 and the rest of independent variables without lags.

help roughly judge the quality of evaluation. High J-statistics values indicate that the model specification is incorrect (but do not indicate how it is specified incorrectly).

Despite the fact that for ARDL-evaluation the signs, under appropriate parameters, are consistent with the expected parameters, the quality of these estimates is low. We cannot claim that c_2 and c_4 estimates differ significantly from zero. A high value of R^2 should not be misleading as this is a fairly common case in models with lag dependent variable as a regressor. In contrast, panel data estimates demonstrated significant results, with expected signs and interval parameter values. This suggests that, according to GMM estimates, a number of parameters of the Far Eastern economic system can be estimated relatively reliably, which is impossible in case of the autoregression model.

The coefficient at I_{t-1} reflects the investment inertia. In other words, the increase in investment by 1 million rubles in the previous period leads to an increase in investment in the current period by 0.622 million rubles on average in FEFD. The coefficient c_1 at ΔGDP_t reflects investment increase as a result of changes in demand. Based on the obtained parameter estimates, the value of the investment accelerator $v = c_1/(1 - c_3) = 1.78$ can be calculated. In other words, a 1 ruble increase in demand leads to average additional investment of 1.78 rubles. The coefficient c_2 with a lag variable demand GDP_{t-1} helps calculate the value of average depreciation rate $\delta = 0.097$. Finally, change in the price of a unit of capital good also has a significant negative impact on investment performance. Thus, a price increase in the previous period by 1 ruble leads to a reduction in investment in the current period by an average of 47.5 rubles. Thus, the quality of estimates obtained for FEFD as a whole makes it possible to judge that the Far East possesses a mechanism for adjusting capital to aggregate market demand.

Based on the obtained estimates a_0, a_1, v, and δ, we can calculate the performance of the partial adjustment parameter from equation (8). Taking into account that

$$I_t^* = v(GDP_t - (1 - \delta)GDP_{t-1}),$$

the calculated values of the parameter $(1 - \lambda)$ are presented in *Figure 2*.

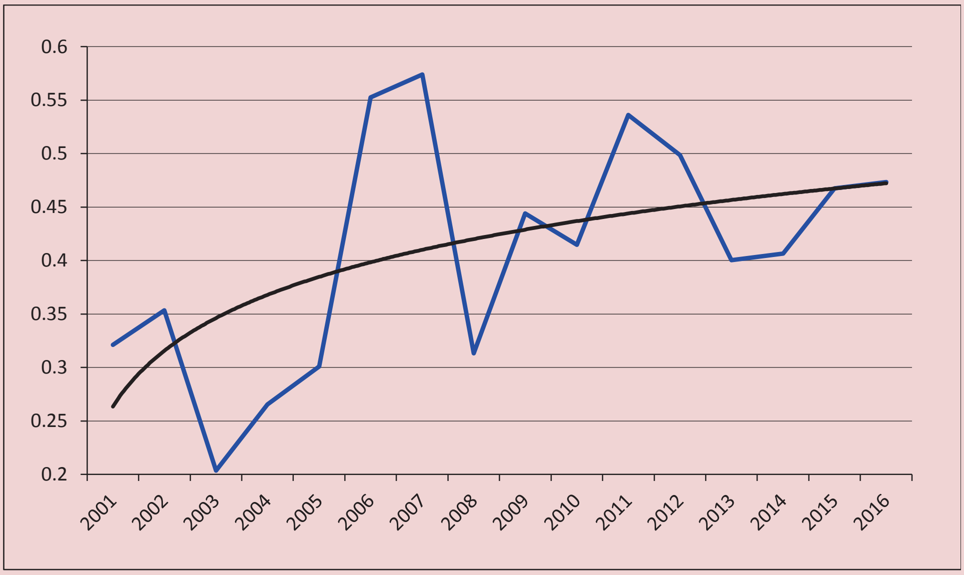
The figure demonstrates that this parameter is unstable in time but it is possible to identify its overall upward trend (black line). That is, over time the gap between the desired and actual capital stock in the FEFD economy

Table 2. The results of evaluation by FEFD

Independent variable	ARDL (1.0)	GMM
Constant	-453627 *(-1.44)*	–
ΔGDP_t	1.009* (*2.44*)	0.673* (*13.1*)
GDP_{t-1}	0.607 (*1.38*)	0.172* (*6.49*)
I_{t-1}	0.584** (*1.97*)	0.622* (*14.4*)
$PRICE_{t-1}$	-1940.7 (*-1.27*)	-47.52* (*-4.18*)
R^2	0.91	–
J-statistics (p-value)	–	3.643 (*0.602*)

* Significance at the 5% level.
** Significance at the 10% level.

Figure 2. Estimation of partial adjustment parameter values (1 - λ) for FEFD



increases, which leads to an increase in the pace of adaptation (on average, it is the higher, the further is the capital stock from the equilibrium level). The average value of the adjustment parameter for the entire period is 0.4, which means $K_t - K_{t-1} = 0{,}4(K_t^* - K_{t-1})$.

In other words, yearly investment covers the average of 40% of difference between the actual and desired capital stock.

The estimation results by separate region based on the SUR model are presented in *Table 3*.

All parameter estimates, as in the case for FEFD, have expected signs, but the quality of assessment for separate regions is generally worse than the GMM estimates, but better than the ARDL estimates for FEFD. In the case of the Western region, we have no reason to reject the null hypothesis that the coefficient for I_{t-1} is significantly different from zero or, in other words, that the autonomous pace of a_0 adaptation is different from 1. Estimates of a similar model without $Price_{t-1}$ variable

Table 3. Estimation results by SUR-model

Territory	Constant	ΔGDP_t	GDP_{t-1}	I_{t-1}	$PRICE_{t-1}$	R^2
Sakha (Yakutia) Republic	-420962* (*-4.02*)	1.993* (*3.45*)	2.446* (*4.13*)	0.317** (*1.81*)	-1779.5* (*-3.28*)	0.73
North-western region	-49137.2 (*-1.31*)	0.997* (*3.04*)	0.503 (*1.48*)	0.621* (*2.26*)	-61.48 (*-1.48*)	0.66
Primorsky Krai	-161932* (*-2.01*)	1.595* (*5.54*)	0.808** (*1.77*)	0.501* (*2.56*)	-432.6 (*-1.19*)	0.89
Khabarovsk Krai	-86254 (*-1.18*)	1.420* (*4.14*)	0.479 (*1.18*)	0.771* (*4.95*)	-182.2 (*-0.81*)	0.83
Western regions	-116475* (*-3.42*)	0.930* (*3.89*)	1.327* (*3.59*)	-0.037 (*-0.16*)	-70.8 (*-0.71*)	0.89
Sakhalin Oblast	61930* (*2.06*)	0.346 (*1.22*)	0.150 (*0.82*)	0.447* (*2.79*)	-209.1 (*-0.68*)	0.43

* 5%-level significance.
** 10%-level significance.

Таблица 4. Cross-correlation of SUR-model residuals

Territory	Sakha Rep.	Northeast	Primorsky	Khabarovsk	Western	Sakhalin
Sakha (Yakutia) Republic	1.000					
Northeastern region	0.362	1.000				
Primorsky Krai	0.624	0.108	1.000			
Khabarovsk Krai	0.644	0.305	0.723	1.000		
Western region	0.402	0.600	0.176	0.201	1.000	
Sakhalin Oblast	-0.780	-0.237	-0.323	-0.572	-0.069	1.000

somewhat made the situation better for the Western region (c_3 = 0.16), but even in this case it is impossible to guarantee that the true estimate is different from zero.

Regions with predominating investment in production with high resource rent (Sakha (Yakutia) Republic, the Sakhalin Oblast, the Northeastern region), have lowest R^2 values. This indicates that the investment processes performance in these regions may follow a model different from the flexible accelerator model. These are regions that, in terms of investment efficiency, are the leaders not only in the Far East, but also in Russia as a whole. On the other hand, the relatively high values of autonomous pace parameters of a_0 adaptation in the Sakha (Yakutia) Republic and the Sakhalin Oblast indicate a relatively big gap between the desired and the actual level of fixed capital, which, at high investment rates, also suggests a high resource rent.

However, estimation by SUR models have an additional advantage as it helps identify the closeness of interregional connections using the covariance matrix of the residual term. This matrix is presented in *Table 4.*

A positive correlation between the two regions implies that their economies are similar or interrelated. The negative correlation can be interpreted as the inflow of investment to one region due to the decrease (outflow) of investment in another region.

The table demonstrates that the Sakhalin Oblast has negative correlation coefficients with all other FEFD regions, which in the terms of the accelerator model can be interpreted as follows: capital inflow to the Sakhalin Oblast above the expected level is due to investment inflow in other regions below their expected level[8]. At the same time, the toughest competition for investment resources is observed with the Sakha (Yakutia) Republic where the level of investment in mining is also high, and Khabarovsk Krai.

Khabarovsk Krai has a fairly high level of interregional cooperation with all its closest neighbors, with the exception of the Amur Oblast and the Jewish Autonomous Oblast (Western region). In the case of the latter, an interesting phenomenon is their high level of interaction with the Northeastern regions of FEFD and weak – with highly diversified Khabarovsk and Primorsky krais. The expected closest interregional cooperation in FEFD is are recorded between the last two.

5. Conclusion

In this study, the investment function $I_t(i_{t-1}, Y^e)$ for FEFD and its separate regions is estimated based on the symbiosis of the Keynesian (flexible accelerator model) and the neoclassical (factors affecting the function of investment demand) approaches. It is revealed

[8] It is necessary to note that, according to Table 3, the flexible accelerator model poorly describes the investment performance of the Sakhalin Oblast (R^2 = 0.43). Obviously, the performance is determined by the demand for hydrocarbons. Therefore, according to the author, the result of Table 4 can be interpreted so that the increase in demand for natural resources inhibits endogenous investment mechanisms in the Far Eastern Federal district.

that the change in expected demand ΔY_t^e is a statistically significant factor determining the performance of extra-budgetary investment in the Far East. This conflicts with the common view that private investment performance in the region, as well as economic growth in general, is determined mainly by exports of hydrocarbons. Since the model includes feedbacks and lag dependences, it is confirmed that the economy of the Far East is potentially able to generate self-sustained endogenous growth. At the same time for some reasons (mainly statistical) the study of other factors affecting capital inflow was limited to assessment of the impact of prices of capital goods.

Adequately characterizing the investment performance of the entire District, the proposed model demonstrates only satisfactory behavior at the level of separate regions, especially those with a high share of mining. It should be noted that traditional models of regional growth as the main driving force of regional economic performance consider external demand, i.e. exogenous factor in relation to the region. Given the export nature of production of resource-producing regions, it is likely that endogenous dynamic processes are secondary there. Thus, the structure of the economy is an important indicator of which forces – endogenous or exogenous, or a combination of them – are the source of regional growth. Of course, the flexible accelerator model is a simplification of reality as it is based on the simple theory that technology is described by the production function with a constant ratio of output and capital. Constructing a modified model of investment performance, which would fully taking into account both endogenous and exogenous factors, as well as the specific features of the structure of the Far Eastern economy, is the purpose of further research.

Another important conclusion following from the previous one is that the economy of the Far Eastern Federal district, with the exception of certain territories specializing in mining, is able to support economic growth without relying solely on external demand. In other words, the latter is not an exclusive factor in economic performance throughout the region. Consequently, consumer and investment demand also determines the dynamic properties of the economy, which is important to take into account in applied research when forecasting investment performance in the Far Eastern Federal District.

It is important to find ways to take into account factors that are not reflected in this paper, for example, regional interest rate volatility[9]. It is necessary to analyze the impact of rate of return on unit of capital, which will require search and application of adequate methods of evaluation of regional capital assets. Of particular interest in this area are methods proposed by S. Alexiadis, D. Felsenstein [13], V.K. Gorbunov and A.G. L'vov [17] as they help estimate capital assets based on information on capital investment without building long time series of the latter.

As noted by M. Gertler [18], there is a number of conditions to obstructing capital mobility, for example, ratio of enterprises of different size located on a certain territory; shift of investment flows from regions with potentially high profit rates towards more traditional growth poles; "industrial inertia" linking investment to already created capacities and slowing capital mobility. The search for suitable regional indicators reflecting these differences is the area of further research.

[9] The impact of the short-term interest rate and other key macro-economic parameters on investment performance in the national economy is covered in [19].

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Received June 19, 2018.

THEORETICAL ISSUES

DOI: 10.15838/esc.2018.4.58.5
UDC 316.4, LBC 60.524

Finding Ways to Significant Life Changes for the Better: Professional Discourses and Algorithm to Study Ways Preferred by the Population*

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Abstract. Considering the problem of finding ways of significant life changes for the better as fundamental, the author focuses on the research subjects. He compares the guidelines of two important discourses: "Where is Russia going?.." and "Modernization of the Russian economy", as well as the nature of their dialogue with the federal authorities. Using the results of these comparisons and based on summarizing diagnose assessments of the state of the Russian society produced by Russian scientists in 2017, the author proposes a methodology for a qualitatively new content of respondents' surveys: it is important not to be limited by finding out the opinions about population's pressing issues, but to identify the population's preferences about significant life changes for the better. For this purpose, the author proposes an algorithm of successive stages of surveys. Being aware of the complex objectives and debatable proposals, the author considers it appropriate to announce a competition for best proposals to identify significant life changes for the better preferred by the population.

Key words: professional discourse community; comparison of discourse on similar problems; unfair problem status, significant life changes for the better (SLCB); algorithm for studying preferred SLCB ways.

* The paper is prepared with financial support from the Russian Foundation for Fundamental Research grant no. 18-011-00999 "Structure of values, views and normative attitudes, lifestyle and behavior of Russians in the first 20 years of the 21st century – the seventh wave of the Russian sociological research (RSR) in the framework of the program of international comparative research - European Social Survey – ESS".

For citation: Lapin N.I. Finding ways to significant life changes for the better: professional discourses and algorithm to study ways preferred by the population. *Economic and Social Changes: Facts, Trends, Forecast*, 2018, vol. 11, no. 4, pp. 77–89. DOI: 10.15838/esc.2018.4.58.5

The search for significant changes in the life of the society and the entire population for the better is a fundamental problem of functioning and regulation of a democratically organized society. Its consideration should begin with the clarification of *subjects* that offer their understanding of the realia and ways to change them to the public and government, rather than with the content of the desired methods and their models. The range of potential subjects in the modern society is extensive. In its most general form, these are state bodies and civil society structures that interact on-line.

In this article, I focus on a limited number of actors involved in the search for ways to significantly change the life of the society and the entire population of Russia for the better. On the example of two professional discourse communities that are intellectually important for the entire post-Soviet period, I will try to compare their content guidelines and the nature of their dialogue with federal authorities, and then present assessment diagnoses of the state and prospects of the Russian society made by the scientists in the "anniversary-revolutionary" 2017 and offer an algorithm to empirically study the population's preferred ways of significant life changes for the better.

The emergence of problem-oriented discourse communities of professional social scientists is one of the signs of the civil society development in the post-Soviet Russia. Starting with the Perestroika period, the critical attitude to the life realia has been increasing among Russian citizens; many questions arise "from the bottom up", to which there are no answers "from above". These include questions from competent experts-scientists for whom identifying the questions and searching for answers is the main purpose of professional activity. As a result of the self-organization processes of civic-responsible professionals working in various knowledge fields related to human and their communities, intellectually significant network structures of the civil society emerged. The semi-formal "invisible colleges" appear on different "platforms": at universities, research institutions, scientific journals and other formal structures supporting the initiatives of intellectuals working in them – from federal (in Moscow and Saint Petersburg) to regional structures (in Yekaterinburg, Tyumen, Kursk and other major cities). The materials of these discourses are usually published in collections of papers and scientific journals, which expands their intellectual influence beyond the circles of direct discourse participants. The content of such discourses, as well as the civil meanings of the discourse communities of professionals must be researched separately, especially those productive on the basis of a comparative approach.

The nature of two sociologists' discourses on changes in the Russian society

Two discourses became the most famous and influential: (1) the annual international Symposium on the issue important for all Russians: "Where is Russia heading?..", which existed in 1993–2003 at the site of the InterCenter – an Interdisciplinary Academic Center for Social Sciences, and (2) a highly topical discourse "Modernization of the Russian economy" held mainly in 2003–2010 in the framework of international conferences of the Higher School of Economics (HSE), which since 2000 are held annually in April (in everyday life called the April conferences). As can be seen from the titles of these discourses, their subjects differ. However their problems are very similar: in both cases we are talking about understanding the meanings and ways of changes in the post-Soviet Russia – its society, economy and politics. They can therefore be the subject of comparisons, especially when trends and benchmarks at the macro level are discussed. Given the format of the article, I will refer mainly to the positions of the coordinators of the two discourses.

The symposium "**Where is Russia heading?..**" was organized by academician T.I. Zaslavskaya. Ten symposiums were already held. They consistently dealt with the main issues related to the cross-cutting topic. When summing up the results of the ten-year period, the coordinator recalled: "The first symposium of the InterCenter was held in December, 1993 – two months after the shelling of the White House and just a few days after the dramatic defeat of the Democrats at the State Duma election. Russia was then at a "point of uncertainty" which could open trajectories leading to fundamentally different sides. The "swings of the history scales" was felt by wide circles of the society. Millions of Russians wondered: what is happening in Russia? Who, on what grounds and in whose interests redistributes power and property?.. What changes should be expected in the near and more distant future?" [1].

The Symposium was attended by recognized experts in Economics, Sociology, History, Political sciences and other knowledge fields, mainly from Russia, but also from the US, UK, France, Italy, Germany, other Western countries, the colleagues from Armenia, Belarus, Ukraine and other CIS countries. Where, according to their expert estimates, did Russia come in 10 years? Of course, there is a very wide range of estimates, including my own as a member's of a set of symposia. I think that in general, Zaslavskaya has managed to summarize the estimates of the majority of participants of this discourse community: "eventually, today we have a socially divided society with a poorly developed middle class and a deprived largely downgraded majority of citizens ... At one pole of the society there is the class of employees virtually deprived of private property, and at the other – the class of owners and managers of capital as a self-growing property... In order *to reverse* this trend, to achieve the balance of the social structure and effective use of preserved human potential, there is only one way – to implement *a new, society-oriented cycle of institutional and structural reforms*... We are talking about social and democratic reforms" [2].

These were the scientific and civil guidelines of the discourse community of professionals on ways to change life for the better. They were formed as a result of their profound questions about the post-Soviet transformation of Russia and the search for scientifically grounded answers. The questions and answers contained a lot of reasonable criticism and constructive proposals addressed to Russia's authorities, the entire political class. However, the recipients did not respond to any questions or answers. The dialogue between the discourse community and the authorities did not arise. It is important to add that there as well was no dialogue between the authorities and formally organized professionals working at the Russian Academy of Sciences (RAS). Based on the proved conclusions about the harmfulness of privatization of the 1990s, which took place spontaneously yet guided by the market reform, being aware of the need for a goal-oriented strategy of transformation, the scientists of the RAS Department for Economics in September 1998 in an open letter to the President, the Federal Assembly and the Government of the Russian Federation said: "the hugest flaw of the reform is that it has lost its target focus. Its meaning and ultimate goal has been lost, and when there is no goal, it is impossible to achieve success" [3]. However the answer "from above" did not follow. Soon, however, B.N. Yeltsin, when stepping down from his presidency, apologized to the Russians for the mistakes, yet did not specify which mistakes exactly.

A different attitude was demonstrated by the federal government to another discourse community emerged in 2000 in the framework of the previously named HSE April conferences.

These conferences are openly supported by the Government of the Russian Federation, the World Bank, the International Monetary Fund, and the Bureau of Economic Analysis. It became firmly established as the main discourse platform of the liberal-pragmatic area of the Russian Economics. They are organized under the chairmanship of the ex-Minister of Economy (1994–1997), President of the Liberal Mission Foundation, HSE academic supervisor, professor E.G. Yasin. They directly involve deputy prime ministers, ministers of the Russian Government, a large number of Russian economists and representatives of related disciplines, the representatives of the mentioned international organizations, as well as prominent foreign economists.

As noted above, these conferences on "**Modernization of the Russian economy**" has been held since 2003, i.e. 10 years after the start of the shock reform, when the revolutionary stage of the transformation of the Russian economy and society ended and a new stage began – a large-scale modernization. The 2003 conference was devoted to the "results and prospects" of these transformations called modernization. In his main report, E.G. Yassin stated: "The meaning of restructuring or modernization is clear: to transform Soviet enterprises into market companies, change equipment, introduce most advanced technologies in all sectors, develop products competitive in the country and in global markets, and therefore – dramatically increase productivity and efficiency, reduce costs, and train personnel capable of solving these problems in every company" [4].

In contrast to the InterCenter symposium, HSE conferences rarely covered the term "transformation". Instead, the term "modernization" was used. Instead of the question "where is Russia heading?" practice-oriented questions about the ways to change prevailed, objectives were set for further liberalization and de-bureaucratization of new structures and relations, of to be more specific, the *rationalization* of chaotic economic and other relations in the society.

The content of the problems discussed at HSE April conferences was often similar to those of the InterCentre, some specialists actively participated in both conferences. Despite this, discussions on each platform were based on "political correctness" – as if unaware of the positions of their opponents acting on another platform and almost without considering their arguments. Although internal discussions often took place – "among themselves", between experts working on the same platform (such discussions were cultivated in the InterCenter and supported in the HSE).

There is a significant difference between the positions of communities from two platforms on the issue of the correlation between formal institutions and real practices. In this article, I will only compare the positions of the platform leaders. The initiative to discuss the problem emerged at the InterCenter platform (in 2002). In the initial report made by T.I. Zaslavskaya, the topical issue was *the social factors* in divergence of formal legal standards and real practices. A comprehensive scheme of the social mechanism of dissemination of illegal practices was proposed. In this mechanism, among many factors of illegal behavior of officials in relations with business, the private interests of mid-level officials are of key importance. Their motivation is the fact that "in Russia, the transaction costs of informal problem-solving are significantly lower than those following formal standards..." The legal aspect of liberal reforms required particular attention from politicians, but they did not think about it or give it due importance. As a result, Russians' illegal activities, previously relatively concealed, broke free and erupted, taking over almost the entire society" [5].

In 2005, the 6th HSE April conference was devoted to a similar range of problems. It was opened by a large report of the team of authors presented by E.G. Yasin. Justifying the topic of the conference, the authors noted: “Today we are facing a fundamental issue of why so many institutional reforms (including quite reasonable ones) did not produce the expected result; why they failed, were not entrenched in business practices, or their consequences were very contradictory and unforeseen [6].

In the final section (“Conclusions: what should be corrected in the policy?”) the speakers noted: “creating incentives and mechanisms was one of the main objectives of the reforms in all countries with transitional economies. Russian reformers and their Western advisers in the early 1990s expected that competition would be brought along with the introduction of market mechanisms and democratic institutions. They relied on the policy of importing institutions with a focus on the “best examples” typical for the most developed countries. In practice, however, they faced serious problems related to the adaptation of such institutions. Since reforms in the majority of cases were limited to the adoption of a package of legal regulations, the corresponding practices of economic actors were not investigated or corrected. Reforms were (and still are) “from law to law”, ignoring the fact that they are systematically neglected or opportunistically used by economic actors... The way out of the trap of a weak market and an inefficient current state for Russia is, in our opinion, associated with the transition from the policy of borrowing to the policy of developing institutions – with a gradual introduction and integration into the existing system of mechanisms and institutions that, in particular, would stimulate innovation in the remaining non-competitive environment” [7].

Thus, the speakers well aware of the practical action of the reformers, confirmed the thesis of T.I. Zaslavskaya that the legal aspect of liberal reforms required especially much attention from politicians, but they did not think about it or did not attach due importance to it. However, their report lacked assessment of the social impact of such practices and focused on how to “grow” institutions. They proposed “two methods of target institutional change – upgrading of the existing institutional designs and cultivating new ones” [8].

The authors of the report aptly recalled that a similar methodology in terms of “transplantation” was earlier suggested y academician V.M. Polterovich [9]. At the same conference, he (co-authored) delivered a report where he criticized the methodology of the Washington consensus adopted by the Russian reformers: “The painful experience has clearly demonstrated that the recommendations of the Washington consensus cannot be considered as universal recipes”, and the results of their application in many countries “seem discouraging” [10]. He also concluded: “The analysis shows that the tools and methods of industrial policy must be suitable to the stage of economic development... Russia has not yet fulfilled the objectives of the second stage and is already trying to pursue economic policy characteristic of the third and fourth stage” [11].

The conference proceedings also include a speech by E.T. Gaidar who added his “fly in the ointment”: “the idea of growing institutions rather than borrowing is correct. But, in my opinion, the solution to this problem is more difficult than it seems to the authors” [12].

I believe that the main difficulty lies in the fact that “growing institutions” can be effective only within the framework of a sound strategy of institutional change, which implies setting its main socio-economic goal.

In general, the idea of the report was supported by the representatives of the economic block of the Russian Government: Deputy Prime Minister Alexander Zhukov, Minister of economic development and trade G.O. Gref, Minister of Finance A.L. Kudrin. The representatives of the World Bank and the European Bank for Reconstruction and Development also expressed their support. As can be seen, this discussion platform is supported by the Russian Government and leading international financial organizations. Their representatives, personally participating in the conferences, perceive the conclusions and recommendations of their participants and raise their comments. This serves as an incentive for active creative work of participants, which lacks among experts who do not sense state interest in the results of their research.

The support for HSE conferences by the Russian Government can be judged by the assessments of Deputy Prime Minister A.D. Zhukov. “First of all, I would like to thank the hosts of the conference – the Higher School of Economics. It has been for the sixth time that Moscow welcomes such serious public including leading Russian and foreign experts. Judging by the experience of the previous five conferences, I would like to say that their results are always important for the government and have always created a very good framework in terms of practical application. I think that the topic stated at this conference is relevant”. He also added: “However, it is impossible to reform without making rather painful decisions. It is impossible to gradually grow reforms, especially institutional reforms”. In fact, “people are tired of reforms”... So maybe we should not use the word “reforms” and use some other expressions such as gradual changes for the better” [13].

Surprisingly, the value of this proposal is that it focuses on a specific goal of reforms – changes for the better understood and supported by the population. Yet the most important thing is what real changes take place. They can be judged by the diagnoses made by Russian scientists in recent years and summed up in 2017, mainly in the context of the 100th anniversary of the great Russian Revolution of 1917.

Estimates-diagnoses of Russian researchers based on the results of mass and expert surveys

- First of all, let us turn to the most large-scale project in the history of the Russian sociology, supported by the Russian Science Foundation (RSF) and continued since 2014 by the RAS Institute of Sociology “Performance of social transformation in modern Russia in socio-economic, political, socio-cultural and ethno-religious context” (coordinator – academician M.K. Gorshkov). The results of its five waves are published in five volumes [14]. Using a broad context approach, sociologists came to balanced conclusions and assessment-diagnoses of the evolution of the Russian society in the context of new major challenges – internal and aggravated external ones. Summing up the results of five waves of the mega-project, the coordinator concluded: “In general, the analysis of the project results gives grounds to claim that amid crisis, *Russia is dominated by a stable value-standard system characteristic of neo-etacratic societies*. The core of such a system is the special role of the state. However, this does not express a mass need for an authoritarian regime, let alone totalitarianism. On the contrary, we are talking about perceiving the society as an incarnation of “an empire” so typical for Russia. With such mass perception, the state and the society are inseparable and the society itself gives the government a mandate to carry out the functions of taking care of its people” [15].

- I must note the results of the research initiated by the Center for Socio-Cultural Changes at the RAS Institute carried out under my leadership: the all-Russian monitoring “Values and interests of the Russian population” (1990 up to present) and the research on the inter-regional program “Problems of the socio-cultural evolution and modernization of regions" conducted since 2006 in one third of Russia's constituent entities. They are summarized in a number of collective monographs and the "Atlas of modernization of Russia and its regions: socio-economic and socio-cultural trends and problems". In the context of the objectives of the present paper article, there are two diagnostic conclusions. First: "for 10 years, the list and algorithm of priority population's measures to improve their living conditions have not changed. Among them, the need to create new jobs is always a priority. Therefore, ***the relevant problem are not solved, but reproduced***"[16]. The second conclusion: Russia needs a modernization strategy that integrates its two stages (industrial and information) and is carried out "top-bottom", coordinating federal and regional needs and initiatives, and in the long term focusing on the ideal of real humanism.

- The sociological public opinion monitoring survey on the state of the Russian society and public administration efficiency conducted for more than 20 years by the RAS Institute of Socio-Economic Development of Territories (now part of the RAS Vologda Research Center) and its results are summarized in regular articles of the editor-in-chief of the journal "Economic and Social Changes: Facts, Trends, Forecast", RAS corresponding member V.A. Ilyin. The generalized description of these results is presented in his article (co-authored), which opens the first issue of the journal in 2018. The article emphasizes the conclusion made at the end of 2017: "**Thus, no positive changes in the most important issues of people's concern took place over the past 17 years: the issues of social justice, property, social stratification, and poverty have become even more acute**" [17].
- Another method of studying the state and prospects of the Russian society is expert survey. One of the most important was the survey conducted by the editorial board of the international public research journal "World of Changes" in 2017 (editor-in-chief – RAS corresponding member R.S. Grinberg). The editors asked the experts "to answer three questions related to the great Russian Revolution:

1. Do your assess the Revolution of October 1917 the entire Soviet period in the Russian history as positive or negative, and why? Was it a great revolution or a criminal coup d'Etat?
2. What lessons should our contemporary, an independent-minded Russian intellectual, learn from October 1917 and the experience of the Soviet period in order not to repeat past mistakes?
3. Do you see any similarity between the Russian situation today, in 2017, and Russia in 1917?"

The editorial board received answers to these questions from more than 60 authoritative researchers, politicians, public figures, politicians, and journalists. Their answers made up the content of the entire final issue of the journal for 2017 and the journal got the cover name "Emotions run high around October 2017". These are independent and different estimates and forecasts. According to the editor-in-chief, "the lesson following is obvious: the extremes of liberalism, nationalism, and administrative regulation should be avoided. However, the most important thing is to solve the emerged problem of a widening gap between a handful of the rich and a mass of the poor, which, of course, has created a frightening parallel since 1917. However, we know exactly what can happen if we ignore socially unacceptable inequality" [18].

A new impetus for understanding ways to reduce the severity of vital and unfairly persistent problems was the May 2018 decrees of Vladimir Putin, who began his new presidential term. One of the evidences was the discussion of the report of academician A.G. Aganbegyan "On the goals and objectives of Russia's development up to 2024" at the meeting of the Economics section of the Department of Social Sciences in June 2018.

Most experts studying the realia of their interest offer their own ways of changing them for the better – from separate to complex, including overcoming "crony capitalism" and establishing the social state enshrined in the Russian Constitution and focused on forming the society of real humanism. However, this is not done by everyone; there are experts who are convinced that changes for the better in Russia are impossible. So far, their position is confirmed by the fact that Russian society continues its "hybrid transition to the socio-cultural nowhere" – on the track of "crony capitalism". A transit corrected by the President's decrees on the need to gradually address the vital objectives. The decrees are partially implemented, but many objectives remain unsolved. Positive changes are welcomed by the majority of Russians who, however, are gradually losing their traditional patience with long-standing problems and form a desire to make life more fair and significantly better here and now. Nevertheless, the preferences of different population groups about the direction and methods of necessary changes remain unknown.

Of course, not all common people have clear preferences on such complex issues. Yet, in my opinion, it is possible to construct an algorithm for studying the preferences of a large part of common, yet sufficiently educated respondents, as well as experts. It is necessary to identify a small set of issues and formulate them in the form of understandable questions for respondents, which will help get reliable answers in an interview.

The upcoming seventh wave of the Russian Social Research (RSI) in the framework of the international comparative European Social Survey (ESS) program provides such an opportunity as it implies, along with the standard blocks of questions on topical issues of the economic and social policy, the development of questions on two specialized topics: (1) the study of the views of the population of European countries on justice; (2) the study of the life cycle of a modern man and value-standard regulators determining the nature of changes in the calendar of events in human life.

Below, I offer a variant of *an algorithm* to empirically study *the ways to change life for the better* (the WCLB algorithm) – more precisely, the algorithm for operationalizing the objectives of studying the population's preferences about ways to achieve substantial fair life changes for the better.

Algorithm of studying ways to change life for the better, preferred by the population

On the meanings and terminology of the algorithm

I will clarify the meanings and terms of the proposed methodology. Its content corresponds to the attention taken in scientific research to the state of *social issues* vital for the population. The peculiarity of the proposed methodology lies in the fact that it is focused on social problems whose state is estimated by the population as unfair and which are reproduced for a long time, become old, even aggravated despite the repeated statements of the authorities about their intentions to solve them. In population surveys on such issues, the sociologists usually focus their attention on the respondents' reacting behavior– their adaptation, readiness for protests, etc.; the researchers consider identifying specific ways to overcome/reduce the severity of problems as such only "their own business" performed during data analysis. I suggest that we also obtain data on the very ways of solving problems preferred by the population, i.e. chosen by respondents from a hypothetical set of problems proposed by the researcher and, possibly, by the respondents themselves (in open sets of answers).

I use the term "**social issue**" or simply "issue" in its substantive, main for the population, meaning, rather than epistemological – this, according to the definition of V.A. Yadov, is a social contradiction affecting the interests of large social communities and requiring target action to eliminate it [19].

Justice as a moral assessment of social relations in this case is applied not to the vital problem as such, but to its state perceived by many or the majority of citizens either as acceptable, tolerable, or, on the contrary – as unacceptable, *unfair*, as a *personal misfortune coming from the society and as a result of authorities' activities*. If, for example, income inequality is considered, it will not be just or unjust itself as the early utopian communists believed, but the range of inequality measured by the income ratio of the upper decile groups to the income of the lower decile groups, by the value of the R/P 10% ratio and other ratios. The range of inequality estimated as unfair varies depending on traditions, values of the population in the country (society), other cultural and historical factors and can be measured by representative surveys. Surveys within the framework of the WCLB algorithm will reveal a range of social problems the population considers unfair. This also applies to problems that can be assessed as unfair themselves – for example, legal inequality: the law requires absolute equality yet law enforcement, including judicial practice, is not able to fully meet this requirement; therefore, the gap between legal requirements and the degree of their implementation is important. Therefore, it is advisable to use the term "*unfair social issues*", determine the composition of such problems at each stage of social development, and analyze the evolution of their composition as a significant characteristic of justice-injustice of the whole society.

However, the range of such problems which are unfair, but nevertheless persist for a long time, become long-standing, lifelong personal troubles will be identified (as was the waiting list for improving housing conditions in the Soviet period). They bring people fatigue, gradually replace patience with bitterness and turn into a source of "sudden" explosive protests of the general population, "the Russian revolt". Accordingly, the term "*unjust state of social issues*" deserves special attention of researchers and politicians.

All this makes it possible to reveal a new meaning of the term "significant life changes for the better" – to see the nature of this change in a significant reduction in the range of social problems, the state of which most people consider rather unfair, and their overcoming will be perceived as getting rid of personal troubles, increasing satisfaction with life in general, especially at this stage, as a positive event affecting the existential experience of a person. This will definitely increase people's identification with the society, state, their civil and business activity. This will mean a life change for the better for the whole society.

Finally, let us turn to the term "*way to substantially change life for the better*". It is difficult to expect from ordinary respondents the proposals and assessments of ways to change in the form of options for specific management decisions; however, such proposals are not excluded, they should be provided in the form of possible open responses. More expected are the estimates of the generalized methods of changes of a strategic nature. The hypothetical options of such proposals in the form of answers offered to respondents will have to be prepared by the researchers themselves. Since we are talking about reducing injustice, the means of achieving such goals cannot be unfair to anyone in a given society. This is the most difficult part of the proposed methodology – not to consider simplified methods of action neither “from above”, nor “from below”, nor from the suffering party, nor from the party bringing suffering. Therefore, it is necessary to know the preferences of the suffering “common people”. And the oligarchic “elite” will have, given these preferences, to compromise with “common people” and agree to overcome the old unjust conditions of social problems to avoid possible “riots” no longer wanted by anyone or almost anyone, but that does not mean that they are impossible. For many members of this society, the preservation of personal misfortunes caused by the society (and its authorities) is equal to the increase and aggravation of these m misfortunes as the collective unconscious which finds its way out in the anti-social actions of the crowd. Therefore, the best way to make significant life changes is a compromise solution to unjust conditions of social problems, especially long – standing ones, rather than a preventive blockade of any changes. And this should be done as soon as possible.

Five steps of the WCLB algorithm

As a research strategy, the methodology of the WCLB algorithm can be characterized as a combination of intelligence and descriptive strategies (for more information on these strategies, see the subsection in V.A. Yadov’s book “Sociological research” [20]). The intelligence nature of the proposed methodology is determined by lack of information on possible respondents’ positions. At the same time, the researchers should have sufficient information about the real state of the studied problems; in this regard, the algorithm methodology becomes partially descriptive. The combination of the two strategies requires high qualifications from those who prepare the questionnaires. It is also obvious that the survey should be conducted in the form of interviews at home with respondents, which implies high qualification of interviewers. All this makes the following steps necessary to implement the proposed algorithm.

Step No. 1.

First of all, it is necessary to determine the list of vital problems, the state of which the population considers unfair, including questions that will determine the severity of respondents’ perception of injustice of each problem and the duration, the persistence of their existence. This should be a limited list, scientifically reviewed by the criterion of hypothetical fairness of their elimination/mitigation. Being aware of the inevitable openness of the list, I will name about 10 such problems.

Vital problems whose severity must be overcome or reduced:

1. Low crime protection.
2. Vulnerability to poverty and misery.
3. Underdeveloped competition, clans and corruption in business and management structures.
4. Equal taxes on excessively unequal income.
5. Unstable pension system.
6. Inequality of common people before the law in courts.
7. Connivance of property developers’ deceit for equity construction investors.
8. Uncontrolled actions of housing and communal services.
9. Population’s unawareness of progress of target programs (federal and regional) and other important decisions of the management bodies.
10. Voters’ unawareness of deputies’ activities.
11. Vulnerability of common citizens from red tape.

Step No. 2.

It is necessary to set questions as to whether respondents are able to satisfactorily address the unfair states of each problem on their own, or whether little depends on them and changes at the regional or federal level are required. In is also necessary to clarify the patience in relation to the state of these problems, etc.

Step No. 3.

Based on preliminary conceptual analysis of the selected list of problems, it is important to include in the questionnaire a hypothetical list of complex ways (strategies) to overcome/mitigate those problems whose unfair nature does not depend on respondents' actions. In the questionnaire, they are going to be the response options offered to the respondents as research hypotheses, but the list of responses should be open to additional options offered by the respondents themselves. The preparation of a correlated set of complex ways (strategies) to overcome/mitigate the injustice of the existing problems is perhaps the most constructive and responsible step in the implementation of the WCLB algorithm. Its content is the result of the researcher's work. Below, in a free form I offer my vision of the state of problems and ways (strategies) the attitude to which should be studied among the respondents.

Most Russians are tired of persistent exacerbating, socially unjust, excessive, and in many respects ineffective material inequality, especially income inequality, which increased again after the elimination of the Soviet power. It is not the first year that they expect from the authorities *significant changes* in the Russian society, state, business which would help eliminate/mitigate problems whose conditions are significant for the population's quality of life and are perceived as unfair, *rather than minor improvements*.

Many Russians believe that it is time for Russia to start a new historical era – to build Russia that is different that during the Soviet and pre-Soviet period, capable of giving decent answers to new challenges – external (civilizational, global) and internal (regional and national). The answers that would ensure Russia's national security and a high quality of life of the entire population, with fair differentiation corresponding to the multi-religious culture of its multiethnic population.

This does not require revolutionary changes (their destructiveness has become obvious in our time), but a stable and purposeful evolution towards the welfare state, a society (civilization) of real humanism [21]. A historically tested way of successful evolution is "a top-bottom modernization" based on coordination of actions at the federal level and initiatives at the regional and municipal level.

Sustainable evolution implies a reasonable compromise between the power elite and various population groups and structures of the civil society representing the middle class and lower socio-cultural strata. A strategic compromise can be a legal social state guaranteed by the Constitution of the Russian Federation, based on the principles of social market economy, tested in post-war Germany and other European countries, and corresponding to the basic values, the entire Russian culture, and the Russian population as a whole.

Compromises are more reasonable and useful if they are prepared with regard to independent scientific investigation and free discussion of projects in the scientific community, the media, the Parliament or more widely – through electronic ranking among the population.

Decisions will be more successful if they are accompanied by independent monitoring of effectiveness among population groups interested in implementing decisions.

It may be necessary to elaborate on the set of these topics regarding complementary options that express the specific features of the federal and regional level. The subject matter of the regional level, closer to the respondents of the mass survey, may precede the federal subject matters in the questionnaire, preparing the respondents for its perception. However, one can argue the reverse order of these options.

Step No. 4.

It is also important to use a common question: “How satisfied are you with life in general?” and then elaborate on dates of events in person’s life: when and why did you experience greatest (and, alternatively – least) satisfaction with life as a whole? A set of questions on the value-standard regulators of changes in the individual’s calendar of events should be added. Then we measure the correlation between the answers to these questions and the questions of the previous steps of the algorithm.

Of course, the preparation of surveys on such topics requires high qualification from program and questionnaire developers, as well as from interviewers. It is necessary to develop a special sample to take into account the necessary educational level of respondents.

Step No. 5.

Finally, the researcher proceeds to assessing the quality of interview sheets containing the respondents’ answers. It the quality is satisfactory, they assess the results of statistical analysis of three data circles: 1) answers to the questions on the WCLB algorithm; 2) their correlation with the answers obtained in the standard blocks of survey; 3) the relations of the two data circles – with comparable data for other countries involved in this wave of the European Social Survey (to the extent that they will be comparable).

I am sure that this approach will improve the quality of sociological research and make their conclusions more reasonable and relevant for both population and government. I will be glad if there are better proposals on the subject of public surveys on how to make significant life changes for the better. I suggest that it be an **open competition.**

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Received June 19, 2018.

DOI: 10.15838/esc.2018.4.58.6
UDC 331.1, LBC 65.24

Theoretical Approaches to Studying People's Motivation for Creative Labor Activity in the Socio-Humanitarian Thought*

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* The publication was prepared within the framework of research project 17-22-01020 "Motivational and stimulating mechanism of creative labor activity: comparative analysis of Russia and Belarus" supported by the Russian Foundation for the Humanities.

For citation: Shabunova A.A., Leonidova G.V., Ustinova K.A. Theoretical approaches to studying people's motivation for creative labor activity in the socio-humanitarian thought. *Economic and Social Changes: Facts, Trends, Forecast*, 2018, vol. 11, no. 4, pp. 90–109. DOI: 10.15838/esc.2018.4.58.6

Abstract. The article raises the issues of motivation in the context of individual approaches (Freudian, behavioral, cognitive-psychological, etc.) in the framework of theoretical-personal and theoretical-associative fields. The goals of the article are as follows: to structure the main existing approaches to the study of motivation, and to determine the provisions that can be used in the framework of the motivation for people's creative labor activity. The study used general logical methods and techniques, such as system approach, generalization, analysis, and synthesis. We conclude that the main source of people's activity is need-based tension, and the aim is to eliminate it using external incentive factors. We show that the nature of behavior will be determined by the degree of consistency between different groups of motives, correlation of motives and external goals, and in the absence of such coordination – by volitional mechanisms of regulation. We point out that scientific literature contains no unambiguous definition of motivational-stimulating mechanism; the paper provides its interpretation from the standpoint of behavioral approach and A.N. Leontiev's theory of subjectified motivation. We focus our attention on the fact that the development of motivational-stimulating mechanism should take into account the specific nature of activity. We provide motives of creative activity, among which we highlight the cognitive and communicative motives, achievements, etc. We prove that the system-wide management of creative labor activity can be achieved by creating a motivational and stimulating mechanism, which would take into account direct and indirect methods of management, both external and internal factors that contribute to and hinder the development of subjectivity and have a different nature. Having reviewed the relevant literature, we conclude that most of the methods to promote people's creative labor activity are empirical and arise mainly outside the study of scientific problems of creativity. So far, studies focus on cognitive aspects that provide creative thinking and behavior, while motivational aspects and those focused on overcoming negative effects of external stimuli are not given due attention. Theoretical aspects of our study can be used to develop a system of measures aimed to promote creative activity and motivational-stimulating mechanism.

Key words: motivational-stimulating mechanism, motive, stimulus, creative activity, labor activity.

Introduction

Regardless of the stage of socio-economic development of territories and individual organizations, personnel motivation remains a relevant issue. Low creative activity of employees and the absence of new forms and methods of motivation for creative work are considered as the most critical barriers to economic development and innovation [Tether et al. *A literature review on skills and innovation*... 2005]. Employers run the risk of losing valuable personnel and having problems attracting talented employees, if they do not pay attention to motivation [Dessler G. *Human resource management*. 2003].

The socio-economic reforms of the 1990s had a significant impact on the system of personnel motivation in Russian enterprises and organizations. The transition to a market economy was accompanied by their gaining economic independence; thus, the level of ideological self-consciousness of an individual was no longer recognized as a major driver of labor motivation; it was replaced by the achievement of a certain level of productivity by work teams and individual employees and by the amount of financial incentives. At present, in connection with the transition toward innovative development, non-financial incentives for workers become relevant again [Raznodezhina E.N., Krasnikov I.V. *Motivation of the market organization of work in modern conditions*. 2011].

Creating a mechanism to promote work motivation and improve employees' performance, as well as studying the factors that influence such motivation [Skripnichenko L.S. *The study of work motivation specifics*... 2015] are coming to the fore in social science.

The problems of personnel motivation are raised in both domestic and foreign scientific literature. There are many schools and directions on this issue. Russian researchers in this field include A.P. Volgin, V.P. Galenko, M.V. Grachev, E.E. Starobinskii, and V.V. Travin; foreign – A. Maslow, F. Herzberg, D. McClelland and others. Foreign researchers [e.g., Hugo M. Kehr. *Integrating implement motives, explicit motives, and perceived abilities*... 2004] analyze inter-group differences that affect the complexity (simplicity) of achieving the goals in terms of similar qualifications, as well as mechanisms for achieving goals and their modification.

However, it should be emphasized that existing theories do not give sufficient attention to implicit motives and to the mechanisms of overcoming the conflict between implicit and explicit motives [Brunstein J.C., Schultheiss O.C., Grassmann R. *Personal goals and emotional well-being*... 1998; Emmons R.A., McAdams D.P. *Personal strivings and motive dispositions*... 1991; McClelland D.C., Koestner R., Weinberger J. *How do self-attributed and implicit motives differ*. 1989; Spangler W.D. *Validity of questionnaire and TAT measures of need for achievement*... 1992]. At the same time, there is no systematization of traditional concepts of motivation, and the attention paid to non-financial incentives for employees is insufficient. In view of the above, the purpose of our article is to analyze the existing theoretical approaches to the study of motivation in foreign scientific thought.

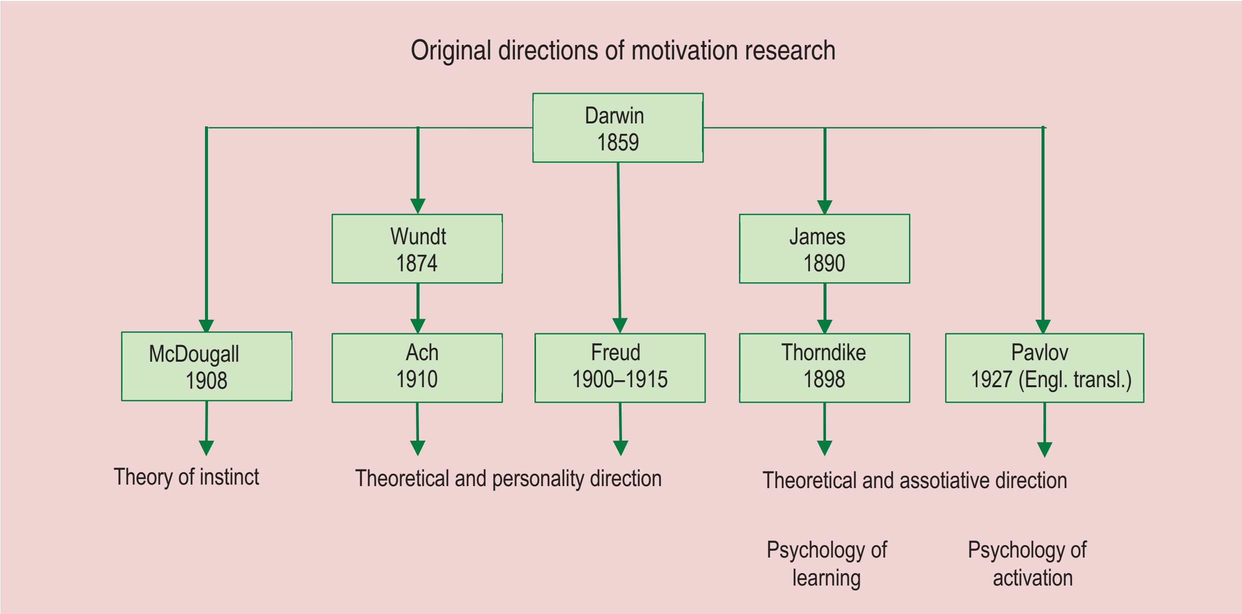
I. Overview of the main theoretical approaches to the study of motivation

Attempts to study the behavior were made long ago, with an emphasis on promoting and implementing targeted actions to manage them. Over time, more and more attention in the explanation of not only behavior, but also perception and thinking, was given to motivation. Foreign sources mentioned its features such as "inner strength", "stimulus to action" [Russell Ivan L. *Motivation*. 1971]. For example, motivation can be interpreted from the standpoint of an "internal force" that causes the need to satisfy basic needs [Yorks Lyle. *A radical approach to job enrichment*. 1976], as well as productivity enhancing factor that helps act purposefully or improve the ability to act [Kast Fremont E., Rosenzweig James E. *Organization and management*... 1970].

Along with motivation, scientific literature contains a number of related concepts, similar in form, but different in content, which include "labor motivation" and "motivation for labor activity". The former is often considered from the standpoint of the intrapersonal process of forming motives for work, the latter – in terms of those actions that are taken, for example, by organizations and encourage the employee to work.

Returning to the original concept of motivation, we note that among the areas of research are the following: 1) *theoretical and instinctive* (Lorenz, 1937, 1943; Tinbergen, 1951, etc.); 2) *theoretical and personal* (Levin, 1926, 1935; stern, 1935; Maslow, 1954; McClelland, 1953, 1961; Festinger, 1957, 1964; Atkinson, 1957, 1966, 1970, etc.) and 3) *theoretical and associative* (Woodworth, 1918; Tolman, 1932, 1952; Young, 1936, 1961; Duffy, 1932, 1962; Skinner, 1938, 1953; Hull, 1943, 1952, etc.) *(Figure)*.

The first direction explains human behavior on the basis of instincts and motives, the second one emphasizes the allocation and description of personal properties, the third one considers the adaptation to changing conditions and analyzes how the organism responds to stimulation.



We do not attempt to cover all the existing approaches to the study of motivation and focus only on some of them in the framework of the theoretical and personal direction and the theoretical and associative direction (Freudian, behavioral, cognitive-psychological, etc.).

Freudian approach

Narziß Ach (1871–1946) and Sigmund Freud (1856–1939) were pioneers in this direction. The prerequisites of Freud's theory were set out in 1895 in *the Project for a Scientific Psychology*, and in the final form – in 1915. The key role was given to internal "stimuli" rather than external ones, and an individual was considered as a complex energy system in which energy is provided by the neurophysiological state of excitation and is spent mainly on mental activity. It was argued that any activity (thinking, perception, memory and imagination) is determined by instincts that can have both direct and indirect influence on it. In a generalized form, Freud distinguishes two groups of instincts: life and death, considered from the standpoint of the source, purpose, object and stimulus. The need-based condition of the body (for example, hunger and thirst) is a source of instinct and the elimination or reduction of excitation is a goal. Any behavioral process within the framework of psychoanalytic theory is characterized from the standpoint of the orientation of energy toward an object (cathexis) and the obstacles to the satisfaction of an instinct (anticathexis).

Behavioral approach

The behavioral approach to the study of motivation emerged in the early 20th century (B. Skinner, K. Spence, E. Tolman, J. Watson, C. Hull, etc.). In its framework, the need emerging due to the deviation of physiological parameters from the optimal level was also recognized as the basis of activity. Motivation mechanism was reduced to a decrease or removal of the arising tension, and in case when its removal was impossible – to the use of reinforcement (external factors, incentives) [*Major psychological theories of motivation*...]. Among the latter, not only positive (awards, incentives), but also negative (punishment) aspects were considered. And the behavior itself was characterized by both positive consequences, which led to its consolidation, and negative consequences leading to its cessation. The prevalence of a particular type of behavior was thought to imply confidence in the existence of a direct link between activity and its effects. If there are no significant consequences for the individual, then there will be no intentions to behave in a particular way.

The relationship between motivation and subsequent behavior is considered either as direct or as mediated by cognitive processes *(Tab. 1)*.

Taking into account the above, we can mention the following theories: *stimulus-response theories* such as learning theories of Watson (J. Watson, 1924), Guthrie (E. Guthrie, 1935) and Skinner (B.F. Skinner, 1938; 1953); on the other hand, there are *theoretical approaches in which between stimulus and response there are cognitive processes*: assessment of the actual situation, assessment of the consequences of events; self-assessment of the achieved results (F. Halisch, 1976; H. Heckhausen, 1978). Among such approaches, there are, for example, *non-behavioral theories of Hull, Spence, Miller* (C. Hull, 1952; K. Spence, 1956; N. Miller, 1959), which contain no statements concerning a close stimulus-response relationship; variables such as needs and motivational characteristics are introduced between stimulus and response. Motivation is considered as an internal component that encourages an individual to work (the desire to do something better and/or faster) and is characterized from the standpoint of the importance and achievability of this result for the subject, including through his/her faith in his/her abilities [*Modern psychology of motivation*. 2002]. Another group of "intermediate" theories is represented by the *theories of "expected value"*, which takes into account the subjective probability of achieving (not achieving) the goals. Among them, in particular, Atkinson's model of decision-making in risk conditions (J. W. Atkinson, 1957; 1964).

In the scientific literature, there is a variety of theoretical approaches to the study of motivation, in which attention is focused on the differences between explicit and implicit motives [Weinberger J., McClelland D.C. *Cognitive versus traditional motivational models*... 1990; Koestner R., Weinberger J., McClelland D.C. *Task-intrinsic and social-extrinsic sources of arousal for motives*... 1991]. Explicit motives serve as guidelines for tracking their actions [McClelland D.C. *Scientific psychology as a social enterprise*... 1995], they are associated with the sphere of the conscious, with cognitive processes, for example, decision-making [McClelland D.C. *How motives, skills, and values determine what people do*. 1985; Spangler W.D. *Validity of questionnaire and TAT measures of need for achievement*... 1992], and they are influenced to a greater extent by the social environment [McClelland D.C. *How motivations, skills, and values determine what people do*. 1985; Koestner R., Weinberger J.,

Table 1. Four groups of theories according to B. Weiner (1972)

Classification	Structure	Essence
Mechanistic	S-R	Behavior is explained by the stimulus-response relationship (S-R). When behavior is analyzed, intermediate hypothetical constructs are not used. *Representatives: Watson, Skinner and other associationists and behaviorists.*
	S-construct-R	Behavior is explained by the stimulus-response relationship (S-R). When behavior is analyzed, hypothetical mediating constructs – the need and the motive – are introduced. *Representatives: Hull, Spence, Miller, Brown and other neo-behaviorists.*
Cognitive	S-cognitive processes-R	The action of thought processes is supposed between the incoming information and the final behavioral response. Behavior is mainly influenced by "waiting". *Representatives: Tolman, Lewin, Rotter, Atkinson, etc.*
	S-cognitive processes-R	Between the incoming information and the final behavioral response there is the action of mental processes, but the behavior is due to many cognitive structures and processes, such as information retrieval and personal constructs. *Representatives: Heider, Festinger, Kelley, Lazarus, etc.*

McClelland D.C. *Task-intrinsic and social-extrinsic sources of arousal for motives*... 1991]. Implicit motives, on the contrary, are associated with the unconscious [Maslow A. H. *A theory of human motivation*. 1943], with hidden behavioral aspects [McClelland D.C. et al. *The achievement motive*. 1953], the foundations of which are laid in one's youth and which are relatively independent of social requirements [Koestner R. et al. *Task-intrinsic and social-extrinsic sources of arousal for motives*... 1991; McClelland D.C. *How motives, skills, and values determine what people do*. 1985]. Examples include the motives for power and achievement [McClelland D.C. *Scientific psychology as a social enterprise*. 1995], the motives for "hope for success" and "avoiding failure" (fear) [Atkinson J.W. *An introduction to motivation*. 1964; Higgins E.T. *Promotion and prevention*... 1998; Kanfer R., Heggestad E.D. *Motivational traits and skills*... 1997].

Explicit and implicit motives are related to different aspects of personality [McClelland D.C. et al. *How do self-attributed and implicit motives differ*. 1989; Spangler W.D. *Validity of questionnaire and TAT measures of need for achievement*... 1992], so in some cases they are considered as independent variables [Brunstein J.C. et al. *Personal goals and emotional well-being*... 1998; McClelland D.C. *How do self-attributed and implicit motives differ*... 1989; Epstein S. *Personal control from the perspective*... 1998; Metcalfe, J., Mischel W. *A hot / cool-system analysis of delay of gratification*...1999], which is confirmed in the study of Spangler [Spangler W.D. *Validity of questionnaire and TAT measures of need for achievement*... 1992]. A similar approach is contained in the goal-setting theory, which does not distinguish between these groups of motives and ignores the possibility of "strong-willed resolution" of the conflict between them. However, in some works [Cantor N., Blanton H. *Effortful pursuit of personal goals in daily life* ... 1996; Emmons R.A., McAdams D.P. *Personal streams and motive dispositions*... 1991; King L.A. *Wishes, motives, goals, and personal memories*... 1995; Sokolowski K. et al. *When assessing achievement, affiliation, and power motives all at once*... 2000], a conclusion is made about their interrelation and interdependence, and it is pointed out that they are considered from the positions of integrated structures [McClelland D.C. *How do self-attributed and implicit motives differ*. 1989; Sheldon K.M., Kasser T. *Coherence and congruence*... 1995].

The presence of some inconsistency between these groups of motives leads to the fact that the behavioral aspects they cause may also be in varying degrees of consistency [Brunstein J.C. et al. *Personal goals and emotional well-being*... 1998; McClelland D.C. et al. *How do self-attributed and implicit motives differ*... 1989]. In this case, a large mismatch between explicit and implicit motives may be accompanied by considerable differences in behavior. This can be manifested in intrapersonal conflict, in reduced labor productivity and well-being and even in health problems [Bazerman M.H. et al. *Negotiating with yourself and losing*... 1998; McClelland D.C. *How do self-attributed and implicit motives differ*. 1989; Ryan R.M., Deci E.L. *Self-determination theory and the facilitation of intrinsic motivation*... 2000; Sheldon K.M., Kasser T. *Coherence and congruence*... 1995].

<u>Heckhausen's cognitive-psychological approach to the study of motivation</u> [Heckhausen H. *Hoffnung und Furcht in der Leistungsmotivation*. 1963] takes into account such motivational aspects as hope of success (HS) and fear of failure (FF). It is noted that some people are motivated to solve problems by the satisfaction they get from overcoming the problems, while others are motivated by avoiding negative consequences. Heckhausen considers the causal chains *"situation-result"* (the probability of achieving the result in a particular situation without the action), *"action-result"* (the probability of achieving

the result on the basis of the action), *"result-consequence"* (the result from the standpoint of importance of the impact of its consequences on the behavior).

This direction is criticized for the leading role of rational, cognitive aspects in motivation and behavior. Despite the assertion that behavior is often based on logical and rational processes, preference may in fact be given to the more "optimistic" strategies [Fischhoff B. et al. *The experienced utility of expected utility approaches*... 1982]. For instance, Eccles draws attention to the irrational nature of decision-making. However, it is possible that behavior can be driven by more stable constructs [Eccles J.S. *Gender roles and women's achievement-related decisions*. 1987; Eccles J.S, Harold R.D. *Gender differences in educational and occupational patterns among the gifted*... 1992], for example by stereotypes. The factors that affect decision-making process include traits of character, temperament, attitudes, and beliefs. Among them is the "cognitive structuredness", which determines individual differences in the analysis of information (one of the parameters is the number of indicators with the help of which the information is analyzed). Part of the population with low "cognitive structuredness" often acts stereotypically and is unable to adapt to new requirements; thus it is dependent on external circumstances (O. Harvey, D. Hunt, H. Schroder, 1961; H. Schroder, M. Driver, S. Stenfert, 1967). At the same time, the opposite population group can process information very quickly and respond to the changes flexibly (H. Krohne, 1977).

An approach associated with cognitive parameters such as self-efficacy and purpose is found in the concept of *self-efficacy and self-regulation* [Bandura A. *Self-efficacy: toward a unifying theory of behavioral change*. 1977; Bandura A. *Self-regulation of motivation*... 1988]. Only a partial connection between motivation and cognitive activity is recognized; in particular, implicit and explicit motives in combination with abilities can strengthen the motivational component, but a low level of their development does not always reduce it. The *Deci and Ryan* approach [Deci E.L., Ryan R.M. *The "what" and "why" of goal purposes*... 2000] examines the compatibility of cognitive preferences with implicit motives. Motivation is characterized as a consequence of the correlation of external goals with motives; if there is no such correlation, then an important role is given to the volitional mechanisms of regulation.

The cognitive model of motivation [Lawler E.E. *Pay and organizational effectiveness*... 1971; Lawler E.E., Jenkins G.D. *Strategic reward systems*. 1992] introduces the concept of remuneration, which can activate explicit motives that affect, for example, the choice of a job [Srivastava A. et al. *Money and subjective well-being*... 2001]. In some cases remuneration may lead to conflicts between explicit and implicit motives; this requires "volitional regulation". Accordingly, social incentives can have not only positive but also negative effects on behavior. Negative impact is due to the activation of new goals that make the initial implicit motives "ineffective" [Kanfer R. *Motivation theory and industrial and organizational psychology*. 1990]. When consistency is achieved between the original and new motives, then we can get a positive impact on motivation.

Taking into account the provisions of the cognitive model of motivation, in which remuneration is considered from the standpoint of the stimulus that affects behavior (employment, work, the probability of dismissal, etc.), as well as the provisions of the behavioral approach (in particular, the incentive-reactive theories), we illustrate the impact of the financial factor on various aspects of employment and labor activity of the population on the example of the monitoring of the labor potential of the Vologda Oblast residents; the monitoring was conducted

Table 2. Distribution of answers to the question: “Do you have the desire and opportunity to work?”, % of respondents

Answer	Description of monetary income				
	I have enough money to afford everything I need	I can buy the majority of durable goods without trouble, but I can’t afford to buy a car at the moment	I have enough money to buy the necessary food and clothing, but larger purchases have to be postponed	I have enough money only to buy food	I don’t have enough money even to buy food, I have to get into debt
1. Yes, I already have a job.	76.6	89.6	83.9	73.4	52.0
2. Yes, I’m looking for a job, I’m registered with the employment service, and I’m ready to start working.	6.4	2.2	3.0	10.9	22.7
3. Yes, I want to work, I’m looking for a job, but I’m not ready to start working yet.	0.0	1.5	2.8	2.5	5.3
4. Yes, I want to work, but I’m not looking for a job.	2.1	3.0	4.7	4.5	4.0
5. No, I don’t have the desire and ability to work.	14.9	3.7	5.6	8.7	16.0
	100.0	100.0	100.0	100.0	100.0

Note: χ^2 = 95.943, $p < 0.001$.
The obtained value of χ^2 95.943 exceeds the critical value (26.3 at the level of error p=0.05, 32.0 at p=0.01, 39.25 at p=0.001), respectively, the null hypothesis of the absence of a correlation between the signs is rejected (the correlation between them exists).
Source: the monitoring of the quality of labor potential of the population, 2016, VolRC RAS.

by Vologda Research Center of the Russian Academy of Sciences in 2016[1].

The actual results show that there is a connection between people’s cash incomes and their employment status (the estimated value χ^2 exceeds the critical value; see the note to Table 2). Only half of the poor have jobs, while in the group with incomes that allow them to purchase durable goods – over 90% *(Tab. 2)*.

Unfair payroll is seen as one of the factors impeding the implementation of one’s potential; another factor is the lack of professional knowledge. The poor and youth are more likely to point out the former, while the more well-off and people over 30 – the latter. For employees with higher education and for those who have enough money to afford everything they need, another obstacle to the realization of labor potential, in addition to the already mentioned, is the inability to influence the management of the company they work for, and for the population with secondary vocational education and with low incomes – inconvenient working hours.

Financial factor also has a significant impact on the mobility of personnel; in almost half of the cases, people change their place of employment because of low wages; this is even more important for young people (61% of cases). Almost every fourth woman and every fifth of the respondents over 30 said they had no other choice but to look for another job because

[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%. Technical processing of the data is carried out in the programs SPSS and Excel.

Table 3. Distribution of answers to the question: "If you changed your job in the course of your working life, what was the main reason for doing so?", % of respondents

Answer	Sex			Age		
	Men	Women	Criterion χ^2	Under 30	Over 30	Criterion χ^2
1. Low wages	54.8	50.6	1.402 ($p = 0.236$)	61.4	49.3	9.300 ($p = 0.002$)
2. Personal circumstances	19.9	24.6	2.532 ($p = 0.112$)	17.7	24.1	3.687 ($p = 0.055$)
3. Personnel cuts	13.2	23.6	14.418 ($p < 0.001$)	11.8	21.1	9.159 ($p = 0.002$)
4. Uninteresting work, no hope for career growth	18.9	18.8	0.001 ($p = 0.980$)	21.8	17.7	1.774 ($p = 0.183$)
5. Poor working conditions	21.2	20.2	0.110 ($p = 0.741$)	30.0	17.2	15.980 ($p < 0.001$)
6. Hard work	10.3	11.8	0.439 ($p = 0.507$)	11.8	10.8	0.160 ($p = 0.689$)
7. I wanted to start my own business	5.9	5.5	0.060 ($p = 0.807$)	5.0	6.0	0.303 ($p = 0.582$)
8. There is no social support from the enterprise, the organization (housing, recreation, etc.)	6.7	5.3	0.715 ($p = 0.398$)	7.3	5.5	0.893 ($p = 0.345$)
9. Expiration of the employment contract	7.8	4.8	2.946 ($p = 0.086$)	8.2	5.5	1.967 ($p = 0.161$)
10. Fear of closure of the enterprise, organization	3.4	4.3	0.516 ($p = 0.473$)	2.7	4.3	1.057 ($p = 0.304$)
11. Bad relations with colleagues, with administration	3.9	6.7	3.253 ($p = 0.071$)	11.4	3.1	21.523 ($p < 0.001$)

Note: 1) the sum in all the columns exceeds 100% due to the fact that the answer to the question allowed for choosing several options; 2) $\chi^2 = 3.841$ when p=0.05; $\chi^2 = 6.635$ when p=0.01; $\chi^2 = 7.879$ when p=0.005. Accordingly, the value allowing to reject the null hypothesis of the absence of a correlation between the features should be at least 3.841.
Source: the monitoring of the quality of labor potential of the population, 2016, VolRC RAS.

of staffing cuts. In addition, among the reasons for the change of employment, a significant role is given to personal circumstances, as well as poor working conditions *(Tab. 3)*.

Similar results were obtained according to the calculation of the coefficients χ^2. In particular, it is proved that age is interrelated with such reasons for changing jobs as low wages, poor working conditions and poor relations in the team and with the managers.

The above data show that there is a connection between the financial factor, the status of employment, the implementation of the accumulated potential, and the change of the place of employment. It is revealed that the motives may vary depending on what socio-demographic group respondents belong to: for example, for the more affluent, the financial factor is less important than power (the ability to influence the management of the enterprise), while for the opposite group, working hours and remuneration are more important.

Marxist approach and the theory of objectified motivation in the school of A.N. Leontiev

As we have already shown above, people's activity results from the action of stimuli and motives associated with both the presence of a need for something and the desire for a change. These and a number of other provisions are manifested and further developed in the framework of the Marxist approach and the theoretical provisions of A.N. Leontiev. These provisions focus primarily on human activity, its development and forms. The provisions related to the formation of an image of the need resulting from the contemplation of the subject are criticized (the key problem consists in the fact that it is impossible to explain the adequacy of the subjective image of objective reality) [Marx K., Engels F. *Works. Vol. 3.* 1955]. Marxism considers consciousness as a secondary phenomenon, as a result of reflection of material processes, and as a relatively passive instance. Within the framework of Marxism, the problems of motivation were considered by domestic researchers in the cultural-historical psychology of development (L.S. Vygotsky) and the psychological theory of activity (S.L. Rubinshtein, A.N. Leontiev, etc.). In the former case, the attention was focused on the general methodological laws of the genesis of the individual, in the latter – on the technological aspects.

The provisions of the activity approach were developed by A.N. Leontiev, who connects activity with personality and considers it as an internal moment [Marx K., Engels F. *Works. Vol. 3.* 1955]. The prerequisites for the formation of the personality arise in the conditions of establishing a hierarchy of activities and motives. Activity is characterized from the perspective of the process aimed at the subject and coinciding with the individual's motivation for activity (motive). Non-objective activity is impossible, because it is only in activity that the prerequisites of consciousness emerge and thoughts are generated; outside activity there exists only a direct sensual reflection. The need acts as an internal condition and prerequisite for activity because it is "objectified", the subject becomes the motive, the one that motivates activity".

Summarizing our review of theoretical approaches to the study of motivation, we note the following:

– regardless of theoretical direction, the main source of activity is the need-based condition of an individual (deviation of physiological parameters from the optimal level), and the main task is to eliminate the stress, with the use of incentives, too (encouragement/punishment), exerting both positive and negative impact on the behavior;

– the relationship between stimuli and subsequent behavior can be direct or it can be mediated by cognitive processes; it is often recognized that implicit and explicit motives, combined with abilities, can enhance the motivational component; however, in some cases, the leading role of rational and cognitive aspects in motivation and behavior is criticized (it is pointed out that decision-making may be irrational);

– the nature of behavior and the possibility of conflict situations will depend on the degree of consistency between explicit and implicit motives; there should be a correlation between external goals and motives, and if there is no such correlation, then the volitional mechanisms of regulation should be used; contradictions between motives may arise in a situation where new stimuli make ineffective initial motives and update new ones.

Taking into account the fact that the formation of a motive can be associated with both internal and external processes, we emphasize that in the latter case there is a management of motivation. For example, in a situation in which it is necessary to complete the work with "poor" content of labor that does not have "internal attractiveness", motivation can be formed under the influence of external factors with the help of motivational-stimulating mechanism.

II. Motivational-stimulating mechanism

In the scientific literature there is no unambiguous interpretation of motivational-stimulating mechanism. When describing it, we often mean the unity of motive and stimulus. The latter is considered from the point of view of an external object (material objects, images of a psychologically comfortable state, etc.), which affects the behavior of an individual or a group of people, which is attractive to them, and which serves as the goal of their aspirations. The motive is associated with an internal impulse induced by the stimulus, so in the absence of real effective stimuli, the motives may not arise.

The orientation of motivation is determined by the life attitude of an individual and the possibilities of its implementation in specific conditions. Motivation serves as a form of regulation of mental processes, is expressed in a steady desire for self-realization and acts as a motivating force. Given that the motivational sphere of an individual is the inner psychological formation, it is necessary to point out that there is an ability to influence it through motivational-stimulating mechanism [Shavel S.A. *Social mission of sociology*. 2010].

Based on the theoretical provisions of such approaches, as the behavioral approach and A.N. Leontiev's approach of objectified motivation, motivational-stimulating mechanism can be defined as *a system of features of the subject and the conditions of activity, due to which the subject voluntarily adopts regulatory requirements (responsibilities) and mobilizes his/her potential for successful implementation of activity.*

In this case, the conditions of activity are a stimulus, and the regulatory requirements are an image of the subject. The correlation between "internal" and "external" means that these requirements are voluntarily adopted; and in turn, their comparability with the existing potential can promote the effectiveness of activity.

Taking into account the activity-based accentuation of motivational-stimulating mechanism, when developing it, it is necessary to take into account the normative nature of relations between the participants, assuming the clarity of the "rules of the game" and the possibility of their implementation in activity; the presence of socially useful stimuli available to participants of socio-economic relations, correlated with internal orientations and attitudes; the fairness of remuneration in accordance with the contribution made; the legitimacy and legality of the means used to achieve the goal. In addition, *it is important to take into account specific types of activity and conditions of their implementation* [Shavel S.A., Mikhailovskaya S.V. To know the society that we live in. 2014], *as it sets the specifics of motivational-stimulating mechanism*.

Since the present study focuses on the aspects related to the motivation for creative work activity, we pay attention to the definition of the latter. At the same time, this concept is based on labor activity, which is considered from the standpoint of not only quantitative but also qualitative characteristics of the work performed, the discipline of participants of the labor process (compliance with the rules and internal regulations, labor discipline), as well as the nature of this activity. Taking into account the last feature, labor activity can be divided into creative and non-creative [Popov A.V. *Development of labor activity of the population*. 2012]. In turn, creative labor activity can be characterized as a type of labor activity in which people participate in creating new ideas, improving organizational technologies, and designing new products. The involvement in innovative processes implies the existence of abilities that at the cognitive and behavioral level help develop and implement new, promising ideas in the individual activity of the subject and in the activity of the social system within which the subject operates [Yagolkovskiy S.R. *Creative activity within the innovative process*... 2013], and solve the problems contributing to the increase of the quantitative and qualitative results of the work [Bogdanchikov T. V. *Labor and creative activity of employees in entrepreneurship*. 2006].

It is noted in the scientific literature that creative activity involves not only thought processes, but also "dynamic forces" that put these processes into action [Gutman H. *The biological roots of creativity*. 1967]. However, there are different views on dynamic forces. In particular, the motivators for such actions are as follows:

– *natural instinct* (the urge to creativity arises instinctively; motivation for creativity is self-conscious and self-developing [Rorbach M.A. *La pensee vivante. Regles et techniques de la pensee creatice*. 1959]);

– *communicative motive* (orientation on social order, accuracy and perfection of form) [Zhabitskaya L.G. *Revisiting the problem of leading motives*... 1983];

– *cognitive need* (formation of value attitude to the world; diversity of interests creates conditions for the accumulation of material for creative transformation, which is accompanied by the formation of the state of interest);

– *desire to make one's personality important* (focus on doing something better than all the others [Sharov A.S. A limited individual: significance, activity, reflection. 2000]);

– *achievement motive* (the desire to succeed, to achieve the goal; Chambers, 1967);

– *competition* (competitive relationships between different creative structures can lead to discoveries and different achievements; J. Watson, 1968);

– *change of the directions of creative activity* (to maintain motivation for creative activity throughout life);

– *pleasure from work* (satisfaction from understanding complex issues and subjects; Ch. Darwin, 1957).

Let us illustrate the influence of some of the above motives on creative activity on the example of factual data. Young people under the age of 29, since they have the greatest innovative potential, were chosen as the object of research. The results obtained in 2016 in the framework of the monitoring of the quality of labor potential conducted by Vologda Research Center of RAS indicate the prevalence of forced motives for creative activity among young people (practical necessity or an order from their seniors – 46%); only 5% are engaged in creativity on a voluntary basis. One of the features of creative young people in comparison with the rest of the population is that they more often express motives for self-development and self-realization. This is manifested in the fact that among the creative youth the intellectual level is higher (71% vs. 33%), they are more often disposed toward creative work (65% vs. 8%) and entrepreneurial activity (52% vs. 25%). In addition, in the set of motives of this group an important place is given to the social motives associated with the achievement of a certain position in society and career. For example, there are three times more specialists with higher qualification among creative young people, and in the future, in fifteen years, they are twice as often, compared to the rest, see themselves as heads of enterprises, and three times more often see themselves as heads of the lower levels of management. It is not surprising that the inclination toward lifelong learning, self-development and achievement of a certain social status can be accompanied by a growth not only in productivity and average monthly wages, but also in life satisfaction. This is clearly demonstrated by the data of the monitoring of the quality of labor potential of Vologda Oblast residents for 2016: among the innovation-active youth, labor productivity is slightly higher compared to the rest (7.9 against 7.7 points on a 10-point scale), wages (18,635 rubles vs. 18,113 rubles) and life satisfaction (42% vs. 26%) are also higher.

However, it should be borne in mind that the implementation of creative activity is hampered by many factors. In the scientific literature, such factors are divided into *internal* (insufficient development of volitional qualities; lack of talent, knowledge; impatience, inattention) and *external* (insufficient level of financial security; lack of support from relatives, teachers, and parents; lack of like-minded people, etc.; M.M. Zherdeva, 2005). In a generalize form, the barriers that inhibit activity are structured by V.M. Voskoboinikov

[Voskoboinikov V.M. *How to identify and develop the child's abilities*. 1996]: they include *contrasuggestive* (prejudice, lack of confidence in their own strength, distrust of colleagues, rigidity of beliefs and attitudes, opportunism), *thesaurus-based* (low level of education and/or intellectual development, lack of access to information), *interactional* (the inability to plan and organize one's own activity and that of other people) – i.e. those barriers which are sensory-emotional, cognitive, and behavioral in nature and which influence different facets of the subjectivity of an individual.

Socio-economic environment is an important factor influencing creative labor activity. At the same time, there may be not only the influence of creative people on the development of the economy of a particular territory, but also vice versa. An example of the influence of creative workers on the economy of a territory can be found in the UK, where creative industry has become one of the priorities of economic development. Already in 1998, in accordance with Creative Industries Mapping Document, 1.4 million people were employed in this sector, their total income exceeded 60 billion GBP, and their contribution to GDP was about 4%. An interesting fact is that the sphere of creative work in the UK is considered an important economic segment and a means of social mobility [Kuleva M.I. *Transformation of creative employment in modern Russia*. 2017].

We should also note the positive impact of the business sector on economic development, it is discussed in the following works: Acs et al. (2004); Audretsch, Keilbach (2004); Van Stel, Carree, Thurik (2005); Acs (2006); Baumol, Storm (2007); Van Praag, Versloot (2007). They emphasize that *economic development is driven not so much by an increase in the total number of entrepreneurs as by an increase in the number of those whose activities are more related to the production and distribution of innovative products and new ways of doing business* [Aleksandrova E.A., Verkhovskaya O.R. *Motivation of entrepreneurial activity*... 2016].

Of interest is the nature of the impact of the level of economic development of the territories on the motives of entrepreneurial activity. Thus, as the economic development is progressing, the level of forced entrepreneurship decreases, while the level of voluntary entrepreneurship, on the contrary, increases. For example, in 2016, the average share of voluntary entrepreneurs in innovation-oriented economies was 79%, while in resource-oriented economies it was 66%. In Russia, the largest share of forced entrepreneurs (39%) was recorded in 2014 during the crisis in the economy, when there was a reduction in demand in the labor market, accompanied by a choice in favor of entrepreneurship as an alternative to employment [*Global Entrepreneurship Monitor*... 2017].

Many different factors that affect creative work activity, lead to the need to manage it. Summing up the existing practices, we can note at least two management approaches. The first one is related to the initiative of managers along with the passivity of their subordinates and their loyalty to the leadership. In such circumstances, a significant proportion of employees often exhibit a positive attitude toward their managers and comply with their requirements [Efendiev A.G. et al. *Organizational culture as a normative-role system of requirements*... 2012]. In some cases, it is noted that the Russian culture involves not so much the compliance with formal aspects as the formation of relations in the team and the achievement of trust. In such conditions, there is practically no place for initiative and creativity, and career development is provided mainly through loyalty to the team [Efendiev A.G., Balabanova E.S. *"Human dimension" of Russian business*...2012; Efendiev A.G. et al. *Careers at Russian business organizations*... 2011]. The second approach to management, used in conditions of instability (increased degree of uncertainty, unpredictability of the nature of work, etc.), is associated with the provision of some autonomy to the performers, under the condition that the tasks will be implemented [Prokhorov A.P. *Russian model of management*. 2013]. In this model, the factors that determine career growth of employees no longer include loyalty, but professionalism, diligence and activity. Career promotion is provided in the conditions of development of individual qualities, including, for example, communication skills, creativity, high adaptability, etc. [Efendiev A.G. et al. *Careers at Russian business organizations*... 2011]. It is noted that in this approach, top managers often tend to involve their subordinates in the discussion of innovations and decision-making. The above approaches to management do not exist in isolation, and they may often be combined in different proportions depending on how the style and nature of work changes in the light of external conditions. According to A.P. Prokhorov, it is necessary to take into account the dualism of national character, which implies, on the one hand, passivity and a tendency to laziness, on the other hand – "vast achievements" in a short time [Prokhorov A.P. *Russian model of management*. 2013].

The two approaches to management are applied in the case when we are talking about the management of creative labor activity. We recognize the need to make algorithms, develop techniques contributing to the creation of something new; and at the same time to use indirect methods of control, involving the establishment of conditions for creative activity (creative environment in a research team; situations conducive to "grasping" intuitively the ideas of the project. [Ponomarev Ya.A. *Psychology of creativity*. 1976].

Creative teams can be managed with the help of various techniques, which can include brainstorming, synectics, maieutics, IPID (induction of psycho-intellectual activity), etc., an overview of which is given in the book by G. Bush [Bush G.O. *Basics of heuristics for inventors*. 1977]. According to Ya.A. Ponomarev [Ponomarev Ya.A. *Psychology of creativity*. 1976], such techniques are criticized because they do not go beyond the empirical ("raw material" for subsequent fundamental analysis), arise mainly outside the scientific research into creativity, and are associated with artificial ways of organizing creative communication. Therefore, their use is not always accompanied by the results that were expected to be achieved initially.

One of the ways to manage creative work activity is to assemble creative teams, especially interdisciplinary ones, which would take into account different types of personality, and which would have no barriers of isolation that complicate the generation and use of ideas [Sovetova O.S. *Innovation: theory and practice*. 1997]. However, the existence of such teams is associated with a number of problems, among them – understanding (due to the lack of a common language for all). Ya.A. Ponomarev and Ch.M. Gadzhiev [Ponomarev Ya. A., Gadzhiev Ch.M. *Psychological mechanism of group (collective) creative problem solving*. 1983] note a number of stages that creative communication must go through: if at the initial stage information is transmitted and no secondary information is intended, then one of the last stages focuses on the expression and understanding of new ideas, and the transfer of the rest of the information becomes less important. We should emphasize that the formulation and understanding of new ideas, unlike other stages in the development of communicative process, can be associated with a number of difficulties, among which a special place is given to the psychological barriers of an individual, associated with the inertia of attitudes and stereotypes of thinking (the need to understand and accept new ideas, which in some cases are contrary to conventional ideas).

Involvement in various social situations increases internal motivation to the growth of creative potential [Amabile T.M. *Creativity in context*. 1996]. One distinguishes between internally and externally driven motivation. In case of the former, the innovator focuses on the creative process, in case of the latter – on the results. Motivation caused by internal processes may be associated with training, acquisition of knowledge, skills, experience, while external motivation can be associated with production goals [Kaufman J.C. *Creativity*. 2009; Nicholls J.G. *Quality and equality in intellectual development*... 1979].

Motivation driven by the social aspects, involves the desire to spend one's efforts to support and help others [Batson C.D. *Prosocial motivation*... 1987; Grant A.M., Berry J. *The necessity of others is the mother of invention*... 2011]. Thus, creativity based on social and moral values is considered as an "attribute" of helping other people and society as a whole [Niu W., Sternberg R.J. *Contemporary studies on the concept of creativity*... 2002; Niu W., Sternberg X. *The philosophical roots of western and eastern concepts of creativity*. 2006]. It is revealed that creativity is directly connected with values of universalism, benevolence, good for others [Dollinger S.J., Burke P.A., Gump N.W. *Creativity and values*. 2007]. It is shown that the originality of the product created for others exceeds the originality of its creation for the self [Polman E., Emich K.J. *Decisions for others are more creative than decisions for the self*. 2011], which may be partly due to the positive influence of social motives on creative thinking [Grant A.M., Berry J. *The necessity of others is the mother of invention*... 2011]. However, there are studies that show that creativity can be accompanied by social exclusion and disapproval [Arndt J. et al. *Creativity and terror management*... 1999] and this, in turn, prevents creative endeavors because of the threat of destruction of social ties. Accordingly, in order to increase creative activity, measures should be taken to restore social contacts [Routledge C. et al. *The life and death of creativity*... 2008].

Foreign works propose measures of "pro-social" and "altruistic" behavior [Carlo G., Randall B.A. *The development of a measure of prosocial behaviors for late adolescents*. 2002; Chadwick R.A. et al. *An index of specific behaviors in the moral domain*. 2006; Rushton J.P. et al. *The altruistic personality and the self-report altruism scale*. 1981]. However, there are still not enough works that address social motives and behavior in the context of creativity. In particular, D.K. Simonton [Simonton D.K. *Creativity*. 2005] emphasizes the need to develop new methods to enhance both individual and group creativity. The majority of empirical work focus on cognitive approaches that provide creative thinking [Scott G. et al. *The effectiveness of creativity training*... 2004], while motivational approaches that help overcome negative consequences of the influence of external incentives are not given due attention [Hennessey B.A., Zbikowski S.M. *Immunizing children against the negative effects of reward*... 1993].

It can be stated that in order to ensure the systematic nature of creative labor activity management, it is necessary to take into account both external and internal factors, as well as to identify barriers that have a sensual, emotional, cognitive and behavioral nature and affect different aspects of the subjectivity of an individual. A combination of direct and indirect management should play a special role. On the basis of the activity approach, we can argue that significant importance should be attached to creative teams, to the interrelation of motives of their members with the priority of social motives that unite the team.

Considering the necessity of taking into account both external and internal elements of motivation in the motivational mechanism and in accordance with the external and internal forms of stimulation, we note that researchers in some cases emphasize the incentives and results, while the motivational characteristics of an individual (attitudes, beliefs, ideals) are not reflected properly. The latter should not be ignored, because beliefs, for instance, lead to action in accordance with value orientations, and attitudes provide for targeted and consistent implementation of activity. The need to take into account both external and internal elements of motivation is due to the use of integrated approach that involves the unity of motive and stimulus. In practice, this idea is sometimes expressed in the consideration of "economic", external, and "non-economic", internal components. At the same time, the interdependence of the "external" and the "internal" can be achieved through the use of different forms of influence on the motivational characteristics of an individual. They include non-mandatory forms (request, offer/advice, persuasion and suggestion), direct imperative forms (orders, demands, coercion), manipulation (indirect inducement of the recipient to change the attitude toward something, to make a decision, and to do something that is necessary to achieve the manipulator's own goals), and motivation caused by the object's attractiveness.

In conclusion we note the following.

1. Our study shows that people's behavior is determined by the features of its motivational sphere such as consistency between different groups of motives, correlation between external goals and motives (the basis of behavior is the motive that will ensure the most effective achievement of the target state), and the use of volitional mechanisms of regulation for their coordination. The motivational sphere should be based on the premise of the unity of stimulus and motive, on the possibility of structuring motives according to a number of features (explicit/implicit, economic/non-economic, formed under the decisive influence of the external environment or based on internal prerequisites, etc.).

2. Having analyzed the actual data, we find out prevailing motives for creative labor activity in the structure of young people's motives; these prevailing motives include forced motives (caused by practical necessity) and economic motives (labor remuneration, justice/injustice of its calculation that affects the behavior of individuals at all stages – from employment to changing the job and dismissal). We prove that creative people, in comparison with those who are not active in this regard, have clear motives for intellectual development and self-realization and social motives associated with the achievement of a certain position in society. We show that the motives vary depending on the fact which socio-demographic group an individual belongs to (for example, one of the most significant motives for wealthy people is their ability to manage the organization; while the less affluent attach importance not only to the financial factor but also to working hours); and these features must be taken into account in managing creative labor activity.

3. We determine that people's creative labor activity should be managed on the basis of the system approach that involves the formation of creative labor activity mechanism; it should be based on the theoretical provisions of the behavioral approach and Leontiev's objectified motivation; and its structure, along with the subject and the object, should include individual and group forms of innovation process, direct and indirect management methods, and external and internal factors that contribute to and hinder creativity.

4. Managing creative labor activity should be based on both the initiative on the part of managers, and on granting some autonomy to executors in solving problems; in such a case, professionalism, diligence and activity may be crucial factors, rather than just loyalty to management. One of the ways to manage creative labor activity is to assemble creative teams, which would take into account different types of individuals, coordinate goals and attitudes of its participants, and overcome the barriers that impede the generation and use of ideas.

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Received October 25, 2017.

DISCUSSION PLATFORM

DOI: 10.15838/esc.2018.4.58.7
UDC 330:341, LBC 72

International Landscape of the Market of Russian Economic Journals

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Abstract. The paper considers a new stage in the formation of the Russian market of economic journals, the stage at which an increasing number of them are accepted for coverage in international databases such as Scopus and Web of Science. In order to make an adequate assessment of the qualitative changes that have occurred in the market, we propose to introduce significant adjustments to the methodology for compiling the academic Rating of leading Russian economic journals. The adjustments affect both the subsystem of scientometric indicators where it takes into account the potential of high citations, and the subsystem of expert evaluation where it takes into account the publication's inclusion in the databases Scopus and Web of Science (WoS). We provide the results of the 4th wave of the Rating of leading Russian economic journals presented in the form of the Diamond List and the List of the second tier of journals. We analyze the shifts in the positions of the journals in comparison with previous years; we show that Russia already has 15 economic publications with international certification, among which five

For citation: Balatsky E.V., Ekimova N.A. International landscape of the market of Russian economic journals. *Economic and Social Changes: Facts, Trends, Forecast,* 2018, vol. 11, no. 4, pp. 110–124. DOI: 10.15838/esc.2018.4.58.7

publications have double certification (both Scopus and WoS). The figures show that a new qualitative round of competition has begun among the journals that have received international recognition. We prove that a journal's success or failure in its efforts to be included in international databases depends on whether its management is willing to follow the new rules and standards. This is largely the reason why many domestic journals have lost their positions. The following are considered as typical strategies a journal should use to achieve success: to implement a sequence of efforts to be accepted for coverage in international databases; to "hunt" for best authors; to provide a flexible peer review system; to publish a full-scale English version of the journal. We substantiate a new publishing paradigm, according to which Russian economists in the coming years will reconsider their views in favor of placing their papers in first-rate domestic publications rather than publishing them in second-rate foreign journals.

Key words: rating; economic journals; international databases.

Introduction: a new milestone in the development of the market of economic journals[1]

The global task of internationalization of Russian science is implemented in many areas, among which the inclusion of domestic scientific publications into international databases is of great importance. Acceptance for coverage in the *Scopus* and *Web of Science* (WoS) databases for Russian economic journals means a kind of *international certification* and a quality mark. In addition, the fact that researchers prefer publications included in international databases automatically increases the attractiveness of such publications, which in turn improves the quality of the portfolio of their papers. Today, this movement is gaining momentum and dramatically changes the landscape of domestic economic journals. Some of them have already successfully completed the international certification procedure and become "full-fledged" participants of the international academic market and leaders of the national market; others have not overcome this barrier, thus turning into outsiders and moving to the periphery.

The processes concerning the integration of Russian journals into the world market interfere with the competitive processes that are going on in the domestic market of economic periodicals[2]. Acceptance into foreign databases has become prime goal within the general direction of competitive strategies of Russian economic journals, while other aspects of their activities started to play a supporting part. In this regard, it is necessary to monitor the changes and assess the current state of the market and its immediate future. The aim of our paper is to consider the landscape of domestic economic publications taking into account their international status. To this end, we use the data of the Rating of leading Russian economic journals (LREJ Rating), the methodology of which has undergone significant changes in the course of 2016, as the international factor has been taken into account. In addition, the paper will attempt to analyze the strategies of success

[1] We would like to express our sincere gratitude to the anonymous reviewers for their useful comments on the paper.

[2] It should be noted that in our paper we consider the concept of "market" in a narrow context: as a set of actors engaged in the production and consumption of the product (journal). Producers are represented by publishers (owners) and editors (employees or volunteers). A journal is created with involvement of authors (for a fee or for the opportunity to access the audience of readers). The product (content of the journal) is characterized by quality and is consumed by the scientific community (consumers) under certain conditions, which is expressed in the popularity, prestige and citation of the publication. All these processes are provided by the interaction between the market participants, this interaction can be compared with transactions such as purchase and sale, even in the absence of monetary payments.

that allowed journals to increase their quality and complete the international certification.

New stage of journal ranking

The idea of comparing academic journals included in international databases has been implemented in Western countries for a long time. Thus, we can note the work of C. McDonough in 1975 on comparison and aggregation of journal ratings [1]. A little later, in 1978, S. Kagann and K. Leeson conducted a survey among the members of the American Economic Association about their attitude toward various economic journals [2]. The results were compared with existing ratings; the work helped identify and analyze some differences in quantitative and qualitative assessments. Among the latest studies, we highlight the work of C-L. Chang, E. Maasoumi and M. McAleer, who build an aggregated rating of 299 Economics journals from Web of Science [3]. This work was continued and developed in the study of K. Wohlrabe, who designed a meta-rating of 315 economic journals [4]; the rating combines quantitative and qualitative assessments of journals and takes into account their citation metrics in various bibliometric databases such as *Web of Knowledge, Google Scholar* and RePEc. One of the last works of the synthetic type was the study of V. Claar and R. Gonzalez, who conducted a comparative analysis of available ratings of journals in order to obtain an aggregated ranked database of 284 economic titles [5]. They selected three journal ratings based on quantitative assessments (citation method) as initial rating products [6, 7, 8], and two ratings based on expert surveys [9, 10].

Russia has come along a similar way, but in a much shorter period of time. Thus, in 2015, the Financial University under the Government of the Russian Federation launched work on the annual compilation of a series of academic ratings, among which the LREJ Rating was of great importance, displaying the 50 best economic journals [11]. The 13 leaders of this list form the so-called Diamond List, which contains Russia's most prestigious and high-quality publications.

This initiative had not only its predecessors, but also numerous followers. Thus, in 2012, A.A. Muraviev's rating appeared, based on the ranking of journals in the Russian Science Citation Index (RSCI) according to scientometric indicators [12, 13]. Simultaneously with the LREJ Rating, there emerged others such as I.A. Sterligov's rating based on expert surveys in 2015 [14, 15] and O.V. Tretyakova's rating [16] of journals of RAS economic institutions on the basis of RSCI bibliometric data. In 2016, the rating of the best Russian economic journals according to the international database RePEc based on bibliometric data was presented [17]. At the same time, a rating of journals was presented, based on the widely used network approach [18]. In 2017, there appeared A. Ya. Rubinshtein's rating [19] based on expert survey data. Simultaneously, a study of the dynamics of the LREJ Rating [20] was presented, which considered the shifts over three years in the Diamond List and typical errors in the market strategy of economic journals.

The presence of several alternative ratings of economic journals gave rise to an independent research direction. So, in 2015 there appeared a work by Muraviev, in which a simple heuristic procedure for comparing the ratings of Muraviev, Sterligov and the LREJ Rating [21] was proposed; it showed that all the three ratings overlap significantly and on their basis it is possible to form a list of about ten high-impact journals in economics and related disciplines. Another research area related to the aggregation of existing ratings has been developed by

A. Subochev, who conducted a quantitative analysis of Muraviev's, Sterligov's and the LREJ ratings and built a synthetic rating [22], which represents the set of the three original rating systems better than any of them taking separately. In 2018, the Consensus Rating of Russian Economic Journals was published, which was a synthetic aggregate of four private rating products – LREJ, Muraviev's rating, Sterligov's rating, and Rubinshtein's rating [23].

All of these approaches sought to identify leaders in the Russian market of economic journals as accurately as possible. We must say that this problem was solved in general, but it became clear in 2018 that the activities of academic journals began to be dominated by the international component that involves their international certification. It means that all the journal's expert assessments and bibliometric data that are not very satisfactory are "outshined" by the fact of its acceptance into Scopus or Web of Science; and, on the contrary, no positive expert and bibliometric assessments compensate for the lack of international recognition. This fact requires that the methodology for journals ranking and monitoring the periodicals market should be reconsidered, taking into account the international factor.

Algorithm for building the LREJ Rating: a new version

The analytical product of the LREJ Rating has been compiled according to a uniform methodology for three years; only the expert evaluation procedure changed slightly, which did not violate the general logic of the original algorithm. However, in 2018, when the next rating of economic journals for 2016 was being compiled, LREJ ranking methodology was significantly revised. This was due to three circumstances.

First, the bibliometric indicators of the rating and the expert evaluation procedure were criticized in the literature [24]. Second, Russia has already gained a critical mass of journals included in Scopus and WoS. Third, in December 2017, speaking at the "Stratification of the community of economists and the rankings of journals" session in the framework of the annual conference of the New Economic Association (NEA), Olga Tretyakova – a leading researcher at RAS Vologda Research Center – proposed to build journal ratings that would consider highly cited papers on breakthrough topics on the pages of academic journals.

The maximum openness to outside signals has been a basic operational principle for LREJ Rating developers. In this regard, its fourth wave was formed in collaboration with researchers from RAS Vologda Research Center Olga Tretyakova and Anna Artamonova, who provided the information support of the rating in terms of the indicator of the potential of high citations. In parallel, the algorithm of expert evaluation of journals was modified taking into account their coverage in international databases.

Consequently, the algorithm for constructing the LREJ Rating for 2016 involves the following stages.

At the **first stage** the journals are ranked according to four parameters of the RSCI taken from the scientific electronic library eLIBRARY and one parameter calculated on the basis of the data of this bibliographic database:

x_{1i} – total number of citations of the i-th journal without self-citation (i.e. the *citation coefficient* characterizing the final impact of the publication);

x_{2i} – 5-year impact factor of the i-th journal without self-citation (i.e. the *impact factor* reflecting the relative activity of citation of materials of the publication);

x_{3i} – 5-year Herfindahl-Hirschman index of the i-th journal for the citing journals (i.e. *group citation coefficient* taking into account possible collusion between journals in relation to cross-references);

x_{4i} – half-life time of articles of the i-th journal cited in the current year (i.e. the index of the "half-life" of the article or the *durability coefficient*, taking into account the time depth of citation and reflecting the degree of durability and fundamental nature of materials of the publication);

x_{5i} – potential of high citations (i.e. the sum of citations of articles with more than 11 citations for the current year), which characterizes the ability of the journal to publish *breakthrough research* findings.

To identify highly cited publications, we used main principles of the methodology of the *Essential Science Indicators* international base. In the course of the analysis we used data from the RSCI for the year 2016. The sample included 606 journals, the number of articles was 52,220. All publications were arranged in descending order of their citations, after which we determined the upper section of 1% of their total number and set a threshold number of citations that a publication must receive in order to be included in the "top". The threshold value was 11 citations. Such publications are defined as highly cited for this reference group.

Having applied the algorithm, we identified 522 highly cited papers published in Russian economic journals in 2016. As a result of further "manual" processing carried out for each journal, we formed a list of papers with the number of citations that satisfy the threshold value, i.e. 11 citations and more. After that, we further "refined" the citations of each paper in order to exclude self-citation and "cluster" citation (multiple citation of an article by different authors in a single collection or journal). Having "cleared" the papers from self-citation and "cluster" citation, we defined the final number of highly cited publications for each journal, articles from which were initially included in the 1% of the most cited ones.

The *high citation potential* indicator is the sum of all "cleared" citations for selected highly cited papers in the i-th journal.

The rating on RSCI parameters is based on the indicators y_{hi} that represent normalized values x_{hi} (*h* – number of RSCI parameter). Indicators $x_{1i}, x_{2i}, x_{4i}, x_{5i}$ are normalized as a percentage relative to the maximum value:

$$y_{hi} = (x_{hi} / \max_i\{x_{hi}\})100\%\,, \qquad (1)$$

where y_{hi} – normalized value of x_{hi}, x_{hi} – RSCI parameters.

"Reverse" normalization is carried out for the indicator x_{3i}:

$$y_{3i} = (1 - x_{3i} / \max_i\{x_{3i}\})100\%\,, \qquad (2)$$

The final rating score (x_{Ri}) of RSCI indicators is determined by weighing the particular normalized values (y_{hi}):

$$x_{Ri} = 0{,}2y_{1i} + 0{,}2y_{2i} + 0{,}2y_{3i} + 0{,}2y_{4i} + 0{,}2y_{5i}, \qquad (3)$$

followed by normalization – y_{Ri}.

The equation (3) used equal weighting factors for all aggregated RSCI indicators.

At the **second stage,** a sample of journals that claim to be the best is formed. The rating score (3) obtained at the previous stage for the 100 best economic journals in Russia serves as the basis not only for further calculations, but also for the formation of an "advanced" sample of journals, which are to undergo a more thorough analysis.

At the **third stage,** expert evaluation of journals is carried out. In 2016, experts estimate the journals on one parameter:

x_{6i} – scientific level of the i-th journal (compliance with modern requirements, degree of instrumental elaboration, culture of working with empirical material, etc.) (i.e. the *index of scientific level*).

Expert assessments are given on a 15-point scale [0; 15] according to the rule: the more, the better.

In 2016, the work of experts to assess the scientific level of journals was carried out in two steps. The ***first step*** was to select the journals that are included in the international scientometric databases Scopus and WoS and which were awarded points on the following principle:

$$x_{6i}=\begin{cases}15\text{, if a journal is included both in } \textit{Scopus} \text{ and in } \textit{Web of Science}\\10\text{, if a journal is included either in } \textit{Scopus} \text{ or in } \textit{Web of Science}\end{cases}. \quad (4)$$

The procedure (4) greatly simplifies expert evaluation, first, by leveling it for journals with international certification, and second, setting the upper limit for all other publications for which the procedure implemented in the construction of the 2015 rating remained unchanged. The selected group of three experts assessed each journal in two stages: at the first stage, each expert gave their assessment, at the second – they carried out open discussions and coordinated the assessments. At the second stage, an agreed consolidated decision was formed as a result of an exchange of views and arguments, and the assessment received the final approval of all experts. This procedure helps smooth out individual errors, draw the attention of experts to the facts they missed, adjust the initial scores and provide more balanced final assessments. When forming the 2016 rating, three rounds of expert evaluation were conducted, i.e. there were three groups, each consisting of three people; the obtained estimates were averaged.

Under the expert assessment of the scientific level index (x_6), the requirements that were subject to examination were also specified. For example, the scientific level of a journal was evaluated depending on the presence of the problem statement in its articles, substantiated literature review, original methodological development, new original numerical data, and practically significant conclusions. Besides, the level of instrumental elaboration of the material was taken into account. Thus, experts had to deal with a limited range of evaluated qualities of scientific journals. An important point of the described evaluation procedure is the consensus among experts on the fact that the scientific level of journals was evaluated depending on the level of instrumental developments. In this case, experts proceeded from the fact that modern economic science is an instrumental science, and therefore the scientific degree of a journal should be matched with the depth of instrumental studies presented in it; descriptive articles with primitive quantitative empirics received lower scores on the scientific level. This condition in its explicit form was absent during the first three rating waves.

The key point of the expert evaluation was the restriction on the rating of journals that were not included in international databases. It was assumed that this score could not be higher than 10 points received by publications included in at least one international database.

The obtained expert assessments were normalized to obtain the y_{Ei} score.

At the **fourth stage**, the RSCI rating y_{Ri} and the expert rating y_{Ei} were aggregated:

$$x_i = 0{,}5y_{Ri} + 0{,}5y_{Ei}, \quad (5)$$

with subsequent normalization and obtaining the final score y_i.

This improved ranking algorithm brings journals with international certification to the forefront, and other publications are rated on an equal basis.

Table 1. Diamond List of Russian economic journals, 2016

No.	Journal	Final score	RSCI parameters: Citation coefficient	Longevity coefficient	Competitiveness coefficient	Impact-factor coefficient	High citation potential coefficient	Expert index of the academic level
1.	*Voprosy ekonomiki*	100.0	100.00	47.8	100.00	100.00	100.00	100.0
2.	*Forsait*	74.1	9.7	43.4	97.4	65.6	0.00	100.0
3.	*Ekonomika regiona*	71.8	25.7	27.4	98.2	32.2	11.9	100.0
4.	*Ekonomicheskaya politika*	68.1	9.5	31.9	97.6	23.4	0.0	100.0
5.	*Zhurnal Novoi ekonomicheskoi assotsiatsii*	67.2	7.4	30.1	99.1	18.2	0.0	100.0
6.	*Problemy prognozirovaniya*	58.4	27.7	49.6	96.4	44.9	5.9	66.7
7.	*Mirovaya ekonomika i mezhdunarodnye otnosheniya*	57.8	33.2	56.6	97.6	21.6	10.3	66.7
8.	*Terra Economicus*	55.4	32.2	56.6	94.5	12.4	2.5	66.7
9.	*Ekonomicheskii zhurnal Vysshei shkoly ekonomiki*	54.1	6.9	50.4	97.3	31.0	0.0	66.7
10.	*Ekonomicheskie i sotsial'nye peremeny: fakty, tendentsii, prognoz*	52.8	14.4	31.0	97.6	25.7	5.8	66.7
11.	*Vestnik Sankt-Peterburgskogo universiteta. Ekonomika*	52.7	7.0	52.2	97.1	16.9	0.0	66.7
12.	*Prikladnaya ekonometrika*	52.3	4.6	53.1	95.7	16.8	0.0	66.7
13.	*Journal of Institutional Studies*	50.5	4.6	31.9	97.0	19.9	0.0	66.7

Table 2. Second tier of leading Russian economic journals, 2016

No.	Journal	Final score	RSCI parameters: Citation coefficient	Longevity coefficient	Competitiveness coefficient	Impact-factor coefficient	High citation potential coefficient	Expert index of the sacademic level
14.	*Biznes-informatika*	50.3	2.9	39.8	97.3	11.4	0.0	66.7
15.	*Vestnik mezhdunarodnykh organizatsii: obrazovanie, nauka, novaya ekonomika*	49.0	3.2	30.1	94.7	12.6	0.0	66.7
16.	*Ekonomika i matematicheskie metody*	47.1	10.4	94.7	95.8	11.7	0.0	46.7
17.	*Rossiiskii zhurnal menedzhmenta*	46.7	10.5	70.8	97.8	30.5	0.0	46.7
18.	*Vestnik Sankt-Peterburgskogo universiteta. Seriya 8. Menedzhment*	42.7	6.7	76.1	96.4	23.8	0.0	40.0
19.	*Problemy upravleniya*	39.7	10.6	54.0	94.6	17.3	0.0	40.0
20.	*Prostranstvennaya ekonomika*	39.4	9.0	38.1	94.0	29.8	2.4	40.0
21.	*Ekonomicheskaya nauka sovremennoi Rossii*	38.4	9.9	71.7	96.0	16.9	0.0	33.3
22.	*Prikladnaya ekonometrika*	38.3	4.1	37.2	85.6	7.1	0.0	46.7
23.	*Den'gi i kredit*	37.6	24.8	31.0	96.8	25.2	10.1	33.3
24.	*Korporativnye finansy*	37.6	4.1	47.8	91.7	13.9	0.0	40.0
25.	*Zhurnal ekonomicheskoi teorii*	37.1	8.1	37.2	95.3	12.4	0.0	40.0

International landscape of leading economic publications: empirical evidence

The final array of the rating is presented only by the first 50 journals and is available in full at the "Non-Ergodic Economics" website[3]. *Table 1* contains the Diamond List of Russian economic journals; *Table 2* contains the journals of the second tier.

The calculations show the following. Russia currently has 15 economic publications with international certification, five of which are double certified (both Scopus and WoS). At the same time, two of them – *Biznes-informatika* and *Vestnik mezhdunarodnykh organizatsii: obrazovanie, nauka, novaya ekonomika* –were not included in the Diamond List, having lost to their competitors in international databases. Thus, it can be stated that among the journals that have received international recognition, there already is a tough competition, and some of the journals even become outsiders within the group.

It should be mentioned that all the journals on the Diamond List are well known and almost all have been on it before. In fact, all these publications have confirmed their status, which is not a surprise.

More interesting is the second tier of journals ranking 14th–25th in the LREJ Rating. This list urges the managers of these journals to think about what they do. In fact, all of them could have entered international databases, but for various reasons they did not do so and thus found themselves behind the line that separates the leaders from all others.

For example, we find it extremely sad that such journals as *Ekonomika i matematicheskie metody* and *Rossiiskii zhurnal menedzhmenta* were excluded from the Diamond List and now belong in the second tier. In previous years, these journals occupied the second and third positions in the Diamond List; in addition, in the 1990s, the former journal attracted the attention of the American academic community and its best papers were regularly translated and published in the *Matekon* journal. Thus, the title had all the chances to be included in Scopus and WoS. However, this did not happen, in spite of all the prerequisites like scientific level, international authority and established traditions that the journal had:

We can name some more journals that are losing their positions. It is *Prostranstvennaya ekonomika*, a leading journal in its field, it ranked 10th and 12th on the Diamond List in the previous years; some other journals like *Korporativnye finansy, Problemy upravleniya, Vestnik Sankt-Peterburgskogo universiteta. Seriya 8. Menedzhment,* and *Ekonomicheskaya nauka sovremennoi Rossii* find themselves in a similar situation. It is safe to say that all of these publications have sufficient potential for entry into Scopus and WoS, but they have not yet done so, which deprives them of the opportunity to compete for the most advanced places in the Russian market of academic journals.

Conversely, *Ekonomika regiona*, which in previous years ranked 16th and 17th in the LREJ Rating and has never been on the Diamond List, can serve as a model of targeted promotion in international databases. Not only was the journal accepted into Scopus and WoS, but it also managed to enter the second quartile, which is undoubtedly a great achievement that simply can not be ignored when constructing a rating.

The current international landscape of Russian economic journals allows us to draw the following conclusions.

First, the initial phase of domestic publications' integration into international databases has been successfully completed.

[3] Available at: http://nonerg-econ.ru/cat/18/9/

Further, we can expect the expansion of this process. It is unlikely that it will have a landslide character, but we can hope that from four to five publications will be annually accepted into Scopus and WoS over the next five years. These are primarily second-tier journals (see Tab. 2); however, besides them there are less noticeable publications in Russia that are making considerable efforts to enter international databases. This means that in three to four years there may be about three dozen economic journals with international certification in Russia. This circumstance will give rise to a qualitatively new round of competitive processes in the market of economic journals.

Second, many publications included in Scopus and WoS will continue their rally in these databases on their way toward higher quartiles. For example, such journals as *Problemy prognozirovaniya* and *Zhurnal Novoi ekonomicheskoi assotsiatsii* have all chances to enter the second quartile in the foreseeable future. In 2017, CiteScoreTracker (CST) – an important indicator taken into account in the rating in SCOPUS – was 0.53 for the first journal and 0.56 for the second one, respectively. In many ways, the achievement of this result depends on the desire and efforts of the journal management. It is possible that other journals that have an English version and can count on a wider international readership (for example, *Ekonomicheskie i sotsial'nye peremeny: fakty, tendentsii, prognoz*) will improve their positions. For example, we note that *Zhurnal Novoi ekonomicheskoi assotsiatsii* has an endowment, which is designed to accumulate funds for the publication of the English version of the journal. If this initiative of the journal is implemented in the coming years, its entry into the high quartiles will be only a matter of time. If there are at least 5–6 Russian journals in the high quartiles, it is likely to change radically the geography of preferences of Russian economists in favor of publishing their papers in domestic journals.

Journals' typical success strategies

The above landscape of Russian economic publications, taking into account their international status, raises the issue of success strategies. For example, why in conditions when international requirements to journals are widely known to the Russian scientific community, Scopus and WoS accept only a few representatives from Russia? Is it possible to distinguish some typical principles and approaches that allow Russian journals to pass international certification?

In our opinion, with a certain degree of conditionality, we can distinguish four principles that, if not guaranteeing the success of the journal, at least significantly contribute to it.

1. The sequence of efforts to join an international database. The experience of different journals shows that it is impossible to pass international certification without serious efforts. As a rule, the management of journals sets a corresponding goal and pursues it methodically for several years.

For example, the sociological journal *Monitoring obshchestvennogo mneniya* [Public Opinion Monitoring] published by VTSIOM set the task of passing international certification, formed an editorial board that included foreign scientists with high scientific authority and with a clear interest in Russian science. These people were entrusted with the mission of distributing the journal abroad, attracting the attention of the general public in the respective countries, as well as attracting foreign authors to contribute their papers to the journal. In parallel, the journal's staff worked with the competent authorities of international databases to meet the necessary requirements;

this work was entrusted to a specific person who was responsible for its success or failure. Of course, the journal management sought informal channels of communication with Western databases, which would speed up the process of international recognition.

A similar strategy was implemented by the journal *Ekonomicheskaya politika*. It created a special position within its editorial staff, allocated appropriate funding, and entrusted this person with the exclusive functions of communicating with international databases and achieving the goal of entering them. The experience has shown that such "personnel localization" of the task of international integration made it possible to achieve success when, after many years of fruitless efforts, a positive result was obtained literally within a year.

Against this background, we can once again recall the example of the journal *Ekonomika i matematicheskie metody*, whose management reacted passively to the new initiative and did not support it with human and financial resources; consequently, the publication is losing authoritative authors who prefer to work with journals that have an international status and, as a result, the journal is losing its leading positions.

2. *Hunting for best authors*. The entry of a journal into international databases presupposes its rather high average level; however, in the long term it is important for the publication to have "breakthrough" papers, which gain great popularity and produce high citation. Such materials make a journal recognizable, interesting and enjoying a wide readership. The promotion of publications in Scopus and WoS depends largely on the presence of such papers. Practice shows that the entire community of economists can be divided into two unequal groups: those who supply standard materials, and those who are able to write highly cited and really interesting articles. In this regard, many journals are already carrying out a kind of hunt for "interesting" authors.

We should point out that today such "hunting for authors" is carried out spontaneously, i.e. in the market there are numerous and various strategies of this kind. For example, *Voprosy ekonomiki* published papers by Prime Minister Dmitry Medvedev, federal ministers, advisers to the President of the Russian Federation, etc. These articles obviously lack scientific novelty, and they do not meet the academic requirements; however, such articles serve as policy documents and discussion papers that provide an unprecedented citation. For instance, Medvedev's article "Socio-economic development of Russia: finding new dynamics" was cited 231 times in 2016, which is an absolute record; two articles by S.Yu. Glazyev had 18 citations each. This policy of the journal has made *Voprosy ekonomiki* the absolute market leader in the potential of high citations (see Tab. 1).

The journal *Ekonomika regiona* provides an acceptable potential of high citations (see Tab. 1) at the expense of the widest possible openness to authors from all over the country. Thus, the publication carries out an experiment on "probing" authors and their materials in order to understand their citation potential and interest toward them on the part of the scientific community. The staff of the journal *Ekonomicheskie i sotsial'nye peremeny: fakty, tendentsii, prognoz* monitors interesting articles in other journals, contacts their authors and invites them to publish in the journal, thereby ensuring the presence of well-known scientists and their articles with the potential of high citations. In addition, the journal's founder and publisher conducts international projects; for instance, it cooperates with researchers from the Chinese Academy of Sciences, which allows it to form a pool of joint articles with Chinese colleagues. *Terra Economicus* uses a limited practice of invited papers, when a certain author is offered a guaranteed publication on a given highly relevant topic, which can attract the attention of the readership. *Ekonomicheskaya politika* creates special sections for papers on relevant topics submitted by participants of relevant conferences; these materials are informative and are not subject to peer review. Many other journals also carry out personal work with selected authors that are able to liven up their content.

At the other pole of publications are *Forsait*, *Zhurnal Novoi ekonomicheskoi assotsiatsii* and *Ekonomicheskii zhurnal Vysshei shkoly ekonomiki*, which give priority to academic standards, and therefore do not contribute to the increase in the parameter of high citations. It is possible that in the future this may complicate their promotion in international databases and preservation of a high reputation in the Russian market.

3. Flexible peer review system. International requirements have led to the formation of a total system of peer review in the leading journals of the country. However, purely mechanical application of this procedure often leads to the loss of "valuable" authors, whose articles, as a rule, are of high interest [20]. In this regard, some publications abandon primitive general peer review schemes and practice individualized "work with authors". Such modifications are caused by the fact that even small editions are still quickly bureaucratized and begin to work according to the established patterns, sometimes with automatic mailing of articles to reviewers, etc. To avoid the loss of specific interesting authors, journals implement personification and acceleration of all procedures. For example, in case of *Problemy prognozirovaniya,* its deputy editor-in-chief carries out direct communication with some authors, thereby controlling potentially highly cited and interesting materials, promptly bringing them to the editorial board for discussion and preventing them from being handled inappropriately in the review process. Some journals use the mechanism of "internal peer reviewers", engaging in direct dialogue with them to decide on the publication of priority articles.

We would like to emphasize that the flexible review system is a continuation of the "hunt for authors" strategy. In practice, these two strategies are effectively combined, which allows journals to form a pool of prestigious authors and their articles.

4. Publication of a full English version of the journal. Currently, many Russian economic journals that do not have an English version are included in the Scopus and WoS databases. Obviously, even if it is possible for a journal to enter the database, progress within the database is practically impossible for it. In this regard, the general direction for all journals is to translate their content into English with the highest quality. For example, *Ekonomika regiona* was able to enter the second quartile within Scopus largely due to the fact that a significant part of its papers are published in English.

At the same time, we should note that hybrid versions of journals, when some articles are published in Russian and some in English, are not an ideal strategy. It is much more efficient to issue two full-scale versions of the journal – in Russian and in English. For example, *Problemy prognozirovaniya,* which was originally published in two languages, has long been included in Scopus and occupies a steady position in the third quartile. And the very important fact is that the journal's management does not pursue the independent goal of promoting the journal in the international database. The journal is a publication of RAS

Institute of Economic Forecasting and is designed to fulfill its main mission – to publish the Institute's research findings [20, 25].

Another example is the journal *Ekonomicheskie i sotsial'nye peremeny: fakty, tendentsii, prognoz*, which was accepted into WoS exclusively because of its English version. Moreover, the journal serves as a textbook example showing that even a small regional institution like Vologda Research Center (VolRC) of the Russian Academy of Sciences, which publishes the journal, is able to find the finances for the publication of a full-fledged English version. If we take into account the fact that VolRC RAS was previously a branch of the Central Economics and Mathematics Institute (CEMI) of RAS, which publishes the journals *Ekonomika i matematicheskie metody* and *Ekonomicheskaya nauka sovremennoi Rossii*, it becomes clear that the success/failure of journals in their promotion on the international scientific market is the result of the desire/ unwillingness of their management to move in this direction [26, 27].

The success of economic journals with a full-scale English version suggest that the number of such publications will increase in the future, as well as the number of publications that have received international recognition. It is possible that the expansion of this movement will be promoted by federal initiatives. Thus, in 2017, under the patronage of the Ministry of Education and Science of Russia, a competition was held for state support for development and promotion of journals with the organizational participation of the Association of Science Editors and Publishers (ANRI) [20]. The winners of the competition among economic journals were *Forsait* and *Ekonomika regiona*[4], which were on the Diamond List in 2016 (see Tab. 1).

Currently, the journals *Den'gi i kredit*, *Forsait*, *Vestnik mezhdunarodnykh organizatsii: obrazovanie, nauka, novaya ekonomika* have full-scale English versions; *Zhurnal Novoi ekonomicheskoi assotsiatsii* is going to launch its English version in 2019. There are more radical versions of this policy, as, for example, in the case of *Russian Journal of Economics*, which is published only in English. Thus, qualitative changes in this direction have already taken place.

A new publishing paradigm

About five years ago, the country began to actively pursue the line of integration of Russia into the world science. At the same time, the regulator believed that this process should be achieved through the publication by Russian scientists of their research in foreign scientific journals. The fundamental error of this assumption consisted in its narrowness and limitation. In fact, the indicated reference point was correct, but it is not the only one, and it involves the publication of domestic scientific journals in two languages, which would make them transparent to the world scientific community. In the natural sciences, the second way of integrating Russian science into global science has traditionally existed, while there were practically no social titles published in parallel in English and included in the Scopus and WoS databases. Instead of moving along both lines of development, the emphasis was placed only on the first – penetration into "foreign" journals that have already gained international prestige.

Currently, there is an additional factor, which extremely severely limits this method of internationalization of the Russian economic science, if not negates it altogether. This factor is the international sanctions, whose indirect effect is the reluctance of Western publications to cooperate with Russian scientists. Thus, experience shows that Hungarian and Polish

[4] **Availble at:** http://konkurs-jurnalov.neicon.ru/

economic titles, which published articles by Russian economists a year and a half or two years ago, today reject their papers due to political reasons. This state of affairs requires a revision of the old publication paradigm focused on "external" scientific publications.

We can add that the international landscape of the Russian economic publications market, discussed above, draws a peculiar line in the confrontation that has arisen. In fact, we are talking about the revision of the publication doctrine of Russian researchers. The fact is that among the domestic economic journals there are already a dozen and a half that are included in Scopus and WoS. If their number increases, and there is no doubt about it, then Russian economists will have a choice: they can either submit their papers to second-rate Hungarian, Polish, Turkish and South African journals or to publish them in first-class domestic titles. In addition, if in the future the process of helping leading Russian journals to publish in English is launched, the choice of our economists will actually be predetermined.

In turn, if the interest of Russian economists, including their best representatives, develops in favor of domestic journals, it will mean further strengthening of the content and quality of our publications, which will allow them to become even more interesting for the world scientific community and strengthen their international positions.

It is obvious that the work on the integration of Russia into world science is not reduced to the "reorientation" of domestic economists from the "second tier" foreign journals to Russian publications. Serious work is needed in a number of other areas, such as bringing scientific publications in line with international standards, attracting reputable foreign authors, forming a base of highly qualified domestic and foreign reviewers, strengthening support (including financial) from the state and scientific foundations, etc. Much has already been done in these areas [28], but there is still a long way to go. And we think it is necessary to start with consolidating the efforts of economic researchers and economic journals, the two main actors of the academic market. If these two market actors decide to work together, this may be the most useful strategy for both of them. Since we should not ignore the fact that the articles of Russian economists cause a wide resonance only among their compatriots; it will be too quixotic to count on the explosive interest on the part of foreign colleagues.

Conclusion

The trend of promotion of Russian economic journals on the international market of academic publications, which began in recent years, implies revising many strategies and priorities. First of all, we are talking about the fact that the leading Russian economists should not completely abandon domestic publications in favor of prestigious foreign journals, but, on the contrary, they should publish their papers most actively in domestic titles without compromising the prestige and popularity of their articles. At the same time, the leading journals need to do everything to ensure the publication of their content in two languages – Russian and English, as well as to work very carefully with interesting authors to strengthen their own positions through their articles. There exist all the prerequisites for such a turn of events.

It is possible that the emergence of 30–35 international-level publications on the market will lead to a loss of demand for ratings of Russian journals, because the new leading journals will be almost automatically promoted in international databases and will enter the next higher quartile. In our opinion, by this time the mission of Russian rankers will be completed, and the projects of building all-Russian ratings will be closed. In this sense, we can say that Russian ratings of domestic journals are a kind of intermediate (auxiliary) institutions, while international ratings act as the final institutions. Replacing one with the other will mean the onset of a more mature phase of the life cycle of the market of Russian economic journals. In our view, this moment can come in 2020.

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Received June 6, 2018.

DOI: 10.15838/esc.2018.4.58.8
UDC 338.48, LBC 65.433

Boosting Domestic Demand as a Driving Force of Economic Growth (on the Example of Domestic Tourism Sphere)*

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* The article was supported by the Russian Foundation for Basic Research, Grant 18-010-01012 A "Modeling structural changes in the economy of the region on the basis of input-output models as a tool to substantiate economic policy".

For citation: Lukin E.V., Leonidova E.G., Sidorov M.A. Boosting domestic demand as a driving force of economic growth (on the example of domestic tourism sphere). *Economic and Social Changes: Facts, Trends, Forecast*, 2018, vol. 11, no. 4, pp. 125–143. DOI: 10.15838/esc.2018.4.58.8

Abstract. Changing structural proportions manifested in the narrowing of domestic demand for goods and services is a trend in modern development of the Russian economy, which experiences an impact of a system-wide economic crisis and the current foreign policy and foreign economic situation. This leads to underconsumption of goods and services, and thus to a reduction of incentives for enterprises to increase production. Meanwhile, stimulation of domestic consumer demand can be considered as a factor capable of ensuring economic growth. In this regard, there is a need for scientific substantiation of measures to promote domestic demand, which in the current economic conditions can change the structural relationships and thus ensure economic growth. In our study, an attempt is made to calculate the potential economic effect of stimulating Russian citizens' consumption of goods and services produced by domestic tourism sector. General scientific methods such as analysis, synthesis, comparison, generalization and original methodological tools based on input-output models are used as a methodological basis of the study. Novelty of the results consists in the fact that we develop a methodology and improve the tools for the use of input-output models to analyze and assess the contribution of domestic tourism to the formation of domestic demand and the impact of its stimulation on the economy; these aspects distinguish our study from similar works of other scientists. The paper presents analytical data reflecting the decomposition of gross domestic product in the context of its key components, the state of domestic consumer demand in Russia in comparison with foreign countries; we also assess the effect that the development of domestic tourism has on the economy. In conclusion we propose measures to boost this sphere and promote domestic consumer demand. In the future, we will continue working on improving structural simulation tools, which allow us to substantiate economic policy at the level of the economy as a whole, and in the framework of inter-sectoral complexes and economic activities.

Key words: domestic consumer demand, domestic tourism, economic growth.

1. Introduction.

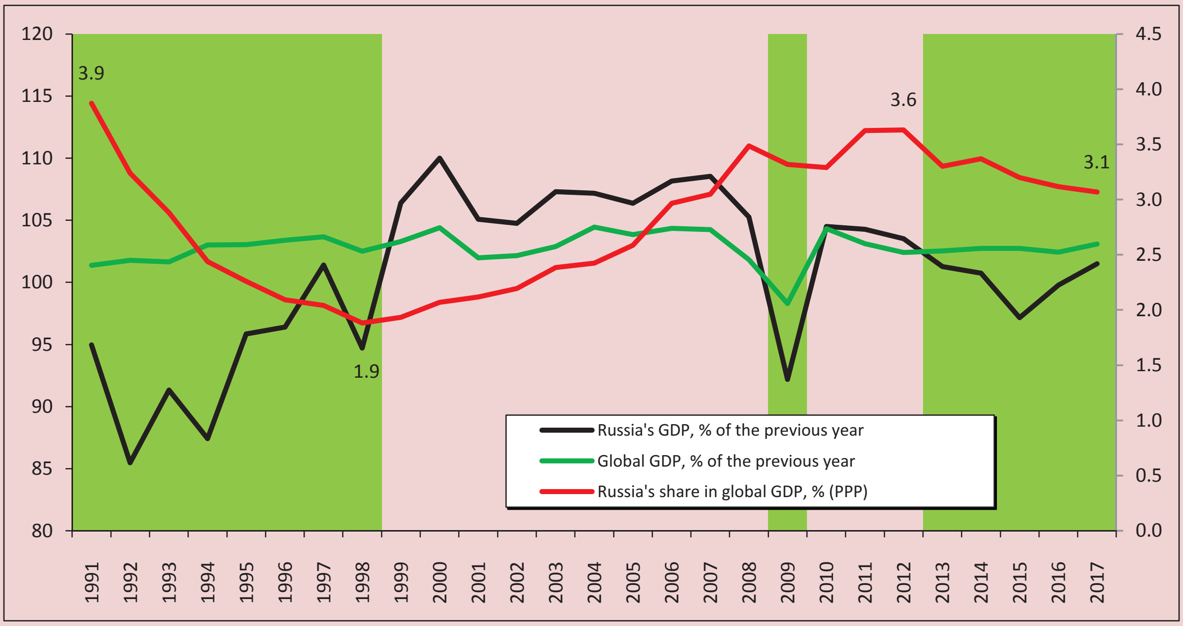
A new May 2018 Decree of Russian President[1] sets the following goal: by 2024, Russia must become one of the five largest economies in the world, ensuring economic growth at a rate above global while maintaining macroeconomic stability. In the meantime, the Russian economy ranks sixth in the world (after China, the U.S., India, Japan, and Germany), and its growth rates are inferior to the global ones for the last five years *(Fig. 1)*; i.e. Russia is not increasing, but rather reducing its share of global GDP. In 2008–2017, the growth of gross domestic product of the country amounted to only 4.4%. During the same period, the world economy grew by 23.8%.

Under the current development model, the economy depends to a great extent on the external environment and export-import activities [1]. Despite the fact that net export (i.e. exports less imports) accounts for no more than 10% of Russia's GDP, it is among the key drivers of economic growth (and more often – economic recession) *(Fig. 2)*. For example, at the end of 2017, its contribution to GDP growth was -2.3% (exports: +1.3%; imports: -3.6%).

It is obvious that in order to achieve the goal set by the President, the economy has to undergo serious changes. The expert

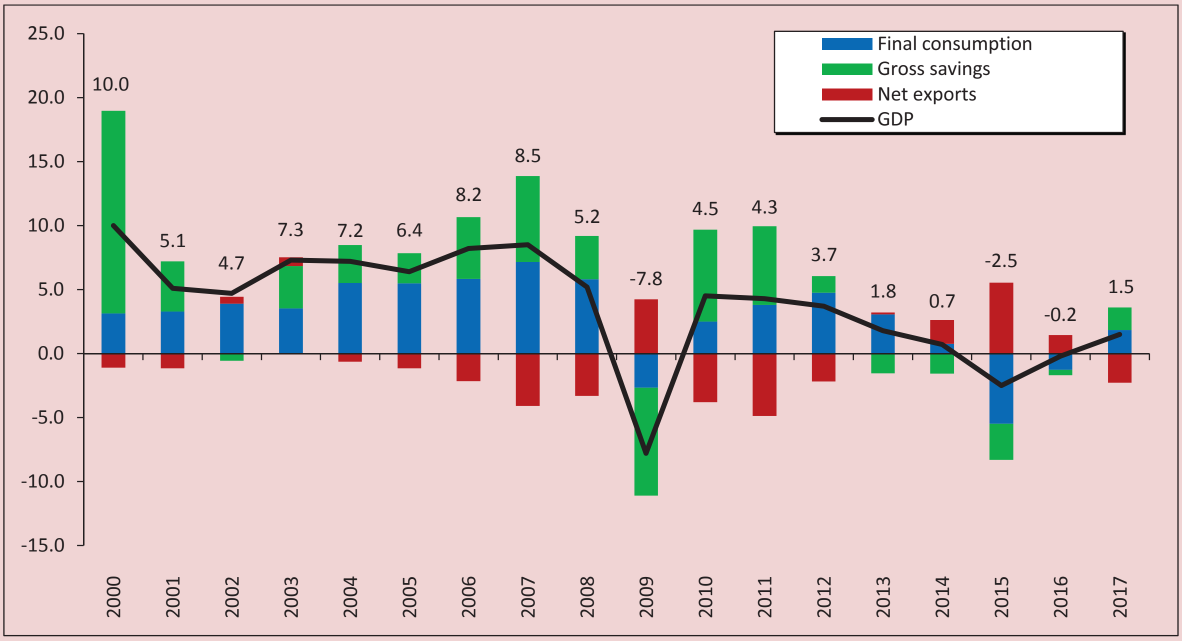
[1] Decree of the President of the Russian Federation dated May 7, 2018 No. 204 "On the national goals and strategic objectives of development of the Russian Federation for the period up to 2024".

Figure 1. GDP dynamics in Russia and in the world (left scale) and Russia's share in global GDP (right scale) (periods during which the Russia's GDP growth rate was inferior to the world average are highlighted in green)



Source: our own calculations based on World Bank data.

Figure 2. Contribution of the drivers of economic growth to Russia's GDP, %



Source: our own calculations based on Rosstat (Federal State Statistics Service) data.

community and political circles of the country are engaged in discussing the driving forces and causes of the economic decline, as well as the measures that should be taken to overcome the negative trends and bring the economy to the path of sustainable growth. Consensus has been reached on the single issue – the need for structural reforms.

This was repeatedly stated by representatives of the economic authorities of the country: Minister of Economy M.S. Oreshkin[2], Prime Minister D.A. Medvedev[3], Chairman of the Central Bank E.S. Nabiullina[4], Chairman of the Board of Sberbank of Russia G.O. Gref[5], etc.

On the pages of leading scientific journals, the structural adjustment of the economy is discussed, too [2–7]. The main emphasis is placed on reducing the dependence of the economy on hydrocarbon prices and on stimulating domestic sources of its growth [9].

[2] "We are focusing on structural barriers to economic growth and measures that remove such barriers. ... The Ministry of Economic Development should formulate the changes that will help to overcome these structural barriers" (source: It is possible to take a serious step forward to the growth of the white economy. *Kommersant*, 2017, January 8. Available at: https://www.kommersant.ru/doc/3186798).

[3] "It will not be possible to restore normal growth rates only at the expense of monetary and budgetary policy; serious structural reforms are required, although we have been talking about this for the last 15 years, probably" (source: Structural reforms are required to restore the growth of the Russian economy. *Komsomolskaya pravda*, 2017, January 12. Available at: https://www.kp.ru/online/news/2624661).

[4] "If the price of oil is higher – we can grow a little faster; nevertheless, at any price, our assessment is as follows: without structural reforms, we will stabilize at the level of 1.5–2 percent" (source: Nabiullina called for structural reforms for the sake of economic growth. *Lenta.ru,* 2017, April 5. Available at: https://lenta.ru/news/2017/04/05/reform).

[5] "Everyone, in my opinion, came to the conclusion that the crisis in which we are now is not cyclical, but structural. And, in general, it is necessary to fight against it with the use of absolutely standard set of measures. Today, there are no other means but to finally launch structural reforms" (source: The rise of GDP is replaced by the talks about structural reforms. *Nezavisimaya gazeta*, 2017, April 5. Available at: http://www.ng.ru/economics/2017-04-05/1_6967_vvp.html).

Having analyzed theoretical works, we find out that domestic demand can be considered as such a source, which is less dependent on external conditions and more amenable to regulation[6].

In particular, according to I.A. Pogosov, the development model focused on domestic demand allows relying on internal sources of growth. This makes it possible to satisfy the needs of the country in consumer goods and equipment through national production. In this case, the restrictions associated with the foreign economic situation and with the scale of energy production are reduced. At the same time, the potential for increasing the growth rate of the national economy is expanding [10]. The work of V. Kondratiev emphasizes that economic growth in emerging economies under the influence of such processes as digitalization and decentralization will be achieved through internal structural reforms aimed at stimulating domestic demand and expanding the industrial base [11].

At the same time, it is important to determine ways to stimulate domestic demand. In particular, according to experts from the Institute of Economic Forecasting of the Russian Academy of Sciences, economic that possess potential for growth in the short term include fuel and energy, chemical, agro-industrial, and construction complexes, as well as the sector of commercial and personal services [12].

However, the list of areas that can stimulate domestic demand and thus ensure economic growth is not reduced to the above. In our opinion, it can include the promotion of people's consumption of goods and services produced by the sphere of domestic tourism.

[6] Domestic demand refers to the final consumption of goods and services by residents. It includes private and public sector consumption and gross capital investment.

How does this happen? Russia's residents, traveling within its borders, show demand for goods and services, consume them, and stimulate their producers to increase production volumes.

The importance of domestic tourism for the economy is quite obvious. It not only helps increase the revenue of budgets of different levels through taxes, but also stimulates investment activity, creates new jobs, and increases employment. In addition, tourism as a branch of the national economy has a multiplier effect. The development of up to 53 related sectors of the national economy is stimulated through the "expenditure – income" chain. For example, in the United States by the end of 2016, tourism accounted for 8.1% of GDP, of which 80% is the contribution of Americans to the consumption of domestic tourism products[7]. In the countries of the Organization for Economic Cooperation and Development, domestic tourism accounted for about 76% of the consumption of tourist goods and services in 2016[8].

As for the Russian Federation, its domestic tourism sphere is not developed so well. However, its potential is sufficient to be considered as a source of economic growth. Thus, the aim of our study is to substantiate the stimulation of domestic demand as a driving force of economic growth based on the consumption of goods and services of domestic tourism. To achieve this goal, we solve the following tasks: we analyze the state of domestic demand and substantiate the importance of its stimulation in order to ensure economic growth; we assess the effects of increasing demand for domestic tourism on the economy; and we propose measures to stimulate the consumption of goods and services in this sphere.

2. Research methodology and methods.

The methodological basis include the works of scientists (V.V. Ivanter, A.A. Shirov, B. Porfiriev [3] A. Aganbegyan [5], I.A. Pogosov [10], O.S. Sukharev [7; 8] etc.), who study issues of economic growth promotion, and also those based on stimulating domestic demand.

The importance of domestic tourism for the economy is reflected in the studies of Russian and foreign scientists. In particular, the impact of tourism on the economy is considerd in the works of T.N. Grigorenko, L.N. Kazmina, V.I. Kruzhalin, K.V. Kruzhalin, N.V. Shabalina, and others [13; 14]. Scientists from Lomonosov Moscow State University propose the directions of development of the types of tourist activity capable to boost the demand for tourist resources (medical and recreational tourism, autotourism) [15]. Russian researchers have covered in sufficient detail the key problems of this sphere that hinder its development nationwide. Experts see one of the ways to solving the problems of domestic tourism in the urgent adoption of economic measures by the state [16]. S.A. Bystrov considers in detail the domestic experience of the use of existing methods that support and promote the development of domestic tourism[17]. The work of Z.A. Zyulyaev simulates the demand for domestic tourism in the Russian Federation and analyzes the factors that form this demand [18]. Yu.O. Vladykina and N.O. Rozumnaya analyze the demand for domestic tourism on the example of Siberian territories [19].

Foreign studies give more attention to domestic tourism due to the longer period of its study. Thus, in the work [20] on the example of the tourist market of China, it is proved that for the economy it is more important to develop

[7] According to the World Travel & Tourism Council.

[8] According to the Organization for Economic Cooperation and Development. Available at: http://dx.doi.org/10.1787/tour-2018-en

domestic tourism than outbound and inbound tourism. Besides, the role of domestic tourism for the regional economy is emphasized [21; 22; 25]. In addition, Italian scientists have determined that this type of tourism has great potential to eliminate structural imbalances in the economy [23]. This conclusion is confirmed by the results of application of input-output models for domestic tourism in Brazil [25], as well as in some regions of Japan [26].

However, having analyzed these works, we come to a conclusion that the impact of domestic tourism in the context of stimulating consumer demand is not given due attention.

Assessment of the state of domestic demand and its components, the study of the structure of consumer spending of households is based on general scientific methods such as comparison, generalization, analysis, synthesis, etc.

We used modeling method to substantiate the sources of domestic demand and assess the impact of their stimulation on the economy.

In the framework of the study, we propose to use a cross-sectoral model of the economy to carry out alternative calculations and assess changes in the volume of production of goods and services, the number of employees, the wage fund for certain economic activities and the economy as a whole under a reduction or increase in the final demand for the products of one of the activities. That is, the model makes it possible to see what will happen to the economy if we stimulate demand for a particular product; how much the output of goods and services will increase in the industry and in the economy as a whole; to what extent it is necessary to increase the number of employees and the wage fund.

The model is based on the basic equation of input-output models. In the matrix form, it is as follows

$$x = Ax + y, \tag{1}$$

where x – vector of total output; A – matrix of direct costs coefficients; y –vector of the final product.

The following equation was used in the simulation:

$$(E - A)^{-1} \cdot y = x, \tag{2}$$

where E – unit matrix; $(E - A)^{-1}$ – matrix of total cost coefficients.

On the basis of the obtained matrix dependence, it is possible to calculate what the volume of sales x in all sectors[9] of the economy should be, if we plan to change the final demand y, i.e. the total cost is calculated.

Let us present the calculation algorithm.

1. Based on the data of the table of the use of goods and services, we calculate the matrix of direct costs A. To do this, we determine the proportion of direct costs F_{ij} in the output X_j:

$$a_{ij} = F_{ij} / X_j . \tag{3}$$

The a_{ij} element of the matrix A shows the consumption of the commodity i directly in the production of a unit of industry j.

2. Next, the total cost matrix $B = (E - A)^{-1}$ is calculated. To do this, the matrix A is subtracted from the unit matrix E. The resulting matrix is raised to the power of -1, i.e. the result is the inverse matrix $(E - A)^{-1}$.

The b_{ij} element of the matrix B characterizes the need for the gross output of the industry i, which is necessary in the process of obtaining a unit of the final product of the industry j in the process of material production. Total cost coefficients reflect the diversity and complex indirect relationships that arise in the process of public reproduction.

[9] The terms “sector” and “type of economic activity” are used as synonyms in this study.

3. The total cost matrix multiplied by the planned final consumption vector y_j is equal to the gross output of all industries x_i:

$$x_i = f(y_1, y_2, ..., y_n) = \sum_{j=1}^{n} b_{ij} y_j \qquad (4)$$

The calculation of the impact of the consumption of goods and services in the domestic tourism sector requires, through standard statistical methods, that the part that is conditioned by tourism consumption should be separated from the value added calculated in the system of national accounts for specific and non-specific tourism activities, and its share in gross domestic product should be calculated, as well. In the future, this share is used to calculate the contribution of tourism to the formation of other macroeconomic indicators (employment, budget revenues, etc.).

In order to calculate tourism output and tourism value added by tourism-related activities, we decided to use the data on the level and structure of spending on recreation instead of household budget survey data. The data were assessed on the basis of available information on the structure of tourist expenditures in the Republic of Kazakhstan. The rationale for this approach is presented in Section 3.3.

Calculations on this algorithm were made for 37 types of economic activity, including seven so-called tourist-oriented types: the activities of hotels and restaurants; land transport activities; water transport activities; air transport activities; activities of travel agencies, activities for recreation and entertainment, culture and sports.

3. Research results.

3.1. The state of domestic demand and its main components.

The share of domestic demand in the use of GDP is more than 90% (including final consumption of households – 52%, public administration – 18%, gross savings – 24%). However, despite such high indicators, in recent years its contribution to GDP growth was quite modest.

At the end of 2017, the contribution of domestic demand "covered" the loss from net exports and amounted to 3.6% (including final consumption of households: +1.8%, public administration: +0.1%, gross savings: +1.8%). Moreover, support for domestic demand made it possible to achieve a positive economic growth rate of 1.5%.

According to the Ministry of Economic Development, in the coming years, GDP growth will be determined by more than half by the final consumption of households. In 2018, its contribution to economic growth will be 1.4% (for comparison, we present data on the contribution of other components: gross savings: +0.9%, net exports: +0.1%; total GDP growth: +2.1%) *(Tab. 1)*).

Why is the presence of domestic solvent demand so important? It is due to the fact that it is one of the main factors in the planning of activities at enterprises, in making decisions about increasing or reducing capacity utilization, and in the implementation of investment projects.

The experience of foreign countries shows that stimulation of consumer spending can be a factor in economic growth. In the U.S., for example, household final consumption expenditure accounts for almost 70% of GDP. At the same time, if we compare the value of the final domestic demand per capita, it turns out that in Russia it is 2.5 times lower than in the United States, and two times lower than in Germany *(Tab. 2)*.

The result is a lack of domestic demand for many types of goods and the need to export low-tech goods, because our producers manage

Table 1. Contribution of end-use components to the growth rate of Russia's GDP, % to the previous year

Indicator	2016	2017 (estimate)*	2018	2019	2020
			Forecast		
GDP used	**-0.2**	**2.1**	**2.1**	**2.2**	**2.3**
1. Expenditures on final consumption, including:	-2.3	1.2	1.2	1.1	1.2
1.1. Household	-2.3	1.2	1.4	1.3	1.2
1.2. Public administration	-0.1	0.1	-0.2	-0.2	-0.1
2. Gross capital formation, including	0.3	1.6	0.9	1.0	1.3
Gross fixed capital formation	-0.4	0.9	1.0	1.2	1.3
3. Net exports, including:	1.5	-0.8	0.1	0.0	-0.2
Export	0.9	1.0	0.9	0.6	0.5
Import	-0.6	-1.8	-0.8	-0.6	-0.7

* Assessment of the Ministry of Economic Development as of September 2017; final data of Rosstat for 2017 others.
Source: Forecast of socio-economic development of the Russian Federation for 2018 and for the planning period of 2019 and 2020. Ministry of Economic Development. P. 16.

Table 2. Final consumption in Russia, USA, and Germany in 2016

Country	Final consumption, % GDP			GDP (PPP), trillion USD	Final consumption, PPP, trillion USD	Population, million people	Final consumption per capita, PPP, thousand USD
	Total	Households	State sector				
Russia	71.4	53.4	18.1	3.581	2.557	146.8	17.418
USA	83.1	68.8	14.3	17.270	14.351	325.1	44.137
Germany	72.8	53.3	19.6	4.030	2.934	82.8	35.435

Source: our own calculations based on World Bank data.

to integrate into the world value chains only as suppliers of raw materials. This state of affairs aggravates the development of the economy, because the incomes of companies, government and people are reduced due to the lost value added. This in turn reduces consumer demand and investment opportunities.

The narrowness of the domestic market and the negative dynamics of its development, which are among the main factors constraining economic growth, lead to a shortage of goods and services, reducing incentives for enterprises to increase production and increase the depth of processing of raw materials.

During the period from 2011 to 2017, the volume of domestic demand in Russia decreased by 1.5% *(Tab. 3)*. At the same time, consumer spending increased only by 5.4%, public administration spending decreased by 0.5%, gross fixed capital formation – by 2.5%. Imports fell by 10.8%.

In the structure of domestic demand, the major part belongs to household consumption. In 2017, the share of households was more than 55%, and over the past seven years it has increased by almost four percentage points *(Tab. 4)*.

Let us pay attention to the fact that, despite the reduction in the value of imports, its ratio to the volume of domestic demand increased by almost five percentage points (from 22.7 to 27.6%) during the period under consideration.

Thus, the negative state of domestic demand (including consumer demand) in Russia is statistically established. Its growth rate has slowed down, and per capita volumes are significantly lower than in developed countries.

Stimulating domestic demand may trigger economic growth in the country. The effect of the increase in consumer spending begins to manifest itself very quickly, within months. At the same time, the prerequisites for

Table 3. Domestic demand in Russia, trillion RUB (in 2017 prices)

Indicator	2011	2012	2013	2014	2015	2016	2017	2017 to 2011, %
Domestic demand	88.1	93.3	94.5	93.6	85.2	83.6	86.7	98.5
1. Expenditures on final consumption, including:	62.4	66.4	69.2	69.8	64.3	63.1	64.8	103.8
1.1. Household	45.4	49.0	51.5	52.6	47.6	46.3	47.9	105.4
1.2. Public administration	16.6	17.1	17.2	16.9	16.3	16.5	16.5	99.5
2. Gross capital formation, including	25.7	26.8	25.3	23.8	20.8	20.4	22.0	85.5
Gross fixed capital formation	20.5	21.5	21.8	21.4	19.0	19.1	20.0	97.5
For reference:								
Exports	20.0	20.3	21.2	21.3	22.1	22.8	24.0	119.9
Imports	21.3	23.4	24.2	22.5	16.8	16.2	19.0	89.2
Source: our own calculations based on Rosstat data.								

Table 4. Structure of domestic demand in Russia, % (in 2017 prices)

Indicator	2011	2012	2013	2014	2015	2016	2017	2017 to 2011, p.p.
Domestic demand	100.0	100.0	100.0	100.0	100.0	100.0	100.0	–
1. Expenditures on final consumption, including:	70.8	71.2	73.2	74.6	75.5	75.5	74.7	+3.8
1.1. Household	51.6	52.5	54.6	56.2	55.9	55.4	55.2	+3.6
1.2. Public administration	18.9	18.3	18.2	18.0	19.2	19.7	19.1	+0.2
2. Gross capital formation, including	29.2	28.8	26.8	25.4	24.5	24.5	25.3	-3.8
Gross fixed capital formation	23.2	23.1	23.1	22.9	22.3	22.9	23.0	-0.2
For reference:								
Imports to domestic demand ratio	22.7	21.7	22.4	22.8	25.9	27.3	27.6	+4.9
Source: our own calculations based on Rosstat data.								

long-term growth are being created, since enterprises serving consumer demand obtain an opportunity to increase resources for investment. However, all these processes are launched only if the purchased products are of Russian manufacture. Therefore, it is important to understand what goods and services households consume and who is the producer of these goods and services – domestic or foreign companies.

3.2. Structure of household consumption expenditures.

The structure of consumer spending of Russian households is dominated by spending on food and beverages, transport, housing and utilities services, fuel, clothing, footwear, and recreation *(Tab. 5)*.

Having considered the structure of the formation of resources of these products in the Russian economy (according to the latest input-output model) we can allocate the share of imports in it *(Tab. 6)*, which turned out to be the largest in the resources of clothing and footwear (almost 69%), household goods and household appliances (over 60%). Other consumer goods and services are to a certain extent (more than 85%) of domestic manufacture.

If we compare the structure of consumer spending of households and the share of imports in the resources of the products they consume, then we note that domestic tourism – a sphere that combines the production of goods and services designed to satisfy the needs of the population in recreation – can be considered as a promising direction that can stimulate domestic consumer demand.

Table 5. Structure of consumer expenditures of Russian households in 2016, % of total

Good or service	Share
Consumer spending, including	100.0
Food and beverages	35.4
Transport	13.3
Housing and utilities services, fuel	11.3
Clothing and footwear	9.2
Recreation	6.7
Household items, household appliances	5.9
Health	3.6
Hotels, cafes and restaurants	3.5
Communication	3.3
Education	0.8
Other goods and services	7.0
Source: our own calculations based on Rosstat data.	

Table 6. Share of imports in the resources of some types of products of the Russian Federation, % of the total

Good or service	Share of imports
Food and beverages	15.4
Transport	11.3
Housing and utilities services, fuel	1.2
Clothing and footwear	68.8
Recreation	6.8
Household items, household appliances	60.4
Health	0.1
Hotels, cafes and restaurants	0.3
Communication	4.7
Education	0.2
Source: our own calculations based on Rosstat data.	

3.3. The results of evaluation of domestic demand stimulation on the example of domestic tourism.

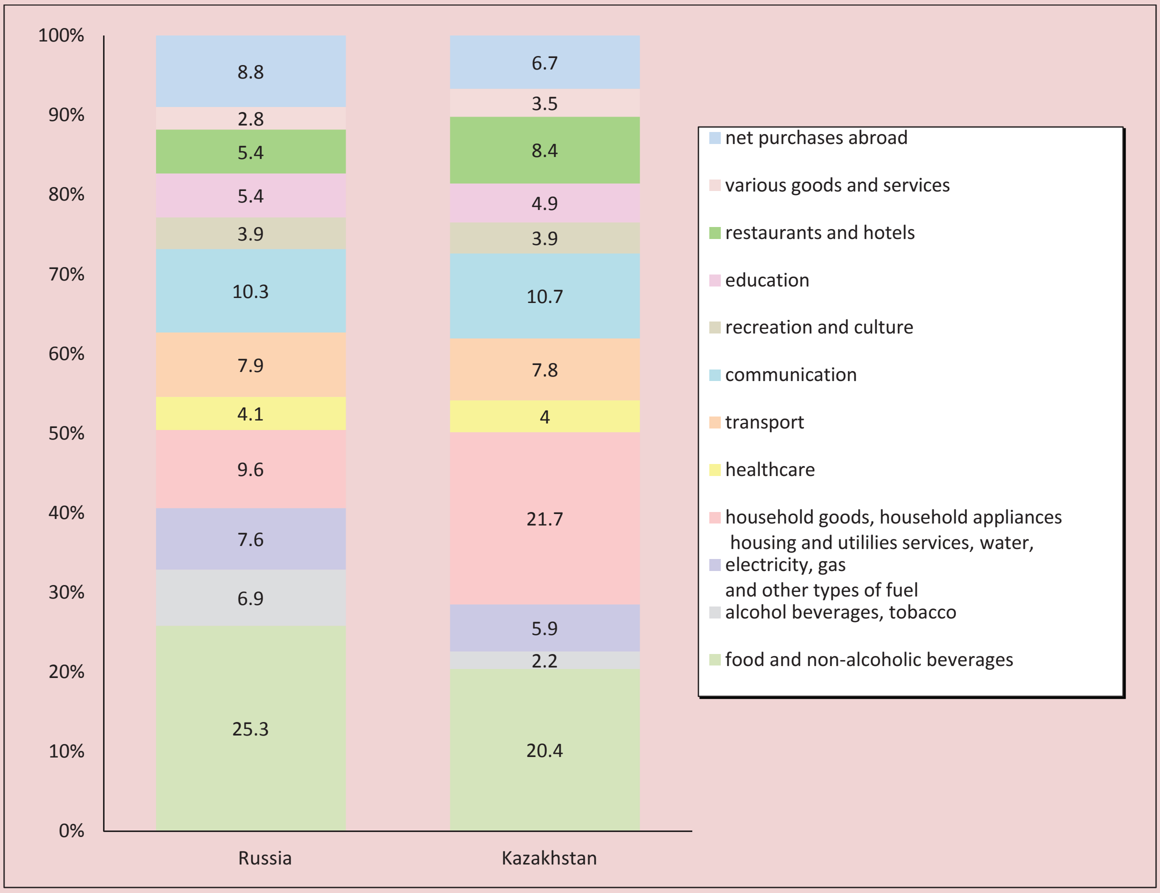
The complexity of the assessment of the economic effect of stimulating the consumption of goods and services by domestic tourists is that in the official statistics of the Russian Federation this type of tourism is not singled out as a separate branch of the economy.

In our study, the calculations of the effect under consideration on the example of domestic tourism will be carried out on the basis of the structure of consumption of goods in the tourism sphere of Kazakhstan, a country that is connected with the Russian Federation through historical and sustainable economic relations, which bear an intensive and dynamic character and have a high level of comprehensive cooperation.

The analysis has shown that the structure of consumer behavior of residents of Kazakhstan and the Russian Federation in terms of the services is similar *(Fig. 3)*. In particular, expenditures on recreation amounted to 5.4% in the Russian Federation and 4.9% in the Republic of Kazakhstan; expenditures on restaurants and hotels – 2.8 and 3.5% respectively.

It should be noted that in Kazakhstan, statistical observation of tourism is carried out in accordance with satellite account methodology, which takes into consideration the various tourism-related aspects of demand for goods and services.

Figure 3. Structure of actual final consumption of households in Russia and Kazakhstan, % of total



Source: Russia and countries of the world. 2016: statistics collection. Rosstat. Moscow, 2016. 379 p.

With the help of these statistics, we determine the structure of consumption according to the types of tourism, as well as its impact on the output of other activities.

The analysis shows that domestic tourists consume the most goods and services provided by travel agencies – 17.5% and by catering enterprises – 15.2%. As for inbound tourism, the main part of tourist expenses falls on the sector of accommodation and catering – 25.2 and 15.8%, respectively *(Tab. 7)*.

The analysis of the data of input-output models of the Russian Federation and the types of economic activities related to tourism gives an idea of how the structure of consumption in the Russian conditions looks like *(Tab. 8)*.

Based on this, it can be noted that tourism-oriented products are services of the accommodation industry (99%), travel agencies (98%) and the transport sector (59%).

Using the input-output methodology allowed us to calculate the value of the total costs ratio *(Fig. 4)*, which characterizes the total costs of production of one industry per unit of production of other industries. The higher the value of this indicator, the greater the economic impact of the sector for the economy. As evidenced by the calculations, according to the value of the total costs ratio per ruble of manufactured products, domestic tourism is second only to industry and construction.

Table. 7. Consumption related to domestic tourism, broken down by goods and services, %

Goods/services	Consumption related to domestic tourism		
	Expenditures related to inbound tourism	Expenditures related to domestic tourism	Expenditures related to the tourism within the country
Consumer goods	**97.2**	**97.2**	**97.2**
Typical tourism products	**67.0**	**73.7**	**69.9**
Accommodation services	25.2	13.7	29.6
1a. Visitor accommodation services, other than services in paragraph 1	25.2	13.7	20.3
1. Accommodation services related to all types of property in relation to holiday homes	x	x	x
2. Services of public catering enterprises	15.8	15.2	15.5
3. Railway passenger transport services	4.4	6.4	5.3
4. Road passenger transport services	0.2	3.7	1.7
5. Water passenger transport services	0.0	0.0	0.0
6. Air passenger transport services	9.2	8.8	9.0
7. Transport equipment rent services	2.0	0.3	1.3
8. Travel agencies and other booking services	1.0	17.5	8.0
9. Services in the field of culture	2.3	1.2	1.8
10. Sports and recreation services	7.0	6.9	7.0
11. Typical tourism products for a particular country	x	x	x
12. Typical tourism services for a particular country	x	x	x
Other consumer products	**30.2**	**23.5**	**27.3**
Products with a certain value	**2.8**	**2.8**	**2.8**
Total	**100.0**	**100.0**	**100.0**
Source: Statistics Committee of the Ministry of National Economy of the Republic of Kazakhstan.			

Table 8. Tourism-related consumption in the Russian Federation, by goods/services, in %

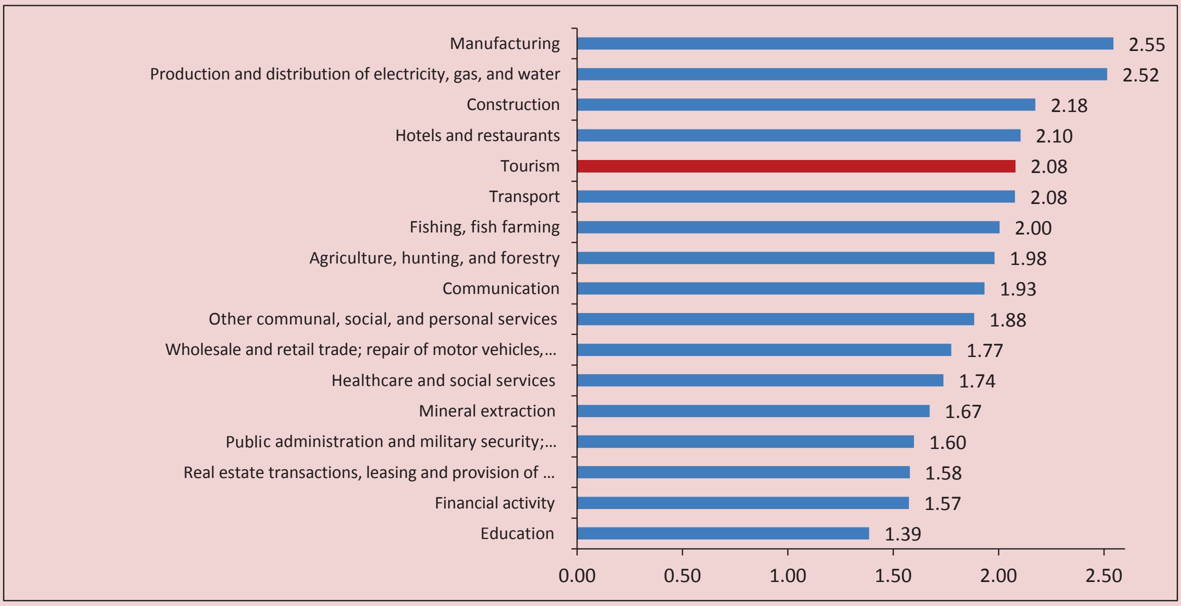
Goods/services	Tourism-related consumption associated with domestic tourism
Services of hotels, campsites and other places for temporary residence	0.995
Catering services	0.281
Services of long-distance passenger railway transport	0.328
Road passenger transport	0.008
Water transport	0.259
Air passenger transportation services	0.586
Services of travel agencies and tour operators; services for tourists, not included in other groups	0.978
Services in the field of culture	0.122
Other sectors	0.00004

The use of input-output models makes it possible to calculate the effect[10] produced by the changes in demand in the economy.

Let us assume that, as a result of stimulating residents' consumption of goods and services produced by the sphere of domestic tourism, the final demand for its goods and services increased by 10% (which may be due to an increase in people's incomes, the implementation of investment projects in tourism, infrastructure development, an active information campaign, etc.). The increase in the volume of final demand in this area will lead to an increase in the main economic indicators for all types of economic activity.

[10] The effect is understood as an increase in gross output, the number of employees and the wage fund in the relevant types of economic activity.

Figure 4. Total costs ratios in various economic activities in Russia, rubles per one ruble of production



Note. In the formation of the type of economic activity “Tourism”, tourist consumption was deducted from all economic activities.

Source: our own calculations on the basis of Rosstat data.

According to our calculations, stimulation of final demand for domestic tourism by 10% will provide an overall economic growth in gross output by 346 billion rubles and the number of employees by 142. 8 thousand people *(Tab. 9)*. In addition, the wage fund will increase. The increase in average wages will be 416 rubles.

Stimulating the consumption of goods and services of domestic tourism will produce the greatest effect on the transport industry. This is due to the fact that transport has the largest share in the structure of the type of economic activity “Tourism”.

In addition, the growth in demand for domestic tourism will have a significant impact on the production and on the provision of real estate, hotel and electricity, gas and water services. The effect produced by stimulating the demand for goods and services of domestic tourism (by 10%; *Fig. 5*) will be the largest in types of economic activities such as “hotels and restaurants” (output growth of 2.02%), “transport” (1.43%) and “provision of public services” (0.55%). The overall economic effect will be 0.24%.

Figure 6 shows that in the structure of distribution of the effect that will be produced by stimulating the consumption of domestic tourism goods and services by residents of the country, the largest share by types of economic activity (almost 45%) falls on transport. It can be noted that to some extent all of its types will experience a positive influence of the effect.

4. Suggestions and conclusion.

The results of our study show that the development of domestic tourism is a prospective direction to stimulate domestic consumer demand. In view of its under-development in the Russian Federation and, consequently, its insufficient current contribution to the economy, it is necessary to identify ways to contribute to the increase in the

Table 9. Growth of the main economic indicators by types of economic activity from stimulating the consumption of goods and services in the sphere of domestic tourism by 10%

Type of economic activity	Increase in gross output, million RUB	Increase in the number of employees, people	Increase in the wages fund, million RUB	Increase in average wage, RUB
Transport	155428	54046	27,855	515
Real estate transactions, leasing and provision of services	38740	12251	5,853	478
Hotels and restaurants	28852	27035	6,808	252
Production and distribution of electricity, gas and water	15093	3996	1,768	442
Production of coke, oil products and nuclear materials	14704	358	0,351	979
Wholesale and retail trade; repair of motor vehicles, motorcycles, household goods and personal utensils	14236	9092	2,940	323
Provision of other communal, social and personal services	12141	7480	2,108	282
Mineral extraction	9140	667	0,572	857
Manufacture of vehicles and equipment	7825	2369	1,027	434
Financial activity	7071	2297	1,932	841
Production of food, beverages and tobacco	5849	1505	0,484	322
Metallurgical production and production of finished metal products	5340	1119	0,444	397
Manufacture of electrical, electronic and optical equipment	4928	2546	1,123	441
Construction	4873	2786	1,002	360
Communication	3838	4499	1,768	393
Agriculture, hunting, and forestry	3697	3902	0,924	237
Manufacture of machinery and equipment	3322	2024	0,783	387
Chemical production	2971	611	0,289	472
Manufacture of rubber and plastic products	1551	575	0,172	300
Pulp and paper production; publishing and printing activities	1499	544	0,197	362
Manufacture of other non-metallic and mineral products	1260	655	0,221	337
Extraction of minerals, except fuel and energy	694	215	0,126	585
Public administration and military security; social insurance	640	290	0,146	503
Other production (including furniture and recyclables)	639	245	0,063	258
Textile and clothing industry	546	484	0,091	189
Fishing, fish farming	317	129	0,072	560
Wood processing and production of wood products	313	167	0,041	244
Education	277	656	0,212	323
Health and social services	236	255	0,086	338
Manufacture of leather, leather goods and footwear	19	16	0,003	214
In the economy on the whole	346039	142815	59,461	416
Source: our own calculations based on Rosstat data.				

consumption of goods and services produced by this sphere. The main directions of stimulating domestic tourism consumption are as follows.

1. Implementation of policies aimed at changing household consumption patterns.

This involves the implementation of a number of measures to increase the share of residents' consumption of goods and services of domestic tourism by changing the proportions of other types of activities. Thus, the obtained value of the multiplier of domestic tourism confirms the great economic importance of this sphere in comparison, for example, with wholesale and retail trade. In this regard, it is advisable to carry out a large-scale state propaganda of domestic tourist destinations and encourage people to purchase tours within the country in return for the purchase of consumer goods, especially imported ones.

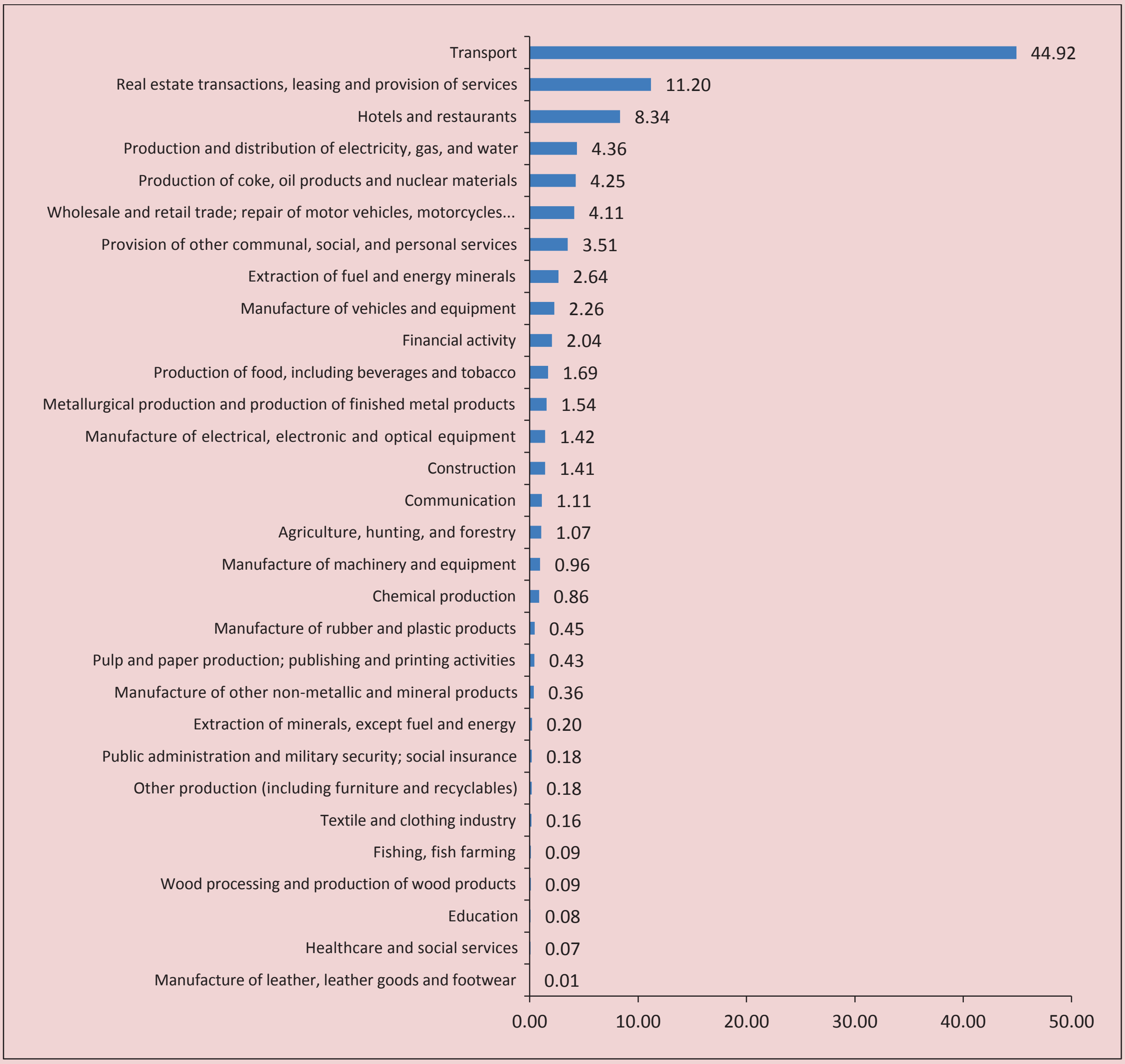
Figure 5. Effect produced by stimulating residents' consumption of goods and services in the sphere of domestic tourism by 10% by types of economic activity, %

Source: our own calculations based on Rosstat data.

It is also useful to use targeted marketing that is focused on the consumer and that implies that the tourism industry enterprises adapt their proposals to the needs of individual customers or collective buyers [27]. In this case, we are talking about the development of domestic tourism product for a certain segment, depending on the consumer preferences of domestic tourists. In addition, it involves the implementation of measures to promote the sale of domestic tourism product. For example, in Kazan, according to the program "Weekend in Kazan", on weekends tourists are accommodated in hotels with 40% discount and have special discounts offered by "guest cards" for services in food facilities, museums and museums-reserves, and entertainment facilities[11].

[11] As a result of the program, the number of customers in hotels at weekends increased from 15% in 2009 to 65% in 2014.

Figure 6. Structure of distribution of the effect from stimulation of residents' consumption of goods and services of internal tourism sphere by types of economic activity, % to the total



Source: our own calculations based on Rosstat data.

To improve the quality of services offered, it is proposed to form regional standards of hospitality that will allow the region to form the image and reputation of the "hospitable territory" both in the eyes of tourists and in the eyes of the local population [28].

2. Creation of priority competitive tourism products based on the development of tourism activities, ensuring the increase in the flow of domestic tourists. For example, these types of tourism include event tourism, which involves visiting the most interesting events for tourists. It makes it possible to create tourist products lasting more than 24 hours (for example, festivals, forums, sports competitions, etc.), thereby increasing the length of stay of tourists, as well as increase the "load" of tourist infrastructure.

Previously, we calculated the effectiveness of development of event tourism on the basis of long-term forecast changes in tourist expenditures. The calculations carried out on the example of the Vologda Oblast show that the ratio of daily tourist expenses, including accommodation in collective accommodation facilities, to GDP will be 49.9 billion rubles or 9.3% of GRP by 2030 (for comparison: 4.4% of GRP in 2014) [29].

3. Creation of favorable conditions for investment in domestic tourism.

High prices for capital goods remain an urgent problem for large businesses engaged in capital investments. Thus, entrepreneurial activity is constrained by the high cadastral value of real estate, which exceeds the market value. A significant obstacle for businessmen engaged in recreation is the rental rate for land in some regions of the Russian Federation. These circumstances affect the price of the final tourist product for domestic tourists.

In this regard, it is necessary to bring down the values of rental rates for land and real estate. This is possible through the adoption of relevant legislation at both the regional and federal level.

One of the areas of support for domestic tourism service producers may be the revision of the value added tax for tourist business entities engaged in the production of domestic tourism product (tour operators, owners of collective accommodation facilities)[12]. Improvement of tax legislation can not only support businessmen, but also attract new actors to the market.

4. Providing subsidies to tourism entities engaged in the production of domestic tourism product.

On the part of the government, it is possible to subsidize investment loans for the implementation of projects that are important for the development of this sphere (for example, the construction of accommodation facilities). Since transport costs form a significant share in the package of tourist services, then providing support to the transport industry companies is a promising measure. It is necessary to subsidize not only flights, but also railway transport and intercity buses. Currently, this measure is applied only in a few regions of the Russian Federation.

5. The use of tools that allow for partial compensation of recreation expenditures.

Successful experience of foreign countries with regard to the development of domestic tourism (for example, in Hungary) suggests that in Russia it is promising to provide support to employers who allocate funds to pay for the recreation of their employees. Thus, under the preferential system "Map of Széchenyi recreation", operating in Hungary, companies place their employees' wages to special credit cards; as a result, employees get the reduced rate of taxation. Cardholders have the right to spend the money thus saved on their vacation or the vacation of their relatives. Every year, 25% of the costs of domestic tourism are paid via such cards[13].

In France, there is a widespread system of holiday checks with a certain nominal value for full or partial payment of tourist services within the country. This measure applies mainly to employees of industrial enterprises and civil servants. The average cost of such checks for a family is about 400 euros, and the actual spending of citizens on vacation exceeds this amount in four times[14].

[12] For comparison: in Europe, the average VAT rate for hotels is 10.3% vs. 20% for other businesses.

[13] Fomin I. We could take 80 million tourists. *Parlamentskaya gazeta*. Available at: https://www.pnp.ru/social/my-mogli-by-prinimat-80-millionov-turistov.html

[14] Data of the Association of Tour Operators of Russia. Available at: http://www.atorus.ru/news/press-centre/new/40178.html

We think that the use of such mechanisms in the Russian Federation should increase residents' demand for domestic tourism services.

Thus, the proposed tools have allowed us determine the potential economic effect from stimulating consumer demand on the example of the consumption of goods and services of domestic tourism, considered as a driver of economic growth.

Summing up, we should note that the results of the study contribute to the development of methodological aspects of assessment of domestic tourism, its impact on other industries, as well as the potential effect of its development.

In general, there exist other promising directions that determine the promotion of domestic consumer demand on the basis of domestic tourism. Further studies will continue to improve the tools of structural simulation that helps substantiate regional economic policy at the level of the economy as a whole, and in the framework of inter-sectoral interactions of sectoral complexes and types of economic activity.

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Received July 4, 2018.

DOI: 10.15838/esc.2018.4.58.9
UDC 336.71, LBC 65.262.1

People's Incomes as a Potential for Development of Bank Lending: Comparative Analysis of Russian Regions

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Abstract. The paper explores the development of bank lending to individuals in relation to Russian people's incomes. Using the data of the Central Bank of the Russian Federation, the Federal State Statistics Service, and with the help of EXCEL software, we carry out statistical analysis of the indicators characterizing people's satisfied demand for bank loans and compare them with the indicators of per capita income in 2010–2017, in the context of the federal districts of the Russian Federation, the city of Moscow, the Republic of Crimea and the city of Sevastopol (after 2014): we consider the volume of loans issued by banks during the year per inhabitant of the relevant territory, we calculate the correlation indicators of average per capita cash incomes and loans issued by banks per capita taking into account the purpose of lending; we estimate the distribution of the volume of loans issued per capita depending on the average per capita income. We find that the increase in per capita income is not accompanied by

For citation: Voronova N.S., Miroshnichenko O.S. People's incomes as a potential for development of bank lending: comparative analysis of Russian regions. *Economic and Social Changes: Facts, Trends, Forecast,* 2018, vol. 11, no. 4, pp. 144–159. DOI: 10.15838/esc.2018.4.58.9

a proportional increase in bank loans per capita. The majority of bank loans are obtained by households with an average per capita income of up to 35,000 rubles. Having studied the development of bank loans provision to people depending on the purpose of the loan, we see that the correlation between incomes and housing loans is stronger than the correlation between incomes and other bank loans provided to people. In modern conditions, lending to individuals in Russia contributes to the adoption of high credit risks by banks, potentially reducing the possibility of improving their profitability. There are no real regulatory incentives to shift the attention of banks to high-income borrowers when providing loans to households.

Key words: provision of loans to people, people's incomes, income inequality, LTV, DSTI, consumer behavior.

Introduction

Population's consumer loan is the most important bank activity, which generates income and causes adoption of risks. The classic approach of banking theory which has proved its worth in all countries and in the global economic space implies a relation between loan liabilities of individual borrowers and household incomes, which is also emphasized by the banking regulator. Modern macro-prudential requirements in many countries include indices governing retail lending such as LTV and DSTI[1].

For the population, the reasons and consequences of attracting bank loans to the family budget are very diverse, but they are divided into two groups of consumer loans.

In the first group includes bank loans for the population to expand consumption, invest in the development of individual abilities, improve the quality of life, which, with a commensurate borrowers' debt burden and incomes leads to an increase in individuals' welfare and is one of the factors in the country's economic growth.

The second group includes bank loans as a source to pay off imbalance of deficient income and necessary daily expenses are used to refinance other debts. Under competent credit management, such loans on a limited time interval are able to generate income and even provide banks with profitable existence; however, in an unchanged situation with household incomes, they do not contribute to population's welfare, are not a factor in economic growth, and their consequences are not only economic, but also psychological [1; 2; 3] and social [see, for example, 4; 5].

For banks, the development of lending of the second type of lending relations leads to a limited potential growth of quality loan portfolios, income from loans and is accompanied by the development of potential risk factors.

Since the geographical extent of the Russian territory determines the differentiation of important economic indicators such as per capita income, GRP etc. in this paper the relations between household income and bank loans is studied taking into account data of separate Russian regions, which ensures comparability and development of results obtained by other Russian authors [see, for example, 6; 7; 8; 9; 10].

[1] LTV (Loan to Value) – the ratio of loan amount for housing to the cost of a purchased property unit used by bank regulators to reduce lending risks of banks in mortgage lending; DSTI (Debt Servicing to Income), also referred to as PTI, DSR, – the ratio of an individual's all debt payments (loan principal and interest) to his or her overall income.

In this regard, the purpose of this research is to identify, systematize, and critically assess the current trends in the development of bank lending in comparison with the average per capita income of the population taking into account the geographical differentiation of the values of indicators under study. To achieve this goal, the following objectives were set and addressed:

– to assess the correlation between per capita income and loan value granted by banks per capita, to identify regional features of the analyzed indicators;

– to study population lending taking into account the purpose of loans with regard to the average per capita income;

– based on analysis of population's income as a potential for bank lending development, to identify trends in bank lending development.

Coverage of the problem

A large number of studies by Russian and foreign authors are devoted to the issues of consumer loans, the impact of loans on consumer spending, the relations between household income and bank income and risks.

One of the areas of such research involves assessing the role of bank loans in household finance. According to the opinion of a team of authors under the leadership of V. Mau, "the contribution of bank loans to household finance over the past few years in Russia is negative" [11, p. 161]. Similarly, a negative assessment of the current situation with population lending is given by G.A. Sharinova. When studying the relations between the income level and loan liabilities in the Republic of Kalmykia, Sharinova comes to a conclusion that in order to improve the situation with the population's debt load it is necessary to stabilize the economic situation in the region, increasing incomes, and intensifying work to increase financial literacy [12, p. 81]. The relations between financial literacy and household loan behavior are also studied by foreign authors [see e.g., 13; 14].

M.Yu. Malkina, studying uneven distribution of consumer loans between Russian regions, argues that high loan value does not improve the financial status of the disadvantaged regions, but notes there is a decrease in regional inequality in terms of population lending during 2001–2016 [15, p. 2136]. Khatskevich E.M., Semer'yanova A.Y., and Tatarinova L.Y. conclude that it is necessary to increase the availability of loans for the population on example of the Siberian region [16, p. 35].

The prerequisites for the country's possible transition to a harmonized economic system produces the direction of the domestic economy from "public economy" to "individual economy" [17, p. 56]. The growing standard of living and the country's sustainable socio-economic development are defined as ways to prevent possible negative processes on the loan market [18, p. 138].

The next area of research into consumer loans involves studying consumer loans in connection with deposits, identifying factors contributing to the development of lending and savings processes [19; 20]. Thus, N.A. Petukhov established a direct correlation between the average loan debt in rubles per capita, and GRP per capita by Russian regions: "With the growing GRP, there is an increasing consumer debt in rubles in the region" [19, p. 51]. E.B. Ershov, and O.N. Ladreva conclude there is a positive short term and negative long-run relation between savings and loan [20, p. 349].

Another area of research into bank lending is identifying factors determining the individuals' loan behavior, encouraging the population to apply for loans and contributing to the formation of household loan arrears.

The main role in the formation of population's loan demand belongs to the unemployment rate, consumer confidence and inflation dynamics [21, p. 251]; borrower's age and sex, availability of payment cards (debit and credit), income, availability of a mortgage loan are significant factors in the likelihood of individual's loan arrears [22, p. 113]; amid population's reducing income a reduction in individual lending should be expected [23, p. 62].

Foreign researchers examine bank loans from the perspective of the impact of household debt on macro-economic variables and the influence of government's regulatory measures on the development of household lending.

American researchers Edmond Berisha and John Meszaros believe that increases household debt is analogous to income redistribution in the US: amid economic recession, lower-income households were able to maintain the consumption level while high-income households received additional income, which further aggravated income inequality [24, p. 93]. Economic growth more favorably affects the welfare of households with high income compared to low-income households [25, p. 363]. High-income households widely use more fine-tuned financial instruments [26].

Researchers from the European Central Bank, Miguel Ampudia, Hasvan Vlokhoven, and Dawid Żochowsk, identify the relations between households' loan arrears with factors such as changes in interest rates, income and housing prices [27, p. 250]. Hem C. Basnet and Ficawoyi Donou-Adonsou, based on US data prove that credit card debt is the lower, the higher is the holder's level of education; and the higher, the more loans households take for shopping on-line [28, p. 11].

According to Edmond Berisha and John Meszaros, low interest rates, changes in the regulatory environment for financial institutions and technological advances in credit risk management were important factors that influenced bank lending to American households; household debt increases with a decrease in economic growth and rising unemployment [24, pp. 93–94]. The macro-prudential policy acts as a factor limiting the increase in lending in general and especially – lending to households [29, p. 203]; the reduction in public debt on bank loans is most effectively affected by regulatory LTV, to a lesser extent – by an increase in real estate taxes (on mortgage debt) and tightened fiscal policy [30, p. 47]. Merike Kukk notes the negative macro-economic consequences of increases DSTI in data for Estonia [31, p. 764]. Using data of the EU countries, Gross Marco and Javier Población compare the regulatory impact of LTV and DSTI and come to a conclusion that DSTI more effectively adjusts the credit risk on bank loans to the population [32, p. 510]. The impact of the tax policy on households' financial decisions is also analyzed – [33] shows the impact of the tax regulation of income in China at different stages of economic growth on the development of the country's banking system.

Thus, the study of bank lending in the scientific literature is represented by a wide variety of areas. However, the study of loans granted by banks to the population in comparison with per capita income on the example of the Russian regions is very relevant. The hypothesis of the present study is related to the difference in population's loan preferences in Russian regions depending on the level of per capita income as a potential for the development of lending to individuals.

Information and methodological research framework

The study is based on statistics at the official website of the Bank of Russia, section "Statistics. Regional breakdown", subsection "Information on funds invested and raised", part "Loans granted to resident individuals (regional breakdown)" for the period 2010–2017. Data on loans are presented based on the borrower's location regardless of the place of state registration of the lending bank, which ensures their correct analysis in comparison with the average per capita income of the population. The data source is information from commercial banks' reports submitted to the Bank of Russia in the form[2] 0409302.

Annual data on population "Demography. Number and structure of the population" and on average per capita monthly income "Average per capita monetary income on subjects of the Russian Federation" were selected for the study; they are presented at the official website of the Federal State Statistics Service.

The data are grouped in the territorial breakdown by Russian federal districts. The special position of the capital region of Russia has predetermined the formation of the statistical framework of this study with separating the indicators of Moscow from the indicators of the Central Federal District. Moreover, during the analyzed period the composition of federal districts changed due to the Republic of Crimea annexed to Russia in 2014 and the inclusion of the Crimean federal district in 2016 in the SouthernFederal District. For the purpose of analysis, indicators of the Crimean Federal District (the Republic of Crimea and Sevastopol) are distinguished in the statistics, but all corresponding dates are excluded from indicators of the Southern federal district. Data from the North Caucasus federal district are present separately in the sample since 2011.

For the purposes of the study, a statistics database of analyzed indicators (loans to individuals granted by banks, population and per capita income) was formed in the context of eight federal districts (Central excluding Moscow, Northwestern, Southern, North Caucasus, Volga, Ural, Siberian and Far Eastern) with cities of Moscow, Sevastopol, and the Republic of Crimea standing separately.

Results

Income as a primary source of loan repayment determines the individual's ability to borrow money from a bank, act as a criterion for creditworthiness. Changes in income directly affect the volume and quality of bank loans to individuals and determine the development potential of bank lending to certain categories of borrowers.

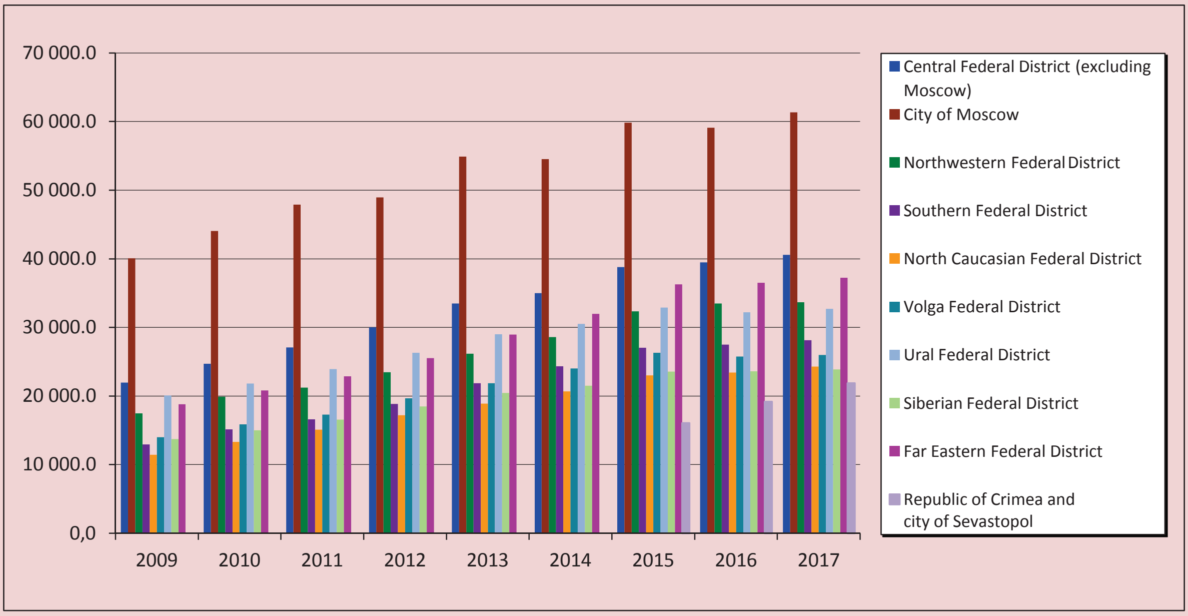
In Russia, the average per capita income of the population is significantly differentiated by territory (*Fig. 1*).

According to *Figure 1*, the highest per capita income (in isolation from other territories) is concentrated among the population of Moscow. By the end of the analyzed period, per capita income in all regions grows; per capita income of the population in the Central (excluding Moscow), Far Eastern, Northwestern and Ural federal districts increase most rapidly.

Bank loans are used as a source of defraying costs by the population in all regions. Data on loans to individuals in the context of federal districts excluding Moscow, the Republic of Crimea and Sevastopol are presented in *Fig. 2*.

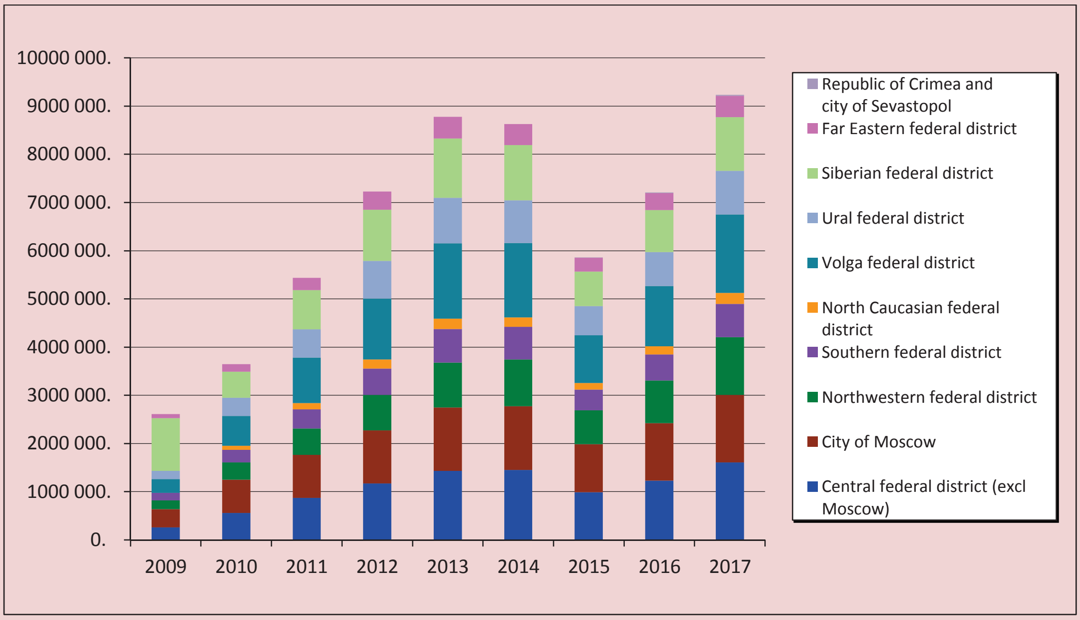
[2] See Standing order of the Bank of Russia no. 4212-U "On the list, forms and the procedure for drafting and submitting reporting forms of banking institutions to the Central Bank of the Russian Federation", dated 24.11.2016.

Figure 1. Distribution of per capita income in Russia by territory, rubles



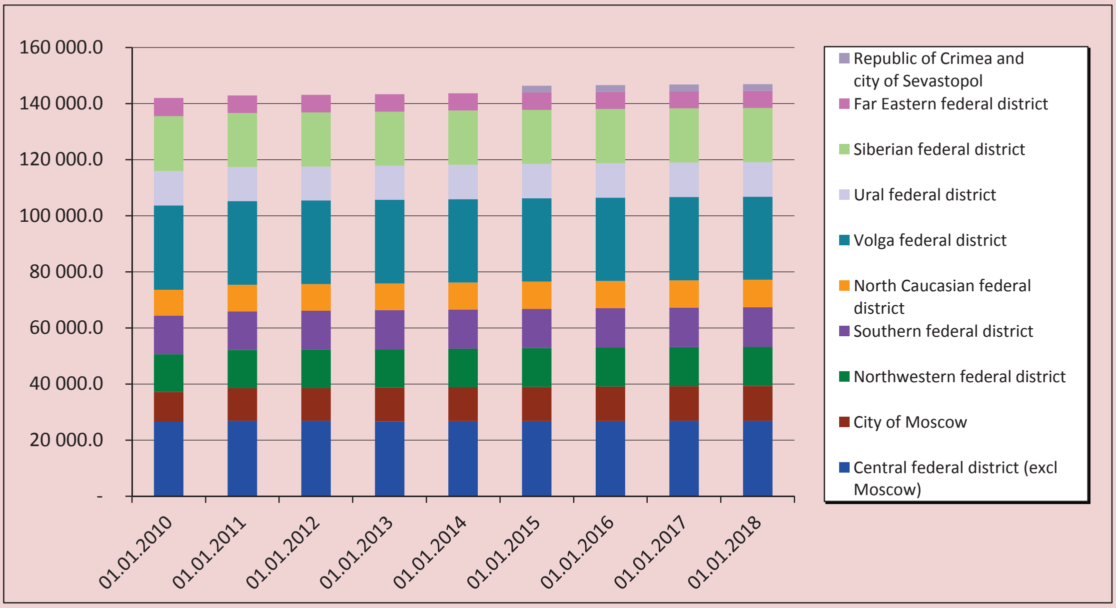
Source: *Per capita income by constituent entity of the Russian Federation.* Available at: http://www.gks.ru/free_doc/new_site/population/urov/urov_11sub.htm

Figure 2. Distribution of loans to resident individuals in rubles and foreign currency for 2010–2017, million rubles



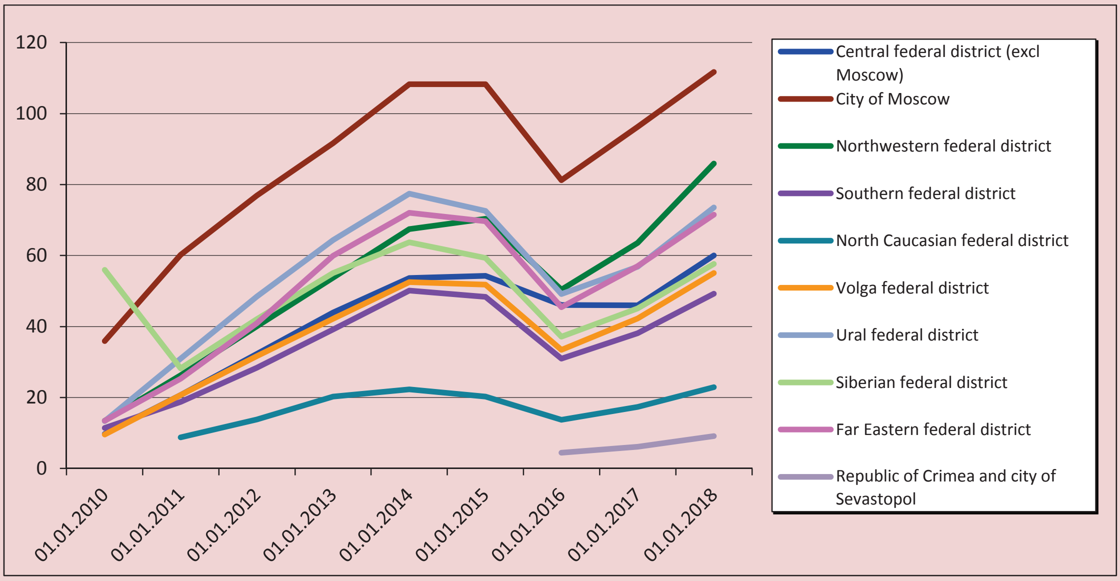
Source: *Loans to resident individuals (regional breakdown).* Available at: http://www.cbr.ru/statistics/?Prtid=sors

Figure 3. Distribution of population in the Russian territory in 2010–2017, thousand people



Source: *Demography. Population size and composition*. Available at: http://www.gks.ru/wps/wcm/connect/rosstat_main/rosstat/ru/statistics/population/demography/#

Figure 4. Loans to the population in 2010–2017 per capita, thousand rubles



Calculated according to: *Loans to resident individuals (regional breakdown)*. Available at: http://www.cbr.ru/statistics/?Prtid=sors; *Demographics. Population size and composition*. Available at: http://www.gks.ru/wps/wcm/connect/rosstat_main/rosstat/ru/statistics/population/demography/#

The *figure* demonstrates that the highest value of loans granted to individuals is recorded in the Central, Volga, Siberian Federal districts and in Moscow, which generally corresponds to the distribution of the population in the country (*Fig. 3*).

To compare data from different territories we use the debt load indicator calculated as the value of loans per inhabitant in the regional breakdown; the calculation results are presented in *Fig. 4*.

During 2010–2014, banks in all the territories under consideration (except for the Siberian Federal District in 2010) were increasing the amount of consumer loans per inhabitant. During this period, the average volume of bank loans issued per inhabitant is approximately the same in the Ural, Far Eastern, Northwestern and Siberian federal districts; the values of this indicator are close to each other in the Southern, Volga and Central (excluding Moscow) federal districts. In the Siberian Federal District, the reduction in the amount of consumer loans in 2010 was due to the aggravation of the situation on the regional consumer loans market in the pre-crisis period and the subsequent stagnation of the market due to the development of a crisis situation in 2009[3]. Since 2011, the situation in the Siberian Federal District has improved, the dynamics of loans issued to consumers as a whole corresponds to the dynamics of the similar indicator in other federal districts.

In 2015, there was a decrease in the analyzed indicator in all federal districts and in Moscow, but the largest decline was observed in Moscow, which is the leading region in the analyzed indicator, and the smallest decline – in the North Caucasian Federal District, which is an outsider. It is due to the presence or absence of the possibility for individuals to reduce the volume of bank loans as part of the household budget sources, due to the difference in the level of income of the population in different territories. In other words, it is more difficult for people with low per capita monetary incomes to abandon bank loans as a source of their own budget than to cut their expenditures. On the contrary, the population with high per capita income has more opportunities to reduce their expenditures and, accordingly, to reduce the amount of bank loans they need.

To assess the role of bank loans as a source of household expenditure financing, we present the distribution of the ratio of issued loans to income, per capita, as an indicator of the debt burden, depending on per capita income *(Fig. 5)*.

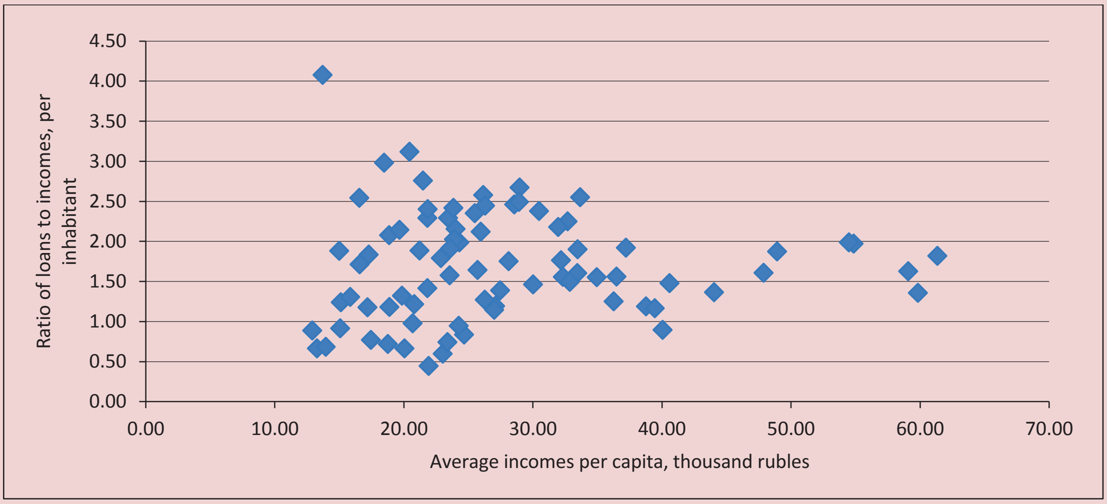
According to the data shown in the Figure, there is a tendency to reduce the debt burden on bank loans with an increase in per capita cash income. The greatest debt burden on bank loans falls on households with per capita cash income under 35 thousand rubles.

The analysis of credit preferences of the population in their relations with the bank, which have a direct impact on the development of bank lending, should be supplemented by the analysis of the loans issued depending on the purpose, for which consumer loans are divided into two groups: housing loans and other (not related to housing) loans. Data on housing loans and other loans provided by banks to the population, per inhabitant, are presented in *Figure 6* and *Figure 7*.

Based on the data in Fig. 6 and Fig. 7, we can draw the following conclusions. In the analyzed period as a whole (except for 2015), there is an increase in loan debt per capita,

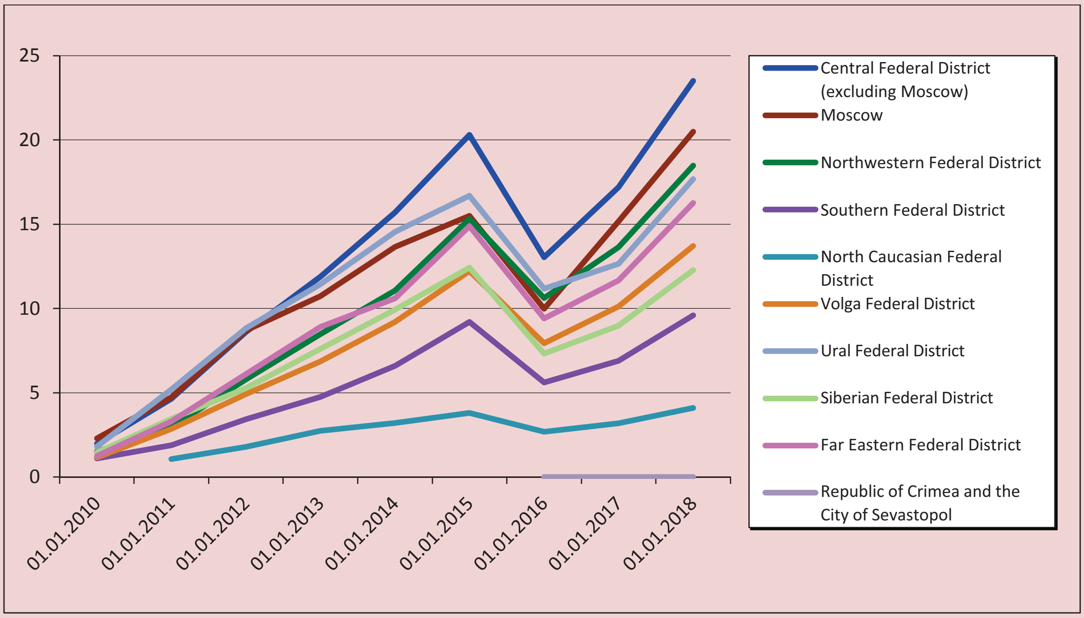
[3] See: Siberian Economic Review: information and analytical issue. January – December 2010. Available at: http://www.sibacc.ru/upload/iblock/bc3/issue25.pdf

Figure 5. Distribution of the ratio of bank loans to income per capita, depending on the average per capita income of the population, for the period from 2010 to 2017



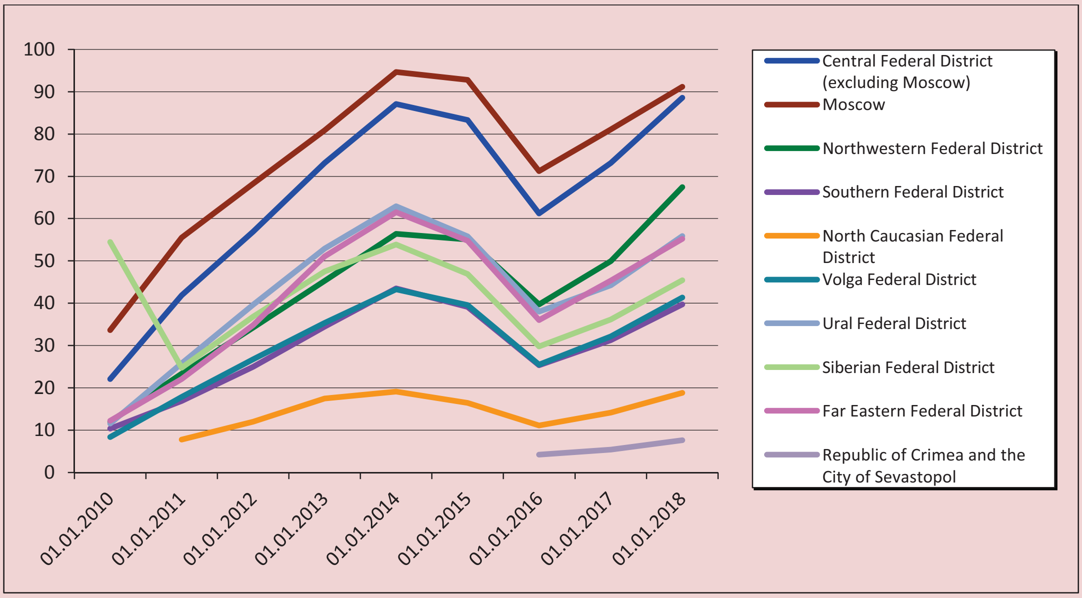
Source: our own compilation.

Figure 6. Bank housing loans issued to the population in 2010–2017, per inhabitant, thousand rubles



Calculation source: The volume of loans granted to resident individuals in rubles (by federal districts). Available at: http://www.cbr.ru/statistics/UDStat.aspx?Month=01&Year=2018&TblID=302-30; The volume of loans granted to resident individuals in foreign currency (by federal districts) Available at: http://www.cbr.ru/statistics/UDStat.aspx?Month=01&Year=2018&TblID=302-31; Demographics. Population size and composition Available at: http://www.gks.ru/wps/wcm/connect/rosstat_main/rosstat/ru/statistics/population/demography/#

Figure 7. Other bank (other than housing) loans issued to the population in 2010–2017, per inhabitant, thousand rubles



Calculation source: The volume of loans granted to resident individuals in rubles (by federal districts). Available at: http://www.cbr.ru/statistics/UDStat.aspx?Month=01&Year=2018&TblID=302-30; The volume of loans granted to resident individuals in foreign currency (by federal districts) Available at: http://www.cbr.ru/statistics/UDStat.aspx?Month=01&Year=2018&TblID=302-31; Demographics. Population size and composition Available at: http://www.gks.ru/wps/wcm/connect/rosstat_main/rosstat/ru/statistics/population/demography/#

but the nature of growth on loans for different purposes differs. During 2015, all the territories under consideration are characterized by a reduction in the amount of consumer loans regardless of the purpose of lending, which is associated with the manifestation of the crisis consequences of the shock factors of 2014 that are due to the change in the exchange rate regime, imposition of Western sanctions, and which manifested, among other things, in the devaluation of the ruble, growth of inflation and bank interest rates, and a decline in real cash income as a criterion of creditworthiness of the population. In general, in the analyzed period, housing loans are characterized by an increase in the analyzed indicator at a higher rate compared to the growth of loans provided by banks for other purposes. The reason is that housing loans are aimed at financing the costs recognized by borrowers as necessary, and these costs are the last ones which borrowers are willing to give up; and the most important factor in the demand for housing loans is a sharp change in the conditions for the provision of such loans, especially a sharp rise in the cost of lending, which was manifested in 2015. However, since 2016, the value of the volume of housing loans issued by banks to the population has stabilized.

As for the dynamics of other (in addition to housing) loans provided by banks to the population per inhabitant, they are slightly different from the dynamics of the same indicator for housing loans. The decrease in the ratio of other loans per inhabitant begins in 2014, continues in 2015, and goes on more smoothly than the reduction in the same indicator for housing loans. The revealed difference is due to the greater willingness of the population to refuse to take bank loans on the purposes other than the purpose of purchasing housing, in the conditions of reducing/slowing the rate of income growth. The greatest ratio of the volume of housing loans per inhabitant is noted in the Central Federal District, other (except housing) bank loans – in the Central Federal District and in Moscow. This is due to the desire of the population of these territories to ensure a high level of consumption at high rates of growth of per capita cash income (see Fig. 1).

The dynamics of housing loans per capita in Moscow, which is the leader in terms of per capita cash income, indicates a lack of high demand for appropriate loans from borrowers, and does not have a significant positive impact on the development of the potential of providing housing loans by banks to the population.

With regard to the Siberian Federal District, the per capita reduction in Bank loans in 2010 (see Fig. 4) it was caused by overheating of the regional market of other loans (see Fig. 7), and is not reflected in the indicator on housing loans (see Fig. 6).

To identify the relationship between per capita cash income and the volume of loans issued by banks to the population, per capita, taking into account the purpose of the loan, we have calculated correlation indicators *(Table)*. Due to the small number of observations, we did not calculate the correlation indicators for the Republic of Crimea and Sevastopol.

Based on the data from the Table, we can conclude that there is a difference in the nature of the relationship between per capita income and consumer loans issued by banks, on the whole and in the context of different goals. In all the territories, there is a close relationship between per capita cash income and the amount of housing loan per inhabitant, which is due to the presence of banking standards for housing loans, high requirements of banks to potential borrowers, conscious attitude of borrowers to obtaining housing loans, and a long-term nature of housing loans. Other

Correlation between per capita income figures and the volume of consumer loans issued by banks, calculated per inhabitant, in the context of the territories

Territory	Correlation between per capita cash income		
	and the volume of consumer loans issued by banks, total, per inhabitant	and the volume of housing loans issued by banks, per inhabitant	and the volume of other loans (besides housing) issued by banks, per inhabitant
Central Federal District (without Moscow)	0.877046687	0.894418395	0.78486132
City of Moscow	0.811653063	0.867667741	0.77789551
Northwestern Federal District	0.827503958	0.901726913	0.79225995
Southern Federal District (without the Republic of Crimea and Sevastopol)	0.729489162	0.87704183	0.66990952
North Caucasian Federal District	0.544199941	0.828221918	0.4555237
Volga Federal District	0.765579623	0.893204469	0.69472228
Ural Federal District	0.745231175	0.858979629	0.69640223
Siberian Federal District	0.204132178	0.837943606	0.26357253*
Far Eastern Federal District	0.710366917	0.861677582	0.64380227

* Excluding anomalous values of 2010.
Source: our own calculations.

nature of the relationship is observed for other (besides housing) loans. The most significant relationship between the analyzed indicators (more than 0.69) is observed in the Central (without Moscow), Northwestern, Volga, and Ural federal districts and in Moscow. The relationship of per capita cash income and other (except housing) bank loans per borrower in the Far Eastern and Southern (without the Republic of Crimea and the city of Sevastopol) federal districts should be assessed as significant as well; however, when issuing loans to the population of these territories for purposes other than housing, banks take less account of borrowers' incomes, which potentially entails an increase in the riskiness of credit investments.

The least close relationship between income and other (except housing) loans is noted in the North Caucasian Federal District. The weakening of correlation between per capita income and other (besides housing) loans per capita compared to the relationship of indicators for housing loans is due to the fact that banks not always assess the credit limit depending on the official cash income of borrowers, and also due to the fact that banks provide other (besides housing) loans to a limited number of borrowers. Both reasons are negative, because the former leads to an increase in high-risk debt and contributes to the formation of a bank portfolio of loans issued to individuals of poor quality. The latter reason is the consequence of either insufficient availability of bank lending services for the population, or a low credit quality of a large number of potential borrowers, which is illustrated by the lowest per capita income of the population of the Siberian and North Caucasian federal districts in comparison with the income of the population of other territories (see Fig. 1).

We note that all the territories of the Russian Federation, with the exception of the Siberian and North Caucasian federal districts have a significant correlation (more than 0.71) between per capita cash income and the total amount of loans issued by banks per inhabitant. The correlation of indicators of the Siberian Federal District was influenced by the abnormal reduction in the volume of consumer loans during 2010, and in absolute figures it was other loans that fell sharply, and housing loans per inhabitant did not decrease in dynamics.

The correlation between loans per inhabitant and per capita monetary income in the North Caucasian Federal District weak due to the weak correlation between incomes and the indicator for other (in addition to housing) loans, which does not have a positive impact on the formation of high-quality bank portfolios of consumer loans, contributes to the fact that banks accumulate potential risks due to the provision of consumer loans.

The fact that banks accumulate higher risks in connection with the expansion of consumer lending in modern conditions is confirmed by the regulator [34, p. 3]. Banks issue loans to borrowers with low credit quality at higher rates and do not focus on borrowers with high solvency, who are not interested in expensive bank loans. As a result, overdue debt can increase and revenues from lending decrease; and there may be problems with liquidity and capital adequacy [35, p. 165] due to the growing overdue.

Thus, it seems that the current situation with consumer lending does not promote the profitability of banks, because it is associated with significant financial costs to minimize credit risks, determines the growth of bank expenses for the formation of reserves for possible losses on loans and, accordingly, the reduction of profits. The development of the potential of issuing bank loans to the population should be positively affected by the expected[4] increase in incomes of citizens, recognized as one of the areas that ensure the achievement of national development goals for the period up to 2024.

Conclusions

We have studied the volume of bank loans issued to physical persons and the income of the population in federal districts, with allocation of Moscow, the Republic of Crimea and Sevastopol; it allowed us to estimate activity of the population in the attraction of borrowed funds of banks in the budgets of households; and we make the following conclusions.

The problem of increasing the investment role of bank loans as a source of financing household expenditures aimed at the development of human capital is a complex one; it involves an interdisciplinary approach to its study, covers various areas, such as macroprudential regulation through the establishment of LTV, DSTI/PTI indicators, volatility of bank revenues from the conduct of classical banking activities (provision of loans to individuals), finance, household budgets, economic behavior of the population, financial literacy, social consequences of obtaining bank loans to finance personal expenses.

It was found that in modern Russian conditions, bank loans are used most actively by the population with per capita income up to 35 thousand rubles. When there is a decline in real incomes, people with higher per capita incomes abandon bank loans more actively, while in regions with small per capita incomes the demand for bank loans is generally maintained. Bank loans are largely used by households with small per capita monetary incomes to bridge the income-expenditure gap and find the money for current expenditures; such loans do not fulfill their purpose as an investment-stimulating tool in financing human capital development.

If in the loan portfolio of banks there are a lot of loans issued to low-income borrowers, and a ratio of the issued loans to incomes is high, then is means the increased risks for banks, and such a situation does not fully contribute to the formation of financial sources for the development of the bank itself and limits the potential for the development of lending to the population.

Attracting borrowers with high income, financially literate, consciously using the bank's funds to invest in the development of their own knowledge and skills and improving the quality of life can be facilitated through the stabilization of the macroeconomic situation, keeping inflation within the inflation target, and reducing interest rates on loans. The expansion of lending to such borrowers will allow banks to form high-quality loan portfolios, and receive stable income from lending; it will strengthen the stability of banks, prevent the accumulation of potential risks of non-return, ease the pressure on regulatory capital, thereby increasing the potential for the development of bank lending.

The results can be used in further studies of the behavior of individuals in the banking market, in the study of the possibility of introducing macroprudential instruments into the Russian practice in accordance with the stimulating principle of the currently reformed banking supervision.

[4] On national goals and strategic objectives for the development of the Russian Federation until 2024: Presidential Decree 204 dated May 7, 2018. Available at: http://publication.pravo.gov.ru/Document/View/0001201805070038

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Received April 24, 2018.

DOI: 10.15838/esc.2018.4.58.10
UDC 316.422:330.15:001.8, LBC 72:20.1:65.04

The Greening of the Bio-Resource Economy of the Northern Region

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Abstract. The article presents the results of a collaborative study aimed at finding opportunities and limitations for effective use of renewable bio-resources, which are an important part of the resource base of the economy of the Komi Republic. The novelty of the approach to achieving the goal lies in addressing the methodology of greening established as an official course of global sustainable development and gaining momentum in Russia. The logic of the research into modernization of the bio-resource economy of the Northern region corresponded to the traditional scheme, including the understanding of the content, measurement of parameters and areas of development of the process under study, and is reflected in the structure of the article. The research covers the stages of green development, its relations with sustainable development, and approaches to their measurement. Relying on the methodology of green sustainable development for the modernization of bio-resource industries has helped: specify it as environmental modernization aimed at preserving natural capital, improving the environmental quality of life, improving the resource efficiency of economic activity; assess the level of greening of the objects under study and identify the barriers to its increase; justify the areas of conservation and effective use of land, forest and water resources and "greening" the structure of the bio-resource economy of the region. The research results represent a contribution to the formation of the green economy of the Komi Republic and the launch of promising research into the resource efficiency of its renewable natural capital, and contribute to regional studies on the green growth of the Russian economy.

Key words: sustainable development, green growth, greening, bio-resource economy, environmental modernization.

For citation: Dmitrieva T.E. The greening of the bio-resource economy of the northern region. *Economic and Social Changes: Facts, Trends, Forecast*, 2018, vol. 11, no. 4, pp. 160–172. DOI: 10.15838/esc.2018.4.58.10

Introduction

Economic growth is currently associated with increased pollution and environmental degradation, depletion of natural resources, biosphere imbalance, and climate change, which leads to deterioration of human health and limits the opportunities for further development. The need to change the development paradigm at the global level was recognized at the turn of the third millennium as the goal of building the post-crisis economy, sustainable in the long term instead of resurrecting the unsustainable and polluting one. The starting point of sustainability is a strong green movement, with the main feature being a combination of economic growth with environmental sustainability and social equity.

Russia, facing the problems of dirty economic growth, is embedded in the green movement, denoting "the transition to a model of environmentally sustainable development, which will ensure the long-term effective use of the country's natural capital while eliminating the impact of environmental threats on human health". Following the meeting of the State Council "On environmental development of the Russian Federation in interests of future generations" (December, 2016), Russian President instructed to include this goal in the development of strategic planning documents and a comprehensive action plan of the Government of the Russian Federation for 2017–2025. The departments were asked to pay special attention to "the use of a system of indicators of sustainable development, the definition of mechanisms for achieving these goals, and a step-by-step solution of the objectives of environmentally sustainable development of regions' territories for the period up to 2030 and for the future up to 2050; on establishing target indicators of energy efficiency of the economy as a whole and its main sectors; the impact of introducing mechanisms for environmentally sustainable development on the activities of economic entities".

For Komi Republic, as well as other Northern regions, is characterized by problems of land degradation, depletion of forest capital, atmospheric and water pollution in cities, low level of industrial waste processing from coal and oil production, random treatment of solid municipal waste, relatively low resource efficiency of the forest industry, lagging formation of organic agriculture, preservation of traditional life support.

Regional problems of biological resource management, rapid development of global green concepts, Russia's persistent involvement in their implementation, motivated teams of laboratories for issues of territorial development and environmental economics at Komi ISE EPN Research Centre, Ural branch of RAS on the development of the project "Modernization of bio-resource economy of the Northern region". The purpose for the work carried out under the author's guidance in 2015–2017, was to identify the main provisions, limitations and opportunities for the development of green economy in the Northern region through effective use of renewable bio-resources. The main material objects of research (taking into account the objective segmentation and the composition of performers) were land, water and forest resources, the basic sectors of the bio-resource economy (agriculture, forestry, tourism), and traditional livelihoods.

The research relevance and novelty, being obvious at the start, remain at present. With the growing interest in the issues of greening among the scientific community and authorities, especially in the last two years, which is manifested in the volume of publications, number of meetings and conferences amid lack of strategies for regions' green development. It seems that familiarity with the experience of entering the development of the "greening" areas of the regional economy can be useful for colleagues from other regions, and their reaction – for the performers of the submitted material.

At all research stages information was prevailed by foreign experience. The review of sources was carried out by the author in connection with the methodological focus of the study [1] and by all the performers in the relevant sections of the topic. In this article, literary sources are supplemented by references in the course of material presentation and a brief reference on publications in Russian.

Green economy as a scientific topic appeared in Russia ten years ago and at first was associated with the presentation of foreign reports and documents, the main contribution being made by bulletins and reviews of the Institute for Sustainable Development of the Public Chamber of the Russian Federation. The Institute does not operate now, but its leaders, S.N. Bobylev and V.M. Zakharov support this topic at the Center for Sustainable Development and Environmental Health at RAS Institute of Biology. The prerequisites for the formation and content of greening logically brought its conductors in Russia such as environmental specialist and researchers of sustainable development to the forefront. S.N. Bobylev and his colleagues promptly respond to the main positions and trends of the green course of sustainable development, introducing constructive approaches in the Russian theory and practice of nature management [2–5]. Their reference to the World Bank “adjusted net savings” indicator calculated as the eco-economic index of Russian regions [3], prompted our studies to assess the depletion of regional forest capital.

N.V. Pakhomova and her colleagues are consistent in the development of greening, they practically reveal the effects of transition to green economy, the role of inclusive green growth in neo-industrialization, and the value of environmental modernization as the driver of formation of demand for innovation [6–8].

Analyzing the international indicators of inclusive green growth, the experts of Cadastr R&D and Design Institute, which has been successfully operating in the field of environmental and economic accounting in environmental management for a long time, suggest considering this system, which helps assess the risks of natural capital depletion, as a basic information platform for calculating green growth indicators in Russia not only at the national, but also at the regional and local level [9].

Reviews occupy an important place in literature sources. The most complete by sources, deep analysis of content, measuring, and strategizing of green economy and green growth development is the survey performed by E.M. Zomonova [10]. The work contains the methodology and calculation of ecological footprint on the example of the Republic of Buryatia, an indicator of perspective sustainable development, not typical for the national assessment.

New review materials touch upon the institutional aspects of greening in Russia. The chronology of ideology and methodology of green economy and green growth is presented in analysis of international events and documents, carried out by the researchers of the Russian Presidential Academy of National Economy and Public Administration [11,12].

An important topic of political and administrative barriers to green growth is covered by M.V. Teryoshina and M.V. Onishchenko. Along with lobbying the interests of major corporations not interested in the transition to “green” growth, inertial pressure of the existing raw material development model, the predominance of environmental optimism in modern Russian society, inconsistent strategic management decisions and regulatory “gaps” in legislation on “green” economy, the authors note scientific and methodological problems – undeveloped assessment mechanisms of natural capital, as well as tools for assessing the total economic damage from negative environmental impacts [13].

It should be noted that recent domestic literature contain fewer works revealing the content of the concepts of green economy, with more works related to conditions and proposals for the introduction of "green technology" [14], the formation of "green industry", "green energy", "green tourism", "green finance", "green logistics", etc.

The representatives of the scientific community move from general proposals for implementation of the principles of green economy in the regions in cluster form [15] to the designation of program objectives for the formation of the Russian national model of green economy, offering tools for their solution. Evgenii Schwartz, WWF Director of environmental policy in Russia, and his colleagues single out the following objectives: reducing the overall anthropogenic impact of the economy on the environment and building Russia's reputation as the most environmentally responsible exporter of natural resources in global labor division; increasing natural resource and energy consumption efficiency of the economy while providing opportunities for technological modernization and formation of the economy of higher redistribution and formation of financial mechanisms and resources for such modernization; improving legal regulation to minimize environmental risks in the implementation of infrastructure megaprojects [16].

Methods and materials

The study of bio-resource economy modernization of the Northern region in the global greening trend included the stages of identification (understanding the content), parameterization (quantitative assessment) and strategizing (substantiation of directions) of development of the process under study, which correspond to the theoretical, methodological, and practical aspects of scientific research.

The present article is of a methodological nature. Its purpose is to get acquainted with the experience of studying the region from the standpoint of green economy formation – implement the objectives of presenting the structure (material is organized in accordance with these objectives), focusing the guidelines and fixing the main results of collective research, presented in the final provisions of the theoretical and methodological aspects and in the areas of greening the bio-resource economy (strategic aspect).

Theoretical aspect. In order to understand the content of bio-resource economy modernization, various trends of green economic development were analyzed.

The term "green economy" was first used in 1989 in the title of the report of a group of leading environmental economists to the UK government on harmonization of the economy and environmental policy and inclusion of sustainable development in the measurement of economic progress and evaluation of projects, but it was not disclosed in this work [17]. Later, one of its authors, David Pearce [18], outlined the following general properties for all forms of green economy: limiting human greed – it is necessary to change the economic behavior, responsibly weigh the costs and benefits; sustainability – the ability to reproduce the economy on a sustainable basis; decoupling – systematic reduction of the impact of the economic result on deterioration of natural assets used in its production. It is on these positions that the green economy is able to ensure sustainable use of natural resources without a decline in human well-being.

In the early 2000s, green concepts began to support and develop the leading global institutions: UN, OECD (The Organization for Economic Cooperation and Development), World Bank, Global Green Growth Institute, etc. Various green concepts are comparable in content and policy recommendations: they aim to reconcile economic and environmental vectors of sustainable development, without neglecting social aspects. The common vision was developed in the Green Growth Knowledge Platform, which marks the unity of green concepts (green growth, green economy, new climate economy, low-carbon development, circular economy), recognizing that economic development (growth) is combined with environmental sustainability (green) and does not violate social equality (inclusive) [19].

Currently, the Platform[1] is an active poly-structural resource that includes “topics” (twenty different aspects of activities), “sectors” (12 activities), “countries” (green map of the world), “solutions” (experts, projects, best practices) that reflect and contribute to global promotion of green growth in many aspects.

The green course consisting of separate concepts and then platforms, began to form as a response to exhaustion of traditional resource-based economic development and is consistent with sustainable development as the ultimate goal. At the same time, Alan Atkisson, the main author of the report “Life beyond growth” (2012), noted the vague nature of the philosophy of sustainable development (“everything for everyone about everything”) and the weakness of economic decisions of national plans and strategies [20]. In 2015, the UN General Assembly adopted a resolution entitled “Transforming our world: the 2030 Agenda for Sustainable Development”, which identified and specified 17 goals. The activity of international organizations and countries linking these goals with the global trend of green development leads to a conclusion that it has become an official course of transformation of our world. At the same time, intensive development of indicators and tools for monitoring the achievement of goals and targets is encouraging in terms of strengthening the “economic philosophy” of sustainable development.

[1] Green Growth Knowledge Platform. Available at: http://www.greengrowthknowledge.org/page/explore-green-growth

The full wording of goals of sustainable development (GSD) (*Tab. 1*) includes words such as “poverty”, “hunger”, “health”, “education”, “gender”, “water”, “energy”, “work”, “infrastructure”, “inequality”, “cities”, “consumption”, “climate”, “oceans”, “environment”, “peace”, “institutions”, and “cooperation”.

According to the 2030 Agenda, many of the goals and objectives are simultaneously in line with economic, social and environmental development priorities. The SDG-8 is directly related to green growth; it is formulated as “promoting sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all”. According to objective 8.4, until the end of 2030 developed countries first and foremost need to improve the global resource use efficiency in consumption and production systems and ensure that economic growth is not accompanied by environmental degradation.

The stages of green course formation are summarized in *Table 2*. The first three stages are considered in detail in [1].

Thus, green growth, meaningfully combining different concepts with each other and with sustainable development, was reasonably chosen as a methodological reference point for studying the bio-resource economy modernization. Its features and trends, the content of modernization of the regional economy of Komi, which uses bio-resources, determined the greening aimed at preserving natural capital, improving the environmental quality of life and resource efficiency.

Methodological aspect. During the measurement of parameters, objectives of instrumentation for quantitative assessment of the start and progress of the bio-resource economy greening in the Komi Republic were performed: adaptation and development of green growth indicators for agriculture, forestry, tourism, assessment of the state of bio-resources and

Table 1. Goals of sustainable development 2030

No.	Goals of sustainable development
1	Extensive poverty eradication in all forms
2	Fighting hunger, ensuring food security, improving nutrition and promoting sustainable agriculture
3	Ensuring healthy lifestyles and promoting the well-being for everybody
4	Ensuring inclusive and equitable quality education and promoting lifelong learning opportunities for everyone
5	Gender equality and women and girls empowerment
6	Ensuring the availability and sustainable use of water and sanitation for everyone
7	Ensuring universal access to affordable, reliable, sustainable and modern energy for everyone
8	Promoting progressive, inclusive and sustainable economic growth, full and productive employment and decent work for everyone
9	Building resilient infrastructure, promoting inclusive and sustainable industrialization, fostering innovation
10	Reducing inequalities within and among countries
11	Ensuring openness, security, resilience, and environmental sustainability of cities and human settlements
12	Ensuring sustainable consumption and production patterns
13	Taking urgent action to combat climate change and its consequences
14	Conservation and sustainable use of oceans, seas and marine resources for sustainable development
15	Protecting, restoring and promoting sustainable use of terrestrial ecosystems, sustainably forest management, combating desertification, halting and reversing land degradation processes and biodiversity loss
16	Promoting peaceful inclusive societies for sustainable development, providing access to justice for everyone and building effective, accountable and inclusive institutions at all levels
17	Strengthening the means to achieve sustainable development and revitalizing the mechanisms of the global space for sustainable development
Source: [3, p. 9].	

Table 2. Green course development

Concept	Content	Providers
Green Economy	Maintaining human well-being and sustainable use of natural resources [18]	J. Pierce , 1989, 1992
	Low-carbon resource-efficient economy, including social aspects [21, 22, 23]	UNEP*, 2008, 2011 Rio+20 Conference, 2012
Green Growth	Stimulation of economic growth and development with preservation of natural assets and uninterrupted provision of resources and ecosystem services which our well-being depends on [24]. Investment and innovation forming the framework for sustainable growth and leading to new economic opportunities [25].	Green growth strategy. OECD, 2011 From growth – to green growth. World Bank, 2012
Inclusive Green Growth	Economic development (growth) – environmental sustainability (green) – social equality (inclusive) [19]	Global Green Growth Institute (GGGI), UNEP, OECD, World Bank, 2016
Green Growth& SDGs**	Green growth means the economic development which preserves the environment and which is the basis of our well-being http://www.greengrowthknowledge.org/page/explore-green-growth	UN, World Bank, Green Growth Knowledge Platform (GGKP)

* UNEP – United Nations Environment Program.
** SDGs – Sustainable Development Goals.
Sources: compiled from: [18;19; 21–25].

environmental quality; development of the source base, methods and algorithms of measurement; carrying out initial calculations of the level of greening.

At the same time, foreign experience in the development of the assessment base was widely used, reflecting the main stages of greening: green economy – green growth – green growth of sustainable development. The most significant contribution to the green growth measurement base is related to the OECD. In 2017, the organization presented new improved indicators of green growth compared to the set of those of 2014, which was the starting point for the present study [26]. The progress towards green growth is measured by 25–30 indicators characterizing the environmental and resource efficiency of the economy, natural assets, environmental aspects of the quality of life, economic opportunities and political instruments and reflecting the socio-economic context and characteristics of growth. This list is the basis for monitoring the green growth of OECD database (including Russia[2]), as well as of individual countries that assess their progress in dynamics and comparison with OECD countries[3]. The OECD electronic database provides an opportunity to compare the countries by air pollution, carbon emissions, the impact of development on land resource reduction, green investment and taxes related to the environment.

In addition to OECD, green indicators were proposed by the Global Green Growth Institute, UNEP and World Bank, which annually publishes a Little Green Data Book describing 200 countries (separately and in groups) on 50 indicators [27]. An important step in consolidating approaches and adjusting different sets to measure inclusive green growth was the work of a special Committee of the Platform [19].

The extensive measurement of green growth progress is formed in connection with the new stage of long-term (since 1995) work with indicators and monitoring of SDG 2030 achievement. They are developed by the UN Commission to help countries [28, 29] complementing the monitoring of statistical and cartographic applications[4].

Rich useful resources for researchers and practitioners to monitor indicators and assess trends in their implementation appeared on the websites of global structures[5]. World Bank presented the Atlas of sustainable development goals, compiled on the basis of world development indicators in 2017 based on economic and quality of life statistics of 200 countries. For each of the 17 goals relevant indicators are identified and visualized by maps and charts. The Atlas aims to reflect the breadth of SDG and present national and regional trends and "snapshots" of progress towards their implementation, highlighting and emphasizing the most important issues, according to World Bank experts. In particular, the implementation of green growth indicators is meaningfully commented on: 8.4.1 – material footprint, material footprint per capital, and material footprint GDP and 8.4.2 – domestic material consumption, domestic material consumption, domestic material consumption, and domestic material consumption per GDP. The analysis of resource costs requires the assessment of dependence of environmental degradation on economic growth. They include resource consumption due to CO_2 emission from fossil fuel, losses from changes in agriculture, forestry and land use, wood overcutting and mortality caused by exposure to environmental hazards – air and water pollution, unsanitary living conditions and poor working conditions. Based on estimation of dependence of average annual GDP growth and average annual losses on environmental degradation for 178 countries for the period 1990–2015 illustrated graphically, it is obvious that most countries demonstrate weak decoupling or strengthening of direct correlation between growth and degradation [30, p. 48].

Interesting work has been started by International Institute for Sustainable Development in Canada (IISD) within the framework of the project SDG Knowledge Hub

[2] OECD. Stat. Green Growth Indicators. Available at: http://stats.oecd.org/Index.aspx?DataSetCode=GREEN_GROWTH

[3] Statistics Netherlands visualizes green growth. Available at: https://www.cbs.nl/en-gb/visualisaties/green-growth#/

[4] Welcome to the Sustainable Development Goal indicators website. Available at: https://unstats.un.org/sdgs/

[5] WDI 2017: Sustainable Development Goals. Available at: http://datatopics.worldbank.org/sdgs/

where world news, activities and publications to achieve SDG are accumulated. The indicators portal provides information (16 countries so far) to determine the popularity of goals, the number of indicators used to measure them, as well as their similarity with those proposed by the UN. The same data would be tracked in dynamics for 38 indicators of SDG at the local level – in 13 Canadian cities[6].

In Russia, methodological work to achieve SDG has begun with a new series of annual reports on human development in the Russian Federation, edited by S.N. Bobyleva and L.G. Grigor'eva. The report "UN Sustainable Development Goals and Russia" provides an overview of the progress in achieving 17 goals at the global level based on a number of indicators with relevant data available for 2016 [31]. The report "Environmental priorities for Russia" among the main problems of the formation of the national system of sustainable development indicators for global indicators noted the gaps in data and methodology, as well as in disaggregation of indicators. Full information is available for only 142 indicators on the global list; no internationally agreed methodologies on 88 indicators have yet been developed [32].

According to SDG methodology and informational framework, an opinion survey of CIS countries statistical services was conducted[7]. Rosstat has started the development of a special resource, a database[8] and a corresponding section of indicators on a departmental website. In this work, Rosstat relies on detailed OECD metadata[9].

An important methodological aspect of monitoring progress towards SDG is the OECD annual assessment aimed at measuring the "distance" of countries from the values of 2030 indicators [33]. The assessment helps compare own positions with the level of other countries and the average for OECD and identify the strengths and weaknesses of the development plan; it also improves statistics by country, harmonizes and improves the overall statistics of the instrumental set of assessment.

In the 2017 study, 13 countries were evaluated, 131 indicators covering 98 objectives were used; the sets of indicators, the degree of objectives coverage and the starting positions of countries differ significantly. The results of the study revealed a significant distance to the positions of 2030. The closest indicators were "health", "water" and "energy", the farthest – "gender equality". The assessment profile of countries briefly describes their situation in terms of: 1) achieving certain SDG objectives; 2) the extent to which the available indicators cover the relevant targets in relation to the UN Statistical Commission's common set of 232 indicators to measure 169 objectives; 3) the country's impact on other countries' ability to achieve their goals.

In order to illustrate the assessment profile for SDG achievement it is interesting to compare countries from different sides – Norway and Latvia (*Fig. 1*). The situation in Norway was assessed by 130 indicators, which measured 98 objectives, 33 of which were completed at the level of 2030. Latvia implemented 11 out of 66 estimated objectives; 90 indicators were used for measuring. Norway's success is not accidental: it has a clear agenda for 2030 [34].

It is obvious that the monitoring SDG achievement will develop in Russia as a relevant statistical base is formed, such a format of territorial comparison, in our opinion, is appropriate in the future for the Russian regions.

[6] IISD's Own Work on the Sustainable Development Goals. Available at: https://sustainable-development-goals.iisd.org/#results

[7] List of indicators for SDG achievement for CIS regions. Available at: http://www.cisstat.com/sdgs/CIS-SDG%20001%20indicators%20list%2025-11-2016%20rus.pdf

[8] Data for indicators of SDG achievement in Russia. Available at: http://www.gks.ru/free_doc/new_site/m-sotrudn/CUR/cur_main.htm

[9] Detailed metadata. Available at: http://www.oecd.org/std/measuring-distance-to-the-sdgs-targets.htm

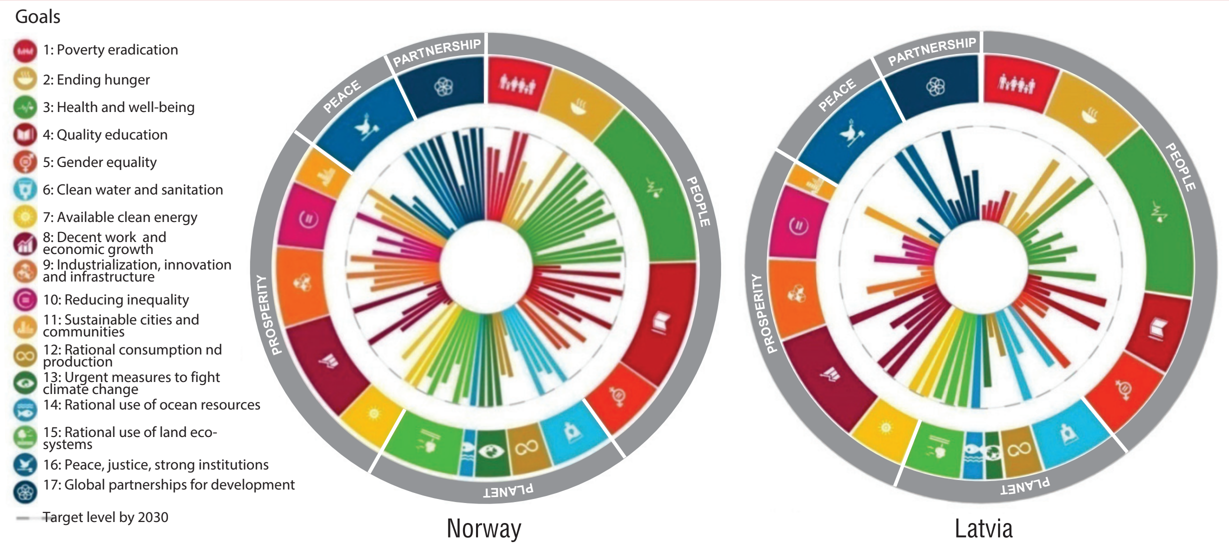
The development of indicators and methods for measuring different aspects of the bio-resource economy greening in the Komi Republic was carried out with the testing of these and the wide involvement of other information resources, taking into account the specific features of assessment objects, strong limitations of regional and almost complete absence of municipal statistics of resource use.

Sectoral sets of indicators were developed to assess the state of land, water, and forest resources, green tourism, environmental assessments of the economy and quality of life (pollution, waste). Positions of measuring the formation of organic agriculture and green impact on economy and environment of IT services were defined. In assessing the starting state of the resources and sectors, approaches and measurement algorithms were tested and adapted. Methodological work was continued at the final stage in connection with including the developments on indicators for achieving global sustainable development goals up to 2030 in the research database. In this case, the use of appropriate indicators adjusted weak capacities of indicators of the quality of land and forest resources proposed for SDG measurement, which, due to a large contrast of world countries, are too general and do not help identify and objectively assess the territorial differentiation of land degradation and depletion of forest capital.

The main methodological result of the study is the formation of a regional comprehensive set of indicators for bio-resource economy greening, as well as a set of methods used, which include the international model for assessing the state of environment "Driving Forces – Pressure – State – Impact – Response" (DF-P-S-I-R); the decoupling built into this model and assessing the nature of relations between the economic activity and the main indicators of environmental load; the scheme of P. Victor's types of economic growth using the principle of decoupling.

The methods of assessing forest capital depletion and forest resources condition in the medium- and long-term perspective taking into account the improvement of forest cultivation organization and technology have been

Figure 1. Current "distance" of achieving SDG indicators



Source: [33, p. 50 and 44].

developed. Based on the UNWTO (UN World Tourism Organization) and the European Commission methodology, with the existing information limitations, an approach to assessing the level of green tourism is proposed.

The strategic aspect involves the development of areas of greening the bio-resource economy. The strategic vectors of eco-modernization of the Komi Republic are as follows:

– improvement of environmental quality (air, water) and resource conservation (prevention of land degradation, restoration of forest capital);

– identification and activation of growth factors in the efficiency of industries and activities that use resources – forestry, traditional livelihoods;

– green transformation of the structure of the regional economy through the development of organic agriculture; green tourism; production and sales of eco-goods, products, and services; formation of information and communication sector stimulating sustainable development and resource efficiency.

Promotion by strategic vectors is realized through directions by types of activity, justified taking into account the assessment of the situation and regional problems. In the present paper, the author as a research supervisor their summary is presented.

In order to reduce land degradation and ensure resource conservation it is proposed to form an adaptive landscape system of agriculture with the use of soil protection elements, which can be tested in the framework of pilot projects to improve soil fertility in agricultural organizations with financial support from the national budget.

When restoring and preserving forest resources, the use of extensive and intensive methods of forest formation, depending on their productivity should be combined with a compensatory strategy of timber processing using best technology for processing wood of declining quality.

The environmental modernization of water management is based on the introduction of the DF-P-S-I-R model into the system of regional environmental management using the decoupling method, as well as production modernization on the principles of the best available technology in creating the appropriate infrastructure.

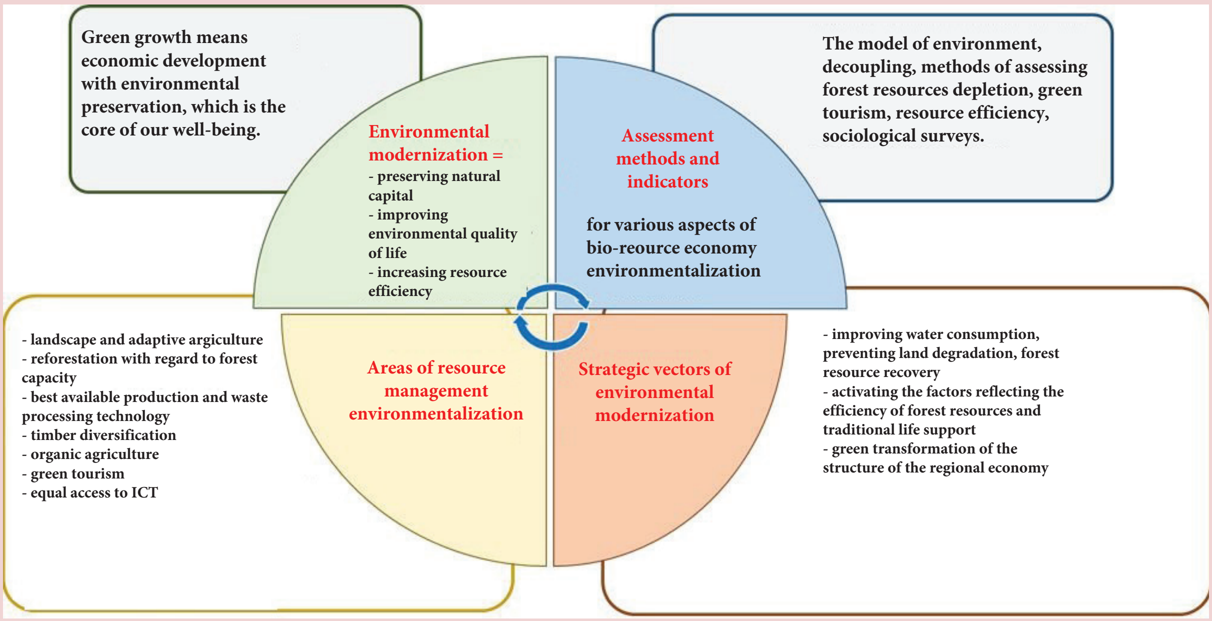
In order to successfully perform the functions of ensuring employment, income, food security of rural households, semantic content of the villagers' life, traditional life support should be rebuilt taking into account the best practices of institutional reforms in the foreign North, based on the implementation of the right of indigenous people to land, resources and territorial self-government.

The reduction of Russia's growing double lag in the resource efficiency of the forest industry from European countries will contribute to the full implementation of investment plans to deepen the processing of wood in new and existing enterprises, the technological modernization and updating of equipment, complete processing of wood waste, as well as the expansion of the commodity structure through new products: oriented strand boards, wood biodiesel, "smart paper", viscose, etc.

The relevant objective of organic agriculture development in the region has favorable natural resource and consumer prerequisites, but needs a scientifically based assessment of potential organic land use, the formation of the regulatory framework of production, and development of the regional market of organic products.

The restrictions in green tourism development can be removed by forming green tourism products on the basis of eco-tours; creating tourist infrastructure to meet the requirements of green certification; complying the products of historical and cultural tourism with the requirements of green tourism

Figure 2. Modernization of bio-resource economy of the Komi Republic in the context of green growth



products; developing a regional system of green tourism management taking into account the relevant criteria and promotion of green tourism products.

In order to address the information and communication challenges of achieving SDG through green growth it is necessary to ensure wider implementation of ICT for remote diagnostics and preventive medicine services, for quality continuous education; as well as access to information and communication services, eliminating gender and spatial inequality. An important role is given to the equipment of ICT organizations, market liberalization, modernization of networks, and communication development in small remote settlements.

Conclusion

In addition to the presentation of the main results of research into the modernization of the bio-resource economy of the Northern region, presented in the classic triad “theory-technique-practice” and generalized in the scheme (*Fig. 2*), it should be noted that it has become possible:

– to launch an important topic at the level of regional studies to which Russia is turning, namely, the green growth of sustainable development;

– to start assessing the development in the unity of economic growth, environmental sustainability, and social equality (the latter in this case – through quality of the environment and availability of resources and services);

– to expand the range of research tools through the development of foreign approaches, as well as international (OECD, Green Growth Knowledge Platform, Eurostat) and regional (Geoportal of the Komi Republic) databases;

– to outline the prospect of research into resource efficiency (the pressing area of environmental issues [35]) of using renewable natural capital of the Northern region with access to comprehensive decoupling of GRP and resource costs (financial losses from deterioration of natural and human resources).

The results of bio-resource economy greening of the Komi Republic will be presented in a collective monograph, which is being prepared for publication.

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Received March 16, 2018.

DOI: 10.15838/esc.2018.4.58.11
UDC 332.1, LBC 65.049

Performance Evaluation of Regional Ecological Capital Operation of China: Taking Poyang Lake Eco-Economic Zone of China for Example*

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Abstract. In recent years, the ecological capital becomes the factor that has important influence on the economic development. To establish the ecological capital operation performance evaluation model and to make comprehensive measurement of regional ecological capital operation, we can effectively measure the regional ecological and economic coordination degree and provide relevant basis for formulating the regional economic development and environmental protection policy. In general, there are few scholars making research on ecological capital operation; and also there are some disputes on the connotation and mode of ecological capital operation. Therefore, on the basis of domestic and foreign scholars' research, and taking Poyang Lake Eco-economic Zone in China as an example, the regional ecological capital operation performance evaluation index system was established from three dimensions including economic value, ecological value and social value in this paper. The paper combines the expert evaluation with objective weighting method and entropy evaluation method to jointly confirm the index weighting, then to construct the regional comprehensive capital operation index, therefore to perform empirical analysis of regional ecological capital operation. The conclusion is that the ecological capital operation performance of Poyang Lake Eco-economic Zone is constantly increasing. However, in the score of ecological capital operation performance evaluation, the growth speed of economic performance is the fastest, the second is social performance and the last is ecological performance, which means that the

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* The work has been carried out with the support of the Project of the National Social Science Foundation of China, Project No.: 15CJY015.

For citation: He Xiongwei. Performance evaluation of regional ecological capital operation of China: taking Poyang Lake Eco-economic Zone of China for example. *Economic and Social Changes: Facts, Trends, Forecast*, 2018, vol. 11, no. 4, pp. 173–184. DOI: 10.15838/esc.2018.4.58.11

investment in ecological environment in the ecological capital operation process is insufficient. It provides a good idea to explore the comprehensive development of great lakes region and pursue the coordinated development path between ecological protection and economic development.

Key words: China, Poyang Lake Eco-economic Zone, ecological capital operation, index system, performance evaluation.

I. Introduction

On Dec. 12, 2009, the State Council, formally approved *Planning of Poyang Lake Eco-economic Zone*. Poyang Lake Eco-economic Zone was formally upgraded to Chinese strategy. The planning specifies the strategic guideline of adhering to ecological first and promoting leapfrog development, which indicates the new opportunity for sustainable development of ecology-economy-society of Jiangxi Province. However, with great advance of industrialization, urbanization, and agricultural industrialization of Poyang Lake Eco-economic Zone, the region is still facing great pressure of resource and environment [1]. Therefore, under the new situation of increasingly aggravation of contradiction between economic development and resources and environment, how to actively develop ecological construction and promote the ecological and economic sustainable development has become the important problem to be solved at present. The key to solve the problem is theory and practice innovation. The ecological capital operation is the reflection of traditional economic growth mode. Due to the scarcity and uniqueness of ecological resources, the ecological capital becomes the factor that has important influence on the economic development. Therefore, in recent years, the ecological capital operation has become an important emerging field. At present, China has taken Poyang Lake Eco-economic Zone as the new mode to explore the comprehensive development of great lakes region and pursue the coordinated development path between ecological protection and economic development. To greatly promote the ecological capital operation is also an important attempt to realize regional leap-forward development. Establish the ecological capital operation performance evaluation model and make comprehensive measurement of regional ecological capital operation to quantitatively judge whether the social and economic development is in the scope of sustainable development, effectively measure the regional ecological and economic coordination degree and provide relevant basis for formulating the regional economic development and environmental protection policy.

II. Literature Review

Research status

The ecological capital is also called green capital. As it was proposed not long ago, there is great divergence on the concept of ecological capital at home and abroad. Many researches are based on the concept of natural capital and environment capital. Vogt(1948) believes that natural resources are actually the capital of national development [2].Kerry Smith (1988) believes that natural resources and environmental resources should be used as assets [3].Sarag eldin (1995) suggests that natural capital or ecological capital refers to all natural resources [4]. Daily. G (2000) believes that ecological capital refers to the stock of natural resources and environmental capital that can provide useful products or services in the present or future [5]. Costanza Retal

(1997) believes that ecological capital refers to the amount of material or information that exists at a certain time [6]. Liu SiHua (1997) argues that ecological capital includes two aspects of ecological resources and ecological environment [7]. Wang HaiBing (2009) considered that ecological capital is the ecological environment quality factor, structure and trend of ecological service value or production support function [8]. Yan lidong et al. (2011) argue that ecological capital refers to all natural resources, man-made resources and ecosystem services that can create benefits [9].

The author believes that the ecological capital is the ecological resource and ecological environment that can bring economic and social benefits, which mainly includes total natural resources, environment quality and self-cleaning capacity and produce ecological potential with using value, ecological environment quality and overall using value of ecological system, etc.[10].The ecological capital operation is an emerging topic. In general, there are few scholars making research on ecological capital operation; there are disputes on the connotation and mode of ecological capital operation and there is very little research on the ecological capital operation evaluation. Therefore, on the basis of researches of domestic and foreign scholars, a set of scientific regional ecological capital operation performance evaluation index system was established in this paper to better promote the development of ecological capital operation in China.

III. Building of regional ecological capital operation performance index system

(I) Connotation of regional ecological capital operation

The ecological capital operation, as the brand new concept in this century have been affirmed and accepted by many scholars. The ecological capital operation is the practical means of realizing ecological service value. The ecological capital operation is to develop the overall ecological service value of ecological capital, effectively and reasonably use the value of ecological capital to obtain economic return, support the social and economic development and ecological environment construction in the region, further develop the social economy and ecological environment quality to promote the continuous accumulation of ecological capital and form the positive cycle of mutual promotion and mutual development of ecology-economy and society. The ecological capital operation of Poyang Lake Eco-economic Zone depends on the ecological resources of Poyang Lake Eco-economic Zone, adopts government promotion and market leading and uses reasonable resource transformation mode to obtain the preservation and appreciation of ecological resources in the region, finally realize the continuous cycle accumulation of ecological capital and form the sustainable ecological development. In short, it’s the behavior to realize ecological economization of the region [11].

It’s well-known that, in the historical process of realizing industrialization, western developed countries basically go on the non-sustainable path at the cost of sacrificing resources and environment, the economic development mode has imposed challenge to the basic living of human with the aggravation of resources and environment element bottleneck problem s, so the retrospection of existing economic development mode is a must. Therefore, for future economic development, we must improve the comprehensive utilization efficiency of resources and environment elements, constantly improve the technology in the process to improve the overall economic development level and enhance the sustainable development ability. Led by green development strategy in China, at present, various regions of China are performing strategic structural transformation of economic development. One of the purport is to abandon the past traditional development mode of high energy consumption, high material consumption and high emission and explore a green development path. Therefore, Chinese Government also puts forward the new means of ecological environment control. For example, the implementation of new environmental protection law, proposal of environmental responsibility extension system and establishment of GDP assessment system bring new challenge to the local economic development. Especially, most of underdeveloped regions are facing the dilemma of economic development, industrial structure optimization and ecological environment protection. To accelerate the improvement of ecological capital operation efficiency, promote the expansion of ecological capital are important breakthrough for current economic transformation. On the premise of harmonious development between human and nature, greatly promote the ecological protection and form the ecological industry system to make the ecological industry as main source of economic growth. The ecological capital operation system is the society-ecology-nature composite ecological system, which not only includes the natural system, and more importantly, increases the social and economic system with mankind as the core[12]. Therefore, how to quantitatively research the sustainable development degree of ecological capital operation in the region? Which region develops better and becomes the model of sustainable development? How to maintain the sustainable development mode of a region? To solve these problems, be sure to adopt quantitative research method. This topic tries to adopt quantitative research analysis method to measure the regional ecological capital operation efficiency. Although quantitative research may not truly reflect the status, as the scientific attempt, it's worthy of study to provide theoretic basis for formulating reasonable development policy for regional ecology in the region.

(II) Basic principles of building ecological capital operation evaluation system

Be sure to comply with following principles when setting the evaluation system:

1. Directivity. The ecological capital operation evaluation based on green development background aims to regulate and lead the sustainable development direction of various regions. The assessment should fully reflect the "green" connotation of ecological civilization, consider the sustainable development and estimates the objective accessibility, so as to truly reflect the scientific outlook on development and the objective requirement of ecological civilization construction [13].

2. Difference. Due to different features in different places, when formulating the ecological efficiency and ecological capital operation evaluation index system, follow the basic principle and requirement of evaluation assessment, adhere to the orientation of scientific development, formulate the evaluation index as per local conditions of different regions, reflect the local features and comply with local actual conditions. Avoid adopting "one common method" regardless of the actual condition.

3. Scientificity. The index system must be established on the basis of science. The index concept must be clear with scientific connotation, fully measure and reflect the regional

development degree and ensure the authenticity and objectiveness of evaluation results. The ecological capital operation evaluation system index should be quantified. Some indexes with important significance that is hard to be qualified can be described by qualitative indexes. Various indexes should be mutually independent to avoid repeated calculation.

4. Integrity. The index system, as a whole, has wide coverage and comprehensively reflects main characteristics of sustainable development. It should reflect the subsystem development index and the direct coordination index of subsystems. The evaluation index system can be divided into several hierarchical structures to make the index reasonable and clear. Comprehensively consider the composition of content and logical correlation, make system analysis and confirm it reasonably.

5. Dynamic nature. From the perspective of optimized assessment of ecological capital operation evaluation system, the assessment index should focus on the result index and correctly treat apparent and potential performance. Correctly analyze the current and long-term development. Laying the foundation, long-term and sustainable development is important orientation of evaluation. The evaluation not only focuses on the current status but also analyzes the past basis and future impact. Therefore, when designing the index system, the overall evaluation system should be constantly changing and there is corresponding dynamic change index to guide the sustainable development level of the whole region [14].

(III) Index system setting of ecological capital operation performance evaluation system

The dimension building of regional ecological capital operation evaluation depends on the value orientation while the value of regional ecological capital operation involves three dimensions including economic value, ecological value and social value[15]. Therefore, to establish the ecological capital operation performance evaluation index system, we must set the specific performance evaluation index system from three aspects including economy, ecology and society. In the regional ecological capital operation performance evaluation, the economic performance, ecological performance and social performance are an organic integrity, complementary to each other and indispensable. The harmonious development of three aspects can promote the good operation of regional ecological capital. As per above principles and relevant research of other scholars, this report establishes four-level index system frame including objective level, benchmark level, criterion level and index level. (Refer to *Table 1* for details)

Objective level: To quantitatively reflect the ecological index operation status and development difference of regions, the report designs the objective level---regional ecological capital operation performance evaluation system. The system is the comprehensive reflection of industrial development, economic potential, ecological environment, resource utilization, people’s life and social culture of the region.

(2) Benchmark level: to further reflect subsystems in the regional ecological capital operation on the comprehensive indexes, this paper designs three sub-objective levels including economic performance evaluation system, ecological performance evaluation system and social performance evaluation system. It better reflects the concept of regional economic, environment and social ecological operation performance condition.

Table1. Regional Ecological Capital Operation Performance Evaluation Index System

Objective level	Criterion level	Scheme level	Index level (unit)
Regional ecological capital operation performance Evaluation	Economic performance (0.4)	Industrial development (0.2)	Gross regional domestic product (100 million yuan)
			Gross output value of farming, forestry, animal husbandry and fishery (10 thousand yuan)
			Total output value of forestry industry (10 thousand yuan)
			Foreign exchange income of international tourism in the region (USD 10 thousand)
			Income of domestic tourism (100 million yuan)
			Commercializing rate of farming, forestry, animal husbandry and fishery (%)
		Economic potential (0.2)	Per-capita GDP (yuan/person)
			Fixed assets investment of water conservancy, environment and public facilities management (10 thousand yuan)
			Fiscal expenditure of ecological protection (10 thousand yuan)
			Labor productivity of total workers (yuan/person)
			Funds for scientific and technological input from the government (one thousand yuan)
	Ecological performance (0.3)	Ecological environment (0.15)	Total water resources (100 million m^3)
			Forest coverage rate (%)
			Proportion of nature reserves to the jurisdiction (%)
			Total accumulation of standing trees (10 thousand m3)
			Per-capita park greening area (m^2)
			Established green coverage (%)
		Resource consumption (0.15)	Industrial energy consumption above designated size (standard coal of 10 thousand tons)
			Sewage treatment rate (%)
			Harmless treatment rate of domestic waste (%)
			Re-utilization rate of industrial water (%)
			Comprehensive utilization rate of general industrial solid wastes (%)
	Social performance (0.3)	People's life (0.15)	Disposable income of urban residents (yuan)
			Disposable income of rural residents (yuan)
			Population density (person/km^2)
			Natural population growth rate (‰)
			Urbanization rate (%)
		Social culture (0.15)	Number of public libraries (Nos)
			Number of museum (Nos)
			Radio and television coverage (%)
			Number of Health Care Institutions (Nos)

(3) Criterion level: The economic performance evaluation system mainly reflects the economic development level and economic development stage by two aspects including industrial development and economic potential. The ecological performance evaluation system mainly reflects the comprehensive environment performance condition of region by two aspects including resource utilization and ecological environment. The social performance evaluation system mainly reflects the regional social development level by three aspects including people's life and social culture.

(4) Index level: after adjustment, the comprehensive competitiveness index system includes 3 secondary indexes, 6 tertiary indexes and 31 quaternary indexes (refer to Table 1). Wherein, the economic performance adopts 11 indexes, 11 ecological performance indexes and 9 social performance indexes.

The report combines the expert evaluation method and objective weighting method entropy evaluation method to jointly confirm the index weighting (economic performance, ecological performance and social performance of 40%:30%:30% weighting), reflects the comprehensive performance evaluation score as specific item index, construct the regional comprehensive capital operation index and perform empirical analysis of regional ecological capital operation.

IV. Analysis of Ecological Capital Operation Performance Evaluation

(I) Measurement of ecological capital operation performance evaluation

1. Measurement method

This report firstly sets the ecological capital operation performance index system and indexes mainly include ten indexes in economic social and ecological aspects. As the index original data is complicated and the unit of index original data is different, we should standardize the original data. After standardized processing of original data, there is positive and negative, the score result is positive negative, although it doesn't influence the ranking, it's not intuitive. For observation and comparison, this report adopts the standardization calculation formula as follows:

For positive index:

$$U_{ij}=(X_{ij}-\min X_{ij})\times 0.95/(\max X_{ij}-\min X_{ij})+ \\ +0.05(j=1,2,...,n);$$

For reverse index:

$$U_{ij}=(\max X_{ij}-X_{ij})\times 0.95/(\max X_{ij}-\min X_{ij})+ \\ +0.05(j=1,2,...,n),$$

Wherein, X_i (i=1,2,..., n) is the no. i economic or ecological and social index,

X_{ij} is No. j index of No. i sample and it's X_{ij} (j=1,2,...,m).

U_{ij} is the data after standardization, and $\max_{X_{ij}}$ and $\min_{X_{ij}}$ are upper and lower limit of No. i index.

The economic performance, ecological performance level and social performance level can be obtained by linear weighting method:

$$U_i = \sum_{j=1}^{m} w_{ij}u_{ij} \quad \sum_{j=1}^{j=m} w_{ij} = 1 \ ,$$

Where, U_i is the economic performance, ecological performance or social performance, and w_{ij} is the weighting of various economic, ecological environment or social indexes.

2. Weight setting

The weight is determined with reference to relevant authoritative index system evaluation experience by qualitative and quantitative method, which combines the expert evaluation method and objective weighting method entropy evaluation method to confirm that the report makes statistical analysis of index system.

(II) Empirical results analysis

1. Data source

Poyang Lake Eco-economic Zone covers Nanchang City, Jingdezhen City, Yingtan City, some counties (cities and districts) including Jiujiang, Xinyu, Fuzhou, etc., totally 38 counties and cities. Considering the data collection convenience and research consistency and comparative convenience, the topic adopts the data of Nanchang City, Jingdezhen City, Jiujiang City, Xinyu City, Yingtan City and Fuzhou City. Data in this report is mainly from statistical yearbook of Jiangxi Province and statistical yearbook data of other cities in 2013–2016.

2. Calculation results

Table 2 reflects the changing trend of ecological capital operation performance of Poyang Lake Eco-economic Zone in 2012–2015.

Table 2. Ecological capital operation performance of Poyang Lake Eco-economic Zone in 2012–2015 (overall index)

	2012	2013	2014	2015
Economic performance	2.50	3.22	3.70	3.78
Ecological performance	2.20	2.48	2.38	2.67
Social performance	2.04	2.13	2.49	2.78
Overall performance of ecological capital operation	6.74	7.83	8.57	9.23

Table 3. Ecological capital operation performance of Poyang Lake Eco-economic Zone in 2012-2015 (item index)

	2012	**2013**	**2014**	**2015**
Industrial development	1.20	1.56	1.82	1.94
Economic potential	1.30	1.66	1.88	1.84
Ecological environment	1.30	1.21	1.11	1.21
Resource consumption	0.90	1.27	1.27	1.45
People's life	1.14	1.01	1.18	1.29
Social culture	0.90	1.12	1.31	1.49

The table shows that the ecological capital operation performance of Poyang Lake Eco-economic Zone is constantly increasing no matter from comprehensive index and itemized index, which reflects that the ecological development ability is gradually enhanced.

(1) Overall performance evaluation

From the overall performance, the score of ecological capital operation performance evaluation of Poyang Lake Eco-economic Zone was 6.74 in 2012 and increased to 9.23 in 2015, with annual average growth rate of 11.06%. Wherein, for economic performance level, the score of economic performance evaluation was 2.50 in 2012 and increased to 3.78 in 2015, with annual average growth rate of 14.76%; for ecological performance, the score of economic performance evaluation was 2.20 in 2012 and increased to 2.67 in 2015, with annual average growth rate of 6.65%; for social performance, the score of ecological performance evaluation was 2.04 in 2012 and increased to 2.78 in 2015, with annual average growth rate of 10.93%. In the score of ecological capital operation performance evaluation, the growth speed of economic performance is the fastest, the second is social performance and the last is ecological performance.

(2) Itemized performance evaluation

In the item evaluation of capital operation performance of Poyang Lake Eco-economic Zone, for economic performance evaluation, the score of industrial development index was 1.20 in 2012 and increased to 1.94 in 2015, with annual average growth rate of 17.28%; the score of economic potential index was 1.30 in 2012 and increased to 1.84 in 2015, with annual average growth rate of 12.34%; for ecological performance evaluation, the score of ecological environment index was 1.30 in 2012 and decreased to 1.21 in 2015, with annual average growth rate of -2.24%; the score of resource consumption index was 0.9 in 2012 and increased to 1.45 in 2015, with annual average growth rate of 17.33%; for social performance evaluation, the score of people's life was 1.14 in 2012 and increased to 1.29 in 2015, with annual average growth rate of 4.27 and the score of social culture was 0.9 in 2012 and increased to 1.49, with annual average growth rate of 18.36%. In the item index of ecological capital operation performance of Poyang

Lake Eco-economic Zone, the social culture index has the fastest growth and the second is industrial development index. The ecological environment index with low growth rate even decreased in 2012 and 2015, which means that the investment in ecological environment in the ecological capital operation process is insufficient.

V. Conclusion and Suggestions

(I) Conclusion

Poyang Lake Eco-economic Zone is located in Jiangxi Province in inland of China. However, Jiangxi province is a traditional agricultural province and it's industry is lagged behind. Compared with the ecological economic development level in China and central provinces, Jiangxi Province ranks the first in the central region but it's lower than the average level of China. Jiangxi Province ranks the first in Central China in terms of ecological environment level, resource consumption level and ecological protection ability, with obvious advantages. However, the economic development level and comprehensive resource utilization level are obviously disadvantaged. Jiangxi Province in Central Region is relatively lagged behind in China and suffers great pressure of post-economic development. The above analysis shows the following conclusions:

1. Poyang Lake Eco-economic Zone has achieved good performance in ecological capital operation of agriculture, industry and tourism industry, but has poor concept of ecological capital operation. For a long time, the concept of no cost and price to environment is very common. Lagged production technology and adverse external phenomena are serious. With the population growth and acceleration of industrialization and urbanization process, some places in the region pursue economic benefits unilaterally and unreasonably utilize resources, which cause free and excessive use of ecological resources, excessive deforestation, random discharge, overfishing, unrestrained water utilization and other harmful effects and seriously deterioration of ecological environment. Therefore, how to improve the ecological environment of Poyang Lake Basin and realize the coordinated development of economy, society and ecology is a big problem at present. Reasonable use of marketization means is good for enhancing the concept of "ecology with value", limiting environmental damage and mobilizing the initiative of ecological construction [16-17].

2. As per the analysis of changing trend of ecological capital operation performance of Poyang Lake Eco-economic Zone in 2012-2015, the ecological capital operation performance of Poyang Lake Eco-economic Zone is constantly increasing no matter from comprehensive index and itemized index, which reflects that the ecological development ability is gradually enhanced. In the score of ecological capital operation performance evaluation, the growth speed of economic performance is the fast, the second is social performance and the last is ecological performance. In the item index of ecological capital operation performance of Poyang Lake Eco-economic Zone, the social culture index has the fastest growth and the second is industrial development index. The ecological environment index with low growth rate even decreased in 2012 and 2015, which means that the investment in ecological environment in the ecological capital operation process is insufficient.

(II) Suggestions

The ecological capital operation of Poyang Lake Eco-economic Zone depends on the ecological resources of Poyang Lake Eco-economic Zone and adopts government promotion and market leading to realize the preservation and appreciation of ecological resources in the region and finally promote the sustainable development of the region.

1. Quickly formulate the ecological capital strategy of Poyang Lake Eco-Economic Zone

Focus on the strategic objective of Poyang Lake Eco-economic Zone, formulate the *Planning for Ecological Capital Operation of Poyang Lake Eco-economic Zone*, specify the long-term objective and stage objective, operation roadmap and prior fields of ecological capital operation of Poyang Lake Eco-economic Zone and gradually realize the maximum ecological capital gains in the ecological capital threshold range of Poyang Lake Eco-economic Zone. To formulate the supporting policy of ecological capital operation and change the existing development achievement assessment system is the core of ecological capital operation policy. It's suggested formulating the specific industry guiding catalog of ecological capital operation of Poyang Lake Eco-economic Zone to specify and encourage supporting key industry scope of ecological capital operation of Poyang Lake Eco-economic Zone. It's suggested enhancing the fiscal support force, establishing the emission right transaction pilot and wetland compensation pilot in Poyang Lake Eco-economic Zone, actively increase the carbon sink resources and carry out carbon sink transaction to promote the ecological capital value realization and appreciation in the zone [18].

2. Complete the ecological compensation mechanism of Poyang Lake Eco-Economic Zone

The ecological compensation of Poyang Lake Eco-economic Zone can be completed under the guidance of the government. From the government level, establish the ecological compensation mechanism of the basin from top to down. The ecological compensation mechanism of basin cross Jiangxi and downstream administrative region should be established by the Central Government, and the ecological compensation mechanism of basin in cities in the region should be established by Jiangxi Province People's Government; from the basin level, it should be done from big to small, i.e. the coordination of ecological environment protection and social and economic development of basin should be carried out from the basin to province, city and county scope.

Establish and complete the inter-government fiscal transfer payment system. The Central Finance should enhance the transfer payment force of key ecological function area in central and western regions, establish the special fund for supporting key ecological function area; secondly, lead the provincial or lower level government to establish the finance transfer payment system, e.g. eastern coastal developed provinces output ecological resources to underdeveloped provinces in central and western regions for compensation; moreover, establish the fund, issue medium and long-term special ecological construction bonds or issue the lottery to raise fund; finally, levy "ecological compensation tax" to replace various charges collected by various departments, including resource fee, water and soil conservation cost, sewage charge, etc.; fee-to-tax can enhance the collection force, lower the collection cost and use the fund for the ecological compensation.

3. Focus on the ecological capital operation in the industrial development

There are three paths of ecological capital operation of Poyang Lake Eco-economic Zone: the first path is to develop ecological agriculture and operate biological production environment capital and establish the green agricultural and sideline products supply base; the other path is to develop ecological tourism industry, operate the quality natural resource and environment, mainly operate landscape capital like leisure resort base, etc.; the final path is to develop ecological industry, comprehensively use the ecological resource and environment and perform overall operation and cycle operation of ecological capital. Properly carry out ecological item and product development operation; reasonable projects suitable for local conditions can effectively promote the classification and integration of ecological resources of Poyang Lake Eco-Economic Zone. Innovatively promote the marketized operation of featured project and realize the preservation and appreciation of ecological resources in Poyang Lake Eco-Economic Zone.

4. Enhance the environmental protection awareness of citizens

Actively carry out various environment promotion education activities, publicize the environment information and motivate social forces to participate in the environmental protection. Give full play to the public opinion leading and supervision function, vigorously promote environmental protection policies and laws and regulations and improve the public's environmental protection awareness and legal sense. Make all-round and multi-layer adaption and establish the production and living mode meeting the resource-saving and environment-friendly social requirements. Set up environmental protection courses or training courses, improve the awareness and ability for implementing scientific outlook on development and environmental and development decisions of leading cadres at various levels and enterprise management personnel and cultivate the environmental protection awareness of the teenager. Encourage and lead the public and social organizations to actively participate in the environmental protection, widely carry out mass creation activities including green school, green family, green community, etc., advocate green consumption and give full play to the function of mass organizations like Labor Union, the Communist Youth League, the Women's Federation, etc. [19-20].

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Received September 27, 2017.

DOI: 10.15838/esc.2018.4.58.12
UDC 004 (410), LBC 32.81(4)

State of Development of the Information Society in Slovenia, Croatia and Poland in Comparison with the EU Average

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Abstract. The article touches on the area of increasing significance which is information society development. The main aim of the article is to present the development of information society Slovenia, Croatia and Poland on the background of the EU average. The analysis will cover selected indicators characterizing important areas of the digital society: broadband network coverage, digital competences of the society, share of people and households using the Internet and their main information and communication services as well as involvement of enterprises in Internet activities and their use of innovative information and communication services. Main used methods are deduction, induction and comparative analysis of different reports concerning digital society development in Slovenia, Croatia and Poland. In writing this article, the author uses also a critical review of the literature, to present current knowledge about the nature of and reasons for digital society development, synthesis, allowing for a comprehensive evaluation of the Slovenian, Croatian, Polish and EU digital society state and an indication of the primary current dilemmas. While writing the article the author benefits from the domestic and foreign literature, studies carried out by institutes in European research programs commissioned by the EU as well as from the legal acts and documents of the EU.

Key words: information society, Internet, ICT, Slovenia, Croatia, Poland.

For citation: Czaplewski M. State of development of the information society in Slovenia, Croatia and Poland in comparison with the EU average. *Economic and Social Changes: Facts, Trends, Forecast*, 2018, vol. 11, no. 4, pp. 185–201. DOI: 10.15838/esc.2018.4.58.12

Introduction

In the era of the growing role of the Internet in the development of individual economies, the use of this medium in social and economic life is gaining importance, translating into the level of development of the information society. The aim of the article is to present the level of information society implementation in three selected EU countries: Slovenia, Croatia and Poland. To achieve this goal, the author conducted a comparative analysis of key indicators characterizing the essential information society areas: broadband network coverage, digital competences of the society, participation of individuals using the Internet and their main information and communication services, enterprises' involvement in online activities and innovative information and communication services used by enterprises as well as the development of e-government services. In order to show those areas, data from the years 2010–2017 were used.

In addition to direct comparisons of selected indicators achieved by the three countries studied, a comparison of these achievements with the EU average was also made. This approach allows to indicate in which areas Slovenia, Croatia and Poland are closest to the average EU indicators, in which they are located above, and in which they have the most to catch up in relation to the EU average. After indicating the areas where the situation of the three countries surveyed does not fall out favorably, the author proposed actions that will accelerate the process of catching up perceived delays.

The essence of the information society

The modern world undergoes significant social and economic changes. Their significance as well as their influence on the functioning of societies and businesses cause that the existing models of life will change fundamentally. Researchers are trying to define this form of social and economic development and determine the extent of possible consequences. It is known that the approaching transformation is a very complex problem and is connected with the changes that society makes in terms of "world views, basic values, social and political structure, arts and key institutions"[1, p. 1]. Thus, the changes taking place concern all spheres of human life.

In literature the factors that have become the causative forces of transformations covering the whole globe are characterized differently. However, probably the most known is the view of A. Toffler, who presented the theory of three civilization waves (agricultural, industrial and postindustrial) [2, p. 48]. A similar theory is described by D. Bell. According to this author economic development of the society proceeded as follows [3, p. 19]:

– pre-industrial society, based on simple occupations of a fisherman, hunter and farmer fighting with nature, using the potential of nature,

– industrial society, organized primarily around the process of using energy to produce goods,

– post-industrial society, based on information, as a foundation for knowledge and action.

The theories of social evolution described above are mutually coherent and ideologically close. They do not raise fundamental controversies and are widely accepted by scientific authorities dealing with the discussed issues. On the other hand, the choice, characteristics and assessment of factors determining and conditioning the evolution of society remain a controversial issue.

Most of the considerations addressing this problem involve the development of human civilization with a real increase in knowledge.

It seems obvious that with the increase of knowledge, since the dawn of history, man has been able to solve increasingly complex existential problems. This is confirmed by K. Popper who writes that "the course of history depends on the level of development of knowledge" [4, p. 224]. So the faster the knowledge is acquired, the faster and the greater the scope of the changes that occur.

In this respect, the technology itself is very important. And thus, the very impact of technology as a factor conditioning social progress is evident in all conceptions. It can be assumed, therefore, that the "technical devices have naturally changed man's customs and modified the structure and functions of the society" [5, p. 135]. The discussion basically concerns the problem whether technology determines changes or enables them only [6, p. 129].

The civilization that is being created nowadays is a completely new quality, which is being defined differently. Apart from the most known terms, such as the knowledge society, postindustrial, network or third wave in literature, a number of more or less accurate terms can be found. The most famous are:

– digital society,
– telematic society,
– a society of information overload,
– technological society.

Yet, the term information society has gained most widespread acceptance.[1] The essence of this term and the philosophical approach represented by them is the conviction that information understood as "everything that can be used for a more efficient choice of activities leading to a certain goal" [8, p. 17], in economic, scientific (and eventually also in cultural) sense becomes the basic determinant of society functioning and development.

However, it seems to be too far-reaching, because society has always been informative and information over the centuries was an important factor determining the success of existential, commercial or military projects, regardless of the level of development of societies. Its efficient acquisition, transmission, storage and proper use has been a very important element of the activities of individuals and communities. However, the information could not properly "exist in a world without proper media that would allow it to express it" [9, p. 25]. Only today, as a result of the development of telecommunications, IT and media technology, information has become a more accessible, cheaper and, above all, more current good. Considering also the fact that information is "the only resource that grows with use, instead of exhausting" [10, p. 71], wide access to information of a different nature allows both business and individual units to make decisions based on a large number of factors.

Summarizing, despite the awareness of the importance and the role of knowledge in modern world, it is necessary to recognize the universality of information present in all dimensions of reality and to emphasize its original character. This conclusion causes that in this article the term information society will be used which, in the author's opinion, most fully reflects the meaning of the phenomena that are defined. In addition, the name contains some characteristic features of social and economic changes, and in particular the change of work on products processed from natural resources to the processes of creating and storing information. The literature on the subject presents a number of definitions explaining the concept of information society.

[1] The term was introduced in 1963 by Japanese sociologist T. Umesao in an article about the theory of the evolution of a society based on information technology. Later it was popularized by K. Koyama in the dissertation entitled "Introduction to Information Theory" [7].

Those are as follows:

– a society that has the possibility of extensive access to information, services and entertainment on demand, the ability to interact and freely operate data, the ability to perform various remote operations and commence communication at any time and from any place of the world connected to the virtual world via telecommunications networks [11, p. 11];

– a society in which the quality of life as well as the prospects for economic and social development depend increasingly on IT and its use. In such a society, the standards of living, working and spending free time, the education system and the economy depend on progress in the field of information [12, p. 19];

– a society that not only has well-developed means of information processing and communication, but information processing is the basis for creating national income and provides the livelihoods of the majority of society [13, p. 43];

– a society that achieves the degree of development as well as the scale and complexity of social and economic processes that require the use of new techniques for collecting, processing, transmitting and using the huge mass of information generated by these processes. In such a society:

• information as well as the resulting knowledge and technologies are a basic factor in the production, and the use of ICT is a comprehensive development factor,

• the workforce consists mainly of information workers,

• the majority of gross national income arises within the broadly understood information sector [14].

To sum up, it should be stated, that the information society is a „being" based on technologically advanced electronic communication, determining universal access to information.

The transformation associated with the emergence of the information society fundamentally changes the rules of the civilization functioning in all (or at least in many) aspects. As a consequence, "certain branches of industry are falling, old models of life are disappearing and new ones appear on their place immediately" [15, p. 19].

Main areas and directions of evaluation of the information society

The contemporary process of shaping the information society is multidimensional. However, we can determine the forces that have a major impact on its development. The most important ones are the following [16]:

– technical and technological progress of the information technology industry,

– changes in economic and business structures,

– state and supranational structures policy,

– interest groups – producers and information technology operators, virtual communities.

The characteristics of the information society are:

– highly developed services sector, primarily the modern services sector (banking, finance, telecommunications, IT, R & D and management), in some countries in this sector more than 80% of professionally active people work, whereas the traditional services sector exceeds slightly 10%;

– knowledge-based economy;

– high level of society enrollment;

– high level of functional alphabetism in society;

– progressive process of decentralization of society;

– renaissance of the local community;

– diversifying social life;

– influences the empowerment of society and thus the creation of an open society [17].

As we can see the potential for information society development depends on many factors. However, this article is mainly based on the EU approach to measure the present progress achieved by Member States in the field of digitization. It combines quantitative data provided under the Digital Economy Indicator and Digital Society (DESI)[2] with qualitative information on policies implemented by individual countries. Additionally some data on the economic development as well as on the main characteristics of each studied country has been taken into consideration.

The DESI approach takes under consideration five dimensions:

1) Connectivity;
2) Human Capital;
3) Use of Internet;
4) Integration of Digital Technology;
5) Digital Public Services.

The first dimension – connectivity – measures the deployment of broadband infrastructure and its quality. It distinguishes fixed and mobile broadband and evaluates its speed and prices. It's a basis for all other dimensions due to the fact that access to fast broadband-enabled services is a necessary condition for competitiveness.

The second dimension is connected with human capital and in general with digital skills of individuals. In that way this dimension allows to measure the skills needed to take advantage of the possibilities offered by information society. Such skills go from basic user skills that enable individuals to interact online and consume digital goods and services, to advanced skills that empower the workforce to take advantage of technology in order to enhanced productivity and economic growth.

The third dimension – the use of Internet – accounts for the variety of activities performed online by citizens. Such activities range from consumption of online content (videos, music, games, etc.) to modern communication activities, online shopping and electronic banking.

Business digitization and e-commerce is measured by the next dimension. The Integration of Digital Technology shows the digitization of businesses and their exploitation of e-commerce and in general online sales channels. It starts with the assumption that digital technology can enhance efficiency of companies, reduce costs and better engage their customers, collaborators and business partners and let a better access to wider markets and potential customers.

The last dimension connected with digital public services embraces the level of digitization and modernization of such services, focusing on e-Government. This, in turn, is associated with the assumption that than higher the number and quality of digitalized public services than higher the efficiency gains for all participants (public administration, citizens and businesses).

Indicators used in all DESI dimensions have an objective approach mostly due to the fact that they have to fulfill various requirements. First of all they are being collected with a pre-defined regularity. Additionally all of them embraced in the index must be accepted as relevant metrics in their specific policy areas and also cannot be redundant in any way.

However, also an important impact in this regard is the size of the national economy itself. One of the most important measures indicating

[2] EU describes DESI as a composite index that summarizes relevant indicators on Europe's digital performance and tracks the evolution of EU member states in digital competitiveness basing on calculation of the weighted average of the five main dimensions with the weights selected by the user [18].

Main characteristics of Slovenia, Croatia and Poland by GDP, GDP per capita, number of inhabitants and area size of each country at the end of 2016

Country	GDP (in millions of dollars)	GDP per capita (in international dollars)	Inhabitants	Area size (in km²)
Slovenia	44009	32216	2,079,976	20273
Croatia	50441	22937	4,189,353	56594
Poland	467591	27690	38,170,712	312685
Source: Own compilation on the base of [19; 20, 21].				

the level of economic development of the country is the GDP as well as the GDP per capita. Other data which allows us to compare Slovenia, Croatia and Poland are the number of inhabitants and the size of each country. The data on this subjects for the year 2017 in the countries studied are presented in *Table*.

It is clearly visible that the GDP of each of the studied Balkan countries is almost ten times lower than the Polish one, but taking into account the number of inhabitants – the GDP per capita is highest in Slovenia and lowest in Croatia (with Poland standing right in the middle between those two countries). However, these numbers are fairly comparable which cannot be said about the size of the studied countries, where Poland is far bigger than the other ones.

Mentioning the similarities of the countries studied, we should indicate that all have their own socialist past and that all of them joined the EU. However, Slovenia and Poland almost 10 years earlier than Croatia (respectively in 2004 and 2013).

This short parallel let us build a base for the proper comparison and assessment of the development of information societies in each country.

Assessment of information society development status in Slovenia, Croatia and Poland

In order to evaluate the information society in the studied countries we should first of all compare the development of the infrastructure and broadband internet coverage. *Figure 1* shows data about broadband and NGA broadband coverage in the examined countries on the background of EU.

At the end of 2016, Croatia and Poland was still behind the most European countries in all coverage groups while Slovenia was even or above the EU average. The differences in the examined countries coverage were even more visible within NGA broadband availability.[3]

Figure 2 shows individual fixed and mobile technologies coverage respectively in Slovenia, Croatia and in Poland on the background of the EU average at the end of 2016.

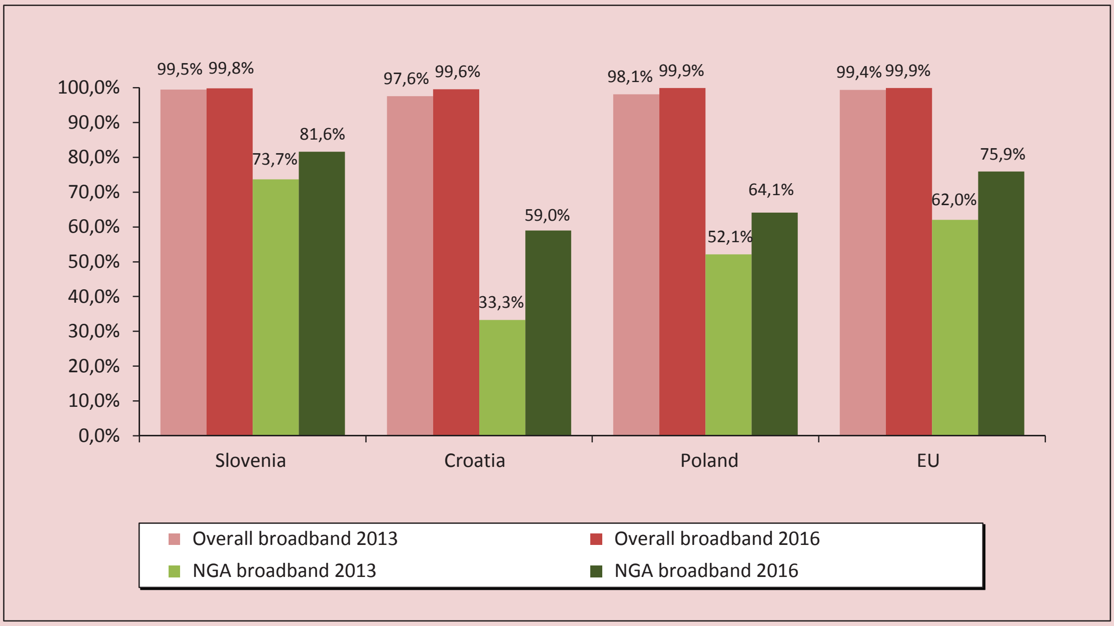
As it was depicted in figure 2 DSL was the most widespread fixed broadband technology. Respectively it was reaching 95,8% Slovenian, 94.9% Croatian and 75,7% Polish homes. The Balkan countries DSL coverage was slightly above the EU average (which was 94,3%), but Poland lag far behind with only 75,7%.

According to the figures Slovenia coverage was higher than the average EU level in almost all types of technologies (except for WiMAX). Especially visible is in this regard the twice higher coverage by Fiber-to-the-Premises reaching over 50%. At the same time the two other researched countries had a coverage around 15%. Moreover Croatia is behind in term of LTE technology deployment.

In general, according to the Digital Scoreboard Report, on connectivity, the highest

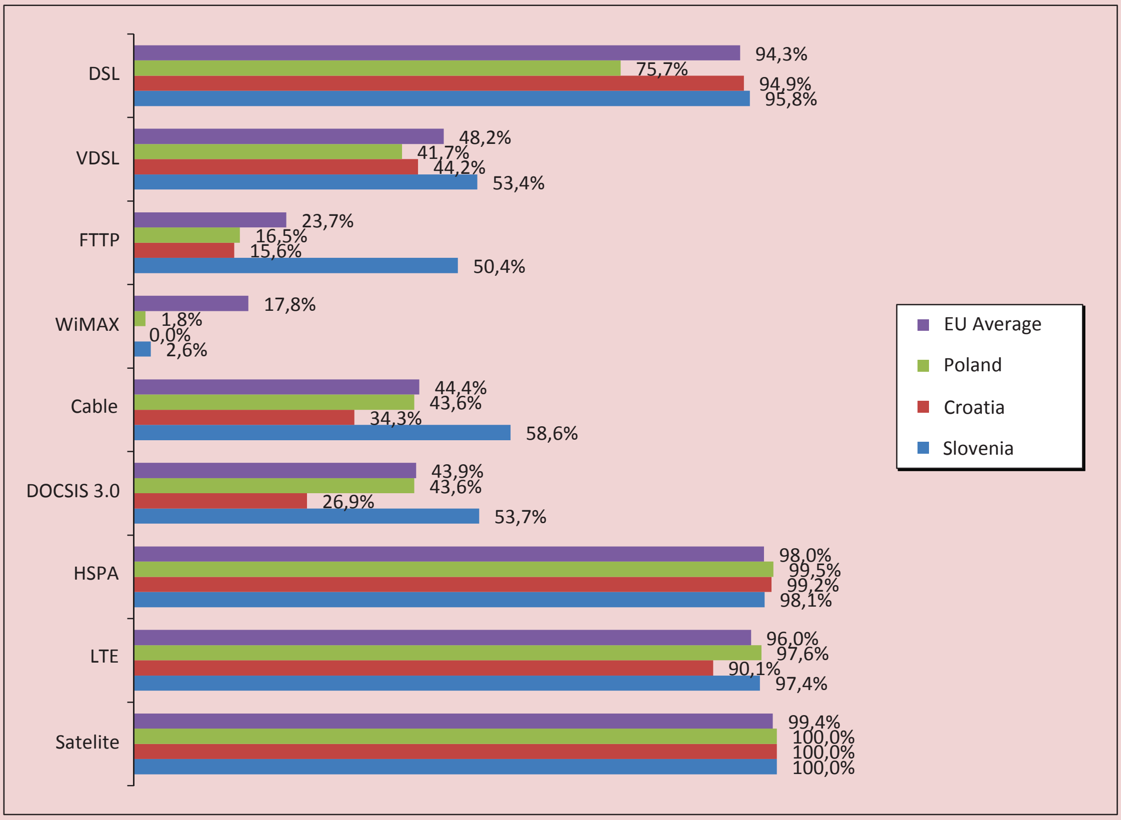
[3] A wider study of the final report Broadband Coverage in Europe 2016 shows also that the differences are huge especially in rural areas [23, p. 64, p. 147, p. 165].

Figure 1. Coverage by technology 2016 in Slovenia, Croatia, Poland and the EU average



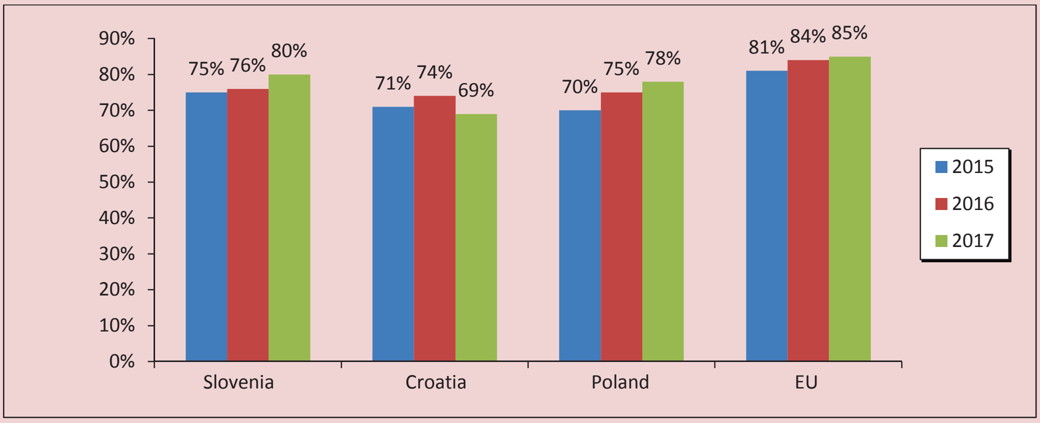
Source: Own compilation on the base of [22, p. 58, p. 151, p. 171; 23, p. 64, p. 147, p. 165].

Figure 2. Coverage in Slovenia, Croatia and Poland by technology at the end of 2016



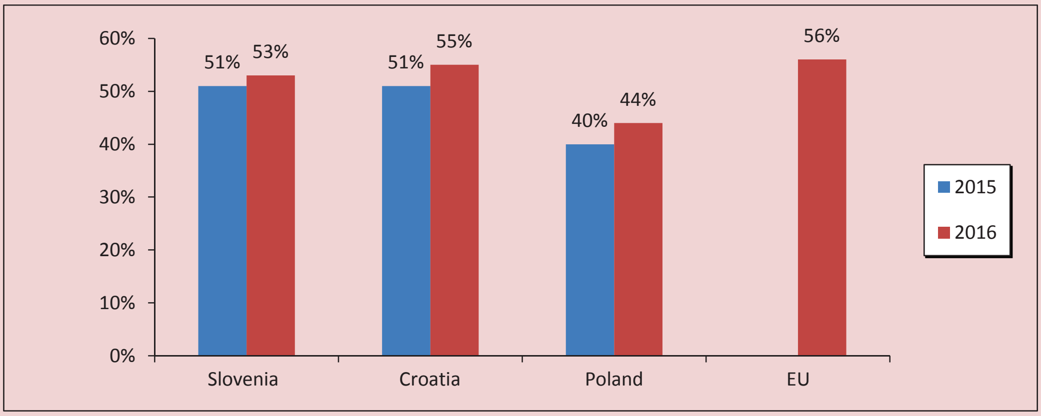
Source: Own elaboration on the base of [24, p. 65, p. 148, p. 166].

Figure 3. People who use Internet at least once per week in 2015–2017



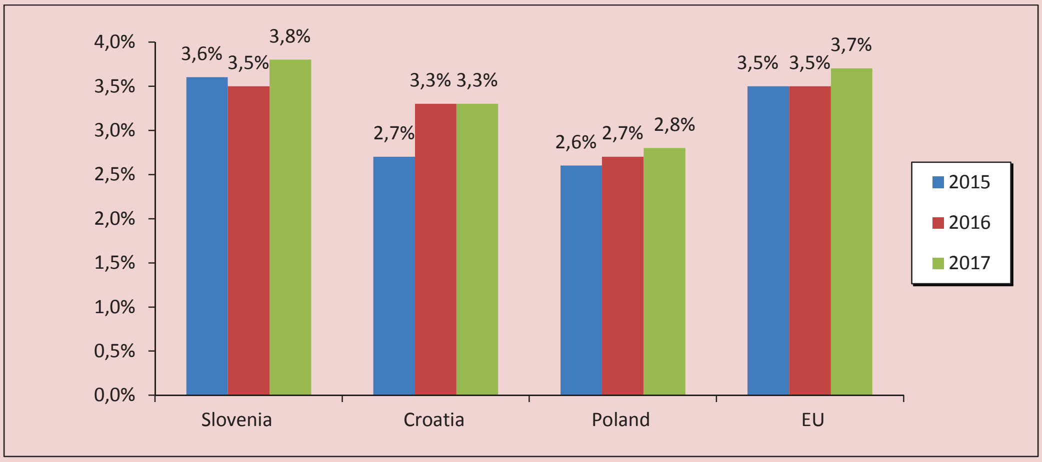
Source: Own elaboration on the base of [25].

Figure 4. Basic digital skills in 2015 and 2016



Source: Own elaboration on the base of [26; 27].

Figure 5. Employed ICT specialist (in % of the total population) in 2015–2017



Source: Own elaboration on the base of [28].

score in 2016 achieved Netherland followed by Luxembourg and Belgium. On the other hand in Croatia, Bulgaria and in Poland the weakest performance regarding broadband infrastructure was registered.

Infrastructure is a basic condition for creating information society in each country. However very important are also the factors described as readiness and will to use Internet as well as digital skills of individuals. Data on those issues are shown in *figures 3, 4 and 5.*

Poland and Croatia are lagging behind in all three presented aspects. Additionally Poland is far away regarding basic digital skills (understood as skills that enable individuals to interact online and consume digital goods and services) and the percentage of ICT specialist employed. Only Slovenia is slightly above the EU average in terms of ICT specialist in the workforce.

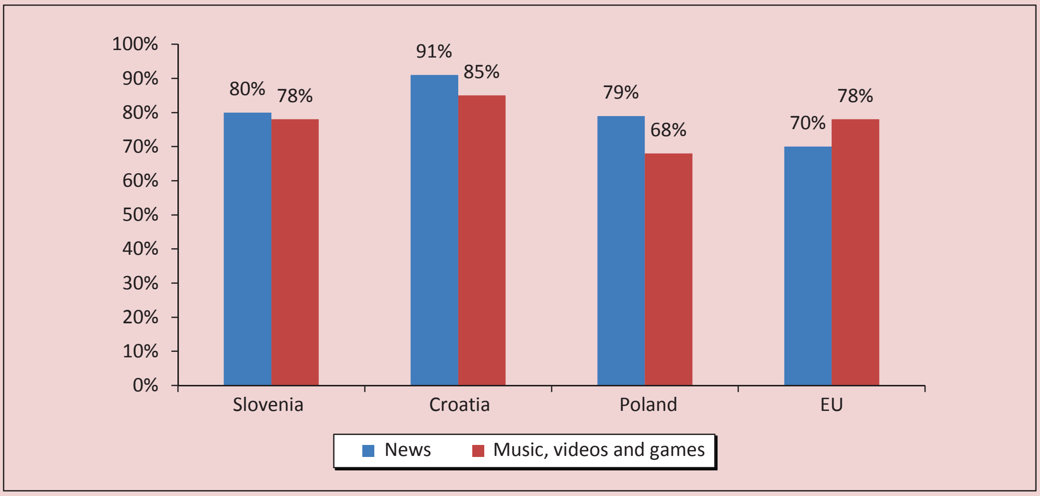
Moreover, we should mention about STEM[4] graduates in each of the countries. In 2014 in Slovenia there were 19 graduates per 1000 individuals aged between 20-29. Poland had the same number and Croatia just 2 less. So all the three countries are within the EU average which amounts also to 19 graduates per 1000 individuals.

Before depicting the next dimension – the use of Internet – we should mention that in 2017 around 79% of Europeans went online regularly (which means at least once per week). It is a result that is 3 percentage points higher compared with the previous year [26]. However 44% of Europeans still do not have basic digital skills.

The use of Internet embraces different activities performed online by citizens. Such activities range from consumption of online content (videos, music, games, etc.) to modern communication activities, online shopping and electronic banking. *Figures 6, 7* and *8* show some data regarding those issues in 3 studied countries.

Regarding the use of Internet its clearly visible that all three countries are circling

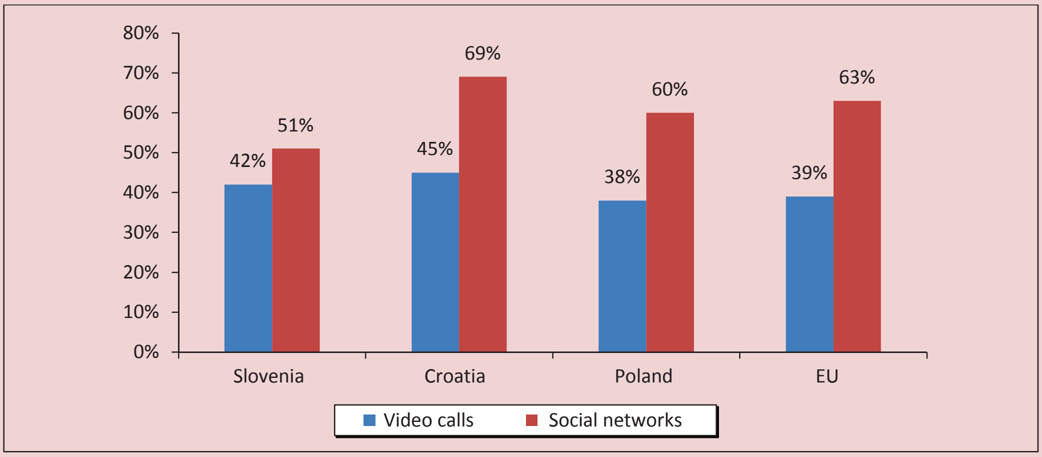
Figure 6. Use of Internet content – news, music, videos and games (% individuals who used Internet in the last 3 months) in 2017



Source: Own elaboration on the base of [26].

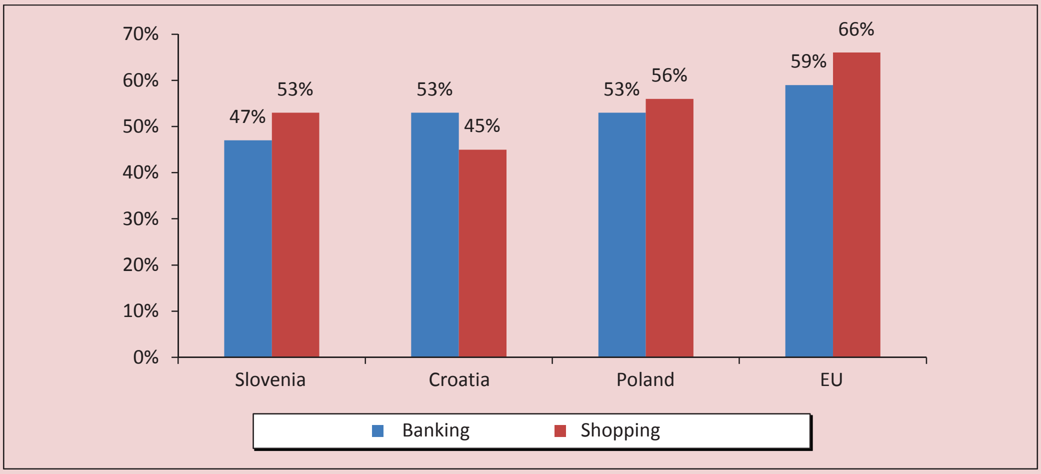
[4] Science, technology, engineering, and mathematics field of studies.

Figure 7. Use of Internet communication – Video calls and social networks (% individuals who used Internet in the last 3 months) in 2017



Source: Own elaboration on the base of [26].

Figure 8. Use of Internet for transactions – online banking (% individuals who used Internet in the last 3 months) and electronic shopping (% internet users) in 2017

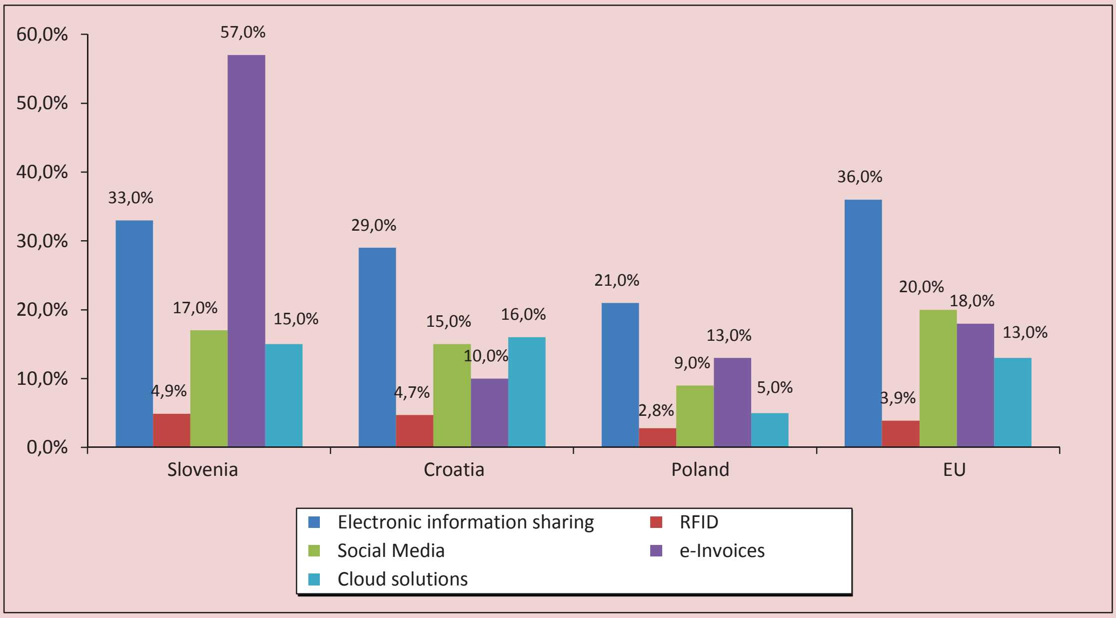


Source: Own elaboration on the base of [26].

around the EU average. Slovenia and Poland are lying behind EU average while Croatia is slightly above it in terms of use of Internet communication. On the other hand all three countries are above the EU average regarding the use of Internet content. Especially Croatians are more active Internet users and especially they like to read news, listen to music, play games or watch videos and movies online. However, they engage less in eBanking and eCommerce than Poles. In Slovenia the number of internet users engaged in online activities remains low, especially for eBanking. In general Croatia seems to be the leader within the researched countries in the "use of Internet" category.

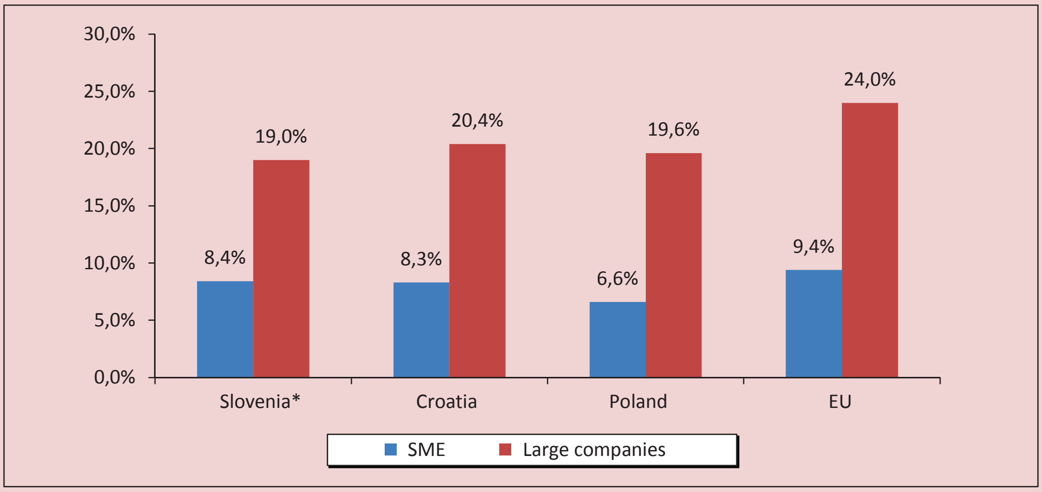
If we look at the supply side of the market, we can see that also businesses are adopting

Figure 9. Business digitalization and integration of digital technology



Source: [26].

Figure 10. E-commerce turnover of small and medium enterprises (in 2016) comparing to large enterprises (in 2015)



* Data for Slovenia from 2015

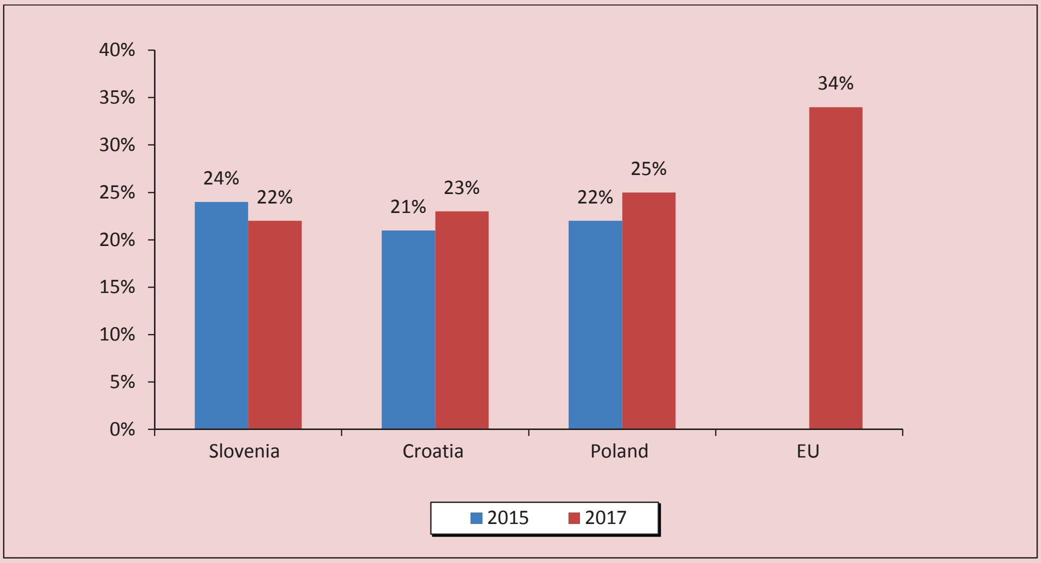
Source: Own elaboration on the base of [26].

various ICT technologies in order to improve its productivity and cost structure. Sharing electronic information, RFID[5], e-invoicing, social media and cloud solutions are among the most significant. Data on the use of these technologies in 2017 in Slovenia, Croatia, Poland on the background of the EU average are shown in *Figure 9*.

One of the main areas of digital development is the introduction of online sales especially in SMEs. *Figure 10* shows e-commerce turnover of small and medium enterprises comparing to large enterprises.

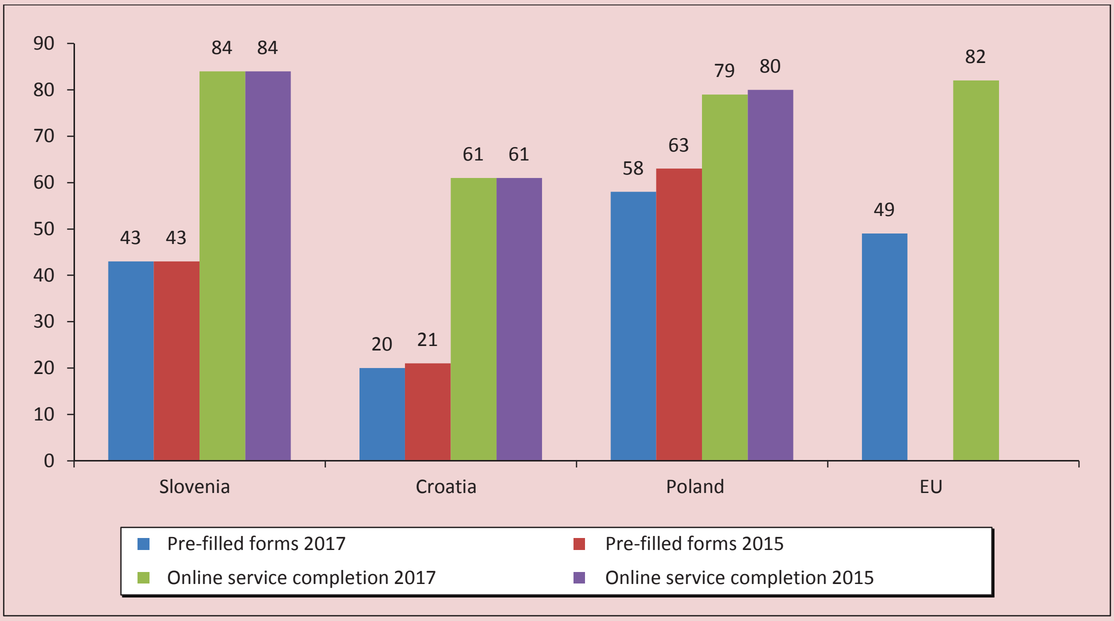
[5] RFID – Radio-frequency identification.

Figure 11. E-government users



Source: Own elaboration on the base of [26].

Figure 12. E-government service sophistication regarding digital public services



Source: [26].

It's quite obvious that Slovenian companies have significantly upgraded their efforts in terms of digitalization, especially in terms of e-invoicing as well as in the number of enterprises engaging in cross-border online trade. Meanwhile, Croatia has also done a progress but much slower. Companies from this country are above average users of Cloud Services while online sales data are increasing. Unfortunately Polish businesses are lagging behind in terms of used and implemented technologies as well as in ecommerce.

The data on e-government and digital public services for the three researched countries look as it is depicted in *figures 11* and *12*.

Looking at the data we can conclude that the take-up of E-government in Slovenia remains relatively low in comparison to the EU average. Additionally the delivery of online public services has not progressed since 2015. Croatia's performance in the field of Open Data availability is only at EU average. On one hand the number of E-government users is increasing but on the other hand there is almost no progress within the delivery of such services. We can observe a similar situation also in Poland. While the total number of people using E-government services increased and Poland's ranking in the provision of online public services is near the EU average, the overall performance stagnated over the period 2015–2017.

Comparison of the state of the information society development in Slovenia, Croatia and Poland

Having presented a number of various data in the area of information society development and following the general DESI approach it could be noticed that the researched countries have some areas to catch up to in order to reach at least the EU average (not to mention in order to catch up the most advanced digital economies like Denmark, Finland, Sweden and the Netherlands). On the other hand none of the three researched countries had the lowest position in Europe and all are at least a bit in front of such countries like Romania, Bulgaria, Greece or even Italy.

Additionally the Digital Economy and Society Index indicated in 2017 Slovenia[6] as a country, which progressed the most in terms of creation of digital society.

Knowing those facts, it is reasonable to compare the overall state of the information society development in Slovenia, Croatia and Poland.

Figures 13 (for Slovenia), *14* (for Croatia) and *15* (for Poland) show the overall performance in the 5 fields of Information Society development in 2017, 2016 and 2014.

Figure 16 shows data on Slovenia's, Croatia's and Poland's performance in the Digital Economy and Society Index in 2017, compared to each other and to the EU average.

Conclusions

The conducted research shows that the analyzed indicators characterizing the level of information society development in three countries: Slovenia, Croatia, Poland, are generally at a level close to the EU average. In the year 2017 slightly better indicators than the EU average reached:

- Slovenia in: Connectivity, Human Capital and in Integration of Digital Technology;
- Poland in: Connectivity.

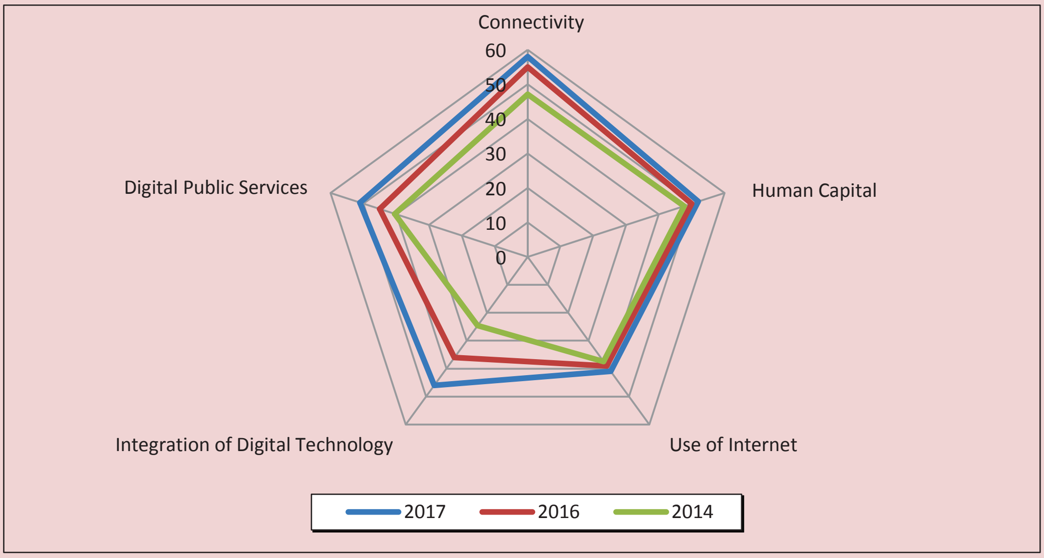
Additionally Poland and Slovenia almost reached the EU average regarding provision of Digital Public Services. Although Croatia didn't exceed the EU average on any of the researched fields, it reached the same amount of points as the EU average in 4 dimensions, namely in Connectivity, Human Capital, Use of Internet and in Integration of Digital Technology.

The weaker results compared to the EU average were:

- Slovenia in: the Use of Internet;
- Croatia in: Digital Public Services;
- Poland in: Integration of Digital Technology.

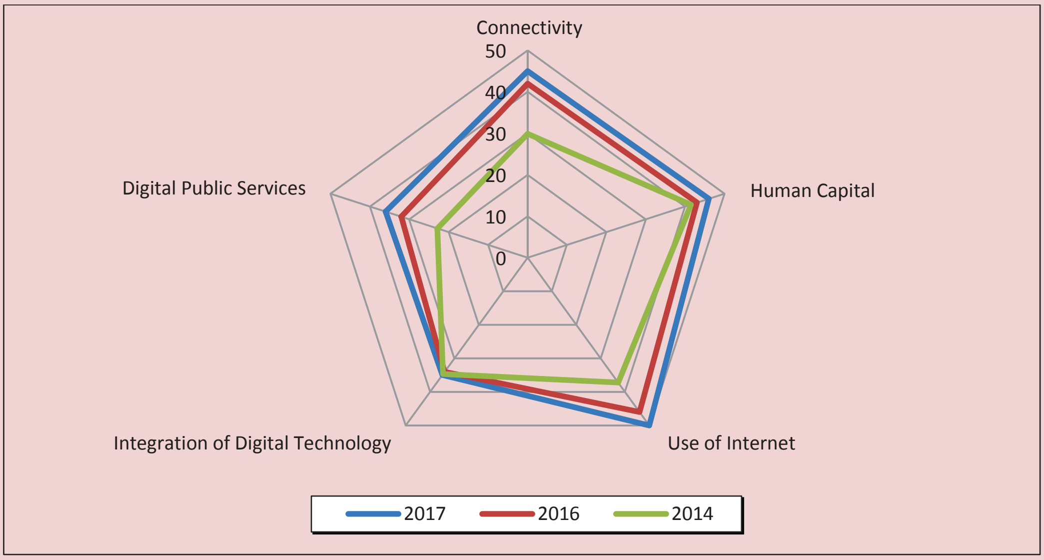
[6] Together with another EU member – Slovakia.

Figure 13. Slovenia's performance in the Digital Economy and Society Index in 2017, 2016 and 2014



Source: own elaboration.

Figure 14. Croatia's performance in the Digital Economy and Society Index in 2017, 2016 and 2014

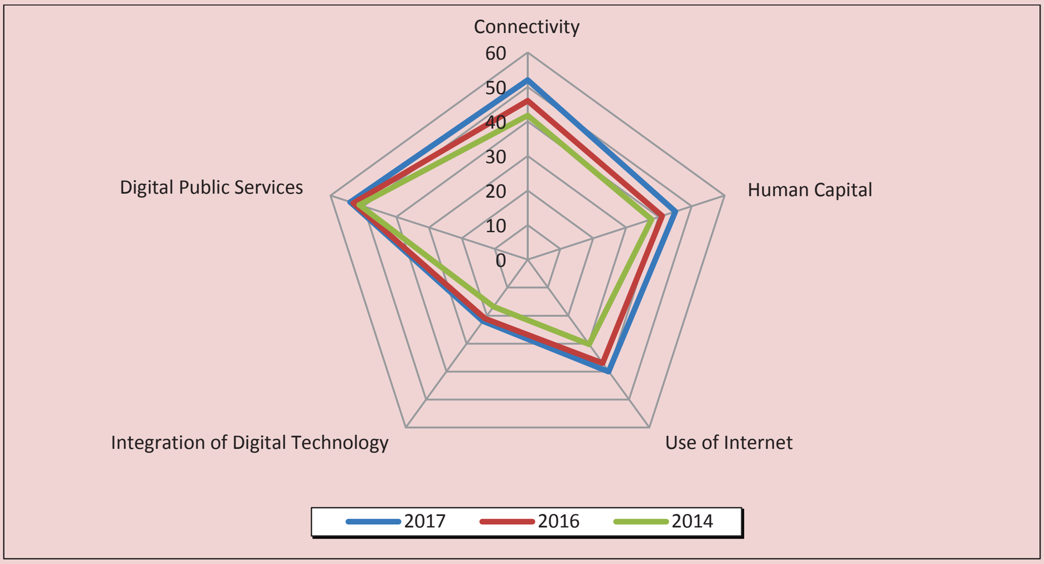


Source: own elaboration.

Despite the generally positive assessment of the level of information society development in the studied countries, one should look for ways to accelerate this development of Slovenia, Croatia and Poland. The basic role in this respect should be attributed to a necessary development regarding basic digital skills of the societies, to the raise of the demand for e-government services as well as the increase in investment outlays for telecommunications.

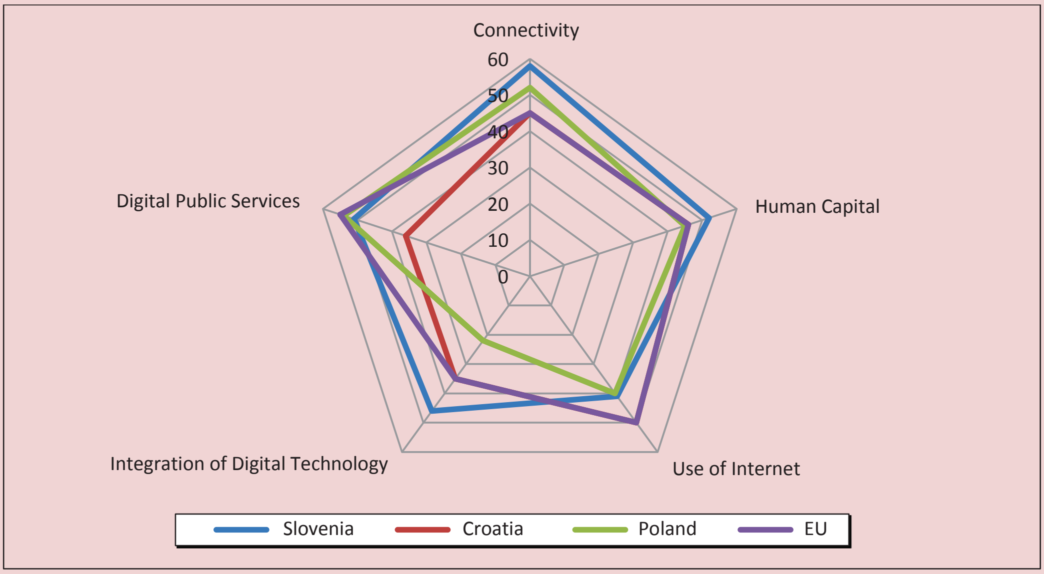
Especially the latter area is a desirable field of information society improvement

Figure 15. Poland's performance in the Digital Economy and Society Index in 2017, 2016 and 2014



Source: own elaboration.

Figure 16. Slovenia's, Croatia's and Poland's performance in the Digital Economy and Society Index in 2017, compared to each other and to the EU average



Source: own elaboration.

in all three researched countries. Despite a relatively positive assessment of the development of Slovenia, Croatia and Poland it is justified to increase telecommunication investments, especially in order to develop modern broadband networks that are the basis for the development of information society. Investments in broadband networks should be related to the influence of state authorities on:

– support for public funds from SMEs interested in using modern broadband networks and innovative information and communication services,

– development of e-administration, which additionally encourages companies and households to use broadband networks and innovative information and communication services.

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Received July 2, 2018.

SOCIAL DEVELOPMENT

DOI: 10.15838/esc.2018.4.58.13
UDC 316.4, LBC 60.524

The Expert Image of the Russian Civil Society

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Abstract. Civil society plays an increasingly important role in the economic and social development around the world. The article attempts to identify the conditions for the functioning of the civil society in Russia and forecast its development in the near future. The empirical framework of the research lies in the results of an expert survey held by the Russian Academy of Sciences in February–March, 2018. The research methods are based on two principles: first, the forecasting process is based on the procedure of expert evaluation of the current conditions, probability, and preference of possible changes in the civil society. Second, analysis is carried out as a result of integration of assessments of experts representing various socio-political spheres (government, business, third sector, science, the media). The research reveals that expert opinions on all aspects of functioning of the civil society are highly differentiated, which, on the one hand, can be explained by different ideological views of the expert community, on the other – indicates the current extremely uncertain and contradictory state of the sphere under study and its prospects. Based on the expert method the image of the Russian civil society taking into account the social context of its functioning and development prospects in the next five years has been formed. It is concluded that the current and probable situations, as well as the conditions for achieving the preferred situation in the civil sphere are largely determined by the high level of state influence. However, experts attribute the preferred changes in the state of the civil society in the country to the growing population's constructive self-organization. Therefore, the experts' ideas about the probable and desirable areas of development of the civil society do not coincide. It is proved that partnership development of the civil society characterized by a high level of civil participation and significant state support is the most promising for Russia. The results may be of interest to specialists conducting research on the problem of the civil society and the representatives of public administration and civil society.

Key words: civil society, civil participation, social forecasting, expert assessments.

For citation: Ukhanova Yu.V. The expert image of the Russian civil society. *Economic and Social Changes: Facts, Trends, Forecast,* 2018, vol. 11, no. 4, pp. 202–216. DOI: 10.15838/esc.2018.4.58.13

Introduction

In today's world community, all spheres of its public life (political, economic, and social) are undergoing democratization. Development of civil society institutions, involvement of citizens in addressing issues at the local, regional, and federal levels become important forms of administration [1, p. 7]. In recent years, in the Russian public and scientific discourse, more and more attention is paid to the increasing importance of civil society in the country. Meanwhile, in order to make it a major development factor, we need a clear understanding of its goals and prospects.

In Russia, forecasting development prospects, including those for civil society, is coming to the fore in connection with the presidential election and, accordingly, with a new political season, which may launch fundamental changes affecting most spheres of society. The new cycle always means uncertainty, which no doubt increases interest in forecasting. According to the definition given by E. Jantsch, a forecast is a probabilistic statement about the future with a relatively high degree of reliability [2, p. 19]. Interest in social forecasting is manifested not only in the curiosity about the future, but also in the desire to influence it in the convenient direction [3]. Consequently, the importance of assessing the prospects for the development of civil society is not so much in what it allows to foresee, but rather in the fact that the results provide an opportunity to develop targeted, scientifically substantiated actions.

In cases where the object is so complex and unpredictable that it is almost impossible to take into account the influence of many factors analytically, it is reasonable to use a methodology focused on sociological tools such as questionnaire poll (survey, interviewing) of the general public and experts. An especially important role belongs to the method of expert evaluations (population surveys in forecasting practice are rarely used): the resulting individual and collective expert assessments are used as the final forecast or as input data in complex forecasting systems [4, 20].

Evaluation and forecasting of the prospects for development of the public sphere on the basis of the experience and intuition of specialists is in the focus of attention of Western researchers. The method of expert assessments widely known in the mid-1960s was described by O. Helmer and colleagues, who attempted to avoid the intervention of psychological factors through anonymity and, at the same time, the group nature of the answer during the expert survey [5; 6]. The contribution of foreign scientists to the study of the subjectivity of expert assessments and the subjective probability of forecasts is also significant [7; 8; 9]. Sociological research, based on the method of expert assessments, is being developed in the modern period, as well. In particular, in 2017, F. Li and S. Pye carried out a project to identify socio-political and technological prospects for the UK to achieve its targets in 2050 on the basis of semi-structured interviews with experts from the government, industry, academia and civil society [10].

In Russia, a great contribution to the study of the problem of social forecasting on the basis of expert assessments was made by the staff of the Institute of Sociology (Social Forecasting Sector) and ZIRCON Research Group, which in 1991–1995 implemented a major scientific project "Russia: prospects for the transformation process" [11]. As a result, the prospects of the method under consideration were confirmed – in early 1993, the experts named the most likely events: the change of government, the off-year election and the adoption of a new Constitution.

In the future, this method was used in the framework of an expert scenario-forecasting monitoring "Russia 2020. A strategy for transition" carried out under the supervision of M.K. Gorshkov. As a result of the study, the scientists came to the conclusion about the effectiveness of this technique used for determining the typical ideas of the intellectual community about the future of the country. On the whole, the authors note that "the probable future of the Russian society is vague" [12, p. 345-346].

The problem of expert forecasting of the space of civil society has also attracted the attention of Russian scientists. In 2009, ZIRCON Research Group implemented an expert-analytical project "Short-term scenario forecasting of civil society development in Russia". The study produced the following major results: it identified the leading trends in the public sphere such as the weakening of the financing of civil society organizations by the state and business, strengthening of state control over civil organizations, and growth of informal social activity of citizens, which is largely observed in recent years [13].

The researchers conclude there are several methodological difficulties that complicate the forecasting of the development of civil society. First, it is important to bear in mind that the work of the civil sector depends largely on the ongoing macro-processes. In particular, international sociological studies show that civic activity depends on governmental policy, the level of democratic and economic development, the effectiveness of government structures, the level of corruption, the amount of spending on social services, value orientations in society, etc. [14]. At the same time, we think that at present there are very few reasonable hypotheses about the nature of the impact of these conditions on the development of civil society.

Second, problems in forecasting are created by differences in the understanding of the very essence of civil society [13, p. 145]. In connection with the above, we believe that it is appropriate to use a technique focused on the use of expert knowledge to carry out scientific analysis of the prospects of development of civil society.

The subject of our research is the state and prospects of development of civil society in expert assessments. We adhere to a definition proposed by the World Alliance within the framework of a research project on integrated assessment of the state of civil society "CIVICUS Civil Society Index (CSI)", according to which "civil society" is understood as an arena outside the family, the state and the market, created by individual and collective actions, as well as by organizations and institutions for the purpose of promoting common interests [15, p.7].

The aim of our work is to create an expert image of civil society, taking into account current conditions, and probable and preferred changes in the medium term (five years).

Achieving the goal involves addressing a number of tasks:

1. To consider the social context of the functioning of civil society in the country, including the challenges in the development of this sphere; to identify significant active actors of civil society.
2. To identify the likely situation of civil society development and the most likely actions of key actors.
3. To determine the preferred situation of civil society development and the necessary conditions for its achievement.

Research methodology and technique

In the present paper we use the tools of the expert scenario-forecasting monitoring "Russia 2020. A strategy for transition", carried out by

RAS Institute of Sociology in collaboration with ZIRCON Research Group in July – October 2015. We proceed from a set of opinions developed within the framework of this project and related to the current state of various parties of the Russian society, as well as its probable and desirable development (120 statements), which were transformed into survey questions. For the purpose of analysing civil society, 57 judgments affecting the public sphere were selected.

Thus, the work is based on two key methodological principles. First, the forecasting process is based on the procedure of expert assessment of current conditions, probability and preference of possible changes in the state of civil society. Second, the analysis is carried out by integrating the assessments of experts from different fields.

In the Vologda Oblast, the expert survey involved 30 people from five selected areas (5–7 experts each): 1) authorities: state and municipal employees; 2) business: representatives of business structures; 3) "third sector": representatives of public associations and NPOs; 4) media: heads of TV and radio broadcasting companies, chief editors of print media, journalists; 5) academia: scientists. It can be argued that the study involved experts from different segments of Russian society, which allows us to characterize the results as representative.

It was mandatory that the experts who participated in the survey had a high social status in the region, because in many ways this factor increases the level of public trust in the results of expert forecasting. As a result, experts holding senior positions in organizations were involved in the survey. The opportunity to participate in the survey and the deadline for filling-in the questionnaires were previously agreed with the experts. The questionnaires were collected in February – March 2018. Communication with the experts was carried out mostly by e-mail; the experts received the questionnaires via e-mail, filled them in and sent them back to us the same way. Five experts filled in the questionnaires in hard copy.

The results for each question are presented by expert assessments, distributed on a scale from one to ten points, the average score is calculated on their basis. The study uses a conventional scale, according to which the average score from 0 to 3 is considered as low, 4–6 – medium, 7–10 – high. In order to build a model of expert image of civil society, we selected judgments for each block with an average value from 6.5 to 10 points (high level).

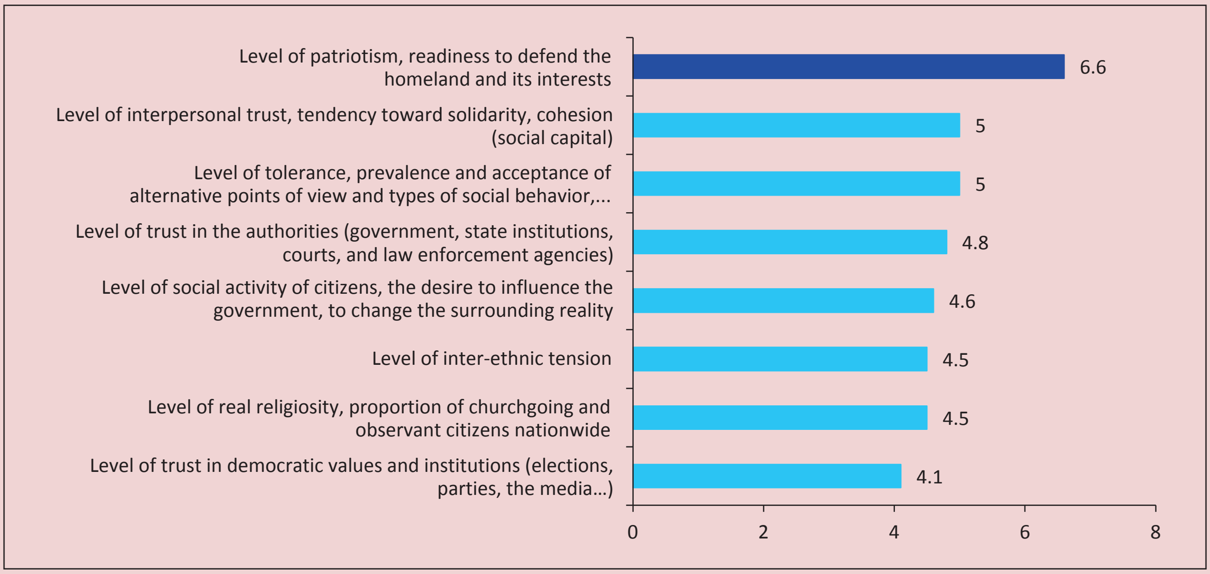
Kendall's coefficient of concordance (multiple rank correlation coefficient) was calculated in order to identify the consistency of experts' opinions on the grouped blocks of questions. The coefficient of concordance can take values from 0 to 1, with 0 meaning complete inconsistency of opinions, and 1 – their complete consistency.

Research results

Conditions of functioning of civil society: social context, internal challenges, actors

In the study of civil society, priority is attached to the question of the conditions in which it operates. According to expert estimates, the social context of civil society development is characterized by a high level of patriotism and readiness to protect the homeland and its interests (average score – 6.6; *Fig. 1*). Patriotism in this case is considered as a form of social consciousness and political behavior [16, p. 598]. We emphasize that expert assessments are consistent with the data of sociological surveys of the population. In particular, according to the results of the research conducted by the Public Opinion Foundation, in Russia there is an increase

Figure 1. Social context in which civil society is functioning*



In this and other figures, the colors denote the following:

(dark blue)	High level (6.5–10 points)
(blue)	Average level (4–6 points)
(light blue)	Low level (0–3 points)

* The level of each indicator is assessed on a 10-point scale, where “1” is an extremely low level, “10” is an extremely high level. Ranked in the descending order of the average score.

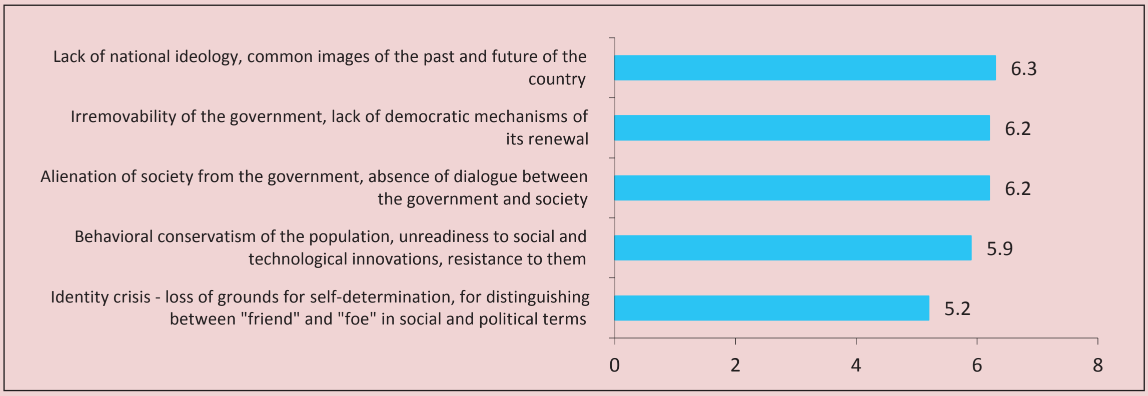
in patriotic sentiments: the proportion of respondents who consider themselves patriots increased by 21 percentage points (from 57 to 78%) in the course of 11 years (from 2006 to 2017)[1].

Other judgments such as the level of interpersonal and institutional trust, the level of tolerance, social activity of citizens, religiosity and ethnic tension (the average score is from 4 to 5 points) received average scores; while the level of trust in democratic values and institutions was assessed as being the lowest (4.1 points). Thus, the data obtained allow us to conclude that experts more critically assess the effectiveness of the model of Russian democracy and democratic institutions, which are designed to promote the development of civil society. All-Russian and regional sociological studies also reveal a contradictory trend – those institutions the purpose of which is to represent the interests of people (political parties, the judiciary system, the media, non-governmental organizations, etc.) enjoy less support than the authorities, including law enforcement agencies [12, p. 178; 17].

According to the integrated assessments of experts, the extremely relevant and totally irrelevant internal challenges that pose a potential threat to the development of civil society have not been identified. All judgments received an average score (from 5 to 6 points; *Fig. 2*). At the same time, the identity crisis

[1] The survey of the Russian population aged 18 and older was conducted on March 5, 2017 in 53 constituent entities of the Russian Federation; 104 settlements; 1,500 respondents. Interview at the place of residence. Statistical error does not exceed 3.6%. Patriotism: the dynamics of opinion. FOM. Available at: http://fom.ru/TSennosti/13261# (accessed 03.06.2018).

Figure 2. Internal challenges to the development of civil society*



* Assessment of the acuteness of each problem on a 10-point scale, where “1” is completely irrelevant, “10” is extremely relevant, “very hot”. Ranked in the descending order of average score.

(5.2 points) was marked as the least relevant among the statements. This is a positive point, because components of identity (in particular, absorption of values of constructive participation in social interactions) in many ways determine the viability of civil society. At the same time, the alienation of the population from the authorities, the absence of dialogue between them is a serious problem for Russian society. According to the European Sociological Survey (ESS), in 2016, 74% of Russians said they could not participate in the political life of the country (the average value for 16 countries is 64%)[2].

According to experts, state-owned media can be considered the most active subjects of the civil sphere, which can have an impact on the future development of Russian society (7.7 points; *Fig. 3*). Such subjects as opposition parliamentary and non-parliamentary parties, foreign funds and NPOs recognized as foreign agents received low scores. Thus, state-owned media (rather than, for instance, non-governmental organizations) are identified by experts as the most influential actors in the non-governmental sector; private and non-governmental media rank second.

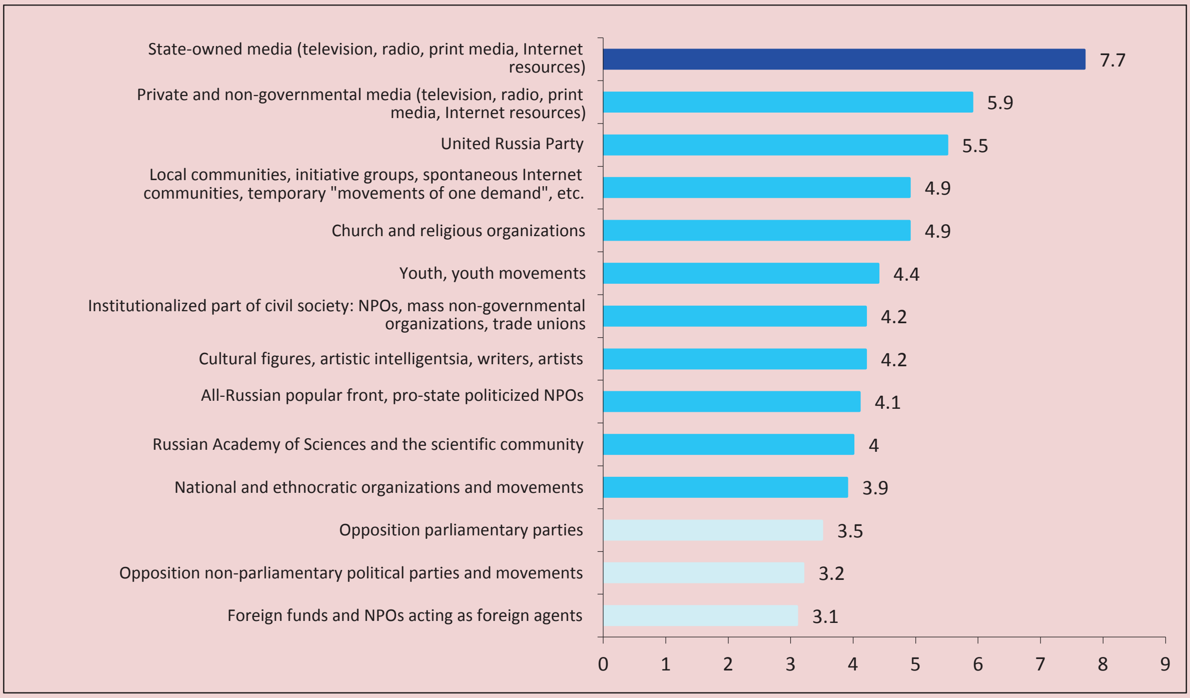
According to the final data, the actors of the institutional part of civil society (NPOs and non-governmental associations) received lower estimates than the subjects of informal societies (local communities, initiative groups, etc.; the average score was 4.2 vs. 4.9), which indicates the restructuring of the civil society space and the complexity of the modern landscape of the civic sphere.

These conclusions are consistent with official statistics: in Russia there is a steady trend of reducing the number of non-governmental associations, which along with NPOs represent the main space for institutional civic participation. Thus, at the end of 2016, there were 98,603 registered non-governmental associations in the country as a whole, which amounted to 98% in comparison with the level of 2015 (100,405 units) and 95% in comparison with the level of 2013 (103,325 units) [18].

Recently, in Russian society, along with traditional types of civic engagement (activities of non-governmental organizations), there is a growing number of “short-term projects”

[2] European Social Survey. Available at: http://www.europeansocialsurvey.org/ (accessed 04.06.2018).

Figure 3. Impact of civil society actors on the development of Russian society in the next five years*



* The degree of impact of each subject (actor) is assessed on a 10-point scale, where “1” means there is no impact, “10” means there is a very strong impact. Ranked in descending order of average score.

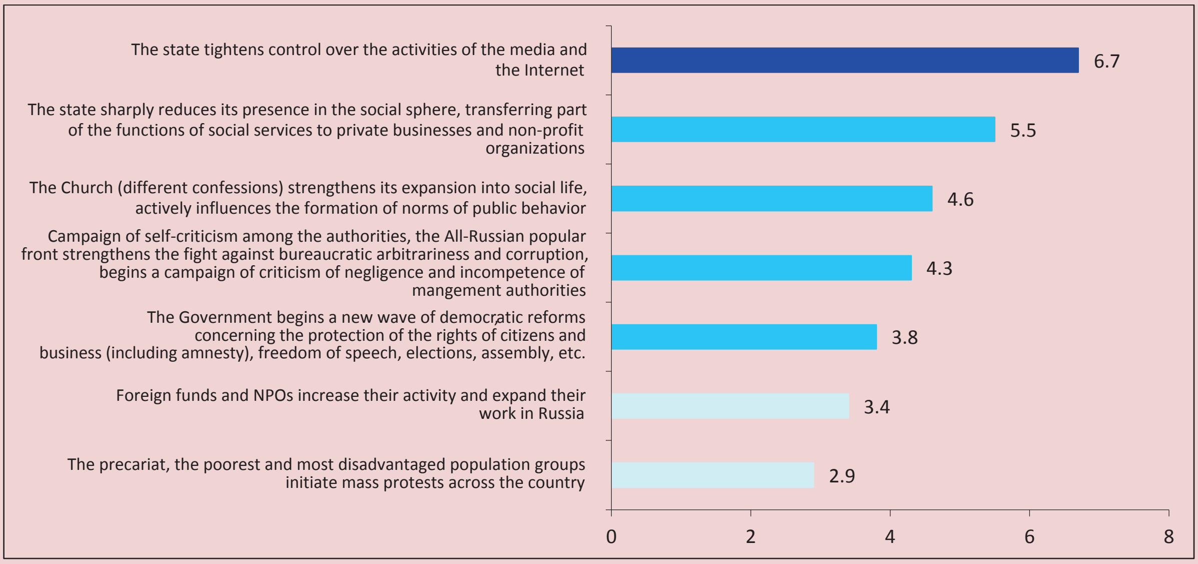
– short-term event forms of participation, which provide an opportunity to improve the effectiveness of rapid action and to carry out social mobilization [19]. At the same time, when analyzing the forms of civic engagement, B. Barber concludes that the reduction of the number of associations in favor of informal participation is a sign of the crisis of social relations [20].

Probable situation in the development of the sphere of civil society: actions of the subjects and possible events and processes

According to experts, the most likely actions of the subjects of socio-political processes in the civil sphere in the next five years will include the tightening of state control over the activities of the media and the Internet (6.7 points; *Fig. 4*). According to experts, it is unlikely that there will be a new wave of democratic reforms related to the protection of citizens’ rights and business (3.8 points); the same relates to the increase in the activity of foreign funds (3.4). Experts consider the development of protest movements to be less likely (2.9). To support such opinions, we note that according to sociological measurements there is a decline in the potential of protest. According to the results of population surveys conducted by VolRC RAS in the Vologda Oblast, 33.4% of respondents were ready to participate in protest actions in 1997, 20.7% – in 2007, and 17.4% – in 2017 [21, p. 170]. It follows from the data obtained that both the experts and the population as a whole do not consider the protest as a promising form of civic participation in the development of Russian society.

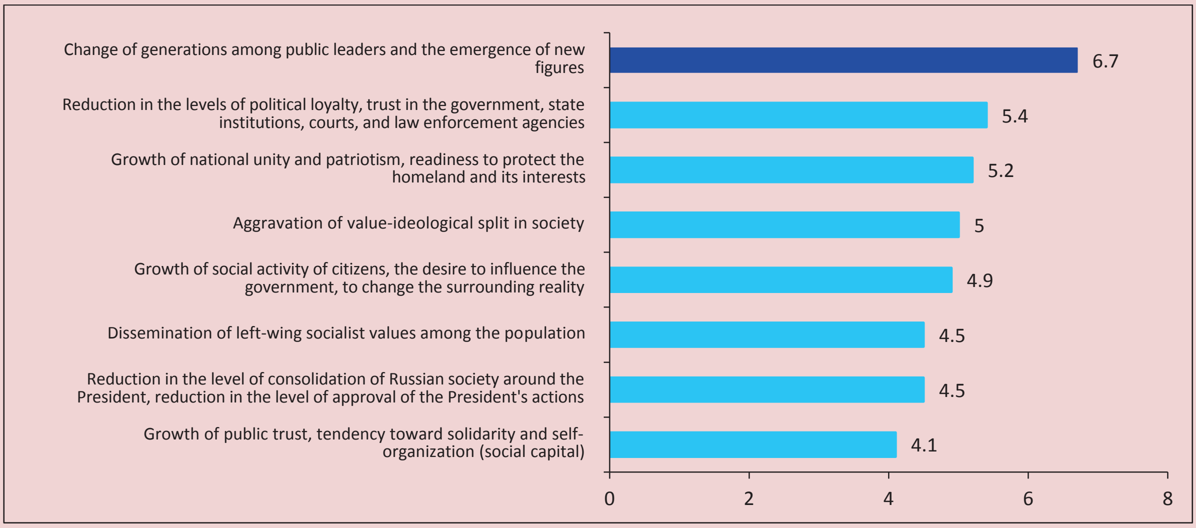
Experts have named the change of generations among public leaders and the emergence

Figure 4. Probability of actions of the main subjects of socio-political processes in the next 5 years*



* Ranked in descending order of average probability.

Figure 5. Probability of changes in civil society in the coming years (in five years)*



* Ranked in descending order of average probability.

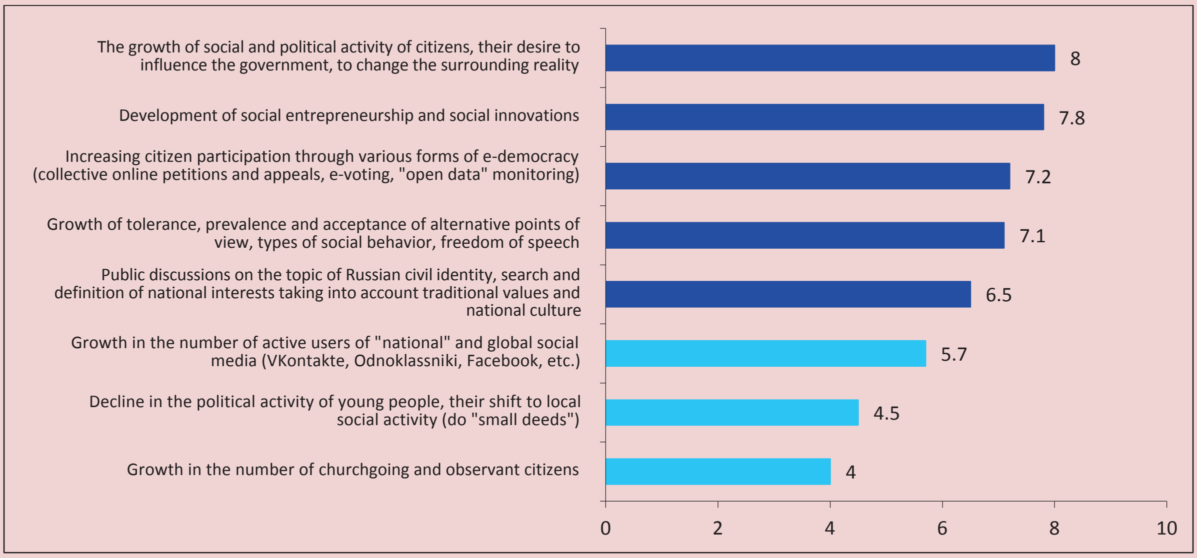
of new figures that enjoy the authority of the public as he most likely events or processes in the sphere of civil society in the next five years, (6.7 points; *Fig. 5*). The remaining judgments received average scores (from 4 to 5.4 points). The least likely processes, according to the expert community, include the growth of public trust and a tendency toward self-organization, which is the basis of social capital (4.1 points). Meanwhile, social capital serves as an important resource for the activation of modernization processes, including those in the field of civil society [22]. As F. Fukuyama noted, the political activity of the population is largely determined by trust, and trust, in turn, affects the activity in the communities [23].

Preferred development of civil society, the necessary conditions to achieve the desired situation

According to experts, the most preferable processes in the civic sphere are the growth of social and political activity of citizens, development of social entrepreneurship and social innovations, increase of civic engagement through e-democracy, growth of tolerance, and public discussions on the issues of civil identity (average score – from 6.5 to 8; *Fig. 6*). Less desirable social processes, according to experts, are the development of social media in the Internet space, reduction of social activity of young people, the growth of religiosity (average score – from 4 to 5.7). Thus, we can say that experts associate the successful development of society primarily with a constructive civil self-organization, although such trends are assessed by them as unlikely.

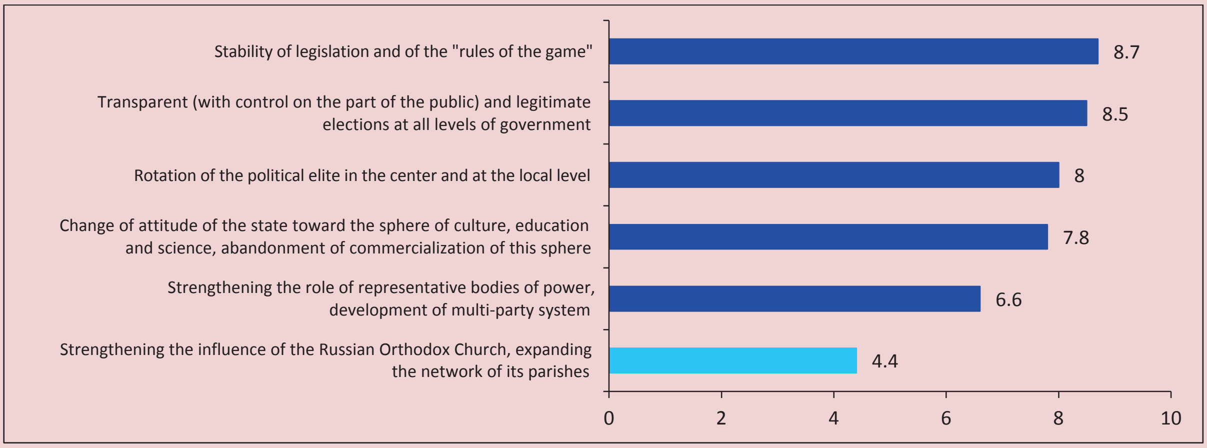
Based on the data obtained, we can say that in order to achieve the preferred situation in the field of civil society, the conditions that are associated with the activities of the authorities at different levels are more necessary (average score from 6.6 to 8.7%; *Fig. 7*). Under the circumstances, the Russian Orthodox Church can play the least important role in achieving the preferred situation (4.4 points). According to some researchers, the 21st century will be the "age of religiosity", and the priority of religious ideas will only increase in the future [24]. According to academician G.V. Osipov, on the contrary, "the coming century, according to the forecasts and conclusions of futurology, should be the century of the triumph of scientific worldview" [25, p. 9]. The expert community also does not predict the growth of religiosity among Russians and therefore does not see the need to strengthen the influence of the Russian Orthodox Church. In general, according to experts, the successful development of

Figure 6. Desirable changes for the successful development of Russian civil society in the next 5 years*



* The desirability of each event is assessed on a 10-point scale, where "1" is completely undesirable, "10" – extremely desirable. Ranked in descending order of average score.

Figure 7. Conditions for achieving the desirable situation in the sphere of Russian civil society*



* The need for each factor and condition is assessed on a 10-point scale, where “1” means it is not necessary at all, “10” means it is absolutely necessary. Ranked in descending order of average score.

Russian society is determined primarily by the government.

In assessing the level of consistency of expert assessments, we reveal that the greatest consolidation is observed in the experts’ perception of the role of various subjects of the civil sphere (coefficient of concordance is 0.404), the probability of their actions in the next five years (coefficient of concordance is 0.386), and the conditions for achieving the preferred situation in Russian civil society (coefficient of concordance is 0.387; *Tab. 1*). In other words, despite the significant difference in the socio-political position of the experts participating in the survey, the understanding of these aspects is largely similar. The assessment of desirable changes for the successful development of civil society in Russia in the next five years (0.305) looks somewhat less consistent. The opinions of experts were to a greater extent different in assessing the probable situation and internal challenges to the development of civil society – the consistency of assessments on these judgments is lower than on other issues (0.133 and 0.039).

In general, it should be noted that there is a high degree of differentiation of experts’ opinions on all the aspects of the functioning of civil society the concordance coefficient does not approach unity on any of the issues. On the one hand, this can be explained by the difference in the ideological views of experts. On the other hand, it may indicate an extremely uncertain and contradictory current state of the sphere under consideration and its prospects. It is noteworthy that in 2008, when the scientists of the ZIRCON Research Group were implementing the project on expert forecasting of civil society in Russia, they also pointed out the inconsistency of assessments, which, in their opinion, was due to the uncertainty of the object itself [13].

Combining the judgments that have high scores (average score 6.5–10 points) into three modules: the current, probable and preferred situations in the field of civil society, we have formulated an expert image of civil society *(Fig. 8)*. The analysis of the results shows that the current and probable situations, as well as the conditions for achieving the preferred

Table 1. Level of consistency of expert assessments (Kendall's coefficient of concordance)*

No.	Name of the block	Coefficient
1.	Characteristics of the social context of civil society development	0.292
2.	Internal challenges for the development of civil society	0.039
3.	Influence of civil society actors on the development of Russian society in the next five years	0.404
4.	Probability of actions of the main subjects of socio-political processes in the next 5 years	0.386
5.	Probability of the following events, events or processes in the field of civil society in the coming years (5 years)	0.133
6.	Desirable changes for the successful development of Russian civil society in the next 5 years	0.305
7.	Conditions for achieving the desired situation in the sphere of Russian civil society	0.387

* Kendall's coefficient of concordance denoted the degree of consistency of experts' opinions. The coefficient of concordance can take values from 0 to 1, with 0 meaning complete inconsistency of opinions, and 1 – their complete consistency.
Source: our own calculations.

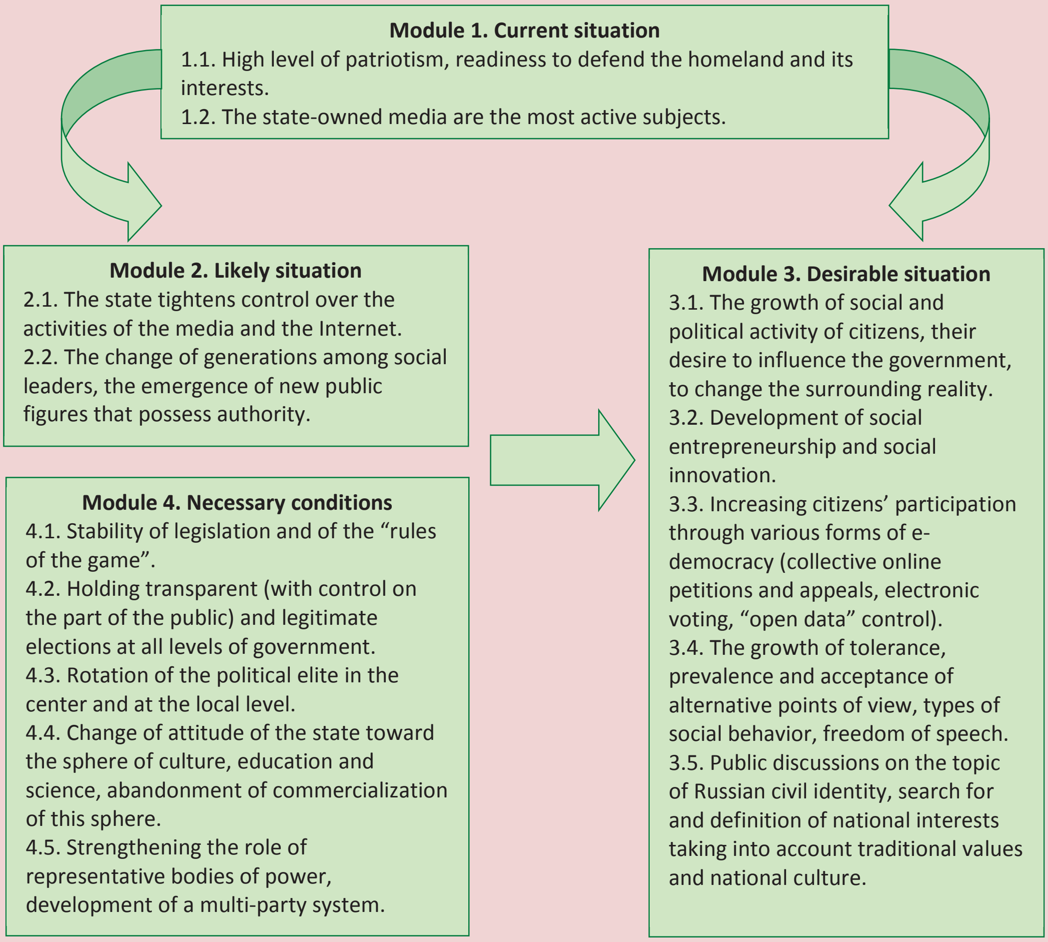
situation, are largely due to the role of the government. According to researchers, the formation and development of civil society under the strong influence of the state can be quite effective. However, in such a case it is necessary for civil society to be "neither a panacea for the government nor a forced necessity for social groups" [26, p. 11]. According to the data we have obtained, experts associate the desirable changes in the sphere of civil society primarily with the growth of people's civic engagement, although they consider these processes to be unlikely. Thus, experts' ideas about the probable and desirable situation in the development of civil society do not coincide.

We should point out that the findings of the analysis of the expert survey data in the Vologda Oblast are consistent with the results of the expert scenario-forecasting monitoring "Russia 2020. A strategy for transition" conducted by RAS Institute of Sociology in collaboration with ZIRCON Research Group [12, pp. 315-346].

In this context, the extent to which the population is ready for civic participation becomes relevant. In June 2018, VolRC RAS conducted a sociological survey, in which the following question was asked: "Could you become a "social activist"? If you could, then in what situation?". Almost one third of the residents of the Oblast replied that they "could not in any situation" (28%), one third said they "could under certain circumstances" (32%; *Tab. 2*). In addition, it is noteworthy that the vast majority of respondents (40%) found it difficult to answer; it means that under certain circumstances, they can belong either to the first group of the population of the region (without interest in civil participation) or to the second group (who are potentially ready to participate).

According to the results of the sociological monitoring conducted by VolRC RAS, the main barriers to the manifestation of civic activity are "disbelief in the ability to influence the decisions of the authorities" (in 2017, the share of assessments was 20%), "indifference to common affairs, individualism" (19.5%), "the habit of relying on what is already available, on the authorities" (19.1%; *Tab. 3*). We should point out the fact that in the long-term dynamics (in 2017 relative to 2008) the proportion of those who among the barriers to civic engagement identified the disbelief in the ability to influence the decisions of the authorities, did not decrease (20–21%), while there is a significant reduction (by 24 and 6 p.p., respectively) in the proportion of respondents who indicated indifference toward common affairs and parasitical attitude as the barriers to civic engagement.

Figure 8. Scheme of the expert image of civil society*



* Average scores: 6.5–10 points.
Source: our own compilation.

Having considered the data we obtained, we can say that it is possible to achieve desirable changes in the development of civil society in Russia, namely the growth of constructive participation of the population in the transformation of the surrounding reality if the necessary conditions are created first of all on the part of the government (stable legislative base, election of authorities with public control, change of policy in the cultural, scientific and educational spheres, expansion of people’s representation in power structures, etc.; see Fig. 8).

These findings give reason to believe that Russia can embark on an effective path in the development of civil society on the basis of partnership. This direction is determined, on the one hand, by a high level of civic engagement, on the other – by a strong level of state influence [13]. Consequently, the functioning of civil society in these conditions will be determined both by the activities of the government and the activities of citizens, and the partnership should be beneficial to its participants, so that they could solve their own and social problems. In this regard, both

Table 2. Potential of civic participation of Vologda Oblast population* (% of respondents, N=1,500)

Answer option	Percentage of respondents who chose the answer, %
I could not in any situation	28.1
I could in case of violation of my rights	15.5
I could in case of violation of the rights of others	7.1
I could, if it were necessary to find a solution to a social problem	8.7
Other	0.3
It's difficult to answer	40.1

* An answer to the question "Could you become a "social activist"? If you could, then in what situation?". The question was asked in June 2018.
Source: VolRC RAS public opinion monitoring[3].

Table 3. Main barriers to the development of social participation as assessed by the population of the Vologda Oblast* (% of respondents, N=1,500)

Indicator	2008	2011	2013	2014	2015	2016	2017	Dynamics (+/-) 2017 to …	
								2016	2008
Disbelief in the ability to influence the decisions of the authorities	20.7	24.3	27.2	22.7	21.0	22.3	20.0	-2	-1
Indifference to common affairs, individualism	43.5	26.2	24.1	23.5	19.6	24.5	19.5	-5	-24
The habit of relying on what is already available, on the authorities	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, persecution by senior officials, authorities, law enforcement agencies	–	15.9	19.9	19.7	11.8	13.2	14.6	+1	–
Lack of organizational skills	9.5	8.3	11.1	10.7	9.5	10.9	9.6	-1	0
Fear 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
It's difficult to answer	14.9	27.3	29.7	29.9	35.1	*35.3*	*37.0*	*+2*	*+22*

* The answer to the question: "What barriers to the manifestation of people's civic position do you consider to be the most important ones?". The question is asked once a year. Ranked according to the data as of 2017.
Source: VolRC RAS public opinion monitoring.

the state and citizens are mutually interested in the effectiveness of civil society and will contribute to its development. As V. Ilyin noted, a constructive dialogue between the state and civil society is ultimately a guarantee of social stability, national security, and it provides positive dynamics of the country's competitiveness in the external environment [26, p. 10].

Thus, our study allows us to draw a number of conclusions.

According to the generalized opinion of experts, it is established that the current and probable situation, as well as the conditions for achieving the desirable situation in the sphere of civil society are largely associated with strong influence and support from the state, and the desirable changes – with the

[3] The monitoring of the economic situation and social well-being of the population of the Vologda Oblast is carried out since 1996 at intervals of once every two months. The survey uses a multi-stage zoned sample model with a quota selection of observation units at the last stage. The first stage of sampling is the selection of typical constituent entities of the Vologda Oblast, which includes the cities of Vologda and Cherepovets and the districts: Babaevsky, Velikoustyugsky, Vozhegodsky, Gryazovetsky, Kirillovsky, Nikolsky, Tarnogsky, and Sheksninsky. The second stage is territorial zoning within the selected entities. At the third stage, respondents are selected according to the given quotas by sex and age. Sample size is 1,500 people.

growth of people's civic engagement. The expert image of civil society that we have formed is characterized by a mismatch between experts' ideas (both at the level of the Vologda Oblast and at the national level) about the probable and desirable development of the sphere under consideration: according to "expert minds", the future of Russian civil society should be determined, first of all, by the people. The results suggest that in Russia there is a promising partnership-based way of development of civil society, which can be characterized by a high level of civic engagement, as well as strong influence and support from the state.

Expert views on civil society in Russia reveal a high degree of differentiation, which can be explained by the difference in the ideological views of experts or by the extremely uncertain and contradictory prospects of this sphere. In general, the study confirmed the possibility of forecasting the development of civil society, despite the complexity of this object for expert evaluation.

The conclusions presented are preliminary. The collected set of expert assessments of the state of civil society in Russia, as well as the forecast of its prospects require further in-depth analysis and comparison with Russian national and regional sociological research.

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Received July 3, 2018.

DOI: 10.15838/esc.2018.4.58.14
UDC 338.342.44, LBC 65.23

Non-Formal Institutional Environment of Social Entrepreneurship*

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* The article is prepared according to the state order of the Federal Agency for Scientific Organizations for Institute of Economics, Ural branch of Russian Academy of Sciences for 2018.

For citation: Popov E.V., Veretennikova A.Yu., Naumov I.V., Kozinskaya K.M. Non-formal institutional environment of social entrepreneurship. *Economic and Social Changes: Facts, Trends, Forecast*, 2018, vol. 11, no. 4, pp. 217–234. DOI: 10.15838/esc.2018.4.58.14

Abstract. Social entrepreneurship as an alternative way to solve social problems is rapidly becoming popular. The efficiency of this type of activity largely depends on the formal institutions operating in the territory under consideration, as well as on the prevailing values, habits, customs peculiar to social groups which do not live on it and form an informal institutional environment. The purpose of the study is to simulate the impact of informal institutional environment on social entrepreneurship in the global space. The article analyzes the approaches to analysis of informal institutions; it is shown that this problem is raised in works of both foreign and domestic researchers. The Inglehart-Welzel concept of modernization, cultural change and democracy was used in analysis of informal institutional environment. The information framework of the research consists of international reports of the Global Entrepreneurship Monitor, the World Values Survey, the World Bank for 2015 in 30 countries. The analysis of distribution of countries according to Inglehart map criteria shows that successful functioning of social entrepreneurship is facilitated by post-materialistic values developed in the society. The authors of the article construct a non-linear multi-factor model demonstrating the influence of informal institutional environment on social entrepreneurship. It is proved that the most important factors of informal environment having an impact on social entrepreneurship is the autonomy of members in the society, as well as gender equality. The significance of the results is the opportunity to use the identified patterns directly for the development of social entrepreneurship, and solve social problems in general.

Key words: informal institutional environment, social entrepreneurship, factors, Inglehart-Welzel concept, values.

1. Introduction

Social entrepreneurship, being a relatively new phenomenon for the socio-economic processes of different levels of economic levels, has a number of features due to the transformation of behavior of economic agents in the implementation of this type of activity. First of all, social entrepreneurship is aimed at achieving social rather than commercial goals. The consumers of results of socially-oriented activities, including social entrepreneurship, are often a certain group of people with a common social problem, rather than a specific individual. Such expansion of the object of effort makes changes in the mechanisms for attracting resources for the development of this type of activity. A social entrepreneur receives a moral right to attract public resources to achieve social goals [1]. Under these conditions, the performance of social entrepreneurs is greatly influenced by economic, social, and legal conditions in which they work. However, citizens' distinctive features of behavior, habits, and their values resulting from historical, cultural, national, and mental characteristics are equally important. In other words, the need to consider informal institutional environment affecting the development of social entrepreneurship is of particular importance. Despite the existing need to study the informal environment of socially-oriented activities, the majority of studies are devoted to the influence of formal institutions [2] on social entrepreneurship (M. Dacin [3], U. Stephan, L. Uhlaner [4], S. Zahra [5], etc.).

The study of the role of informal institutions is important for several reasons. First, social values are beliefs related to the actions and goals of economic agents [6], as a result of which the introduction of pro-social values motivates entrepreneurs to receive economic benefits and solve social problems. Second, values determine the standards and requirements to evaluate actions [6]. Public support is gained through provision of resources which are hard to obtain, which helps reduce transaction costs of social entrepreneurs [7].

The purpose for the present study is to simulate the impact of the non-formal institutional environment on the global social entrepreneurship.

To achieve this goal we review the approaches to analyzing the impact of the non-formal environment on the economic processes, describe the Inglehart–Welzel cultural map reflecting the development of non-formal institutions in different countries, based on analysis of foreign and domestic literature, as well as through regression analysis; determine factors affecting social entrepreneurship, and build a multi-factor non-linear model to demonstrate the identified patterns.

2. Non-formal institutional environment of social entrepreneurship: theoretical analysis

2.1. Social entrepreneurship and approaches to its measurement

On the one hand, social entrepreneurship is viewed as a type of activity characterized by presence of a mission to create and maintain social value; search for and use of new opportunities for completing the chosen mission; implementation of a continuous innovation, adaptation and training process; determined action unlimited by available resources; high responsibility of an entrepreneur for the results of activities [8]; on the other hand, it is an alternative way to solve social problems, a set of rules and standards that specify the behavior between economic actors, that is focused on solving social problems through the development of commercial activity. It is noteworthy that in foreign practice the following schools were formed to study this phenomenon: the socio-innovation school, the socio-entrepreneurial school, and the European and English scientific schools.

The socio-innovation school, with J. Thompson, S. Elward, J. Mair, and I. Marti [9] as the main representatives, considers social entrepreneurship as individual activity to meet social needs through innovative methods. The research subject of the representatives of the socio-entrepreneurial school (R. McDonald, R. Dart, R. Anderson) are non-profit organizations (NPOs) serving the social sphere and receiving additional income [10]. Within the framework of this school, scientists are looking for new ways to provide finance for NPOs; they introduce effective management methods in the activities of social enterprises. However, the representatives of this school do not focus on innovation. The representatives of the European scientific school of social entrepreneurship, U. Stephan and L. Uhlaner [4], as well as R. Spir and I. Vidal see the purpose of socially-oriented activity in meeting public interests and conclude that the effectiveness of their existence is hindered. According to the approach of the English school of social entrepreneurship (D. Turner, C. Liming, S. Dickson and A. Clifford, L. Darby and H. Jenkins [11]), the solution of social problems should be entirely assigned to the business community, while the resulting income is directed primarily to the satisfaction of social needs.

Among domestic researchers of social entrepreneurship, the most notable are N.F. Kadol [12], studying the features of social entrepreneurship in the Russian economy, Yu.N. Arai and T.A. Burmistrova [13], covering the features of business models in social entrepreneurship, A. Moscovskaya, Head of the Center for Social Entrepreneurship and Social Innovation at the Higher School of Economics (HSE), and others [14]. The team of authors coordinated by researchers from Moscow studies in detail the practice of social entrepreneurship development both at the national and international level, demonstrating and justifying a special development direction of this type of activity in the domestic practice. It is noteworthy that a distinctive difference of social entrepreneurship from entrepreneurship in general is the predominance of public goals over commercial ones [15], which implies special conditions to encourage entrepreneurs to make entrepreneurship a social issue.

Since the phenomenon of social entrepreneurship is new, there is a problem of its quantitative measurement. The search for information database and methods of measuring social entrepreneurship has identified three approaches most commonly described in the scientific literature: Panel Study of Entrepreneurship Dynamics, (PSED II), Global Entrepreneurship Monitoring (GEM), and analysis of tax returns of NPOs in different countries of the world. Let us consider these approaches in detail and analyze the possibility of their use as a source of data on social entrepreneurship in the framework of the study.

PSED II is a major research project studying the process of company's formation and development at an early stage of its operation [16]. PSED originated in 1993 with the study of the adult population in the state of Viscount, US. The University of Michigan, having developed the PSED methodology, continued to study households in the United States through a telephone survey of 64.000 Americans. Despite the large scale of the study, the applied methodology was not focused solely on studying social entrepreneurship, but was also directly implemented in the US territory, that is why it cannot be applied to determine the cross-country characteristics of social entrepreneurship.

GEM aims to explore social entrepreneurship in 2009 and 2015 in more than 50 countries. This approach is based on a survey to identify the share of people directly engaged in social entrepreneurship in a country. The disadvantages of this approach include difficulties in verifying the validity of obtained data and different approaches on what exactly should be considered as social entrepreneurship in different countries.

In the framework of GEM, tax returns of NPOs are applied. At the same time, despite the large amount of data, the concept of a non-profit organization in the tax legislation of different countries may vary. Moreover, the use of this method is difficult for scientific research in terms of data unification. This method was used in the study of social entrepreneurship development in the United States from 1982 to 2002 and the impact of state support on its development [17]. The method is also used in the work by D. Carroll and K. Stater, who study the impact of income diversification on socially-oriented activities in the United States [18]. It can be concluded that this method is applicable to the study of the phenomenon of entrepreneurship only in one country.

2.2. Non-formal institutions and approaches to their analysis

The need to consider non-formal institutional environment when analyzing social entrepreneurship is primarily due to the importance of social ties for the development of this type of activity.

The idea of non-formal institutions and their role in the development of economic processes is not new. In particular, T. Veblen defining institutes as habitual ways of implementing public life in its connection with a material environment in which lives the society [19], has laid the informal component in them. G. Schmoller also considered "rights", as well as “morals” that make up the essence of non-formal institutions as part of such institutions. D. North when defining determining the institution, in addition to formal rules, highlighted informal restrictions, in particular the generally recognized patterns of behavior, agreements, and internal activity restrictions [20]. W. Scott when considering the cognitive source of institutions reveals their non-formal component. In this case, only cultural regulation takes place [21].

According to C. Williamson’s theory, restrictions range from attitudes, beliefs, customs, standards and traditions governing the daily individuals’ behavior, to private judicial systems. The key difference between formal and non-formal institutions is that non-formal rules arise spontaneously and are not part of the legal system established by the state [22]. The Williamson’s theory was developed by S. Pejovich, who also points to features of non-formal institutions such as spontaneous emergence and features of sanctions [23].

According to works by D. North and C. Williamson, non-formal institutions such as social values, standards and traditions derived from the cultural heritage are the determining factors in economic behavior. At the same time, non-formal institutions influence the incentive mechanisms and regulatory structures of formal institutions [20, 22].

Interest in this subject is gradually growing among Russian scientists who focus much attention on the role of non-formal institutions in the economic life of the society. V.L. Tambovtsev’s monograph *Economic Theory of Informal Institutions* is devoted to the analysis of definitions and approaches to studying the influence of non-formal institutions on the economic performance. Tambovtsev, forming the author’s understanding of non-formal institutions and determining the unambiguous criterion for their separation from formal ones, proposes that institutions including non-specialized mechanisms for forcing the rules to be executed be considered non-formal institutions, which means that “the functions of a guarantor of non-formal institutions can be performed by any individual who believes for some reason that the addressees must follow certain rules; and who imposes sanctions to violators if there are any” [24]. A. Auzan in works devoted to the analysis of economic development in world countries, refers to non-formal institutions such as trust in society, gender equality, and individualism of members of the society [26].

Thus, the institutional environment consisting of stable rules, social standards and cognitive structures sets the framework for market transactions and writes the “rules of the game” [20]. Formal institutions characterize the constraints and incentives arising from government regulation, while non-formal institutions are formed within the society and are cognitive in nature; they reflect social agreements and arrangements that have an impact on the interaction and coordination between people within the society [20]. Non-formal institutions are closely related to the values accepted in the society: it is values that reflect the importance of beliefs and goals of members of the society [25]. Auzan emphasizes that values determine behavioral attitudes [26]. L. Polishchuk considers social capital – people’s ability to work together without coercion (in this case there is an external mechanism of coercion) – as a non-formal institution influencing the economic development of the society. The so-called “triad of social capital” consists of trust, shared standards and values, and various social networks. The nature of interaction of these elements is that “networks build trust among participants and promote the dissemination and strengthening of pro-social standards, and the unity of values and mutual trust expands social networks and contacts". Due to lack of social capital, economic activity "is atomized and becomes more primitive, and economic opportunities are underutilized" [27].

One of the main properties of non-formal institutions is the replacement of malfunctions of formal institutions. At the same time, the procedure for forming formal and non-formal institutions differs significantly. On the one hand, cultural peculiarities, patterns of behavior determined by customs and traditions can be formalized and thus the non-formal institution will be transformed into a formal one; on the other hand, malfunctions of institutions and institutional voids contribute to the formation of new patterns of behavior, which are often informal [4].

One of the most common approaches to analyzing non-formal institutional environment is presented in G. Hofstede's *Culture Consequences* devoted to the study of national cultural values. The study was conducted in the 1960-70s [28]. Hofstede, through interviewing more than 88.000 IBM employees in 72 countries identified four key aspects of culture: distance to power, individualism, masculinity, and avoidance of uncertainty. Distance to power describes citizens' perception of the phenomenon of power, the structure of power distribution, as well as the importance of power on the scale of people's personal values. Individualism describes people's preferences in terms of caring for themselves, their relatives, and families (a high level of individualism) or uniting in groups collectively responsible for their committed members. Masculinity characterizes the dominant values in the society. The masculine content is a preference for heroic action, material rewards for success, self-affirmation, rather than concern for others. Avoiding uncertainty indicates how citizens feel about uncertainty and ambiguity and whether they will try to control the future. Countries with high rates of avoidance of uncertainty support strong codes of belief and behavior and are intolerant of unorthodox ideas [28]. The methodology of studying non-formal institutions of social entrepreneurship was applied in work by K. Puumalainen, H. Sjögrén, P. Syrjä, and J. Barraket [29].

A common concept in studying a non-formal institutional environment is also the Sh. Schwartz theory, which distinguishes three bipolar cultural dimensions, representing alternative solutions to each of the problems faced by all societies: "Belonging" against "Autonomy", "Hierarchy" against "Equality", "Skill" against "Harmony". To identify the cultural characteristics of different world regions, Schwartz combined data from a survey of teachers and students and obtained results on seven value attitudes of cultures for 67 national groups. As a result of the research carried out during 1988–2005, Schwartz came to a conclusion that the socio-economic status and culture mutually determine each other [30]. Schwartz's approach (Schwartz value questionnaire) helps diagnose the structure of value attitudes of an individual or a group. The main feature of this technique is the differentiation of the concept of "value". The author says that there are two types of values: 1) values as abstract ideals and beliefs affecting an individual; 2) values as a guide to action, representing an "individual's profile". The first group of values is analyzed through assessing the respondent's characteristic qualities, presented in the form of nouns and adjectives, while the second – through assessing the individual's specific actions [31].

According to the Inglehart-Welzel concept, changes in cultural values is the result of socio-economic development of the society. Changes in values is an evolutionary process, during which values that are most suitable for life in specific living conditions undergo “natural selection” [32, p. 43]. The process of socio-economic development consists of two stages: industrialization – a transition from the agrarian to an industrial society; and post-industrialization – the displacement of the production sector by the service sector. At the stage of post-industrial modernization, a shift in the cultural sphere becomes predominant – the values of survival are replaced by the values of self-expression, which gradually increases social emancipation [32, p. 17]. However, according to R. Inglehart and C. Welzel, modernization processes undoubtedly leading to cultural and value changes, cannot be considered rigidly determined. In addition to socio-economic development, there is a number of other factors [32, p. 76]. The authors identify two historical factors of the system order that are resistant to changes: religious traditions of the society and its colonial past. Countries with protestant traditions, as a rule, occupy higher positions on the scale of “survival/self-expression” than catholic countries [32, p. 100]. The development of cultural values is non-linear with the socio-economic development since the degree of presence of secular-rational values and values of self-expression in the society can be explained by a combination of restraining and driving forces; at the same time, traditions and the modernization process affect cultural changes in both directions [32, p. 100].

According to R. Inglehart and C. Welzel, changes in cultural values at the personal level are manifested in changes at the social level, which contributes to the formation of new institutions. However, the relations between them are often unambiguous [32, p. 100]. Nevertheless, non-formal institutions reflect the collective opinion that influences the cooperation and coordination of individuals in the society [20]. Shared values are a significant reflection of non-formal institutions [33]. Thus, this approach takes into account a wide range of indicators characterizing various spheres of the society: from religious and political to economic and social ones. Just like Hofstede’s approach, it has a global reach, is carried out regularly, and helps track changes over time, which forms a database of more relevant information on the functioning of non-formal institutions. It is noteworthy that this approach to studying non-formal institutions is used in works by both domestic [26] and foreign authors [4].

2.3. Substantiation of the author’s approach to analyzing the non-formal institutional environment of social entrepreneurship

When analyzing the institutional environment affecting social entrepreneurship, in addition to regulatory and supporting institutions, special attention should be paid to the institutions of the cognitive environment, that is, rules and beliefs established between individuals and their groups through social interaction [2]. These interactions are the most stable and informal, which suggests the importance of studying the impact of the non-formal institutional environment on social entrepreneurship. Cognitive institutions are often non-formal, dependent on the so-called path dependence, and determine the behavior of entire groups of individuals. U. Stephan and L. Uhlaner demonstrate that social entrepreneurs highly appreciate both prosocial nature of their activities and autonomy – features characteristic of the post-materialistic society [4]. This means that the high level of post-materialistic culture in the society has a positive impact on social entrepreneurship. Socially supportive cultural standards related to non-formal institutions encourage cooperation based on multiple experiences of support, friendliness, usefulness, which stimulates the development of social entrepreneurship.

Based on approaches to analyzing social entrepreneurship and non-formal institutional environment presented in paragraphs 2.1 and 2.2., we formulate provisions underlying the framework of the authors' approach.

First, the GEM study described above is used as an information framework on the state of social entrepreneurship, due to the fact that this is the only database containing data on the development of this type of activity at the inter-country level. The study includes data from surveys of people engaged in social entrepreneurship at the operational stage of organization's development in the broad sense, that is, in any commercial activity with a social and environmental goal.

Second, the Inglehart-Welzel cultural map methodology was used for the study due to more recent data (2015) and a wide coverage of studied values measured in quantitative terms. It is noteworthy that Hofstede's method was rejected because the time lag between the study and the GEM study is 45 years, which is much more than one generation. The predominant cultural focus changes in response to a change in the position of power, although this change is much slower. Adaptation of societies to epidemics, technological development, welfare growth, contact with other cultures, wars and other exogenous factors leads to changes in cultural values [35].

Thus, based on the presented provisions, we developed an approach to analyzing a non-formal environment of social entrepreneurship, presented in detail in the next paragraph.

3. Authors' approach to analyzing a institutional environment of social entrepreneurship

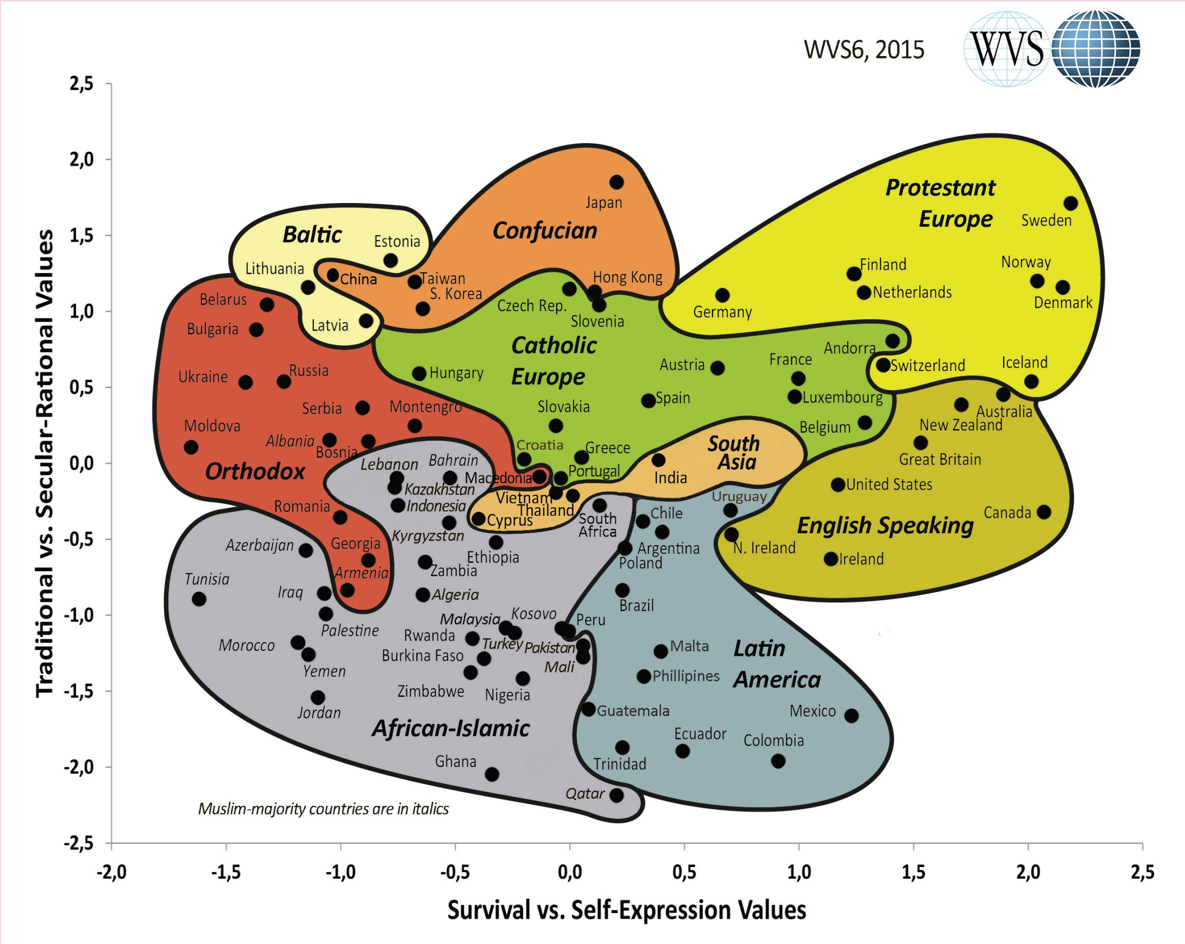
3.1. Application of the Inglehart–Welzel cultural map for analyzing social entrepreneurship

Based on data from the World Values Survey (WVS) in the early 1970s, R. Inglehart and C. Welzel formulated the concept of post-materialistic values, which proposed a new approach to studying values and their changes from generation to generation. According to the concept, young wealthy people in Western countries are less interested in the issues of income and security in the country, and more – in social and environmental problems and problems related to civil liberties. Inglehart notes that "the place of economic achievements as highest priority at the present post-modern society is increasingly focusing on the quality of life" [32]. As a result of achieving a high level of economic security, the population of countries who were the first to reach industrialization, focused on post-material values.

The Inglehart-Welzel cultural map is presented in *Fig. 1.*

The map shows cultural values systematized by 1) traditional and secular-rational on the Y-axis and 2) survival and self-development values on the X-axis. The movement from the bottom up characterizes the transition from traditional to secular-rational values, and the movement from left to right – the transition from survival to self-expression (post-materialistic) values. Traditional values include the importance of religion, absolute standards, and traditional family values; secular-rational values imply less attention to traditional family values and authority. The values of survival are focused on economic and physical security, as well as on the low level of trust and tolerance in the society. The values of self-expression

Figure 1. Inglehart-Welzel cultural map for 2015



give priority to subjective well-being, self-expression, and quality of life.

In this study, we analyze how the combination of these values is related to the level of social entrepreneurship development .

The cultural characteristics of behavior reflect a set of personal values that citizens adhere to [25]. It follows that the number of socially-oriented entrepreneurs is proportional to the number of people in the country who adhere to the values consistent with social entrepreneurship. Social entrepreneurs through their activities try to solve social problems and participate in production of public goods, which explains the interest of citizens with pro-social values to socially-oriented activities. Thus, the major motivation of a social entrepreneur is creating social value (rather than personal well-being), which corresponds to the values of post-materialistic societies.

The theoretical hypothesis formed on the basis of the study can be presented as follows: the level of social entrepreneurship in the country depends on the values of post-materialistic societies. To confirm the validity of this hypothesis, we analyzed how countries with different levels of social entrepreneurship are distributed across the quadrants of the Inglehart map (*Fig. 2*). The level of social entrepreneurship is marked by a point showing

Figure 2. Distribution of countries with different levels of social entrepreneurship on the Inglehart-Welzel map

Source: compiled by the authors based on Inglehart map.

the position of the country on the map. For this purpose, correlation analysis and analysis of statistical data were used.

First of all, we checked whether there is a connection between the level of social entrepreneurship and the value of index describing post-materialistic values on the Inglehart map. We revealed that there is a connection between these variables, although weak ($r = 0.36$). Analysis of average values in each of quadrant demonstrates that in the first and fourth quadrant, the average value of the level of social entrepreneurship is 4.1 and 4.58% respectively, while in the second and third quadrant – 2 and 2.63% respectively. Also in both 1 and 4 quadrant 63% of the sample is concentrated.

Thus, the assumption that post-materialist values influence the level of social entrepreneurship determined the further area of the research and served as a justification for the possibility of using the WVS questionnaire for studying social entrepreneurship.

According to the latest wave of the WVS study, Russia is in the upper left quadrant of the Inglehart-Welzel map, which indicates a high degree of industrial but a low level of post-industrial development. In the 2015 GEM report used for the present research, there are no indicators for Russia, but the share of the population employed in social entrepreneurship in the 2009 GEM report comprised 1.23%, while in the US this figure was at the level of 5%. If we follow the concept that countries at the post-industrial stage of development have more opportunities to change the institutional environment of social entrepreneurship, Russia is at the initial stage of formation of socially-oriented activities, and, consequently, social entrepreneurship will develop with the development of the post-industrial stage of modernization, changes in cultural values and informal institutions.

3.2. Factors affecting social entrepreneurship

To achieve the goal of the research, we used basis theoretical analysis to identify factors characterizing the non-formal institutional environment and greatly affect the level of social entrepreneurship.

The first factor is social needs of the society. As noted above, the priority of the social mission over other goals is a key factor in decision-making in favor of social and entrepreneurial activity [33]. At the same time, the social mission is manifested in the clarification of unsatisfied social needs or formation of new ways to address them. The variable reflecting the social needs is derived using WVS data, measuring the values of the society related to priority areas of their countries' development. The indicator of social goals priority was chosen for the study; it reflects the share of the adult population considering achievement of social goals prior to economic goals.

The second factor characterizing the non-formal institutional environment is the population's activity in organizations with social goals. This choice is made based on studies by S. Alvord, L. Brown, and C. Letts who consider the previous social experience of entrepreneurs as a key factor in the development of social entrepreneurship, contributing to the creation of supporting networks [34]. Previous studies show that the high level of citizen participation in public organizations can positively influence the increase in the number of social entrepreneurs due to the awareness of social problems and gained experience. In order to measure the level of citizens' social activity we used data from the WVS reflecting the share of the adult population engaged in associations or organizations with social purposes, including religious, humanitarian organizations and groups of mutual help.

The third factor characterizing the non-formal institutional environment is the degree of autonomy of the society. In societies with strong social ties between their members there is no need for socially-oriented activity as all social problems are solved within the family or community. With a high degree of autonomy of a society with a high degree of isolation of its members a special mechanism for solving social problems is required, which, among other things, may be social entrepreneurship. Moreover, according to the concept of the American school of social entrepreneurship, this type of activity should be innovative [39]. G. Hofstede in his study *Social Contract* comes to a conclusion that in countries with a pronounced individual origin the innovation rates are high. To measure the degree of autonomy we use an characterizing the share of citizens who consider themselves autonomous, that is, do not consider themselves as part of the country, region, or individual local community. WVS survey data were also used as an information framework.

The fourth factor analyzed in the scientific literature is gender equality. Cultural values and expectations influence the nature of gender roles accepted in the society, namely which job and career opportunities are acceptable for women. The extent of gender differences is an important aspect of the social structure that can be affected by culture. The measurement of gender equality is based on parameters such as social equality, health, and employment. Over the past 25 years gender roles have changed significantly, while cultural changes have been less intensive. However, culture has a property of accelerating or slowing down changes in the sex-role relations [32, p. 83]. The study by C. Nicolas and A. Rubio devoted to the distribution of gender roles in classical and social entrepreneurship concludes that the share of women participating in socially-oriented activity at the operational stage of development is two times lower than that of men in countries with underdeveloped economies. The gap between men and women in developed countries is 31% in favor of men. Moreover, though the share of women in social entrepreneurship is gradually increasing, the initiatives launched by women in developing countries are fragile. When it comes to financial security of social enterprises launched by women, two out of three enterprises close down. While enterprises organized by men cease to exist only in half of the cases [37]. The presented arguments justify the legitimacy of including this factor in the model.

Despite the general trend of favorable sustainable development of social entrepreneurship in countries with a high level of gender equality, there are exceptions in our study. Countries such as India and Botswana have a low rate of gender equality, yet, according to GEM, these countries have a high share of people engaged in socially-oriented activity. According to the study by the Thompson Reuters Foundation, India is a country with a huge domestic market and easy access to investment. At the same time, foreigners, especially Americans, note investment opportunities in Indian projects[1]. Though traditional investors may be skeptical of social enterprises, there is strong involvement of women and people aged 18–34 in this type of activity. According to the study of the Bank of America in 2016, 85% of young people wanted their investment to lead to social change. It was also revealed that the interest of women was higher than that of men. According to the Thomson Reuters Foundation study, gaining access to investment remains one of the biggest challenges for social enterprises. However, India is among countries with most affordable financing after Canada, Singapore, USA and Belgium[2]. The high rate of social entrepreneurship in Senegal is due to involvement of authorities in the process of attracting foreign investment and simplifying the legitimization of business. Thus, access to real estate has been simplified, guarantee funds have been created to cover the risks associated with agriculture and social entrepreneurship [35]. The research into the impact of the formal institutional environment, including the role of the investment climate, is currently also being studied in detail. However, observations may indicate that investment plays a more important role than the non-formal institutional environment.

On order to analyze data on gender equality we use the 2015 World Bank report (CPIA Gender Equality rating) where for each country the Gender Equality Index was calculated.

When determining the impact of these factors on social entrepreneurship we used the index of social entrepreneurship development presented in the GEM report as a dependent variable. GEM is a global research into entrepreneurship conducted by the association of universities. The purpose of this research is a cross-country comparison of entrepreneurial activity. The GEM research uses a unified

[1] Available at: http://poll2016.trust.org

[2] Available at: http://poll2016.trust.org

system of measurements in all the countries under study; by 2009 the number of surveyed countries reached 80. GEM conducts annual random sample surveys of 2.000 adults in each country, and then collects information on all aspects of social entrepreneurship. The present study uses the 2015 GEM report on research into socially-oriented activities, with 167.793 people from 83 countries were surveyed. GEM measures the development of social entrepreneurship in the world through the share of people engaged in socially-oriented activities and the total population aged 18–64. This report is the largest comparative study of social entrepreneurship in the world. On the one hand, this methodology takes into account informal business activities, on the other – objective answers of respondents cannot be guaranteed.

4. Research procedure

In order to further simulate the impact of the non-formal institutional environment on social entrepreneurship, we formulated four hypotheses of the impact of theoretically identified factors on the level of social entrepreneurship development:

1) with the increasing priority of social goals over economic ones the level of social entrepreneurship increases (X_1);

2) with the growing population's activity in organizations with social goals the level of social entrepreneurship increases (X_2);

3) with the growing autonomy of the society the level of social entrepreneurship increases (X_3);

4) with the growing gender equality the level of social entrepreneurship increases (X_4).

In addition to factors presented in the analysis of the impact of the non-formal institutional environment, we analyzed more than 10 indicators characterizing religious features, citizens' activity, economic growth, equality rate, etc. However, due to the fact that the correlation between these factors was extremely weak, regression coefficients are insignificant and are not theoretically confirmed, they were excluded from further analysis.

When testing this hypothesis, the authors used statistics provided by GEM, WVS, World Bank for 2015 in 30 countries. Using multi-variate non-linear regression analysis, an econometric model was developed to reflect the dependence of social entrepreneurship on non-formal institutions.

When constructing the model, we conducted preliminary analysis of the initial statistics, which revealed the most appropriate type of functional relations between the economic processes. At the second stage, the correlation analysis of the studied factors was carried out, which helped determine whether the factors forming the negative phenomenon of multi-collinearity are present in the model. At the third stage, a multi-variate model was constructed; at the fourth stage, the study of the quality of the constructed model was conducted. The fifth stage included testing and elimination of auto-correlated residuals in the model. Data processing was carried out using software products such as MS Excel and E-views. The econometric models obtained during the analysis are presented in the following paragraph.

5. Research result

The following variables were considered to test the hypotheses and further model the impact of the non-formal institutional environment on social entrepreneurship:

Y – share of people engaged in social entrepreneurship in a particular country;

X_1 – share of adults considering achievement of social goals prior to economic development;

X_2 – share of adults who are part of

associations or organizations for social purposes, in particular religious, humanitarian, and mutual help organizations;

X_3 – share of people who considers themselves autonomous members of the society.

At the initial stage of data analysis we revealed that the distribution of random variables by the tested factors and dependent variable Y is non-linear. The distribution has the form of power dependence. In this regard, original data were transformed into a non-linear form, and then a regression non-linear model was built.

As a result of pairwise correlations matrix analysis it was revealed that the multi-collinearity is absent in the model (*Tab. 1*).

After eliminating factors that do not have a significant impact on the results of testing the hypothesis of regression coefficients insignificance, we established the dependence of the level of social entrepreneurship on factors X_3 and X_4.

The results of regression analysis are presented in *Table 2*.

After conversion, the model was presented as follows

$$y = e^{-3.56} \times X_3^{0.37} \times X_4^{2.86}.$$

At the next stage, we assessed the performance and reliability of results. The significance of the determination coefficient (F-statistic=0.0018) suggests that the model as a whole is reliable and confirms the sample representativeness. The determination coefficient R^2=0.37 indicates that the variation of indicators of social entrepreneurship development by about 37% depends on the indicators selected at the stage of modeling the pairwise correlation coefficients matrix. The testing of the null hypothesis of insignificance of regression coefficients shows that the selected factors do have an impact, their regression coefficients are statistically reliable and significant. The value of the F-criterion and the significance level of p demonstrate that the constructed model is significant at the significance level α=0.05. At the final stage,

Table 1. Results of correlation analysis

	Y	*X1*	*X2*	*X3*	*X4*	*X5*
Y	1					
X_1	0.30350605	1				
X_2	0.222013327	0.643	1			
X_3	0.382891553	0.227	0.341	1		
X_4	0.481958601	0.321	0.221	0.015	1	

Table 2. Results of regression analysis

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LN_X3_	0.370193	0.150195	2.464755	0.0204
LN_X4_	2.858845	0.914802	3.125098	0.0042
C	-3.559549	1.200329	-2.965477	0.0063

R-squared	0.373294	Mean dependent var	1.074841
Adjusted R-squared	0.326871	S.D. dependent var	0.722148
S.E. of regression	0.592483	Akaike info criterion	1.885649
Sum squared resid	9.477964	Schwarz criterion	2.025769
Log likelihood	-25.28474	Hannan-Quinn criter.	1.930475
F-statistic	8.041184	Durbin-Watson stat	2.019726
Prob(F-statistic)	0.001821		

we verified the prerequisites of the Gauss–Markov OLS. In particular, the expected value of random deviation of residuals for all observations tends to zero. The Darbin-Watson statistic used to detect the presence of autocorrelation of residuals (d_{cacl}=2.278) demonstrated that there is no dependence between the residuals; they are distributed randomly:

$$DW = \frac{\sum(e_t - e_{t-1})^2}{\sum e_t^2} = \frac{19.1429}{8.4043} = 2.278.$$

The model was also tested for heteroscedasticity through visual analysis of the plot of residuals. Signs of dispersion variance and dependence of residuals have not been not detected, the model is homoskedastic.

Thus, the quality test demonstrates that the model is reliable and confirms the influence of factors of non-formal institutional environment on social entrepreneurship.

6. Discussion

The regression analysis has demonstrated that the priority of social goals over economic ones and active participation of the population in activities of organizations with social goals does not affect the level of social entrepreneurship development.

According to the constructed model, the important factors are the autonomy of members in the society and gender equality. This indicates that only the third and fourth hypotheses are satisfied.

The influence of autonomy of society members on the level of social entrepreneurship development is primarily due to the fact that in the society with strong social ties between its members often addresses social issues within the family or community, which indicates there is no need to establish and develop social entrepreneurship. However, the index value at X_3 equaling 0.37 indicates that the growth rate of autonomy of society autonomy is higher than social entrepreneurship .

The impact of gender equality on the development of social entrepreneurship is confirmed by the thesis of F. Wilson and J. Kickul about the "female face" of social entrepreneurship. This is due to the fact that women are more focused on the values of self-expression than on gaining profit. However, economic and social motives are not mutually exclusive. It is noteworthy that in order to develop social entrepreneurship women need to have rights to carry out socially oriented activity. The index value at X_4 indicates that the value of this factor is large. The growth rate of social entrepreneurship is higher than that of gender equality index.

The value of the absolute term equaling $e^{-3.56}$ (≈0.028) should also be mentioned in analysis of this model. The quality test of this model has demonstrated that the absolute term for this model is significant. This indicates that there are other factors affecting social entrepreneurship. We believe that the value of the absolute term hides the influence of formal institutions on social entrepreneurship. This issue is planned to be studied in more detail in future studies.

Comparing the results obtained during modeling with the Inglehart map it is reasonable to draw a conclusion about the close connection of the degree of autonomy of society with the formation of secular-rational values in the society (Y-axis), that is, the higher the index of autonomy, the more likely is the development of socially-oriented activities in this country.

Gender equality affects the formation of values of self-expression but it does not fully characterize them. Thus, it is incorrect to speak of direct correlation between the existence of values of self-expression in the society and gender equality. But the highest rates of gender equality, according to the World Economic

Forum, are recorded in the countries of Northern Europe, North America and Australia. All these countries are located in the 1st and 4th quadrant of the Inglehart map and high values of self-expression.

7. Conclusion

In this study, in order to simulate the impact of the non-formal institutional environment on global social entrepreneurship the following results were obtained.

First, we analyzed the approaches to the analysis of non-formal institutions. It is demonstrated that this problem is raised in works by both foreign and domestic researchers. The paper covers various approaches to analyzing the influence of the non-formal institutional environment on the socio-economic processes and justifies the use of the Inglehart map in the study of social entrepreneurship.

Second, based on data on social entrepreneurship development in different countries and using the Inglehart cultural map we created an adapted map for countries with different levels of social entrepreneurship.

Third, a non-linear multi-factor model was constructed to demonstrate the impact of the non-formal institutional environment on social entrepreneurship. It is proved that the most important factors in the non-formal environment having an impact on social entrepreneurship are autonomy of members and gender equality.

The significance of the presented research consists in the substantiated need to take into account the non-formal institutional environment when studying social entrepreneurship. This study can be developed by taking into account the addition of factors describing the formal institutional environment, as well as factors determining this influence in different groups of countries. This research area will be implemented in the authors' future studies.

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Received April 12, 2018.

DOI: 10.15838/esc.2018.4.58.15
UDC 330.354, LBC 65.053

Political Economy – a Theoretical and Methodological Framework for Identifying Main Trends in Social Entrepreneurship Development

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Abstract. The paper discusses some features of the source of social entrepreneurship as a new form of business organization, aimed at implementing social objectives in the context of strengthening neoliberal trends in economic policy and economic theory, rather than at maximizing the owners' profit. It is demonstrated that, remaining within the framework of the neoliberal ideology which retains its influence in the economic science, it is impossible to create an adequate theory explaining the importance of social entrepreneurship in the context of the process of changing paradigms of economic relations, since under the influence of this ideology false stereotypes are established, which is accompanied by falsification of historical facts. In this context it seems that the methodology of political economy, taking into account the current trends in the transformation of socio-economic relations and the deviation of the trend of social development from the framework of the formally preserved, but declining neoliberal paradigm, is very popular, especially since its problem areas include issues such as the distinction between individual and social forms of production, the relations between the necessary and surplus product, the distribution of surplus value (in case of its occurrence), the issues of individualization and socialization of economic phenomena, the correlation between market and non-market production areas and distribution of the final product, the issue of recognizing the social significance of the result of individual labor. In the present paper these methodological principles are applied for analyzing a complex, contradictory phenomenon of social entrepreneurship. The purpose of the research is to justify the need for a political

For citation: Pavlov R.N. Political economy – a theoretical and methodological framework for identifying main trends in social entrepreneurship development. *Economic and Social Changes: Facts, Trends, Forecast*, 2018, vol. 11, no. 4, pp. 235–251. DOI: 10.15838/esc.2018.4.58.15

economic approach to studying the main trends in social entrepreneurship development amid limited theoretical and methodological tools available within the neo-liberal economic theory. This will solve the following problems: form a completely objective image of its development, determine the true nature of this phenomenon and identify certain features of production method underlying social entrepreneurship. Since social entrepreneurship is one of the forms of alienation removal, in the context of political economy, assuming the desire for associated social creativity, it can be perceived as one of the tools for transition from the "kingdom of necessity" to the "kingdom of freedom", according to K. Marx.

Key words: social entrepreneurship, political economy, mainstream, industrial relations.

Introduction

In recent years, the Russia's social sphere has demonstrated alarming phenomena indicating a gradual weakening of the role of the state as a regulator and a main financial source of social development. Optimization in the social sphere has become a kind of a doctrine of the current Russian Government; its roots should be sought in the nature of the economic policy pursued by the government for more than 25 years. It should be said that there is a great number of publications related to this topic, where the country's economic policy is strongly criticized, which is based on the neoliberal model of economic development, and therefore it does not make much sense to mention the already known reasons for failures of the Russian reforms, which are, in fact, a consequence of the lessons of the world history of economic development that have not been properly learned. It is only necessary to mark, perhaps, the main feature of the current development of Western Europe and the United States, which, unlike Russia, were quite receptive to such lessons. In fact, the economic models of these countries demonstrate a rather strong shift from the neoliberal competition model between all economic agents towards the model of social consolidation with the strengthening role of the state, the shift from the economy of alienation to the economy of solidarity. Apparently, this is largely due to the awareness of the governments of these countries after the financial crisis of 2008 that such a policy line is inevitably doomed to outcomes such as constant cyclical crises. This opinion is most clearly and thoroughly expressed in the book of Nobel Prize winner P. Krugman, whose title turned out to be the quintessence of these attitudes – *The Return of Depression Economics and the Crisis of 2008* [1]. Krugman points out that the basis of any economic policy is the corresponding economic theory, which, in fact, is its main engine. After analyzing the background of the Great Depression in the United States and comparing it with the causes of the global economic crisis in 2008, he concluded that the factors that gave rise to both crises are in fact identical – these are factors in increased economic liberalization, or rather, the gradual increase in chaos, the state of deregulation of the economic system, where the system of market management, both in financial and real sector, actually weakens and the markets are constantly under the influence of external factors that from time to time destabilize their operation and thus cause a chain reaction in the economy as a whole. Such weakening of the state's control positions has already led to the most powerful economic crises twice and, in turn, was the cause of the systemic crisis in the economy manifested in the fact that the failure of one subsystem such as, for example, the social sphere, inevitably leads to similar consequences in other subsystems.

In the 1980s, a Renaissance of neoliberalism was recorded in the United Kingdom and later in the United States. M. Thatcher's coming to power in the UK and R. Reagan's – in the US marked the return of ideals of the neoliberal policy characterized by cuts in social spending and the policy of austerity. This resulted in a rather sharp increase in unemployment and poverty in these countries, also explained by the weakening role of the trade union movement in the society. In this regard, the emergence of social entrepreneurship as a social phenomenon should be seen as a response to such economic policy since the need to survive while reducing budget expenditures required new forms of self-organization and self-employment appropriate for the existing historical realia. On the other hand, as this phenomenon developed, it formed a new paradigm of economic activity that does not fit into the usual framework of a traditional commercial enterprise because it did not aim to maximize profits but was first of all focused on solving social problems with rather strict restrictions on the possibility gaining profit due to the fact that one of the most important conditions for the functioning of a social enterprise was the principle of reinvesting a certain share of income in further social projects. The main object of the impact of social entrepreneurship was initially social categories most affected by the policy of liquidation of social support institutions. These include first of all low-income and low-skilled population groups which have traditionally been subject to massive reductions during crises (precariat), disabled people, socially vulnerable categories in need of social rehabilitation such as former prisoners, street children, homeless people, labor migrants, as well as people subjected to race and ethnic discrimination. But given that in modern conditions the globalization processes are growing, competition and social insecurity is increasing and there is unrestrained enrichment of large capital with reducing social guarantees, we can say that mass reductions are becoming quite typical, especially due to the constant growth of companies' mergers and acquisitions and optimization of enterprises' costs. Due to these circumstances, the social framework of this phenomenon is beginning to expand rapidly. The rapid growth in the number of such categories has put on the agenda the need to develop social entrepreneurship as one of the few yet affordable ways to ensure employment in a rapidly shrinking public sector in the economy.

Taking into account the fact that currently there is no unified theoretical and methodological framework for characterizing such a complex phenomenon of social entrepreneurship in the economic science, the purpose of the present research is to make an attempt to justify the need to introduce a political economic approach to studying the main trends in social entrepreneurship development amid limited theoretical and methodological tools available to the neoliberal economic theory.

To achieve this goal it is necessary to address the following objectives:

- prove the limited nature of the approach used by modern researchers working in line with the neoliberal economic theory, through analyzing the compliance of the theory of social entrepreneurship with the facts reflecting the real trends of its development.
- identify the main forms of social entrepreneurship in the modern world in recent decades;
- determine the level of financial stability of social enterprises and degree of their dependence on external financial sources;
- identify the production mode underlying the activities of social enterprises and try to

determine whether it meets the criteria of an ordinary business enterprise operating under the traditional market capitalist system;

• determine the nature of surplus value distribution in social enterprises.

Research methodology

One of the reasons for the relevance of political economy as a theoretical and methodological framework in the present paper is an attempt to consider this phenomenon in a broader aspect beyond the framework of the neoclassical economic theory. In contrast to the mainstream focusing only on the commercial component of social entrepreneurship, it is possible within the framework of political economy to consider the dialectics of this phenomenon, to see its other sides, in particular, the signs of post-market economic relations noted in the social entrepreneurship by modern political economists A.V. Buzgalin and A.I. Kolganov [2]. However, they did not deliberately consider this phenomenon, they only made this remark. Therefore there is an opportunity to study it as a political economic phenomenon in detail. One of the most important principles of political economy distinguished by O.Yu. Mamedov, is the principle of objectivity which means that each generation can carry out its activities only within the framework of existing production prerequisites [3] depending on specific historical conditions. This is how social entrepreneurship is considered in this work: in the context of objective laws of the socio-economic development. Another reason for turning to political economy as a theoretical and methodological framework is the fact that social entrepreneurship actually belongs to the new emerging integrated society where elements of capitalism and socialism will be balanced, as pointed out by G.N. Tsagolov [4], and the values of solidarity and active role of the state as an economic subject will play a much more significant role than in market conditions. The best way to understand the development laws of such a society can be possible only within the framework of political economy because only political economy helps analyze the degree of interaction of elements in different economic formations in their dialectical development.

If we trace the trends in social entrepreneurship development over the past three decades, we can fully agree with the researchers who believe that it does not fit into the framework of the traditional neoliberal paradigm but serves as an element of the so-called "economy of solidarity" emerging in the world at the present time [5], a new form of economic relations where the trend to compete characteristic of the usual market relations is replaced by the trend to cooperate, when the world gradually becomes aware of the destructive consequences of the neoliberal ideology leading to increased social inequality, aggravation of class contradictions and increased alienation in all spheres of social life, which may eventually lead to a split of the society as a single system. In this regard, the rapidly growing interest in political economy which arose in the period after the financial crisis of 2008, is quite reasonable: the suspicion that the underlying crisis mechanisms revealed by K. Marx [6] caused the need to reconsider the attitude of the society to political economy and again study these mechanisms, as evidenced by the growing popularity of "*Capital"* which became a bestseller in the first years after the crisis. In this regard, it seems that the methodology of political economy, taking into account the current trends in the transformation of the socio-economic relations and deviation of the trend in social development from the framework of the formally preserved but declining neoliberal paradigm, is very popular. In this sense, the methodology of political economy is much broader than the methodology of neoliberal economic theory since it concerns issues such as distinction between individual and social forms of production, the ratio between necessary and surplus product, surplus value distribution if it takes place, the problem of individualization and socialization of economic phenomena, the relations between market and non-market production spheres, distribution of the final product, and the problem of recognizing the social significance of the result of individual labor [7, pp. 10-13], identification of economic contradictions in each studied phenomenon, its dialectical nature, the problem of freedom of entrepreneurship, the issue of the role of the state in the economy, the relations between efficiency and justice which in the mainstream is solved in a quite peculiar way through absolutizing efficiency in all its manifestations; as well as the issue of whether there are alternatives to the criterion of market equilibrium, – all these represent the subject of research into political economy and at the same time determine the methodology of political economic analysis based on the principles of dialectical logic and the study of any phenomenon under consideration in the development of its basic properties and in interaction with the external environment. In the current paper, these methodological principles are applied to analysis of a complex contradictory phenomenon of social entrepreneurship. This will form a completely objective image to further determine the true nature of this phenomenon and identify the basic principles of the formation of state policy in the field of social entrepreneurship to improve its development.

Speaking of the nature of social entrepreneurship as a special phenomenon, it is necessary to take into account that it emerged at the time when the consequences of using the neoliberal paradigm as a system that forms priorities of economic policy, involving a significant reduction of the public sector, which is necessary, ostensibly, for the sake of ensuring the conditions of economic growth, became particularly acute. As a matter of fact, based on the name itself it becomes clear that social entrepreneurship is a way of successfully combining non-profit activities and elements of entrepreneurial practice used to ensure a greater degree of enterprise financial stability. Unfortunately, the economic science is currently predominated by the representatives of the right-liberal direction, experts of the Higher School of Economics [8] in the evaluation of social entrepreneurship as a new actor in the modern economy; they seek to highlight the commercial component in the system of social entrepreneurship, ignoring the fact that it has a number of individual features and is often not self-supporting and commercially viable. In this regard, if the representatives of the "mainstream" see only what they want to see, political economy contains much more opportunities for adequate analysis: it helps consider this phenomenon in a complex dialectical interaction of opposite elements such as commercial and non-commercial activity, and consider it in the context of elements forming the essence of the capitalist production mode; as well as understand whether it corresponds to them and to what extent or is the origin of a new, original production mode. Using the method of scientific abstraction which is in fact the basis for political economic analysis, an attempt is made to generalize the idea of social entrepreneurship as a new type of industrial relations, identify the degree of its correlation with the capitalist way in which it originated, and determine the trend of its evolution as an independent socio-economic phenomenon.

Variety of forms of social entrepreneurship in the modern world

Since the concept of social entrepreneurship is still little known to the general public, especially in Russia, it is necessary to present the main trends in its development in order to have a more or less clear image of this phenomenon. According to the definition presented in Wikipedia, it is an entrepreneurial activity aimed at mitigating or solving social problems, which is allegedly characterized by features such as social impact, financial stability and self-sufficiency, and an entrepreneurial approach that assumes the ability of an entrepreneur to find opportunities and accumulate resources [9]. It should be noted that this definition is based on a quite clear ideological implication due to the significant influence of the neoliberal school, creating a certain image contrary to the real one, which clearly differs from this definition; one can provide evidence to refute this characteristic. The signs of disagreement of behavior of social entrepreneurs with the common behavior of market actors was marked by C. Leadbeater in his article *Mainstreaming of the Mavericks* [10]. A less harsh definition without an emphasis on self-sufficiency is given by E.S. Petrenko, Y.A. Kot, S.G. Klimova, and E.V. Bogomolova. They note that the nature of social entrepreneurship is in the initial focus on solving or significantly mitigating the severity of a specific social problem, which is provided through combining a business approach and social innovation [11]. One of the features distinguishing social enterprises from ordinary commercial ones is the fact that not all existing social enterprises can call themselves fully self-sufficient and financially sustainable (rather, they are financially vulnerable since they constantly resort to various forms of external support, including state, to maintain their lifecycle). For example, E.N. Rudyk speaking about a typical form of social enterprise such as a production cooperative, notes that in the world about 90% of such cooperatives are "non-profitable" by law, and 10% have the right to make a choice whether to be "non-profitable" or "profitable" [12, p. 264]. Second, the business approach as such is not always a distinctive feature of social entrepreneurship. Recently, there have been cases in the world where people engaged in political activities that can have a long-term positive effect on the growth of entrepreneurial activity among the poorest population groups and thus give them a chance to improve their well-being and quality of life, became to call themselves social entrepreneurs. In fact, this is one of the areas of social and business impact, which can be described as the integration of certain population groups in the civil society (civic engagement), and some social enterprises have this area present among their main activities. One of the variants of such political activity is the action of the deputy of the Greek Parliament E. Panaritis who started the initiative to reform property rights in Peru in the late 1990, which significantly improved the situation of migrant workers in the country. In this regard, in her numerous interviews she called herself a social entrepreneur [13] which seems quite reasonable.

K. Alter, a well-known America public figure, in order to present the breadth of social entrepreneurship on the example of the history of development of specific companies, gives an overview of a number of models of manifestations of this phenomenon, which appeared at different time and played a different role in its development. These include cooperatives, civil society organizations, fair trade agreements, corporations of local community development, social enterprises (the so-called affirmative business), microenterprises, government programs to support private social initiatives, organizations of Base of the Pyramid (BoP), venture philanthropy, and "philanthropreneurship" [14].

J.Kickal and T. Lyons give the following definition: social entrepreneurship is the application of the mindset, processes, tools and technologies of ordinary entrepreneurship for the benefit of the society and the environment [15]. This definition is quite closely correlated with a rather original area in activities of a social entrepreneurship such as impact investment which implies investing in order to achieve a certain effect of social impact, rather than gain profit. This type of investment once again confirms the fact that social entrepreneurship, in fact, is not a commercially oriented type of business and it cannot be evaluated, limited only by terms such as "self-sufficiency" and "financial stability". Its impact area is much wider. According to Deputy Chairman of the Social Entrepreneurship Council of the Chamber of Commerce and Industry of the Russian Federation M. Mamuta, impact investors are not those people who want to gain small income from their investment, but those who seek to help achieve the goals social business works for [16].

The experience of the Egyptian company Sekem which is considered a typical example of a social enterprise giving priority to producing medical herbs with the use of new biotechnology in agriculture without using pesticides, slightly expands the understanding of this phenomenon. However, over time, the range of its social policy has expanded due to the fact that it is actively involved in the process of charity activities, in particular, it established the Egyptian Society for Cultural Development, a non-profit organization supporting a kindergarten, an institute of additional education, a medical center, many other social and cultural activities, as well as assisting in the establishment of a university [17].

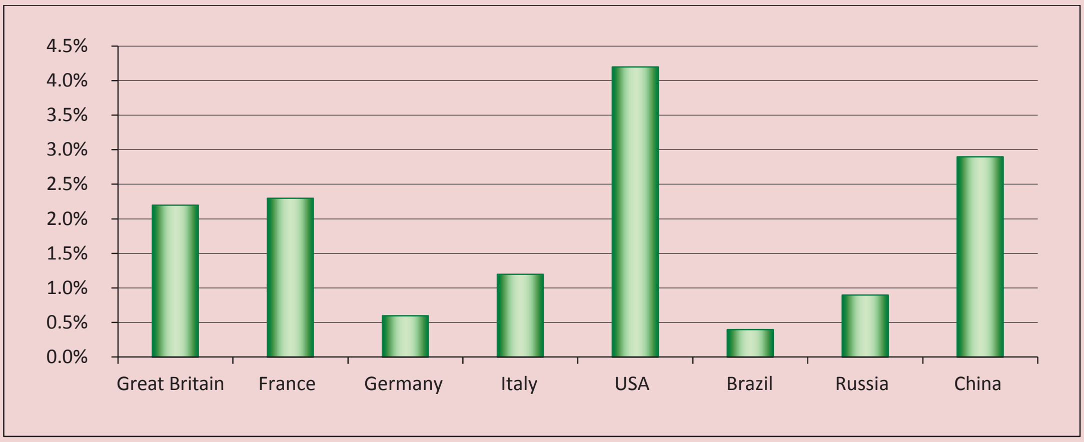
These examples force us to abandon the traditional definition of social entrepreneurship and slightly expand its boundaries to include phenomena such as political process and charity. Thus, social entrepreneurship should be understood as a set of different types of social policy aimed at solving specific problems that are implemented both through intervention in the existing institutional structure and through traditional business activities. The word "entrepreneur" in both cases has a special meaning, the question is only at what level this phenomenon is implemented: in the first case, efforts are made that are political in nature, but with very real, tangible social consequences; in the second case, this concept has a traditional meaning as it is the entrepreneur who creates a new enterprise and organizes the entire process of production and distribution, which is nevertheless different from that applied in standard commercial enterprises, and it is political economy and reveals this specific feature since it involves the differentiation of various production modes, in contrast to the closed mainstream concentrating only on one capitalist mode of production and recognizing it as the top of civilization.

Another important aspect of social entrepreneurship is the so-called inclusive development, which implies leveling intense social inequality in the world through using innovative mechanisms. In particular, one of such innovative mechanisms is the system of micro-lending which has been effective in countries such as India and Bangladesh, where local banks granted micro-loans to poor farmers under the sponsorship of the entire community so that farmers could received real assistance help; the defaults on loans were extremely low [18]. Unfortunately, in Russia the success of micro-lending is not so noticeable due to the underdeveloped institution of micro-lending, in particular, the systems of liabilities and securities.

Conditions for emergence of social entrepreneurship in the world

The first signs of social entrepreneurship as a significant mass phenomenon in the economy date back to the 1980–90s when non-profit organizations (NPO) began to take the initiative to develop the commercial sector in their structures as increased competition in the society required the search for more effective ways to survive amid limited charitable resources. The so-called third sector in the economy, which includes NPOs, had to be more actively involved in the process of solving the problem of poverty and unemployment as the state gradually ceased performing social functions. This process was manifested in a steady reduction of social programs and budget expenditures relying on the powerful "invisible hand of the market" that can provide the best financial situation for the whole society. That is why social entrepreneurship should be perceived as a reaction to irresponsible behavior of the state as an economic subject in the context of increasing globalization and liberalization and other factors complicating life in a non-stationary system, rather than a phenomenon characteristic of the countries of allegedly defeated socialism, as the research teams of the Higher School of Economics are trying to present [8]. To refute this thesis, it is enough to provide statistics on the performance of social and entrepreneurial activity at an early stage (SEA), an indicator calculated as a share of people actively trying to create a social enterprise and those who manage a social enterprise for less than 3.5 years from the date of establishment at the time of index calculation of the total working-age population of the country. If we consider this indicator as an indicator of activity in social entrepreneurship (*Figure*), we see that the highest degree of activity is demonstrated not by the countries of defeated socialism, but by countries such as the United States, Great Britain, France, where either capitalist traditions remain unshakable for a long time, or socialist and capitalist elements converge in the system of the national economy, as, for example, in China.

Early-stage socio-entrepreneurial activity (SEA), 2009. [19]



The low Russia's position in this ranking can be partly explained by lack of attention from the state, since in other countries, especially in the United States, the state provides support, including financial, to social entrepreneurs. Nevertheless, in recent years Russia has been rather active in this sphere. According to the Perm Fund for Entrepreneurship Development (PFED), the number of social entrepreneurs more than doubled in two years: in 2015 – 250 people, in 2016 – 450. However, the share of small and medium businesses engaged in the social sphere remains insignificant – less than 0.5% of the total number of entrepreneurs. In general, in Russia social entrepreneurs make up 1% of small and medium businesses. In European countries, this figure is at the level of 3–3.5% [20].

The period of emergence of social entrepreneurship in Europe and the United States is a period which in the English literature is quite aptly called social outsourcing, which implied the transfer of state management functions of social institutions to the representatives of the private sector and, as evidenced by the preliminary final studies, this strategy led to truly devastating consequences for the entire social sector as a whole which became commercialized this way [21]. The new owners began to treat these enterprises as their personal property, regardless of the importance of the social functions performed by them, careless of improving the operational quality of these institutions. The term "effectiveness" which they applied in this case – effective management – manifested itself in its most negative and vulgar sense: it was effectiveness in terms of cost savings, in its cruelty comparable to the cruelty of the Nazis of the Third Reich. It is in this sense that this optimization is now observed in the Russian health care and educational systems and the consequences that we see there are as destructive as in Western countries. Indeed, G. Hegel was right when he argued that history repeats itself twice: the first time as tragedy, the second time as farce. What turned out to be a tragedy for Europe and the United States, was, of course, no less tragic for Russia, however, given the persistent liberal reforms, despite the fact that history has repeatedly proved their disastrous consequences for the economy, we can say that this phenomenon rather looks like ridiculous farce. Speaking of the consequences of social outsourcing in the UK, it is important to mention an egregious case that occurred in Rochdale after the transfer of orphanages to private management. The new "effective" manager immediately relocated these institutions to areas with minimal property prices ignoring the fact that these areas were the most dangerous from the point of view of the criminal situation, and the result was numerous cases of child pedophilia, drug addiction, and other harmful actions against minors [21]. Such a situation of austerity in business costs is very similar to the modern processes to optimize the health care system in Russia. Another result of social outsourcing was a sharp decline in wages of medical personnel in England, when private companies that captured these enterprises, in fact, began to assume a significant share of financial resources, limiting them to unprecedented low rates resulting in high staff turnover and reduced quality of service. In this regard, we should mention a huge scandal that occurred with Emma Harrison, Director General of A4E, who paid herself 8.6 million pounds thereby obtaining a huge surplus value and minimizing payments to employees [22]. It is in this situation that social enterprises have a chance to somehow resist such attempts to capitalize the social sector due to the fact that their activities involve a socially-oriented approach, rather than satisfaction of private interests of a separate group of owners or managers of the enterprise. In a sense, they can be seen as an instrument of class struggle against the hegemony of large corporations that monopolized the market of social services, in the general movement towards the economy of solidarity, as they represent an alternative approach to solving social issues: they prioritized social efficiency, rather than economic. However, in this struggle the forces are often unequal. Social enterprises that seek to enter this market in order to compete equally with large corporations cannot afford it because their financial capacity to participate in the tender procedure for the transfer of social facilities to private management is very limited, therefore they are forced to remain on the sidelines. If they do participate in this process they often have to be content with the modest role of subcontractors serving large businesses. Nevertheless, their alternative model of behavior, being subordinated to social rather than personal interests, must be studies. For example, the social enterprise *Sandwell* shows us an example of a very high degree of democracy in the management system expressed in the fact that the company practiced a model of a working manager, which excludes the possibility of power abuse and excessive exploitation since everything is subject to staff control, rather than the Board of Directors consisting of external observers as is common for private companies [23]. Another example of management and ownership collectivism is the famous Mondragon network of cooperatives, which is considered a model of social entrepreneurship in Spain. Cooperatives are traditionally considered to be the most democratic enterprises in terms of the management form. Here, this principle is implemented through the governing boards of primary cooperative companies whose members represent the interests of labor collectives. Such boards hire and dismiss the managing director (equivalent to a CEO) of the enterprise, approves profit distribution, and makes other major policy decisions through voting. In general, this system operates in the way that decisions are made by the entire staff of the enterprise twice a year. The council distributes profit and makes strategic decisions. It is elected for 4 years [24, pp. 75–96]. Such enterprises are also known for their collective form of ownership, and in this sense they are truly popular enterprises. This form is provided by the ownership contribution mechanism. For example, within Mondragon there is a rule that each member must make an ownership contribution of 9.000 euros. If the cooperative gains profit the shareholders can earn 7.5% in the form of dividends on ownership contributions thereby increasing incentives to attract new shareholders [25]. Thus, a social enterprise is clearly not a "mainstream" type of an enterprise, therefore the neoliberal approach used by some researchers to characterize it is absolutely inappropriate.

What are the implications of the neoliberal approach for characterizing social entrepreneurship?

Despite the fact that social entrepreneurship is a rather complex and unique phenomenon, a number of researchers are tempted to describe it using the traditional neoliberal approach due to the fact that the influence of pro-bourgeois, commercially oriented ideology has been growing in the public consciousness lately. There is a quite obvious explanation for this: the new scientific and educational elite represented by the Higher School of Economics (HSE) is trying to establish false stereotypes about various phenomena in the public consciousness, subordinating them to the market paradigm and commercial values the examples of which can be the HSE rankings of cultural institutions efficiency measured by through box office results, or the indicators of greatness of literature works measured though the number of bestsellers. In this sense, this organization definitely is a device necessary to maintain the existing commercially-oriented ideology approved by the current state policy in the field of science and education, and justify the course of reforms; however, invading the scientific sphere, such ideology often blurs the vision of researchers and does not assess the phenomenon under study properly. One of the phenomena affected by this approach is the phenomenon of social entrepreneurship. If we consider it in a broad context, it is a kind of a reaction of the poorest population groups to the global growing neoliberalism trends, and amid passive state it operates according to the principle of “if you need a helping hand, you will find one at the end of your arm”. In this regard, the commercial component is a forced measure, rather than an ultimate goal which should be achieves, and, of course, not the main criterion separating social enterprises from all other human-centered organizations as the representatives of HSE persistently argue. In fact, the range of social entrepreneurship is much more diverse and is not limited to profit-maximizing enterprises. In particular, E.N. Rudyk distinguishes eight types of social enterprises in his work from the point of view of organizational and legal form: state (state budget) enterprise, municipal enterprise, production cooperative, social cooperative, consumer cooperative, other forms of a collective enterprise provided by the legislation and organizational documents of the enterprise, private “non-profit” enterprise, “enterprise of citizens’ self-support” [12]. It has already been mentioned that only 10% of production cooperatives in the world have an opportunity to become “profitable” organizations, while the rest are “non-profit” organizations by law [12, p. 264]. The desire to narrow down the coverage range of social enterprises to 10% is in fact outright forgery, a falsification caused by the need to create an illusion of absence of contradictions between the dominant ideology and the new phenomenon: hence arise the ultra-liberal attacks of HSE researchers that social entrepreneurship arose in the countries of defeated socialism [8, p. 4] and that its emergence is explained by the low susceptibility of social problems to traditional impact measures used in the public sector in relation to poverty, as well as by the generally paradoxical thesis about the strengthening of liberal social theories regarding the criticism of the Keynesian theory and the welfare state in the 1970s [8, pp. 18–19]. This is absolutely not true since the strengthening of liberalism in the economic policy was not accompanied by the strengthening of the relevant theories in the society. On the contrary, the movement of post-Keynesianism arose, which emphasized the special role of the state in the economy [26].

Thus, this approach to analyzing social entrepreneurship cannot be called appropriate given the authors’ desire to bring this phenomenon under the criteria of the neoliberal paradigm. As a result, we are dealing with quite a large number of distortions that occur at the stage of definition, and which subsequently influence the entire course of reasoning, turning the research work into a falsification because of the desire to see what you want, rather than what you really have. In order to conduct thorough comprehensive research into this phenomenon it is necessary to search for theoretical and methodological foundations of a larger scale, which do not allow such reductionism, to take into account the specific features of different production methods. In this sense, political economy may be a good example of such an approach.

Debunking the myth of sustainable self-sufficiency of social enterprises

One of the key features of social enterprises that distinguish these entities from NPOs highlighted by the HSE research group is achieving sustainable self-sufficiency. To refute the thesis it is enough to give only a few examples. For example, a well-known social enterprise APOPO in Mozambique specializing in demining territories in numerous combat areas in the country, given the constant escalation of military conflicts in the Middle East, in 2016 had a 95% share of donations and subsidies of the total assets [27] (*Tab. 1*). This in no way means it is self-sufficient.

To enforce our argument, there is another example with the *Benetech* social enterprise. This company, originally called *Arkenstone*, specialized in production of a reading machine with a voicing device for visually impaired people. Its social focus was also manifested in the reduced price for this product to 2.5 thousand dollars, that is four times cheaper than a similar product manufactured by *Xerox*. Subsequently, the company was able to sell the right to produce these products to a commercial distributor and focus on other projects. But even in these conditions of financial well-being it is difficult to call it self-sufficient since, according to data for 2017, the share of donations in the structure of its financial sources amounted to 7%, the rest 93% was earned income [28] (*Tab. 2*).

Table 1. APOPO financial resources in 2016 [27]

Financial resources	Value (euros)
1. Fundraising	727.101
2. Government grants	953.300
3. Income from various funds	1.770.730
4. Grants from international institutions	48.577
5. Corporate grants	261.072
6. Research grants	200.836
7. Other unlimited income sources	63.830
8. Financial income	17.053
Total assets	4.220.030

Table 2. Financial support and income of Benetech in 2017 [28]

Financial support or income	Value (US dollars)
Donations	793.147
Services/products provided	412.078
Payment for engineering and consulting services	5
Income from software sales:	
• Bookshare	9.439.665
• Human Rights	569.102
• Route 66	99
• Benetech Labs	70.059
Interest income	6.413
Rental income	22.392
Total financial support and income	11.312.960

Even if a successful company such as *Benetech*, which can be considered a model of successful social entrepreneurship, is 7% dependent on external financing, how can the principle of sustainable self-sufficiency be established as a fundamental criterion? Apparently, the desire to assert the ideology of market fundamentalism forces its proponents to turn a blind eye to many things including such obvious facts to justify it. As a result we are dealing with mythmaking necessary to manipulate public consciousness.

As a matter of fact, here we should note another feature of social enterprises, which demonstrates that this is not a market phenomenon. A distinctive feature of a social enterprise is that it is not subject to the principle of market equilibrium, that is, the model of establishing a market price at the intersection point of supply and demand curves does not correspond to the pricing system used by typical social enterprises. On the contrary, we are dealing with a deliberate reduction in price of the final product to a certain fixed level, which guarantees only minimum profit for the company. This is the most important feature of social enterprises: a restricted share of profit in the pricing system for the sake of fulfilling the social mission, which in this case is a priority. After all, even the fact that *Benetech* has repeatedly had the opportunity to raise the price to equilibrium due to absence of competitors expect for *Xerox*, suggests that such a commercially-oriented philosophy of behavior is not peculiar to social entrepreneurship, and in this case, this price, which is significantly lower than the equilibrium price on the market, is determined by completely different, non-market criteria. And this deliberate restriction expressed in the policy of lowering the price is also the reason for lack of resources for such an enterprise to become self-sufficient.

What production mode is social entrepreneurship based on?

It is known that if a political economy approach is applied, the concept of "effectiveness" should be defined depending on a specific production mode it is measured in. For example, amid the capitalist production mode efficiency is estimated in terms of creating surplus value, rather than just creating goods and services [29]. The first impression formed even in a superficial study of social entrepreneurship suggests that it is not based on the capitalist production mode since here effectiveness is defined somewhat differently: here, the criteria of social development are prior to creating surplus value. In fact, if we perceive the concept of "surplus value" as a kind of increase in value created by the manufacturer but not distributed in favor of the latter, then this kind of surplus value exists within the framework of social entrepreneurship. However, its main difference from the surplus value created in a traditional commercial enterprise is the following: at a traditional commercial enterprise this type of value is assigned by a capitalist, a top management, or owners of the enterprise, while at a social enterprise this type of surplus value is reinvested in further social projects. For example, *Benetech*, after transferring its core reading machines business to a commercial distributor, switched to implementing new social projects at the expense of the resulting profits, for example, an e-library and various types of software to minimize environmental damage and protect civil rights in developing countries. Thus, the surplus value at social enterprises still exists in the form of income undistributed in favor of employees but invested in its development. However, this indicates that social enterprises are dominated by the socially-oriented distribution of surplus value, while ordinary enterprises assign surplus value in a private way. Thus, the production mode social enterprises are based on is socially-oriented, rather than capitalist.

If we assess the place of social entrepreneurship in the context of the modern transformation of socio-economic development, it is possible to use the periodization of modern history of economic relations suggested by a well-known Marxist D. Leibman. According to this periodization, social entrepreneurship should be referred to the stage which he called "socialism-the forerunner", which is characterized by the following feature: the opportunities and consciousness of the masses are historically limited since they are imbued with the proprietary-individualistic ideology and practices of the society from which they came out, softened by the experience of cooperation in the process of production, collective struggle, and solidarity – partially, but not completely [30]. All these signs can be found at many social enterprises. Moreover, they introduce the elements of a new system for assessing enterprise efficiency to business practices. It is known that the effectiveness of social enterprises is measured in regards to creating social value social value, rather than economic. In this sense, this system is the forerunner of formation a mechanism such as *Multilevel Democratic Iterative Coordination*, (MDIC), which is the core of a mature socialist society, according to the concept of Leibman, which is the stage following the period of *socialism-the forerunner* [30]. In addition to other important elements of socio-economic process coordination, the system includes criteria characterizing the solution to a number of enterprises' social objectives: staff development, overcoming the manifestations of gender or race stratification and oppression inherited from the past, achievement of objectives related to the environmental impact, development of relations with the local community and other enterprises, etc. This entire list is precisely the impact area of social entrepreneurship and, accordingly, the object of assessment, judging by the latest publications in this area [31]. In this regard, being referred to the period of socialism-the forerunner, social entrepreneurship also bears the signs of the emerging next stage – mature socialism – and therefore makes a contribution to its formation. It is likely that production mode that represents social entrepreneurship can be defined as a transition from a capitalist system to a new form of economic relations with the already predominant values of solidarity and a welfare state, rather than individualistic and private-property interests. Time will show whether this stage is called mature socialism or something else. To date, only one thing can be said: the current state of capitalist relations has already reached the stage where in order to preserve this paradigm and eliminate all its contradictions the state has to introduce a lot of unusual elements – elements of planning, development of the social sector, and reduction of a significant level of social tensions caused by the growing inequality. However, over time all these quantitative changes can evolve into qualitative ones, leading to the formation of a new integrated society with a greater role of values of solidarity and cooperation than the values of individualism and competition. The signs of this new technical and economic formation emerging right in front of us are rightly noted in the work by S.D. Bodrunov, who points out that it is characterized by the priority development of high-tech production based on socially-oriented regulated economic development [32]. The most important objective for it is the need to borrow the experience of foreign countries in state regulation and programming market economy.

The active role of the state in supporting the development of social entrepreneurship in the UK and the US suggests that the state actually regulated its development, thus including it in the overall development program, which resulted in a high level of development in these countries.

Conclusion

To sum up, the study established using the political economic approach that social entrepreneurship is a unique phenomenon not only reflecting the signs of a transforming market paradigm, but also leading to certain changes aimed at transforming the society towards the economy of solidarity less focused on values such as profit, competition, individualism, etc., and more focused on solidarity, collectivism, social responsibility, and social creativity. This is the main research novelty and the contribution of the present paper to studying this issue. The limitations of the neoclassical economic theory are noted, the production mode underlying social entrepreneurship is defined as socially oriented and the nature of this phenomenon is defined as an inter-formational transition phenomenon related to the period of "socialism-the forerunner",according to D. Leibman's term. In terms of political economy, social entrepreneurship can be represented as an associated social creativity since the transition from the "kingdom of need" to the "kingdom of freedom", which is described by modern Marxists A.Buzgalin and A.I. Kolganov, occurs in the form of free voluntary association of citizens. The authors also include here various forms of employee participation in management and self-government aimed at overcoming one of the most firmly established foundations of alienation – division of activities by goal-setting [2, p. 463]. There is a good example of such removal of alienation: the model of management democratization at *Sandwell* social enterprise and *Mondragon* cooperative network. Thus, social entrepreneurship in the context of modern political economy may be perceived as one of the possible forms of transition from the "kingdom of need" to the "kingdom of freedom", as a way towards a new integrated society based on the principles of overcoming alienation through associated social creativity.

Principles of political economy such as objectivity of economic processes, combination of the historical and the logical, as wells system approach are used in the present research [3]. The latter implies that social entrepreneurship is considered as a systemic economic phenomenon. These principles were developed in the context of transitional, inter-formational processes amid technological renewal of the economy, taking into account the civilizational features of social entrepreneurship. For example, the principle of combining the historical and the logical was used as a historical and formational principle to identify the main trends in social entrepreneurship development. The systemic approach has helped expand the understanding of this phenomenon since it takes into account all the features of its manifestation in various aspects.

The paper presents an attempt to apply a political economic approach to the study of social entrepreneurship; this helps objectively assess the development of this phenomenon. In the future, when developing a strategy of state support for social entrepreneurship, the use of political economy will make it possible to identify acceptable measures of state intervention in the development of this phenomenon to improve its efficiency. However, this is already one of the prospects of this study as it requires separate discussions.

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Received May 3, 2018.

DOI: 10.15838/esc.2018.4.58.16
UDC 316.4, LBC 60.52

Social Capital of the Urban Community: Trust, Solidarity, Responsibility*

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Abstract. Social capital formation of the urban community contributes to the compactness of living, involvement in a variety of activities, the diversity of emerging problems and the possibility of their joint solutions. The purpose for the study is to study the social capital of urban communities of two major cities of the Vologda oblast – Vologda and Cherepovets – and identify their common and distinctive features. The theoretical framework of analysis lies in the concept of social capital, which demonstrated the role and importance of social relations for growth and development. Further expansion of the concept's problems caused interest in specific environments of its formation, including the city. The empirical framework of the study includes the results of a public opinion survey in the mentioned cities conducted by the experts of the Russian Academy of Sciences in June, 2017. The hypothesis of the study is that cultural, economic, and social differences affect the state of structural characteristics of social capital, particularly trust, which in turn affects the relations of solidarity and the level of responsibility for the state of affairs in the city. Characteristics of social capital such as the level of interpersonal and institutional trust, involvement in social and political life, readiness to unite with others were analyzed. It is noted that the state of the main indicators of social capital in cities varies. Analysis of specific features of its manifestation can provide information on the reasons for the existing differences in population's perception of government bodies, possibilities of their interaction, as well as information for making reasonable management decisions to avoid conflicts between the authorities and the population, creating conditions for strengthening their interaction.

Key words: social capital, social space, urban community, territorial features, trust, solidarity, responsibility.

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* The article is prepared with support from the Russian Foundation for Humanities grant no. 16-03-00188/16. "Regional social capital amid crisis".

For citation: Guzhavina T.A. Social capital of the urban community: trust, solidarity, responsibility. *Economic and Social Changes: Facts, Trends, Forecast,* 2018, vol. 11, no. 4, pp. 252–268. DOI: 10.15838/esc.2018.4.58.16

Introduction. The city plays an important role in the development of the society, greatly influencing people's lifestyle, creating opportunities for contacts, forming networks of relations. According to some researchers, "a city, interwoven the social fabric of the society, reflects and expresses its development" [1, 3]. Urban communities, absorbing a third of country's population, represent the most common form of territorial association in the Russian conditions. A modern city is a very complex formation in all respects. It combines two types of space: physical and social. The physical component (buildings, monuments, streets, squares and parks) is complemented by the social component in the form of human activity and social interaction. Here the "social reality" is revealed, which E. Durkheim spoke of and which consists of many invisible connections. Those which, according to Durkheim, also form the space of positions [2].

A city as a socio-cultural space is a system of information and communication frameworks for social activity of individuals. They are embodied in a variety of symbolic products of socio-cultural practice [3]. At the same time, the city is bonded and divided by a complex social network of various kinds of connections and relations. The importance of the city is enhanced by the fact that within its borders there is formation and accumulation of social capital, which is largely facilitated by cohabitation of its inhabitants in a compact area, their involvement in a variety of joint activities.

Theoretical framework of analysis. The study of the phenomenon of social capital forming within the boundaries of an urban community is based on significant theoretical framework. It is possible to speak about the formation of the concept which has deep theoretical roots. Its origins can be traced back to the theoretical constructs of the nineteenth century. The concept uses many basic provisions of the theory of capital by K. Marx, I. Fisher, G. Becker [4, 5, 6].

Within the framework of postmodernism the concept was further expanded. P. Bourdieu defines capital as accumulated labor which gives an opportunity to appropriate social energy. Bourdieu enriched the concept with new characteristics and other forms. They are the economic, cultural, and social capital [7, p. 60]. Each form has its specific features. Thus, material capital is tangible and is embodied in material objects; human capital is manifested in the individual's achievements obtained through their health, intelligence, skills, and abilities. Bourdieu connects this form with the human body [7, pp. 60–61]. In contrast to these forms, social capital is intangible as it has a significantly different origin. It is generated by the relations the actor enters during the communication process. These are relations of mutual acquaintance and recognition formed by joining the group which "provides its members with support in the form of collective capital, "reputation", allowing them to receive credits in every possible way" [7, p. 66]. And this is its fundamental difference from material and human capital. Another difference refers to ownership of capital. Of all forms of capital, only social capital is treated as a public good since it cannot be the property of a subject using it. Being formed in the networks of relations, social capital belongs to all participants of these networks.

Social capital, which includes social relations, mutual exchange and mutual assistance, endows a person with a certain social position (status) in the emerging social structure. Its significance lies in the fact that it provides access to the resources available to the members of the community surrounding the individual, and an opportunity to use them. Bourdieu believed that social capital is symbolic and that it can be identified through membership in any group. In fact, this is nothing but a kind of social practice. Analyzing the identified forms, their ability to flow from one to the other, Bourdieu described capital as a dynamic resource [8, pp. 101–102].

Further in-depth analysis of social capital is contained in the works by J. Coleman who put forward the idea that the relations creating social capital of an individual are based on trust [9]. This is the main difference between social and other types of capital. During the development of the concept the researchers faced the issue of the role of public associations of citizens. Any joint activity requires certain arrangement. Studying public associations and the results of their activities, R. Putnam, one of the influential researchers of social capital viewed them as an effective way of forming social capital. They ensure inclusion in public life, expand contacts and ties, contribute to the development and strengthening of interaction standards. According to Putnam's definition, social capital is "connections among individuals, social networks and standards of reciprocity and trust that arise from them" [10, p. 544]. Considering the life of the community through the activities of associations created by individuals, R. Putnam managed to find out the value of network interaction.

Association activity focuses the actors' attention on joint actions that contribute to the awareness of the unity of interests. It is solidarity that underlies social interaction and ensures the coordination of individual interaction and social order. It serves as a prerequisite for any collective action, appears as the leading integrative factor [11, p. 226]. Trust between members of the group generates solidarity, which in turn contributes to the strengthening of standards and values in the community and serves as a framework for collective action. The interpretation of solidarity established in science sees it as "a connection, the merger of individuals into a united group or team", as an "emergent property of groups which promotes social coordination and social order and is a prerequisite for any non-spontaneous collective action" [12, p. 14588]. In our opinion, solidarity can be classified as one of the most important factors contributing to the formation of social capital a community, manifested in the willingness of individuals to act together.

The development of the concept is associated with the expansion of its range of problems. The solution of theoretical issues about the nature, forms, types, sources of formation, and measurement methods helped researchers focus their interest on specific spaces of its concentration. The urban community served as one of such spaces. The concept of social capital considers the problems of ensuring the sustainability of the urban community amid natural and social disasters [13], urban poverty and inclusion of residents of urban slums [14, 15], the problems of ethnic communities [16], etc. The studies of social capital in terms of territorial features of its formation [17], geographical features of the emergence of network interaction in different urban areas [18] are of particular interest. A number of studies of social capital are devoted to analyzing the situation in specific cities [19, 20].

The theoretical approaches to studying social capital of a territory and a city are contained in works by A. Caragliu, C. Del Boro, and P. Nijkamp [21]. In particular, they noted that the competitiveness of the city depends on its social capital, which is manifested in the ability of the urban community to adapt to changes in the environment and produce innovation. S. Zielenbach noted the effect of social capital manifested in the fact that individuals, demonstrating a higher level of trust more actively involved in activities that contribute to the development of the territory, and not only bring individual benefits [22].

Studies of social capital in the urban context began to attract the attention of domestic scientists. For example, M.V. Kurbatov, S.N. Levin, and E.N. Kagan analyzed the influence of social capital on business development and formation of business networks in Kemerovo [23]. E.L. Anoshkina studied the situation with social capital in Perm and Yekaterinburg [24]. She defined social capital of a city as its ability to develop and implement the strategy of spatial development, attracting internal and external resources to its territory [25]. The great role is assigned to decision-making centers. Thus, the development of the concept helps talk about the social capital of a city (urban community).

Further analysis is based on the following provisions. First, social capital is embodied in subjects' social relations, rather than in the subjects or objects as such. Second, the basis for strong social relations is trust, which contributes to the creation of common values and standards as their embodiment. Third, social capital, being manifested in social relations, reflects the structure of relations, making it possible to analyze the social structure of the society. Four, inclusion in the network of relations at a certain social level helps an actor (individual or community) use the resources of this network to achieve their goals. Five, social capital contributes to individuals' unification into a group, which ensures social coordination and social order. These represent the functional characteristics of social capital. Six, the implementation of social capital is observed through identifying the area of responsibility for the state of affairs in the individuals' place of residence.

Finally, we define social capital as the presence of networks of social relations based on trust and characterized by common standards and values, and the level of people's involvement in them. Second, the external effects and results generated by social interaction within these networks and associations based on trust, common standards and values are useful for the society and social groups (in the current context – for a city) [26].

The research hypothesis is as follows. The different cultural, historical and economic conditions in which a certain community exists can influence the state and degree of manifestation of basic structural characteristics of its social capital.

Analysis of empirical data. The study of the social capital of urban communities is of practical importance as it can provide answers to questions about the observed differences in their socio-economic development. Consider these differences and analyze the available data on two major cities of the Vologda oblast – Vologda and Cherepovets. The peculiarity of the territorial arrangement of region's population is its bicentric nature [27]. The concentration of the population in two largest cities and their suburbs has led to space polarization. Vologda appears as the administrative and cultural "capital" of the region, Cherepovets – as its industrial center. The current situation can be considered unique in many ways, which creates promising opportunities for sociological research in the region.

Vologda and Cherepovets, being within the borders of one region, have much in common, for example, in terms of characteristics such as population, employment, transport communications etc. Yet they have more differences. The most significant of them are cultural, historical and economic ones [28, 29].

Cherepovets expanded faster in the Soviet era, Vologda strengthened its development during the perestroika period. Cherepovets was developing on a new basis, the model of

Table 1. Population development in the cities of Vologda and Cherepovets during 1939–2016 (thousand people)

Year	Vologda	Cherepovets
1939	95.0	32.0
1959	139.1	92.4
1970	177.8	188.3
1979	236.5	265.9
1989	282.8	310.4
1999	301.0	324.0
2009	286.2	309.0
2015	311.2	318.1
2016	320.7	318.5
Source: Vologdastat statistics service data.		

Table 2. Main results of socio-economic development of Vologda and Cherepovets in 2016

Indicator	Vologda	Cherepovets
Average annual population, thousand people	320 701	318 536
Shipped own goods, performed works and services, billion RUB	55.2	424.9
Capital investment, billion RUB	11.7	46.1
Average monthly nominal wage, RUB	33 722	43 653
Average number of employees (excluding external part-time workers), people	86 449	85 994
Tax and non-tax budget revenues, mln RUB	2780.0	3040.5
Sources: report on the performance of the mayor and the mayor's office for 2016. Cherepovets. 2017. Available at: https://mayor.cherinfo.ru/; Socio-economic development of a municipal unit "Vologda city" for 2016. Available at: http://vologda-portal.ru		

industrial cities of the Soviet period: ferrous metallurgy in combination with coke chemistry became the core of the functional structure of Cherepovets [30]. Construction of a large iron and steel enterprise amid the shortage of labor resources led to large-scale migration processes (*Tab. 1*).

In economic terms, the cities under review also differ quite significantly *(Tab. 2)*. According to the total volume of industrial production of the region Cherepovets ranks first: its share is 70%, Vologda ranks second with the share of 10%.

Most of the citizens in Cherepovets are engaged in production and construction. The structure of employment in Vologda is different, since it is there that educational institutions, regional and city medical institutions are concentrated. A significant share is made up of employees of management structures at different levels. In 2011, 3,400 people were employed in the regional government [31].

To some extent, the "capital" status of the city and its residents is currently supported by the development of new brands. The most popular projects were "Vologda – the New Year capital of Russia (Russian North)", "Vologda – the lace capital of Russia". The project "Vologda – the cultural capital of the Russian North" is aimed at solving this problem, the implementation of which is included in the relevant program. In fact, the cities shared their functions: administrative and cultural functions are concentrated in Vologda, economic ones – in Cherepovets.

Social capital of the urban community, its formed type, is most clearly manifested in population's awareness of the degree of responsibility for the state of affairs in the city, in the formed trust circles; this is facilitated by involvement in networking. This hypothesis is partially confirmed by the studies conducted by L. Polishchuk, R. Menyashev [32] where they characterize Cherepovets as a city with an open civil culture, a city with great development potential.

For deeper studying the influence of territorial peculiarities on social capital formation we conducted comparative analysis of the results of a sociological study covering the population of Vologda and Cherepovets. The survey was conducted in June, 2017. The representative quota sampling comprised 600 people with the total population of 639,000 people. Statistical error on quota characteristics does not exceed 4%. The applied survey method is a survey at the place of residence.

The state of social capital was assessed using the following indicators: the degree of trust in urban communities, population's willingness to unite to address the existing problems (solidarity), the level of responsibility for the state of affairs in the place of residence.

Under the influence of socio-economic conditions of life trust in the society, the mood for common action, the desire to improve these conditions is formed. Trust, responsibility and solidarity are largely determined by population's social sentiment, which can be measured by respondents' self-assessment. Here we see the inconsistency of the situation. With higher economic indicators in Cherepovets (see Table 2) one would expect higher assessments of personal financial status and better emotional state. However, the reality is the opposite. It is obvious that the assessment of public sentiment and assessment of changes in financial status correlated with each other (*Tab. 3 and 4*).

The improvement of financial status is noted by the residents of Vologda, despite the average wage lower than in Cherepovets. The higher level of evaluation of the emotional state is also indicative. At the same time, the share of those whose situation has become worse is greater. This fact is also reflected in social attitudes. As for the residents of Cherepovets, they mostly preserve the achieved position. The overall situation in Cherepovets is more stable than in Vologda, with predominating extreme opinions. We can assume that a higher level of inequality lies behind this.

Within the framework of the concept of social capital, there is an established point of view on trust, with which we agree as its main feature and structural element [33]. It is trust that the interaction of individuals is based

Table 3. Distribution of answers to the question "How has the financial situation changed over the past year for you/your family?" (% of respondents)

Option	Vologda	Cherepovets
It improved	10.0	6.3
It did not change	40.3	56.3
It became worse	39.7	33.7
Undecided	10.0	3.7
Source: data from the Vologda and Cherepovets population survey "Regional social capital amid crisis", June 2017.		

Table 4. Distribution of answers to the question "What can you say about your mood lately? (% of respondents)

Option	Vologda	Cherepovets
Emotional uplift, vigor	14.0	10.7
Stable mood	53.7	67.0
Anxiety, irritation, anger	16.7	13.7
Indifference, fatigue	5.0	4.7
Undecided	10.7	4.0
Source: data from the Vologda and Cherepovets population survey "Regional social capital amid crisis", June 2017.		

on. Trust is considered as a meta-relationship because it accompanies other relations [34]. According to *Table 5*, its level among urban residents is low. P. Sztompka points to the decline of trust in the society as a global trend [35]. In our country, according to I.V. Soboleva, the reason for declining trust, primarily institutional and further interpersonal, is generated by the reforms which led to systemic crisis [36].

According to the table on the level of trust, residents of Vologda and Cherepovets mostly either do not to trust or only partly trust; there are very few of them who trust people. The residents of Cherepovets tend to be more suspicious, but there is a greater share of those who trust most people. The citizens of Vologda are mainly focused on trust on closest people. Despite some differences, trust in urban communities has a limited radius. This is also confirmed by the fact that 97% of Vologda residents and 92% of residents of Cherepovets only trust their relatives in the first place. The level of trust in friends is rather high – 82 and 80% respectively. About 50% of respondents in both cities trust their neighbors and colleagues. All of the identified categories make up the inner circle.

This level of trust is mainly inherent in the closed type of social capital because it is focused on kinship and friendship. These relations, which do not require significant investment from participants, are formed a priori. According to A. Auzan, this type of social capital, which in the concept is called bonding or limiting capital (in Russian publications – limited or closed type), serves as a reflection of bio-social, rather than social origin [37].

Interpersonal trust is closely related to another form of trust – institutional trust. Most clearly, it is manifested through trust in government entities of different levels *(Tab. 6)*. It would be premature to consider the differences in the level of institutional trust established during data analysis to be significant. They're not very surprising. It is only possible to consider the differences in assessments of President significant.

This is largely due to a slightly greater level of trust in institutional structures in general from the residents of Cherepovets. There is a higher level of trust in higher government authorities and the Governor who is a local resident of Cherepovets and was popular in the city as a mayor; higher level of trust in the City Duma and the mayor. Almost the entire vertical of power is supported by the residents of the city. Vologda residents are more critical in assessing the activities of both regional and local authorities. Their level of distrust is quite high.

The established level of trust affects individuals' social and political activity. An example is the electoral activity. In Cherepovets, the share of residents who regularly participate in election is higher *(Fig. 1)*.

Trust also has a significant impact on the choice of citizenship. The majority of those who almost never or rarely vote in election are distrustful. According to obtained data (*Tab. 7*), regardless of the respondent's place of residence there is a correlation between participation in election and the level of trust. The participants of the election procedure are primarily those who are willing to trust their environment. This dependence should attract the attention of the authorities, especially during election campaigns.

The lower level of trust among Vologda residents does not mean that they are inactive socially and politically. For example, they are more likely to take part in protests than the residents of Cherepovets *(Fig. 2)*. They are responsible for signing collective petitions, arranging meetings with community leaders, participating in promotions such as flash

Table 5. Distribution of answers to the question "Who, in your opinion, can be trusted?" (% of respondents)

Variant	Vologda	Cherepovets
No one can be trusted	17.4	27.8
Only closest friends and relatives	62.9	48.5
Most acquaintances	15.1	17.7
Most people without an exception	4.6	6.0
Source: data from the Vologda and Cherepovets population survey "Regional social capital amid crisis", June 2017.		

Table 6. Distribution of answers to the question "How much do you trust or not trust..?" in the cities of Vologda and Cherepovets (% of respondents)

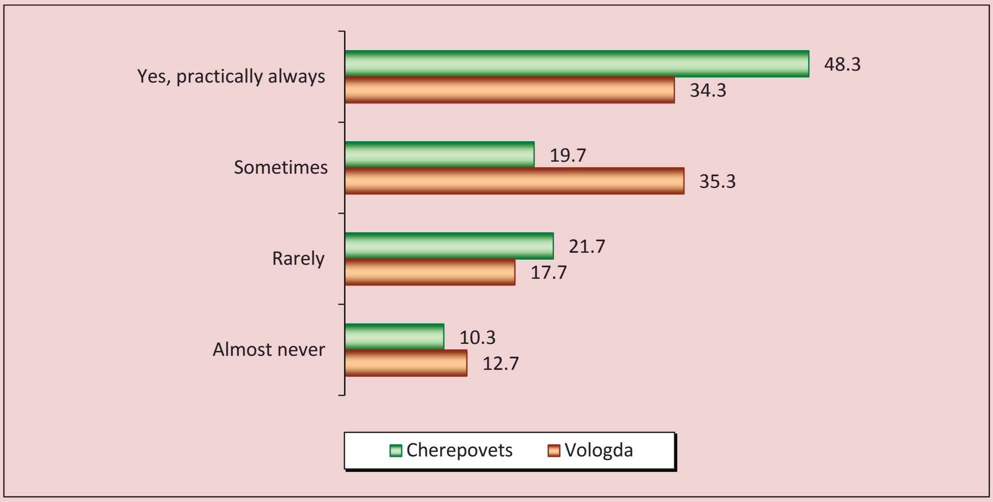
Institution	Variant	Vologda	Cherepovets
Russian President	Totally trust or rather trust	58.0	72.7
	Totally distrust	27.4	23.3
	Undecided	14.7	7.0
Russian Government	Totally trust or rather trust	47.7	52.7
	Totally distrust	39.6	35.6
	Undecided	12.7	11.7
Federation Council	Totally trust or rather trust	43.7	43.7
	Totally distrust	40. 6	38. 3
	Undecided	15.7	18.0
State Duma	Totally trust or rather trust	40.0	38.0
	Totally distrust	46.7	46.7
	Undecided	13.3	13.3
Governor	Totally trust or rather trust	34.0	37.6
	Totally distrust	52.3	49.7
	Undecided	13.7	12.7
Legislative Assembly of the Oblast	Totally trust or rather trust	33.0	34.6
	Totally distrust	50.0	47. 7
	Undecided	17.0	17.7
City's mayor	Totally trust or rather trust	33.0	45.4
	Totally distrust	51.7	41 .6
	Undecided	15.3	12.0
City Duma	Totally trust or rather trust	32.7	36.7
	Totally distrust	49.7	45 4
	Undecided	33.0	18.0
Source: data from the Vologda and Cherepovets population survey "Regional social capital amid crisis", June 2017.			

mobs etc. The residents of Cherepovets more willingly participate in online discussions and distribution of printed materials.

Active participation in various forms of public life, establishment of various kinds of associations for the purpose of self-organization to achieve goals serve as a source of social capital of any territorial community. The range of public organizations is very wide and diverse. The obtained data provide the image of the preferences of the residents of Vologda and Cherepovets (*Tab. 8*).

The residents of Cherepovets, living in an industrial city, are actively participating in the trade union movement, their interest in political parties is also higher. Veterans, women and religious organizations demonstrate a variety of interests of the city's residents. The level of their participation in parents organizations is high. This fact can be considered as a positive

Figure 1. Do you personally always vote in election? (% of respondents)



Source: data from the Vologda and Cherepovets population survey "Regional social capital amid crisis", June 2017.

Table 7. Distribution of answers to the question "Do you personally always vote in election?" (depending on the choice of the answer to the question "Who, in your opinion, can be trusted?" (% of respondents)

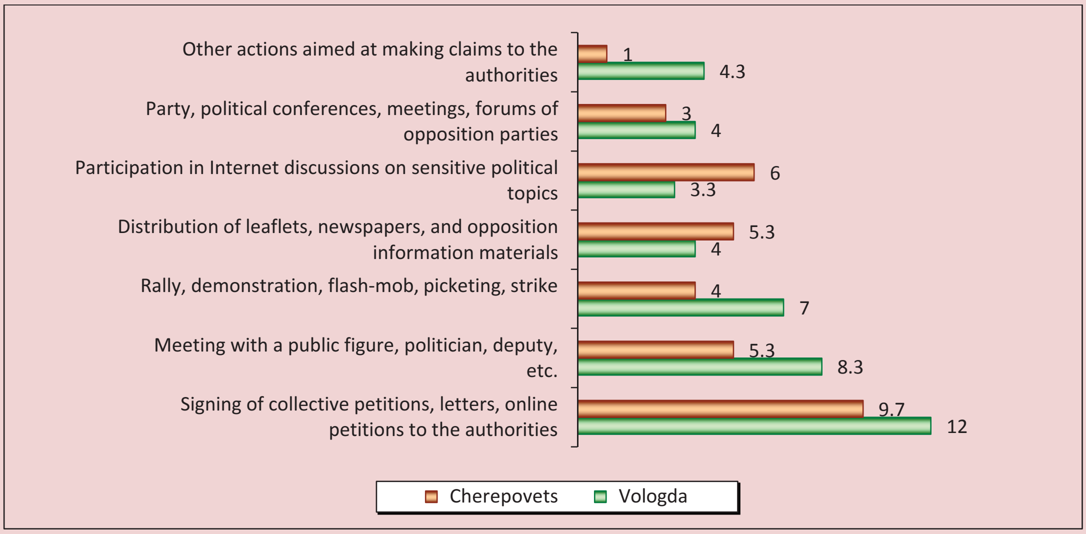
Statement	Yes, almost always		Sometimes		Rarely		Hardly ever	
Variant	Cherepovets	Vologda	Cherepovets	Vologda	Cherepovets	Vologda	Cherepovets	Vologda
No one	37.3	23.1	22.9	19.2	21.7	38.5	18.1	19.2
Only closest friends and relatives	47.6	35.1	17.9	37.8	24.8	15.4	9.7	11.7
Most acquaintances and strangers, all people	62.0	42.4	19.7	40.7	15.5	6.8	2.8	10.2
Source: data from the Vologda and Cherepovets population survey "Regional social capital amid crisis", June 2017.								

influence on social capital formation. The importance of parents' participation in school affairs and local community for the formation of social capital was noted by the concept of J. Coleman [38].

The residents of Vologda prefer charity, environment protection, and healthy lifestyle. In Vologda, the region's educational center, there are three large universities and several branches, and secondary special educational institutions. This explains the large share of participation in youth organizations. Nevertheless, a large part of the population is passive and does not participate in anything.

Citizens' participation in public activity is greatly influenced by trust. From the point of view of the concept of social capital, trust is both a condition for interaction and a product of this interaction. The degree of activity is significantly related to the expressed trust *(Fig. 3)*. Those who distrust are to a much lesser extent involved in the activities of certain structures than those who trust. They are active mainly in parent committees and healthy lifestyle organizations. Apparently, judging by the estimates of participants of these organizations, these are the most important areas and it is there that it is

Figure 2. Have you participated in any protests in the past 12 months? (% of respondents)

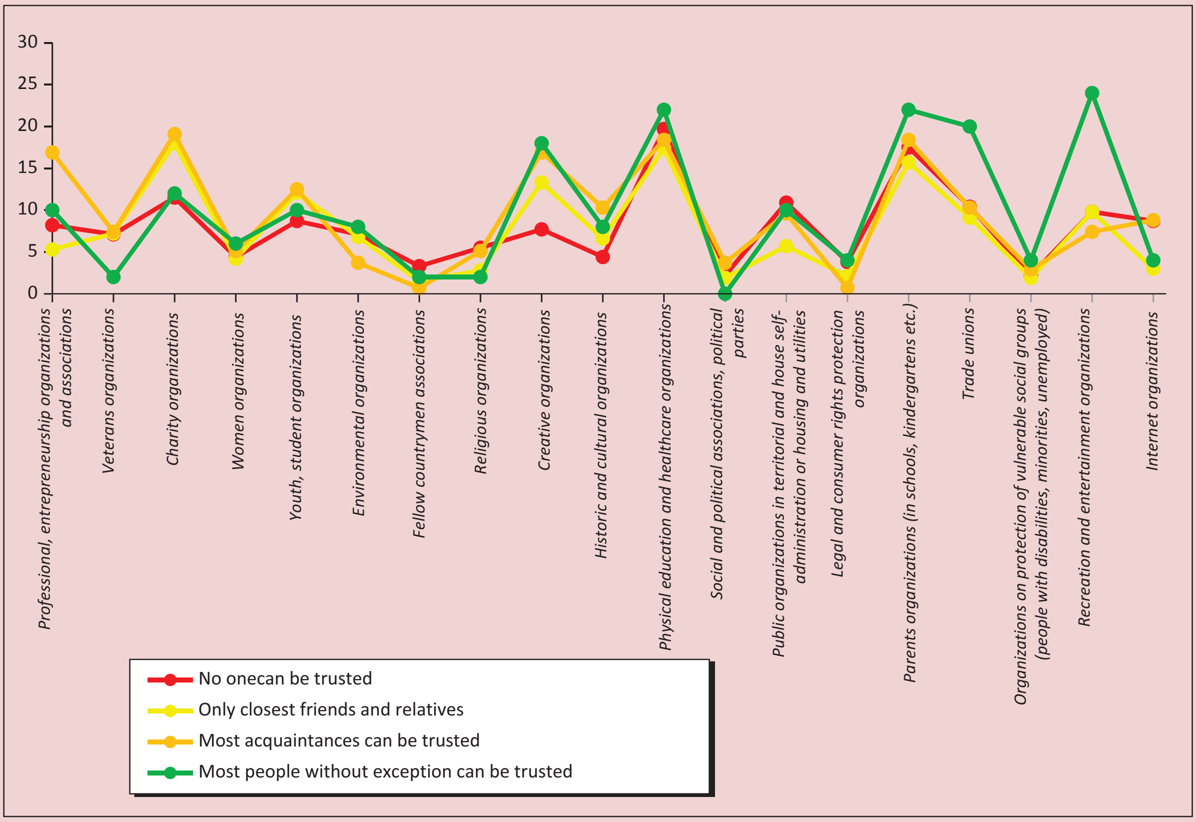


Source: data from the Vologda and Cherepovets population survey "Regional social capital amid crisis", June 2017.

Table 8. Distribution of answers to the question "Did you participate in any events and activities carried out by various public organizations?" (% of respondents)

Organizations	Vologda	Cherepovets
Physical education and healthcare organizations	**14.0**	**16.0**
Parents organizations (in schools, kindergartens etc.)	11.7	**19.0**
Charity organizations	**14.7**	11.7
Creative organizations	8.0	11.3
Youth, student organizations	**9.3**	6.7
Recreation and entertainment organizations	6.7	9.7
Trade unions	7.0	**13.0**
Professional, entrepreneurship organizations and associations	8.7	8.0
Public organizations in territorial and house self-administration or housing and utilities (territorial self-government, housing cooperatives etc.)	9.0	8.7
Veterans organizations	4.3	**10.3**
Historic and cultural organizations	3.7	4.3
Environmental organizations	**6.3**	**7.0**
Internet organizations	4.0	6.3
Women organizations	3.7	**5.7**
Religious organizations	1.0	**3.7**
Legal and consumer rights protection organizations	2.3	2.3
Organizations on protection of vulnerable social groups (people with disabilities, minorities, unemployed)	1.7	2.0
Social and political associations, political parties	0.3	**1.3**
Fellow countrymen associations, national and ethnic organizations	0.7	1.7
Other groups, clubs, and organizations	1.0	4.0
Not a member/participant of any organization	*57.7*	***48.7***
Source: data from the Vologda and Cherepovets population survey "Regional social capital amid crisis", June 2017.		

Figure 3. Citizens' participation in activities of public organizations depending on the answer to the question "Who do you think can be trusted?" (% of respondents)



Source: data from the Vologda and Cherepovets population survey "Regional social capital amid crisis", June 2017

important to negotiate. The ability to negotiate promotes voluntary coordination, opens the way to creating public goods such as social capital. Trust in this context stimulates such coordination, despite the fact that the basis is personal interest. In this case, we observe a horizontal level of social capital distribution, which significantly contributes to the formation of identity and supports social solidarity.

Another indicator of social capital manifestation in a community is the need to unite to address common problems (*Tab. 9*). We have already noted that the willingness to unite is seen as a manifestation of social solidarity [11].

The majority of the residents of Vologda are willing to unite. At first glance, there is some contradiction with the established level of their participation in public activities, with the nature of the manifested activity. However, in our view, the willingness to unite should rather be seen in relation to trust. As mentioned above (see Table 5), the level of trust among Vologda citizens is higher (82%) than that among the residents of Cherepovets (72%). A higher level of trust among Vologda residents determines a higher level of their willingness to unite. Accordingly, the willingness of the residents of Cherepovets to unite is reduced.

In our opinion, the reasons lie in the difference between the socio-economic situations that have developed in the cities amid crisis. The residents of Cherepovets limit the circle of their trust, but this should be seen more as a defense reaction, as a manifestation of the

Table 9. Distribution of answers to the question "There are people who are ready to unite for joint actions to address common problems, and there are those who are not ready to unite with other people. Who would you consider yourself?" (% of respondents)

Variant	Vologda	Cherepovets
I definitely belong to those willing to unite	22.0	19.7
I am possibly willing to unite	37.7	32.0
I am not willing to unite	12.3	18.3
I am definitely not willing to unite	3.3	11.0
Undecided	24.7	19.0
Source: data from the Vologda and Cherepovets population survey "Regional social capital amid crisis", June 2017.		

negative experience gained in the economic crisis. As noted by the Governor of the Vologda Oblast, O.A. Kuvshinnikov, in his speech at the Russian investment Forum in Sochi, in Cherepovets during the 2009 crisis 12,000 people were under the threat of dismissal [39]. The unemployment rate in 2010 reached 5%1.

Trust, participation in association activities, willingness to unite, together with a set of factors have a significant impact on the ability of the urban community to realize its social capital. The indicators such as answers to the question "Do you think you personally affect today's state of affairs..?" we can observe the restrictions in the implementation of social capital associated with a low level of trust and low degree of participation in association activities *(Tab. 10)*.

The majority of respondents is focused on the impact in the immediate environment – in the family, at work. The wider the circle of influence the lower are the assessments. At the country level, they are becoming lowest. There is a clear correlation with the level of trust (see Table 5). The respondents' views on how to improve their ability to influence the processes at a certain level characterize their locus of responsibility, which is very limited. Responsibility means the sphere of control available to the actor, the boundaries of social space that are in the zone of their influence. The zone of responsibility of the majority of respondents is limited to their family or contacts limited to production activities. However, analysis shows that there is a direct correlations between the type of social capital, the bearer of which is the individual, and the locus of responsibility.

Further research has established significant differences in the level of individuals' accumulated social capital, which reflected in the opinions expressed by the respondents. To assess the level of social capital, the method of factor analysis was used, which revealed the presence of both open and closed type of social capital among the respondents. The justification and use of the method, as well as analysis results, were described earlier [40]. During the study, the respondents were divided into five groups depending on the calculated index characterizing the level of accumulated social capital. Further, they are indicated as type 1, type 2, type 3, type 4, type 5.

The representatives of the identified groups differed significantly in their answers to the questions that became social indicators. 46 indicators were used in the calculation of the social capital index. The differences are clearly visible from the data below (*Tab. 11*).

The respondents belonging to types 1 and 2 significantly differ in their responses from those included in groups 4 and 5. It is significant that

[1] Official website of the city of Cherepovets. Available at: https://cherinfo.ru/news/30654-bezrabotica-v-cerepovce-s-nacala-mirovogo-finansovogo-krizisa-dostigla-voodusev-lausih-rezultatov-35

Table 10. Distribution of answers to the question "Do you think you personally affect today's state of affairs in the following spheres…?» (% of respondents)

Sphere	Variant	Vologda	Cherepovets
Your family	Totally	62.0	56.3
	Significantly	26.0	25.3
	Insignificantly	7.3	9.3
	NO	2.7	5.3
	Undecided	2.0	3.7
At work	Totally	32.3	13.3
	Significantly	34.0	27.7
	Insignificantly	15.3	19.0
	NO	10.3	28.0
	Undecided	8.0	12.0
In the house, yard, district you live in	Totally	8.7	7.7
	Significantly	30.3	9.7
	Insignificantly	31.0	28.3
	NO	23.0	45.3
	Undecided	7.0	9.0
In your city	Totally	3.3	6.3
	Significantly	16.7	7.0
	Insignificantly	29.7	17.7
	NO	39.7	57.7
	Undecided	10.7	11.3
In the oblast	Totally	0.3	2.3
	Significantly	4.7	4.3
	Insignificantly	25.0	8.3
	NO	58.3	73.7
	Undecided	11.7	11.3
In the country as a whole	Totally	0.3	2.3
	Significantly	4.3	2.3
	Insignificantly	22.0	6.0
	NO	62.0	77.0
	Undecided	11.3	12.3
Source: data from the Vologda and Cherepovets population survey "Regional social capital amid crisis", June 2017			

Table 11. Distribution of answers to the question "How much do you trust or not trust passers-by on the street?" (% of respondents)

Vologda					
Type of social capital	**1**	**2**	**3**	**4**	**5**
Fully trust	0	0	0.9	2.2	9.7
Mostly trust	0	1.9	15.7	29	41.9
Mostly distrust	0	38.9	22.6	26.9	32.3
Fully distrust	71.4	38.9	39.1	15.1	9.7
Undecided	28.6	20.4	21.7	26.9	6.5
Cherepovets					
Type of social capital	**1**	**2**	**3**	**4**	**5**
Fully trust	0	0	0.9	0	0
Mostly trust	0	8	9.6	23.9	41.7
Mostly do not trust	21.1	33	23.7	25.4	8.3
Fully distrust	63.2	39.8	39.5	25.4	41.7
Undecided	15.8	19.3	26.3	25.4	8.3
Source: calculated by the author.					

the representatives of open capital (types 4 and 5) to some extent trust passers-by on the street, while the carriers of closed social capital (types 1 and 2) trust them less. There are also noticeable differences in trust among the residents of Vologda and Cherepovets. Here a lower level of trust among the residents of Cherepovets is reflected.

The differences between the selected groups in terms of their ability to influence the state of affairs in the place of residence are significant, which characterizes the possibility of implementing accumulated social capital. Individuals belonging to types 4 and 5 demonstrate the expansion of their area of responsibility for the state of affairs in the place of residence. This is expressed in their willingness and ability to influence the situation. 50% of them said that they can fully or significantly influence the state of affairs in their place of residence. The majority of members of types 1 and 2 chose "undecided" (*Tab. 12*).

The responsibility for the state of affairs in their local community is a characteristic of open capital, the absence of it – a characteristic of closed capital. The carriers of open capital are characterized by responsibility, creativity, desire to innovate, willingness to unite to achieve goals. They demonstrate a higher level of willingness to together. As already noted, solidarity is at the heart of the willingness to unite. This is confirmed by a higher level of activity of the representatives of these groups, as shown in the above data (see Fig. 3).

Significant differences are observed in respondents' self-assessments of their financial status (*Tab. 13*). The vector of changes in the financial status of the group with lack of social capital can be characterized as negative. The picture is different in the group with a high-level social capital. Here the situation is more stable, tending to improve.

The self-assessment of financial status is quite correlated with the income level. According to the research results, the average income per family member in the first group was 11,000 RUB, in the second – 15,000 RUB, in the third – 17,000 RUB, in the fourth – 20,000 RUB, in the fifth – 22,000 RUB with an average of 17 thousand rubles for all respondents. The income of groups 1 and 2 is

Table 12. Distribution of answers to the question "Do you think you can personally influence the state of affairs in your village, town, city, district?" (% of respondents)

Vologda					
Type of social capital	**1**	**2**	**3**	**4**	**5**
Fully	0	0	0	6	13
Significantly	0	0	8	27	52
Insignificantly	0	30	30	37	13
Cannot influence	100	59	51	17	16
Undecided	0	11	10	13	6
Cherepovets					
Type of social capital	**1**	**2**	**3**	**4**	**5**
Fully	0	0	4	15	42
Significantly	0	1	4	19	25
Insignificantly	5	8	28	19	0
Cannot influence	90	78	59	28	8
Undecided	5	13	6	18	25
Source: calculated by the author.					

Table 13. Distribution of answers to the question "How do you assess the current financial status of you/your family?" (% of respondents)

Vologda					
Type of social capital	**1**	**2**	**3**	**4**	**5**
Fine	0	2	3	7	7
Rather fine	43	33	27	40	61
Rather bad	57	37	39	32	19
Bad	0	15	14	12	0
Undecided	0	13	17	10	13
Cherepovets					
Type of social capital	**1**	**2**	**3**	**4**	**5**
Fine	0	4.5	1.8	3.0	16.7
Rather fine	5	19	40	64	42
Rather bad	37	44	35	28	33
Bad	58	17	14	0	0
Undecided	0	15	10	5	8
Source: calculated by the author.					

closer to the living wage, which characterizes poverty as an economic condition. The living wage in 2017 averaged 10,718 RUB[2].

Summary. The study of urban communities in Vologda and Cherepovets helps draw a number of conclusions. First, the social capital of these urban communities varies. It is manifested in the level of interpersonal trust, the structure of institutional trust, the degree of involvement in association activities, the ability to realize their social capital through the influence on their environment. However, these differences cannot be characterized as significant. Second, it is established that in both cities closed social capital characterized by restrictions in trust and influence prevails. Third, within the boundaries of both communities, different types of social capital coexist, complementing each other. In the case of both Vologda and Cherepovets, one can observe closed and open types of social capital with the predominance of the first type. Fourth, social capital of open type is not rooted in urban communities, its accumulation is limited. The main barrier is distrust caused by socio-economic instability and, consequently, a high level of social risks. In many ways, this situation could be overcome by improving the population's quality of life. Fifth, the study demonstrated a significant impact of the type of social capital on the respondent's economic attitudes, which correlates with the level of available per capita income. In this case, there is an ability of types of capital to be converted into each other noted by P. Bourdieu.

Thus, the study of social capital and analysis of its state in the urban community using the indicator model of its measurement helps deeper understand and analyze the emerging system of social relations. There are obvious differences in the level of social capital accumulation, a clearly visible dependence of the respondent's social position on the type of capital they carry. Data analysis helps determine the differences in the forms of social capital depending on the territorial belonging of its bearers. The influencing factors in this case are historical and cultural characteristics amid which the territorial community exists. At the same time, the socio-economic situation plays a significant role.

[2] On the establishment of size of living wage per capita and on the main socio-demographic groups of the population in the Vologda Oblast for the 3rd quarter of 2017: Resolution no. 998, dated 13.11.2017. Official Internet portal of legal information. Available at: http://www.vologda-oblast.ru

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Received 10.01.2018.

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 VolRC RAS in the Vologda Oblast [1].

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 2018, and also on average for the latest six polls (October 2017 – August 2018)

The results of the research 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), for 2011 (the last year of Dmitry Medvedev's presidency), and for 2012 (the first year of V. Putin's third presidential term).

The yearly dynamics of the data are presented for the last two years (2016–2017).

We carry out a comparative analysis of the dynamics of public opinion concerning the work of the head of state in the first months (April – August) of V. Putin's first, second, third, and fourth presidential terms.

In connection with the beginning of a new political season coinciding with V. Putin's last (according to the Constitution of the Russian Federation) presidential term, we pay special attention to the analysis of the current (monthly) dynamics of public opinion concerning the work of the head of state. Relevant tables are presented on pages 3–4.

In June – August 2018, the level of approval of the work of the President of the Russian Federation significantly decreased (by 4 p.p., from 70 to 66%). This is the lowest rate of support for the head of state in recent months (from October 2017 to August 2018) and years (2015–2017).

The share of Vologda Oblast residents who give positive assessments concerning the work of the Prime Minister, over the past two months decreased by 5 p.p. (from 52 to 47%). Currently, it is also the minimum indicator in the annual and current dynamics.

During the period from April to August 2018 (the first months of V. Putin's fourth presidential term), the share of negative assessments of the President's work increased by 4 p.p. (from 18 to 22%), of the Prime Minister – by 5 p.p. (from 27 to 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 information on the results of VolRC RAS polls is available at http://www.vscc.ac.ru/.

For reference:

According to VTsIOM, in July – August 2018, the share of positive assessments of the President's work did not change significantly (63 – 64%), however, we should pay attention to the fact that the percentage of positive assessments of the work of the head of state was 81% in May and 73% in June.

Negative dynamics is also observed according to the data of Levada-Center: in April 2018, 82% of Russians approved of the President's work, in May – 79%, in July – 67%.

Thus, in general, in the first months of V. Putin's fourth presidential term (from April to August 2018), the level of people's support for his work decreased by 18 p. p. (from 81 to 63%), and by 15 p. p. (from 82 to 67%) according to Levada-Center.

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

Answer	2007	2011	2012	2016	2017	Oct. 2017	Dec. 2017	Feb. 2018	Apr. 2018	June 2018	Aug. 2018	Average for the latest 6 surveys	Dynamics (+/-), the latest 6 surveys compared to ...		
													2017	2011	2007
RF President															
I approve	75.3	58.7	51.7	67.8	67.3	68.3	68.9	68.7	68.1	70.1	65.9	68.3	+1	+10	-7
I don't approve	11.5	25.6	32.6	18.8	20.0	19.4	19.3	20.8	18.4	17.5	22.1	19.6	0	-6	+8
Chairman of the RF Government*															
I approve	-*	59.3	49.6	52.3	49.5	51.5	49.9	48.3	49.9	52.0	47.4	49.8	0	-9	-
I don't approve	-	24.7	33.3	27.6	31.1	29.9	31.3	30.8	27.8	27.5	31.9	29.9	-1	+5	-
Governor															
I approve	55.8	45.7	41.9	37.7	39.8	40.8	39.4	39.3	39.5	40.5	37.3	39.5	0	-6	-16
I don't approve	22.2	30.5	33.3	39.3	39.3	39.2	40.1	37.9	36.1	35.3	36.9	37.6	-2	+7	+15
* Included in the survey since 2008.															

In June – August, the assessments of the success of the President's work on virtually all key problems of the country deteriorated:

- ✓ the share of those who believe that V. Putin is successfully coping with the issues of strengthening Russia's international positions decreased by 3 p.p. (from 56 to 53%);
- ✓ with restoring order in the country – by 4 p.p. (from 55 to 51%);
- ✓ with protecting democracy and strengthening citizens' freedoms – by 3 p.p. (from 43 to 40%);
- ✓ the share of those who negatively assess the President's work on economic recovery and growth of citizens' welfare increased by 3 p.p. (from 38 to 41%).

During the first months of V. Putin's fourth presidential term, the share of negative judgments on the work of the President in all the above areas increased by 2–5 p.p.

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

Answer	2007	2011	2012	2016	2017	Oct. 2017	Dec. 2017	Feb. 2018	Apr. 2018	June 2018	Aug. 2018	Average for the latest 6 surveys	Dynamics (+/-), the latest 6 surveys compared to …		
													2017	2011	2007
Strengthening Russia's international standing															
Successful	58.4	46.2	43.1	51.2	55.7	57.6	56.5	55.2	56.1	55.6	53.3	55.7	0	+10	-3
Unsuccessful	24.9	33.7	37.9	29.9	26.8	26.3	28.3	26.9	26.9	26.7	29.1	27.4	+1	-6	+2
Success index	*133.5*	*112.5*	*105.2*	*121.3*	*129.0*	*131.3*	*128.3*	*128.3*	*129.2*	*128.9*	*124.2*	128.4	-1	+16	-5
Imposing order in the country															
Successful	53.2	36.6	35.4	49.2	50.6	52.7	52.0	50.9	54.2	55.1	51.0	52.7	+2	+16	-1
Unsuccessful	34.0	50.0	50.7	36.7	36.1	35.1	34.6	32.7	30.8	32.9	36.2	33.7	-2	-16	0
Success index	*119.2*	*86.6*	*84.7*	*112.6*	*114.5*	*117.6*	*117.4*	*118.2*	*123.4*	*122.2*	*114.8*	118.9	+4	+32	0
Protecting democracy and strengthening citizens' freedoms															
Successful	44.4	32.4	28.8	36.6	40.3	42.5	43.3	42.8	42.9	43.4	39.8	42.5	+2	+10	-2
Unsuccessful	37.0	48.3	52.3	44.3	40.2	38.3	39.3	38.7	37.1	38.1	41.4	38.8	-1	-9	+2
Success index	*107.4*	*84.1*	*76.5*	*92.3*	*100.2*	*104.2*	*103.9*	*104.1*	*105.8*	*105.3*	*98.4*	103.6	+3	+20	-4
Economic recovery and increase in citizens' welfare															
Successful	47.2	30.7	28.5	27.2	29.3	32.3	31.6	31.0	31.3	32.3	30.6	31.5	+2	+1	-16
Unsuccessful	39.1	56.1	57.9	59.4	56.9	55.3	56.3	53.7	55.3	55.2	58.3	55.7	-1	0	+17
Success index	*108.1*	*74.6*	*70.6*	*67.8*	*72.4*	*77.0*	*75.3*	*77.3*	*76.0*	*77.1*	*72.3*	75.8	+3	+1	-32

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

The results of Russian national and regional studies suggest that the negative dynamics of assessments of the President's work in April – August 2018 are registered not for the first time. According to VTsIOM, the decrease in support for the President was observed during the corresponding period of V. Putin's second presidential term (2012); according to Levada-Center – during all four presidential terms; according to the data of VolRC RAS – in 2000 and 2004. Thus, the deterioration of public opinion concerning the work of the head of state in the first months of the political season is a phenomenon that is quite common; we can even say it is "ordinary" for the Russian reality.

Apparently, this is due to the fact that at the beginning of the new political cycle people expect the authorities to take concrete steps to implement the election promises, but real changes in the dynamics of the level and quality of life are not observed. This, on the one hand, makes it quite likely that in 2018 (despite such a sharp opposition to the pension reform on the part of the general public[2]) everything will return to normal, and in the coming months of 2018,

[2] According to the Public Opinion Foundation (FOM), 80% of Russians have a negative attitude toward the pension reform project (source: *Raising the Retirement Age: Citizens' Reaction. FOM Press Release from June 29, 2018.* Available at: http://fom.ru/Ekonomika/14057

According to VolRC RAS, 73% of Vologda Oblast residents do not support the pension reform (only 7% of respondents hold the opposite point of view); 55% believe that raising the retirement age is unacceptable in principle; 27% of the region's residents believe that "sooner or later the retirement age will need to be raised, but not now and not in this way".

the dynamics of public opinion will stabilize again. However, on the other hand, it should be noted that we are talking about a long-term, even systematic disregard for the expectations and hopes of the population, which, of course, exacerbates the stability of the political system and the overall social situation in the country.

It should also be noted that according to Russian studies (VTsIOM) the level of support for V. Putin at the beginning of his third and fourth presidential terms was 63% (in August). This is significantly less than in August 2000 and 2004 (86 and 74%, respectively).

Dynamics of assessment of the work of the head of state in the first months of V. Putin's 1st – 4th presidential terms (% of respondents)

Answer	2000				2004				2012				2018			
	April	June	August	Dynamics (+/–), Aug.to Apr.	April	June	August	Dynamics (+/–), Aug.to Apr.	April	June	August	Dynamics (+/–), Aug.to Apr.	April	June	August	Dynamics (+/–), Aug.to Apr.
VTsIOM																
I approve	-	79.5**	85.5	-	72.6***	69.8**	74.0	+1	65.8	65.8	62.9	-3	81.3	72.5	63.0	-18
I don't approve	-	20.5**	14.5	-	18.9***	19.8**	17.8	-1	25.4	24.1	27.9	+3	11.2	18.0	26.5	+15
Levada-Center																
I approve	77	61	65	-12	79	72	68	-11	67	64*	63	-4	82	67**	н.д.	-
I don't approve	15	26	26	+11	19	25	30	+11	32	34*	35	+3	17	32**	н.д.	-
VolRC RAS																
I approve	67.3	62.5	61.5	-6	73.5	67.2	53.1	-20	50.3	54.5	53.7	+3	68.1	70.1	65.9	-2
I don't approve	11.1	16.1	19.8	+9	13.0	19.0	27.1	+14	33.3	28.9	31.1	-2	18.4	17.5	22.1	+4

From May 2008 to June 2012, Levada-Center formulated the question as follows: "Do you generally approve or disapprove of the work of Vladimir Putin as Prime Minister?".
** VTsIOM data as of July 2000 and 2004, Levada Center data as of July 2018.
*** VTsIOM data as of May 2004.

Unlike the first months of V. Putin's third presidential term, in April – August 2018, there is a negative dynamics of assessments of the success of the President's work to address the key problems of the country (the share of negative judgments increased by 2–5 p.p.). A negative trend in public opinion was also noted in 2004, which was marked by broad discussions about the monetization of benefits, a rather controversial reform.

It should also be noted that in April – August 2018 (compared with the corresponding periods of 2000, 2004, and 2012), we observe a significantly higher level of support for the work of the head of state to strengthen Russia's international positions (55% vs 40–44%), restore order in the country (53% vs 35–37%), protect democracy and strengthen citizens' freedoms (42% vs 25–30%). However, this statement does not concern, perhaps, the most acute problem – the recovery of the economy and the growth of the welfare of citizens. Throughout V. Putin's presidential terms, the assessment of the success with which the President deals with this problem does not change: the share of positive judgments is 30%, negative – 50–56%.

According to the latest data (as of August 2018), the index of assessment of the President's work to address material issues of the population is lower than for the corresponding period of all previous presidential terms (in August 2018 – 72 p., in 2012 – 83 p., in 2004 – 74 p., in 2000 – 84 p.).

Evaluation of the degree of success with which the President addresses the country's key issues in the first months of Vladimir Putin's presidential terms* (VolRC RAS data, % of respondents)

Answer	2000				2004				2012				2018			
	April	June	August	Dynamics (+/–), Aug.to Apr.	April	June	August	Dynamics (+/–), Aug.to Apr.	April	June	August	Dynamics (+/–), Aug.to Apr.	April	June	August	Dynamics (+/–), Aug.to Apr.
Strengthening Russia's international standing																
Successful	-	-	38.1	-	50.1	43.9	35.4	-15	42.6	43.3	47.2	+5	56.1	55.6	53.3	-3
Unsuccessful	-	-	29.4	-	28.1	33.9	42.9	+15	37	37.8	34.9	-2	26.9	26.7	29.1	+2
Success index	-	-	*108.7*	-	*122.0*	*110.0*	*92.5*	*-30*	*105.6*	*105.5*	*112.3*	*+7*	*129.2*	*128.9*	*124.2*	*-5*
Imposing order in the country																
Successful	-	-	33.5	-	42.6	36.1	28.9	-14	34.7	35.3	40.9	+6	54.2	55.1	51.0	-3
Unsuccessful	-	-	42.3	-	43.5	49.5	53.2	+10	51.5	51.8	45.6	-6	30.8	32.9	36.2	+5
Success index	-	-	*91.2*	-	*99.1*	*86.6*	*75.7*	*-23*	*83.2*	*83.5*	*95.3*	*+12*	*123.4*	*122.2*	*114.8*	*-9*
Economic recovery and increase in citizens' welfare																
Successful	-	-	25.1	-	33	30.6	28.1	-5	26.9	30.1	33	+6	42.9	43.4	39.8	-3
Unsuccessful	-	-	38.1	-	42.3	46.1	47.6	+5	55	51.4	48.1	-7	37.1	38.1	41.4	+4
Success index	-	-	*87.0*	-	*90.7*	*84.5*	*80.5*	*-10*	*71.9*	*78.7*	*84.9*	*+13*	*105.8*	*105.3*	*98.4*	*-7*
Economic recovery and increase in citizens' welfare																
Successful	-	-	28.7	-	35.1	30.9	27.6	-8	28.5	29.1	34.7	+6	31.3	32.3	30.6	-1
Unsuccessful	-	-	44.4	-	49.2	50.7	53.7	+5	58.7	57.1	51.4	-7	55.3	55.2	58.3	+3
Success index	-	-	*84.3*	-	*85.9*	*80.2*	*73.9*	*-12*	*69.8*	*72.0*	*83.3*	*+14*	*76.0*	*77.1*	*72.3*	*-4*
* Included in the survey since August 2000.																

The structure of Vologda Oblast residents' preferences concerning political parties remains stable. In particular, people's support for the United Russia Party remains at the level of 38%. Nevertheless, we should note a slight increase in the proportion of people who believe that none of the parliamentary parties represents their interests (in April 2018, the proportion of those who share this opinion was 26%, in June – 27%, in August – 29%). This may indicate a loss of interest or even disappointment in the activities of parties represented in the State Duma.

Which party expresses your interests? (% of respondents)

Party	2007	Election to the RF State Duma 2007, fact	2011	Election to the RF State Duma 2011, fact	2012	2016	Election to the RF State Duma 2016, fact	2017	Oct. 2017	Dec. 2017	Feb. 2018	Apr. 2018	June 2018	Aug. 2018	Average for the latest 6 surveys	Dynamics (+/-), the latest 6 surveys compared to …		
																2017	2011	2007
United Russia	30.2	60.5	31.1	33.4	29.1	35.4	38.0	34.7	35.6	37.9	38.4	39.7	38.9	38.1	38.1	+3	+7	+8
LDPR	7.5	11.0	7.8	15.4	7.8	10.4	21.9	11.0	11.5	11.6	10.1	9.6	9.7	9.7	10.4	-1	+3	+3
KPRF	7.0	9.3	10.3	16.8	10.6	8.3	14.2	7.6	7.3	8.1	7.1	8.1	8.7	10.3	8.3	+1	-2	+1
Just Russia	7.8	8.8	5.6	27.2	6.6	4.2	10.8	4.8	4.5	4.3	3.5	2.5	2.3	2.7	3.3	-2	-2	-5
Other	1.8	–	1.9	–	2.1	0.3	–	0.5	0.8	1.1	0.9	1.2	0.5	0.6	0.9	0	-1	-1
None	17.8	–	29.4	–	31.3	29.4	–	29.2	26.2	28.5	28.8	26.2	26.7	28.5	27.5	-2	-2	+10
It's difficult to answer	21.2	–	13.2	–	11.7	12.0	–	12.2	14.1	8.6	11.1	12.7	13.3	10.0	11.6	-1	-2	-10

Despite the deterioration of assessments of the work of the President and the Government, there have been no significant changes in the dynamics of indicators of social well-being over the past two months:

- ✓ the proportion of people who characterize their mood as "normal and good" is 73%;
- ✓ the proportion of those who believe that "everything is not so bad; it's difficult to live, but it's possible to stand it" is 78%.

For the first time in recent months, the consumer sentiment index decreased (by 3 p., from 92 to 89 p.), which indicates the growth of people's pessimistic expectations regarding the dynamics of the economic situation in the country and their personal well-being.

The growth of negative forecasts for the future does not yet lead to deterioration in the estimates of the financial situation in the present. However, it is difficult to say that the situation is satisfactory: in recent years, the proportion of Oblast's residents who subjectively classify themselves as "poor and extremely poor" exceeds the proportion of people with "average income" (45–49% vs 40–43%).

Estimation of social condition (% of respondents)

Answer	2007	2011	2012	2016	2017	Oct. 2017	Dec. 2017	Feb. 2018	Apr. 2018	June 2018	Aug. 2018	Average for the latest 6 surveys	Dynamics (+/-), the latest 6 surveys compared to …		
													2017	2011	2007
Mood															
Usual condition, good mood	63.6	63.1	67.3	68.0	70.4	71.0	70.5	68.6	71.5	72.5	72.5	71.1	+1	+8	+8
I feel stress, anger, fear, depression	27.8	28.9	27.0	26.2	24.2	22.8	24.0	23.4	23.1	22.8	22.5	23.1	-1	-6	-5
Stock of patience															
Everything is not so bad; it's difficult to live, but it's possible to stand it	74.1	74.8	76.6	78.0	77.7	74.4	77.1	76.2	79.0	76.5	78.0	76.9	-1	+2	+3
It's impossible to bear such plight	13.6	15.3	15.8	15.6	15.8	17.5	16.2	16.3	14.8	16.6	15.5	16.2	0	+1	+3
Social self-identification*															
The share of people who consider themselves to have average income	48.2	43.1	44.7	42.1	43.1	43.0	41.7	41.2	41.8	43.1	43.3	42.4	-1	-1	-6
The share of people who consider themselves to be poor and extremely poor	42.4	44.3	44.5	49.0	46.6	48.8	47.1	46.2	46.5	45.3	44.1	46.3	0	+2	+4
Consumer sentiment index															
Index value, points	105.9	89.6	91.5	77.7	84.6	86.7	87.3	89.2	90.3	92.2	89.2	89.2	+5	0	-17

* Question: "Which category do you belong to, in your opinion?"

In nine out of fourteen socio-demographic groups there were no significant changes in social mood (more than by 2 p.p.). At the same time, it should be noted that in none of the categories in June – August 2018, there was any improvement in the emotional state (except for a slight increase (by 3 p.p.) in positive judgments about their mood among people who, according to their own assessments of their income belong to 60% of the middle-income residents of the region).

We should point out the deterioration of the social mood among those who by self-assessment of their income belong to the group of 20% of the poorest residents of the region. Over the past two months, the share of positive ratings in this category has decreased by 7 p.p. (from 60 to 53%). In general, the negative dynamics of the deterioration of the social mood in the poorest segments of the population has been observed since April 2018, that is, throughout the first months of V. Putin's fourth presidential term.

Social mood in different social groups (answer: "Good mood, normal condition", % of respondents)

Population group	2007	2011	2012	2016	2017	Oct. 2017	Dec. 2017	Feb. 2018	Apr. 2018	June 2018	Aug. 2018	Average for the latest 6 surveys	Dynamics (+/-), the latest 6 surveys compared to …		
													2017	2011	2007
Sex															
Men	65.9	64.5	69.1	68.8	70.6	71.3	70.8	71.0	73.4	74.5	73.9	72.5	+2	+8	+7
Women	61.7	62.0	65.8	67.4	70.2	70.8	70.3	66.6	70.0	70.9	71.3	70.0	0	+8	+8
Age															
Under 30	71.3	70.0	72.3	76.4	78.1	79.4	82.2	74.2	79.6	81.3	77.9	79.1	+1	+9	+8
30-55	64.8	62.5	67.9	67.4	71.5	71.4	73.1	68.8	74.0	75.1	74.9	72.9	+1	+10	+8
Over 55	54.8	58.3	62.1	64.0	64.9	66.4	61.4	65.6	64.2	64.7	66.5	64.8	0	+7	+10
Education															
Secondary and incomplete secondary	58.4	57.4	57.2	62.1	63.6	63.3	61.2	60.5	65.5	64.8	66.5	63.6	0	+6	+5
Secondary vocational	64.6	63.6	66.7	68.4	72.0	73.3	75.0	68.9	72.7	74.9	72.6	72.9	+1	+9	+8
Higher and incomplete higher	68.6	68.3	77.0	74.3	75.8	77.1	75.6	77.9	76.2	77.4	78.4	77.1	+1	+9	+9
Income groups															
Bottom 20%	51.6	45.3	51.5	52.5	52.9	57.9	50.7	47.7	61.8	60.0	53.1	55.2	+2	+10	+4
Middle 60%	62.9	65.3	68.7	69.4	72.0	71.7	72.0	70.3	71.7	72.3	74.5	72.1	0	+7	+9
Top 20%	74.9	75.3	81.1	80.9	83.7	82.1	86.2	82.2	81.5	85.5	83.4	83.5	0	+8	+9
Territories															
Vologda	63.1	67.1	73.6	69.9	72.6	74.0	72.2	71.0	73.5	75.4	70.4	72.8	0	+6	+10
Cherepovets	68.1	71.2	76.2	71.7	75.7	76.9	75.2	71.5	75.0	76.7	79.1	75.7	0	+5	+8
Districts	61.6	57.1	59.8	64.8	66.1	66.1	66.9	65.6	68.3	68.6	69.8	67.6	+1	+10	+6
Oblast	63.6	63.1	67.3	68.0	70.4	71.1	70.5	68.6	71.5	72.5	72.5	71.1	+1	+8	+8

Conclusion

the results of sociological research conducted both at the territorial level and on a national scale make it possible to state unequivocally that the government's draft laws that were adopted or discussed in the first months of V. Putin's fourth presidential term do not find support among the general population or, in other words, do not comply with national interests. As a result, there is a decrease in the level of approval of the President's work; the assessment of his actions to solve the key problems of the country is deteriorating; people's dissatisfaction with the parties represented in Parliament is increasing; pessimistic sentiments about the prospects of the Russian economy and personal financial situation are growing; the most vulnerable categories of the population are less likely to experience positive emotions.

In principle, we can agree with the conclusions of experts from VTsIOM, who say that "the fluctuations in indicators are undulating and weak … This situation is likely to continue until the end of the summer"[3]. However, in our opinion, it is difficult to conclude from such dynamics that "the situation has stabilized" and that the country has a "generally calm political situation"[4].

The comparative analysis of the dynamics of public opinion in the first months of V. Putin's presidential terms shows that the current situation can be compared with the situation in 2004, one of the significant

[3] Ratings of trust to politicians, approval of the work of state institutions, ratings of parties: VTsIOM press release, 2018, no. 3739, August 20. Available at: https://wciom.ru/index.php?id=236&uid=9257 (comment by M. Mamonov, head of the practice of political analysis and consulting of the Research Department).

[4] Ibidem.

events of which was the discussion of the reform of monetization of benefits (we recall that the law itself, which provided for the replacement of benefits with monetary compensation, was signed by the President in August 2004[5], although rallies against this reform began to take place already in July[6]). However, it should be noted that the internal socio-political situation in 2018 and 2004 has fundamental differences: 14 years ago, the country still faced the task of stabilizing the situation after the events of the 1990s, today the agenda declared by the authorities and supported by society is completely different.

In his Address to the Federal Assembly on March 1, 2018 and later in the May Decrees, the President set goals and objectives for the breakthrough development of the domestic political and economic situation in the country. Moreover, V. Putin has repeatedly stressed that for their implementation "there is no time to ramp-up"[7]. However, the achievement of these rather ambitious plans supported by the general public is impossible in the conditions of actual confrontation between the decisions taken by public authorities and public opinion.

In that situation which developed today, it is possible to speak only about more or less successful preservation of social stability in the country. Accordingly, in order for the dynamics of public sentiment to change its vector, we need radical changes in the ideology and direction of domestic public policy, although so far many experts[8] find this highly unlikely.

We should also note that the negative dynamics of public opinion on many key issues are observed in the summer months of the year, that is, in the season of vacation and the works on one's private subsidiary plots. However, if in the coming months the authorities do not draw the appropriate conclusions and make decisions that will find support of the population, we can only speculate about the assessments of public sentiment in the upcoming autumn-winter period, traditionally complicated by the deterioration of climatic conditions, the beginning of a new working cycle and seasonal increase in utility tariffs.

The materials were prepared by M.V. Morev, I.V. Paranicheva, I.M. Bakhvalova.

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[5] Federal Law 122-FZ of August 22, 2004 "On amendments to legislative acts of the Russian Federation and the annulment of certain legislative acts of the Russian Federation in connection with the adoption of federal laws "On amendments and additions to Federal Law "On general principles of the organization of legislative (representative) and executive bodies of state power of the subjects of the Russian Federation" and "On general principles of the organization of local self-government in the Russian Federation".

[6] In particular, on July 29, a protest rally was held in Moscow against the draft law on the replacement of benefits with monetary compensation; the rally gathered about three thousand people.

The organizer of the meeting was the Union "Chernobyl" of Russia, but it was attended by representatives of other organizations and parties (Communist Party, LDPR, "Yabloko", the Union of Right Forces, etc.). In general, the meeting in Moscow was attended by those who participated in the recovery from the Chernobyl disaster and came from many regions of Russia, including the Rostov, Tula, Belgorod, Tambov, Leningrad, Ivanovo, and Kaluga oblasts, Stavropol Krai, Bashkiria, and other regions. (Source: News.ru with reference to the Agency "Interfax". Available at: https://www.newsru.com/russia/29jul2004/miting.html)

[7] See, for example:

V.V. Putin's inauguration speech, May 7, 2018. *Official website of the President of the Russian Federation*. Available at: http://www.kremlin.ru/events/president/news/57416

Transcript of the Direct Line with Vladimir Putin, June 7, 2018. *Official website of the President of the Russian Federation*. Available at: http://www.kremlin.ru/events/president/news/57692

[8] See, for example:

Delyagin M. Russia is being lead to the same abyss as Ukraine. *Official website of the political news agency "Severo-Zapad"*. Available at: http://www.apn-spb.ru/opinions/article27881.htm

Skorobogaty P., Gurova T. The mandate of development. *Ekspert*, 2018, no. 13, March 26 – April 1. Available at: http://pressa.ru/ru/reader/#/magazines/ekspert/issues/13-2018/pages/10/

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Gorshkov M.K., Petukhov V. V. (Eds.). Russian Society and the Challenges of the Time. Book Four. Moscow: Ves' mir, 2016. 400 p.

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[1] Information about the modified Harvard standard is given in the book: Kirillova O.V. *Redaktsionnaya podgotovka nauchnykh zhurnalov po mezhdunarodnym standartam: rekomendatsii eksperta BD Scopus* [Editorial Preparation of Scientific Journals according to International Standards: Recommendations of a Scopus Expert]. Moscow, 2013. Part 1. 90 p.

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Make-up page	T.V. Popova
Translators and Proof-readers	A.A. Sokolova, A.S. Ukhanova

Passed for printing September 21, 2018.
Date of publication September 26, 2018.
Format 60×84 1/8. Digital recording.
Con. pr. sheets 33.1. Number of copies 500. Order No. 283.
Price is open.

The journal is registered with the Federal Service
for Supervision of Telecom and Mass Communications (Roskomnadzor).
Certificate of registration PI FS77-71361 dated October 26, 2017.

Founder: Federal State Budgetary Institution of Science
“Vologda Research Center of the Russian Academy of Sciences” (VolRC RAS)

Address of the Publisher and Editorial Office:
56A, Gorky St., Vologda, 160014, Russia
phone (8172) 59-78-03, fax (8172) 59-78-02, e-mail: common@vscc.ac.ru