



ISSN 0868-5169

Р 1(97) 2018 ЕГИОН

ЭКОНОМИКА И СОЦИОЛОГИЯ

« : » 2018 . 1 (97). 288 .

1963 .
« , »,
1993 . -
- « : ».
.

:

()

: ,

,

« »

:

. . (), . . , . . ,
. . (), . . (-
,), . . (), . . ,
. . (), . . , . . , . . -
, . . , . . , . . (-
, . . , . . , . . , . . -
(), . . , . . , . . , . . ,
. . , . . (), . .

: 630090, . ,

, 17,

E-mail: region@ieie.nsc.ru, yes@ieie.nsc.ru

Regional Policy and Economic Issues of Federalism

- Novoselov, A.S., A.S. Marshalova and G.V. Zhdan.* The Role of an Institutional Governance System in Implementing an Integrated Approach to Territory Development 3

Economic Issues of Regional Development

- Shekhovtseva, L.S.* Multidimensional Structuring of Institutional Maintenance of Region's Spatial Development: Principles and Methodology 32
- Krinichansky, K.V.* Non-Monotonic Impact of Financial Development on Economic Dynamics in the Russian Regions 52
- Trotskovsky, A.Ya. and Yu.A. Perekarenkova.* Altai Krai Under Economic Instability: Key Trends and Development Peculiarities 69

Social Issues of Regional Development

- Melnikov, R.M. and V.A. Teslenko.* Evaluating the Impact of Human Capital on Economic Dynamics in Russian Regions 93
- Sergienko, A.M. and O.A. Ivanova.* Rural Youth Migration in an Agrarian Region: Trends and Regulating Factors 116
- Echevskaya, O.G. and S.V. Chechikova.* Adaptation Strategies and «Anti-Crisis Measures» of Russians Under Economic Crisis 142

**Regional and Interregional Aspects
of Structural and Investment Policy**

- Korel, I.I., E.A. Pavlyuk, L.V. Korel and N.E. Kafidova.* Innovative Development in the Interior of Reindustrialization of the Regional Space of Russia 167
- Kireenko, A.P. and E.N. Nevzorova.* Shadow Economy in Russian Regions: Urban and Rural Areas Contributions 191
- Malov, V.Yu.* Mongolian Transit: Tactical Steps to Solve Strategic Goals 217

Environmental and Economic Issues of Regional Development

- Glazyrina, I.P., R.V. Fattakhov, A.V. Delyuga, P.V. Stroev and A.A. Grigorov.* The Baikal Region: «Environmental Cost» of Economic Growth 231
- Lyubimova, E.V.* Renewable Power Sources of Siberia: the Reached and Prospects 250

Issues of Local Self-Government and Municipal Development

- Antonova, I.S. and E.A. Pchelintsev.* Dynamic Evaluation of the Efficiency of Monotown's Economic Diversification (Case Study of Kemerovo Oblast) 271

4

[6; 10; 12; 13].

,
 .
 —
 —
 —
 —
 —
 —
 —
 ,
 ,
 ,
 ,
 —
 —

—
—

—
—

—

—

, ,		, , ,	, , ,	
➤				-
				-
	:			
➤	;			-
				-
				-
	:			
➤	;			
			:	
➤			;	
	,			-
			.	
		,		-
				-
	,			
	.			-
				-
	.			-
-		,		-
				-
,				-
	,		.	-
				-
		,		-
			.	-
,				-
				-
		,		-

[3].

—

—

—

—

—

,

—

—

—

—

—

—

—

,

—

—

—

—

—

3 ∴
URL: <http://docs.cntd.ru/document/5434124>.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65
66
67
68
69
70
71
72
73
74
75
76
77
78
79
80
81
82
83
84
85
86
87
88
89
90
91
92
93
94
95
96
97
98
99
100

4 .:



•

,

,

100

•

9

1

—

•

,

—

9

,

,

,

,

2

XXI .

•

,

,

•

,

,

•

2

9

,

—

20

-
1. – 8–51.
 2. – 1–3–15.
 3. – 2014. – 312.
 4. – 2014. – 2. – 7–27.
 5. – 2017. – 6. – 45–57.
 6. – 2016. – 1. – 3–15.
 7. – 2014. – 1. – 32–51.
 8. – 2013. – 1. – 32–51.
 9. – 2014. – 12. – 5–14.
 10. – 2017. – 1. – 40–63.
 11. – 2016. – 4-5 (48). – 7–12.
 12. – URL: http://economicarggu.ru/2009_2/sankovec.pdf (23.04.2017).
 13. – 2016. – 7. – 21–31.
 14. – 2016. – 279.
- () –
- (630090,
- , 17, e-mail: asnov@ieie.nsc.ru).
- () –
- (630090,
- , 17, e-mail: marnov@ieie.nsc.ru).

(,) – -
,
(630090, -
, 17, e-mail: gvzhdan@ieie.nsc.ru).

DOI: 10.15372/REG20180101

Region: Economics & Sociology, 2018, No. 1 (97), p. 3–31

A.S. Novoselov, A.S. Marshalova, G.V. Zhdan

THE ROLE OF AN INSTITUTIONAL GOVERNANCE SYSTEM IN IMPLEMENTING AN INTEGRATED APPROACH TO TERRITORY DEVELOPMENT

The article analyzes an institutional structure for managing the spatial development of a Russian federal subject; specifically it examines functions, powers, schemes, and procedures related to the practices of regional authorities from the perspective of ensuring unity and interconnection between the regional and municipal levels of administration. We study contemporary problems of managing regional socio-economic development against the background of a new state and municipal governance system in the works. The article proposes methodological approaches to justifying the design concepts for the institutional system of regional governance that provides integrated socio-economic development of regions. We consider issues in executing the authorities' powers to develop territories in an integrated fashion; the institutional problems of land matters and integrated development of rural areas; issues in managing the development of entrepreneurship and regional infrastructure; as well as the role of an innovation system in modeling an integrated approach to territory development. We show some features of the design, structure, and content of the institutional system for managing regional socio-economic development. We offer recommendations on how to establish powers, specific rights, duties, and functions of the institutional structures for regional governance, to devise a system of regional regulatory documents ensuring improved governance reliability and quality, to substantiate regulators that provide economic interest in the sphere where regional government bodies interact with business

structures, to form an essential regional and municipal statistics database, to create an infrastructure which would assist in transiting to an effective institutional governance system with the help of new information technologies.

Keywords: regional and municipal governance; institutional structure; integrated regional socio-economic development

*The publication is prepared within the framework of the project
No. 16-02-00157 supported by funding from the Russian Foundation
for Basic Research*

References

1. Abramovskikh, L.N. & A.V. Babenko. (2016). K poisku novoy modeli ekonomicheskogo razvitiya [Searching for a new model of economic development]. *Ekonomist* [The Economist], 10, 34–42.
2. Aganbegyan, A.G. (2016). Ekonomika Rossii: ot stagnatsii k retsessii [Russian economy: From stagnation to recession]. *Dengi i kredit* [Money and Credit], 5, 10–20.
3. Novoselov, A.S. & A.P. Kulaev (Eds.). (2014). Aktualnye problemy razvitiya Novosibirskoy oblasti i puti ikh resheniya: Sb. nauch. tr.: V 2 ch. Ch.1: Problemy i perspektivy ekonomicheskogo razvitiya Novosibirskoy oblasti [Current Development Problems of Novosibirsk Oblast and Ways to Solve Them: Collection of works in 2 parts. Part 1: Problems and Prospect of Economic Development in Novosibirsk Oblast]. Novosibirsk, Institute of Economics and Industrial Engineering SB RAS Publ., 312.
4. Barabashev, A.G. & A.A. Kindras. (2014). Ob otsenke effektivnosti program-mno-tselevogo metoda reformirovaniya gosudarstvennoy sluzhby: opyt Rossii [On the effectiveness of the program-target method of public administration reform: the experience of Russia]. *Voprosy gosudarstvennogo i munitsipalnogo upravleniya* [Public Administration Issues], 2, 7–27.
5. Weber, Sh., D.V. Davydov & A.V. Savvateev. (2017). Instituty prinyatiya resheniy [Institutions of decision-making]. *Voprosy ekonomiki* [Problems of Economics], 6, 45–57.
6. Ivanter, V.V., B.N. Porfiryev & A.A. Shirov. (2016). Ot modernizatsii ekonomicheskoy politiki k kachestvennomu rostu ekonomiki [From economic policy upgrading to a qualitative economic growth]. *Rossiyskiy ekonomicheskii zhurnal* [Russian Economic Journal], 1, 3–15.
7. Klimenko, A.V. (2014). Desyatiletie administrativnoy reformy: rezultaty i novye vyzovy [The decade of administrative reform: results and new challenges]. *Voprosy gosudarstvennogo i munitsipalnogo upravleniya* [Public Administration Issues], 1, 8–51.
8. Kuznetsova, O. (2013). Federalnaya regionalnaya politika: ob ideologii i institutakh [The federal policy in regions: About the ideology and institutions]. *Rossiyskiy ekonomicheskii zhurnal* [Russian Economic Journal], 1, 32–51.

-
9. *Kuleshov, V.V.* (2014). Sovremennye vyzovy sotsialno-ekonomicheskomu razvitiyu Rossii [Current challenges of the socio-economic development in Russia]. *EKO*, 12, 5–14.
 10. *Manevitch, V.E.* (2017). Dolgovremennnye makroekonomicheskie protsessy i usloviya rosta rossiyskoy ekonomiki [Long-term macroeconomic processes and conditions for economic growth in Russia]. *Voprosy ekonomiki* [Problems of Economics], 1, 40–63.
 11. *Minakir, P.A.* (2016). Institucionalnye otobrazheniya prostranstvennogo razvitiya [Institutional Reflection of Spatial Development]. *Prostranstvennaya ekonomika* [Spatial Economics], 4-5 (48), 7–12.
 12. *Sankovets, N.A.* (2009). O zarubezhnom opyte gosudarstvennogo upravleniya regionalnym razvitiem [About foreign experience of regional development by the state management]. Available at: http://economicarggu.ru/2009_2/sankovec.pdf (date of access: 23.04.2017).
 13. *Sukharev, O.S.* (2016). Ekonomicheskiy rost: problema upravleniya [Economic growth: The problem of administration]. *Ekonomist* [The Economist], 7, 21–31.
 14. *Kazantsev, S.V. & V.V. Karpov* (Eds.). (2016). Ugrozy i zashchishchennost ekonomiki Rossii: opyt otsenki [Threats and Security of the Russian Economy: The Experience of Evaluation]. Novosibirsk, Institute of Economics and Industrial Engineering SB RAS Publ., 279.

Information about the authors

Novoselov, Aleksandr Sergeevich (Novosibirsk, Russia) – Doctor of Sciences (Economics), Professor, Head of Department at the Institute of Economics and Industrial Engineering, Siberian Branch of the Russian Academy of Sciences (17, Ac. Lavrentiev av., Novosibirsk, 630090, Russia, e-mail: asnov@ieie.nsc.ru).

Marshalova, Asiya Sofievna (Novosibirsk, Russia) – Candidate of Sciences (Economics), Leading Researcher at the Institute of Economics and Industrial Engineering, Siberian Branch of the Russian Academy of Sciences (17, Ac. Lavrentiev av., Novosibirsk, 630090, Russia, e-mail: marnov@ieie.nsc.ru).

Zhdan, Galina Vasilyevna (Novosibirsk, Russia) – Candidate of Sciences (Economics), Senior Researcher at the Institute of Economics and Industrial Engineering, Siberian Branch of the Russian Academy of Sciences (17, Ac. Lavrentiev av., Novosibirsk, 630090, Russia, e-mail: gvzhdan@ieie.nsc.ru).

27.11.2017 .

«... ()» [8, . 84].

«...» [8, . 84].

» [8, . 84].

«...» [8, . 84].

«...» [8, . 84].

«...» [8, . 84].

«...» [8, . 84].

«...» [8, . 84].

«...» [8, . 84].

«...» [8, . 84].

«...» [8, . 84].

«...» [8, . 84].

«...» [8, . 84].

«...» [8, . 84].

«...» [8, . 84].

«...» [8, . 84].

1. ... // ... - 2017. - 18 ...

:

1 6

20 ,

350–450 ,

70% -

70% -

5%»². -

2016 . -

25% 2013 .; -

1000 1,5 , ,

3 , 3. ,

4. (),

«».

2 : . ;

3 : . - 2017. - 25. //

4 : . - 2017. - 1 . //

5 . . – 2017. – 1 .

6 // . -2017.-28 .

,	.),	-
	.	-
	.	-
1.		-
	« »	-
	«	-
	» [9, . 639].	-
	« » [9, . 640].	-
2.	«	-
» [7; 10],	,	-
	,	-
.. «	,	-
	(),	-
	()	-
	(-
)» [10, . 442].	-
	-	-
	-	-
	,	-
	,	-
	,	-
	«	-
	.	-
(,	,	-
().	-	-
	» [10, . 474].	-
	,	-
	,	-
	.	-
	.	-
	,	-

40

6) , , -
 , , , ;
7) , , , -
 ;
8) ;
9) : -
 , , ;
10) , , ,
 .
 () : -
 (.) /
 (, .).
 , - ().
 ,
 (.65, .1): , , , -
 , , .
 10. ()
 -
 .
 ().
 ()
 , , -
 : .
 .
 10

43

(),

().

(,

),

(,

)

(.76, .1)

,

,

,

,

,

,

(' .76, .4).

,

,

(.132, .1).

.

11.

[10],

(

();

,

,

,

,

:

,

(

11

:

—

, 2005.

— ,), -
 , . -
 () -
 : , , -
 , , (, , -
 -). -
 , , ,
 , , ,
 , - ,
 () .
 ()
 () (: -
 (, , -
), - (, ,),
 (,). -
 -
 : , , ,
 , . -
 -
 , . . « »
 (, ,),
 (, -
 ,), (-
), (, -
 , , ,) . .
 -
 - .

-
10. . . . : - / . . . , 2004. – 616 .
11. *Shekhovtseva L.S., Chernyshkov P.P.* Objectives and institutions of regional development: interdisciplinary methodology // International Journal of Economics and Financial Issues. – 2015. – Vol. 5. – P. 19–24.
- (,) –
(236041, , , 14,
e-mail: shehovcev47@mail.ru).

DOI: 10.15372/REG20180102

Region: Economics & Sociology, 2018, No. 1 (97), p. 32–51

L.S. Shekhovtseva

MULTIDIMENSIONAL STRUCTURING OF INSTITUTIONAL MAINTENANCE OF REGION'S SPATIAL DEVELOPMENT: PRINCIPLES AND METHODOLOGY

The research justifies principles and a methodology of the multidimensional structuring of institutional maintenance of region's social and economic development as a federal subject. It generalizes problems and trends of modern development affecting the structure of institutional maintenance. We compose a new approach to institutional maintenance ordering, which proves multidimensional characteristics of an institutional system across space and time. The article marks out elements of institutional maintenance (aims, institutions, mechanisms, and evaluations of results) and defines related concepts. Structuring principles are developed that consider management levels, territorial and sectoral aspects of the economy, a combination of strategic and tactical decisions, elements of a regional system, etc. The research methodology relies on a complex of approaches: subject-functional, system, organizational, strategic, and interdisciplinary. We design parameters for a multidimensional structural model of region's institutional system and examine their interrelations. The article contains recommendations on how to use this model to create an information retrieval system.

Keywords: institutions; multidimensional structuring; development; region; principles; methodology; modelling; federation; the interstate union

References

1. *Batov, G.Kh.* (2017). Strategicheskoe planirovanie v sisteme strategicheskogo upravleniya [Strategic planning in the regional management system]. *Vestnik Instituta ekonomiki RAN* [Journal of the Institute of Economics RAS], 2, 121–129.
2. *Gligich-Zolotareva, M.V.* (2014). Starye problemy i novye podkhody k strategicheskomu planirovaniyu v Rossii [Old problems and new approaches to strategic planning in Russia]. *Federalizm* [Federalism], 3, 83–94.
3. *Evstigneeva, L.P. & R.N. Evstigneev.* (2011). *Novye grani mentalnosti: sinergeticheskiy podkhod* [New Sides of Mentality. A Synergetic Approach]. Moscow, Lenand Publ., 192.
4. *Evstigneeva, L.P. & R.N. Evstigneev.* (2016). *Strategiya ekonomicheskogo razvitiya Rossii: teoreticheskiy aspekt* [The Strategy of Russia's Economic Development: A Theoretical Aspect]. Moscow, Lenand Publ., 216.
5. *Evstigneeva, L.P. & R.N. Evstigneev.* (2010). *Ekonomika kak sinergeticheskaya sistema* [Economy as a Synergetic System]. Moscow, Lenand Publ., 272.
6. *Inshakov, I. & D. Frolov.* (2010). *Evolutsionnaya perspektiva ekonomicheskogo institutsionalizma* [Economic institutionalism: An evolutionary perspective]. *Voprosy ekonomiki* [Problems of Economics], 9, 63–77.
7. *Lopatnikov, L.I.* (2003). *Ekonomiko-matematicheskii slovar: Slovar sovremennoy ekonomicheskoy nauki* [Economic-Mathematic Dictionary. Dictionary of Modern Economic Science]. Moscow, Delo Publ., 520.
8. *Nefedkin, V.I.* (2016). *Eksterritorialnoe i lokalnoe v kontekste regionalnogo razvitiya* [The extraterritorial and the local in regional development]. *Region: ekonomika i sotsiologiya* [Region: Economics and Sociology], 4 (92), 69–86.
9. *Ozhegov, S.I. & N.Yu. Shvedova* (Ed.). (1984). *Slovar russkogo yazyka* [Dictionary of the Russian Language]. Moscow, Russkiy Yazyk Publ., 816.
10. *Volkova, V.N. & V.N. Kozlov* (Eds.). (2004). *Sistemnyy analiz i prinyatie resheniy: Slovar-spravochnik* [Systems Analysis and Decision Making: Reference book]. Moscow, Vysshaya Shkola Publ., 616.
11. *Shekhovtseva, L.S. & P.P. Chernyshkov.* (2015). Objectives and institutions of regional development: interdisciplinary methodology. *International Journal of Economics and Financial Issues*, 5, 19–24.

Information about the author

Shekhovtseva, Lidiya Semenovna (Kaliningrad, Russia) – Doctor of Sciences (Economics), Professor at I. Kant Baltic Federal University (14, Nevsky st., Kaliningrad, 236041, Russia, e-mail: shehovcev47@mail.ru).

20.11.2017 .

© . ., 2018

2002-2014 .

[illegible]

2000–2010–
[7; 13; 16; 23]

3 2002 2014 75

[2; 3; 6].

$i, t - 1$, $\epsilon_{i,t-1}$; $i, t - 1$;

$$(1) \quad \epsilon_{i,t-1} = \epsilon_{i,t-1} + \epsilon_{i,t-1}$$

$$y_{i,t} = y_{i,t-1} + X_{i,t} + \epsilon_{i,t} + \epsilon_{i,t-1} \quad (2)$$

:

$$y_{i,t} - y_{i,t-1} = (y_{i,t-1} - y_{i,t-2}) + (X_{i,t} - X_{i,t-1}) + (\epsilon_{i,t} - \epsilon_{i,t-1}). \quad (3)$$

,

X
GMM

,

.

,

:

$$E[y_{i,t-s} (\epsilon_{i,t} - \epsilon_{i,t-1})] = 0 \quad s = 2, t = 3, \dots, T; \quad (4)$$

$$E[X_{i,t-s} (\epsilon_{i,t} - \epsilon_{i,t-1})] = 0 \quad s = 2, t = 3, \dots, T. \quad (5)$$

—

,

GMM

.

,

— 13 ,
— 75.

,

.

$y_{i,t} -$

.

$X_{i,t}$

.

$FD_{i,t}$,

,

$FD_{i,t}$

—

,

,

GMM-

«

»

		- - , 60- - (CBSDI > 0,899)	- - , 70- - (CBSDI > 0,942)	- - , 80- - (CBSDI > 0,986)
20- (CBSDI < 0,739)		0,080*** (0,003)	0,081*** (0,002)	0,073*** (0,005)
		0,087*** (0,003)	0,076** (0,015)	0,088*** (0,004)
		0,057 (0,108)	0,046 (0,218)	0,060 (0,114)
30- (CBSDI < 0,774)		0,080*** (0,003)	0,082*** (0,002)	0,073*** (0,005)
		0,091*** (0,002)	0,078** (0,011)	0,092*** (0,003)
		0,048 (0,122)	0,036 (0,272)	0,048 (0,143)
40- (CBSDI < 0,825)		0,081*** (0,003)	0,082*** (0,002)	0,074*** (0,005)
		0,087*** (0,003)	0,076** (0,014)	0,090*** (0,003)
		0,091*** (0,005)	0,082** (0,020)	0,095** (0,011)

: ** p < 0,05, *** p < 0,01;

p-value; -

(0,048).

,

«20- /60-

»

«30- /80-

».

-

«

»

-

,

GMM- «)»

	-	- , 60- - (CBSDI > 0,899)	- , 70- - (CBSDI > 0,942)	- , 80- - (CBSDI > 0,986)
20- (CBSDI < 0,739)		0,051*** (0,000)	0,051*** (0,000)	0,050*** (0,000)
		0,051*** (0,000)	0,051*** (0,000)	0,052*** (0,000)
		0,049*** (0,000)	0,048*** (0,000)	0,049*** (0,000)
30- (CBSDI < 0,774)		0,051*** (0,000)	0,052*** (0,000)	0,050*** (0,000)
		0,052*** (0,000)	0,051*** (0,000)	0,053*** (0,000)
		0,047*** (0,000)	0,046*** (0,000)	0,047*** (0,000)
40- (CBSDI < 0,825)		0,051*** (0,000)	0,051*** (0,000)	0,050*** (0,000)
		0,052*** (0,000)	0,051*** (0,000)	0,052*** (0,000)
		0,051*** (0,000)	0,050*** (0,000)	0,051*** (0,000)

: *** p < 0,01; p-value; -

9, -

(. 3).

GMM- « 10 . .
()»

	-	- , 60- - (CBSDI > 0,899)	- , 70- - (CBSDI > 0,942)	- , 80- - (CBSDI > 0,986)
20- (CBSDI < 0,739)		0,022** (0,025)	0,017 (0,118)	0,013 (0,204)
		0,016 (0,150)	0,022** (0,026)	0,024** (0,022)
		0,014 (0,192)	0,019** (0,036)	0,021** (0,030)
30- (CBSDI < 0,774)		0,022** (0,013)	0,018* (0,075)	0,014 (0,140)
		0,019* (0,076)	0,024*** (0,006)	0,026*** (0,005)
		0,009 (0,393)	0,014 (0,130)	0,015 (0,110)
40- (CBSDI < 0,825)		0,021** (0,025)	0,017 (0,103)	0,013 (0,183)
		0,016 (0,175)	0,023** (0,018)	0,024** (0,014)
		0,014 (0,167)	0,019 (0,151)	0,020** (0,046)

: * p < 0,1, ** p < 0,05, *** p < 0,01; p-value;

, -
ó
, -
« » « -

»,

-

, GMM-

.

-

:

.

,

-

.

-

,

,

-

-

[0,25; 0,77]

2002–2014 .

«

-

»,

,

, –

[0,99;

1,74].

,

-

-

CBSDI [0,77; 0,99] ¹⁰.

,

37

,

,

,

,

-

,

,

,

,

,

,

,

,

,

,

-

,

.

10

«

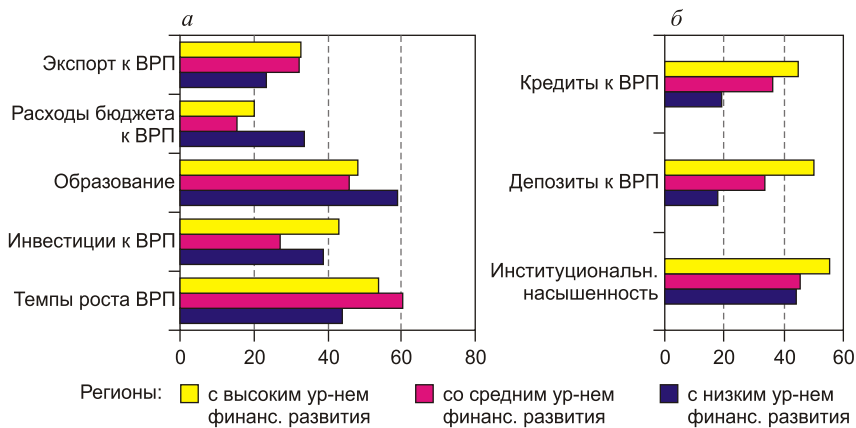
»

,

-

.

[14],



-
1. *Arcand, J., E. Berkes & U. Panizza.* (2015). Too much finance? *Journal of Economic Growth*, Vol. 20, Iss. 2, 105–148.
 2. *Arellano, M. & S. Bond.* (1991). Some tests of specification for panel data: Monte Carlo evidence with an application for employment equations. *Review of Economic Studies*, Vol. 58, Iss. 2, 277–297.
 3. *Arellano, M. & O. Bover.* (1995). Another look at the instrumental variable estimation of error-component models. *Journal of Econometrics*, Vol. 68, Iss. 1, 29–51.
 4. *Beck, T., R. Levine & N. Loayza.* (2000). Finance and the sources of growth. *Journal of Financial Economics*, Vol. 58, Iss. 1-2, 261–300.
 5. *Bencivenga, V. & B. Smith.* (1991). Financial intermediation and endogenous growth. *Review of Economic Studies*, Vol. 58, Iss. 2, 195–209.
 6. *Blundell, R. & S. Bond.* (1998). Initial conditions and moment restrictions in dynamic panel data models. *Journal of Econometrics*, Vol. 87, Iss. 1, 115–143.
 7. *Cheng, X. & H. Degryse.* (2010). The impact of bank and non-bank financial institutions on local economic growth in China. *Journal of Financial Services Research*, Vol. 37, Iss. 2-3, 179–199.
 8. *De Gregorio, J. & P. Guidotti.* (1995). Financial development and economic growth. *World Development*, Vol. 23, Iss. 3, 433–448.
 9. *Deidda, L. & B. Fattouh.* (2002). Non-linearity between finance and growth. *Economics Letters*, Vol. 74, Iss. 3, 339–345.

-
10. *Demetriades, P. & K. Hussien.* (1996). Does financial development cause economic growth? *Journal of Development Economics*, Vol. 51, Iss. 2, 385–409.
 11. *Favara, G.* (2003). An Empirical Reassessment of the Relationship between Finance and Growth. IMF Working Paper No. 03/123, 46.
 12. *Greenwood, J. & B. Jovanovic.* (1990). Financial development, growth, and the distribution of income. *Journal of Political Economy*, Vol. 98, Iss. 5, 1076–1107.
 13. *Guiso, L., P. Sapienza & L. Zingales.* (2004). Does local financial development matter? *The Quarterly Journal of Economics*, 119, 929–969.
 14. *Hattendorff, .* (2015). Economic concentration and finance: Evidence from Russian regions. *BOFIT Discussion Papers*, 15, 23.
 15. *Jappelli, T. & M. Pagano.* (1994). Savings, growth and liquidity constraints. *Quarterly Journal of Economics*, Vol. 109, Iss. 1, 83–109.
 16. *Kendall, J.* (2012). Local financial development and growth. *Journal of Banking and Finance*, Vol. 36, Iss. 5, 1548–1562.
 17. *King, R.G. & R. Levine.* (1993). Finance and growth: Schumpeter might be right. *Quarterly Journal of Economics*, Vol. 108, Iss. 3, 717–737.
 18. *Levine, R., N. Loayza & T. Beck.* (2000). Financial intermediation and growth: causality and causes. *Journal of Monetary Economics*, Vol. 46, Iss. 1, 31–77.
 19. *Rioja, F. & N. Valev.* (2004). Does one size fit all? A reexamination of the finance and growth relationship. *Journal of Development Economics*, Vol. 74, Iss. 2, 429–447.
 20. *Rioja, F. & N. Valev.* (2004). Finance and the sources of growth at various stages of economic development. *Economic Inquiry*, Vol. 42, Iss. 1, 127–140.
 21. *Rousseau, P.L. & P. Wachtel.* (2002). Inflation thresholds and the finance-growth nexus. *Journal of International Money and Finance*, Vol. 21, Iss. 6, 777–793.
 22. *Samargandi, N., J. Fidrmuc & S. Ghosh.* (2014). Is the relationship between financial development and economic growth monotonic for middle income countries? *CESifo Working Paper Series. Working Paper No. 4743*, 34.
 23. *Zhang, J., L. Wang & S. Wang.* (2012). Financial development and economic growth: Evidence from China. *Journal of Comparative Economics*, Vol. 40, Iss. 3, 393–412.

(,) –
 , -
 (454080, , , 76, e-mail:
 kkrin@ya.ru).

K.V. Krinichansky

NON-MONOTONIC IMPACT OF FINANCIAL DEVELOPMENT ON ECONOMIC DYNAMICS IN THE RUSSIAN REGIONS

The article uses the methods of the endogenous growth theory to study the relationship between financial development and economic dynamics at the national and subnational levels. It identifies the regularities in the dependence of the parameters values for the regional growth models on the class of regions. We categorize the regions according to how developed the level of banking intermediation is. The regions are grouped by the composite banking services density index (following the methodology by the Bank of Russia). Having analyzed the panel data on 75 regions of the Russian Federation between 2002 and 2014, we found evidence in favor of greater elasticity of regional GDP on the banking intermediation indicators in the groups of regions with the medium level of financial development. Thus, we do not reject a hypothesis for the non-monotonic relation between finance and growth among different groups of Russian regions. For regional studies in Russia focused on the issue of economic development factors, this means a need to increase attention to the development of nonpublic sectors of the regional financial systems. Another consequence is that the search for convergence mechanisms should be oriented towards the institutions providing financial development.

Keywords: growing markets; financial systems; banking intermediation; economic development; the Russian regions

References

See p. 66–67

Information about the author

Krinichansky, Konstantin Vladimirovich (Chelyabinsk, Russia) – Doctor of Sciences (Economics), Professor at South Ural State University (76, Lenin av., Chelyabinsk, 454080, Russia, e-mail: kkrin@ya.ru).

20.11.2017 .

©

., 2018

: , 2018, 1 (97), . 69–92

• • , • •

• •

— —

—

•

•

,

,

• •

,

«

>>

■

,

—

•

—

•

•

•

1

•

•

•

•

—

—

9

9

•

—

•

<<

>>

1

70

1 (табл. 1).

2007 г. 2009 г.

2006 г. 2010 г.,
– 6,1 11,3%³.

2010 г.

2009 г. 2010 г. 1,3 г.

66,6% (– 67,7%).

2010 г.

2009 г. 41,4 г. (27,2%),
57,1 г.

1

2

5

3

2006–2010 /

– , 2011. – . 9–10.

(5,2%). , 19,1 7,5 .

1,3 . . 2010 . 8,8%,
0,1 . .
8,3 (- 7,5, - 7,6).
(
,), 2010 . 38,1% (- 30,
- 34,1%)⁴.

:

5.

« », ,
, , ,
, , 2009 .,
(- 5 20%⁶ (. 2).)
2010 . ,
,
,

4

« . 2006–2010».

5

6

2008–2010 .) /

. – , 2011.

2008–2010 ., %

	2008	2009	2010
	114,5	110,1	108,2
	105,0	95,1	129,7
-	111,2	90,8	137,5
	118,9	93,7	113,0
-	123,9	80,1	101,4
-	102,4	102,8	104,7

2008 2010 . 7 (1,4) - 8.

14,4 . ., - 5,9 . ., - 2,3 . .⁹ 2010 . 10. , - 2010–2012 . -

7 2008–2010 . 36,4%, - 34,1%. 2008–2009 . , , 1,2 1,3 . . 8 2010 . 37,5% (7).

9 .: - 2008–2010 .). (, 10 - , :

1,8–4,7%.	-
2009 . (14%).	-
4,2%.	-
2012 .,	-
495,2 . .,	-
2008 .	-
6,3% (.).	-
2010–2012 .	-
(3,3 . . 1,8 . .	-
), :	-
2012 . 20,6% (– 10,7%).	-
11.	-
2010 .,	-
2007 . (98,5%),	-
14,9%.	-
2012 .	-
2008–2012 /	-
– , 2013;	-
2009–2013 /	-
– , 2014.	-
11	-
30 35%	-
50%	-
35 40% –	-
30%.	-
2008–2010 /	-
– , 2011.	-

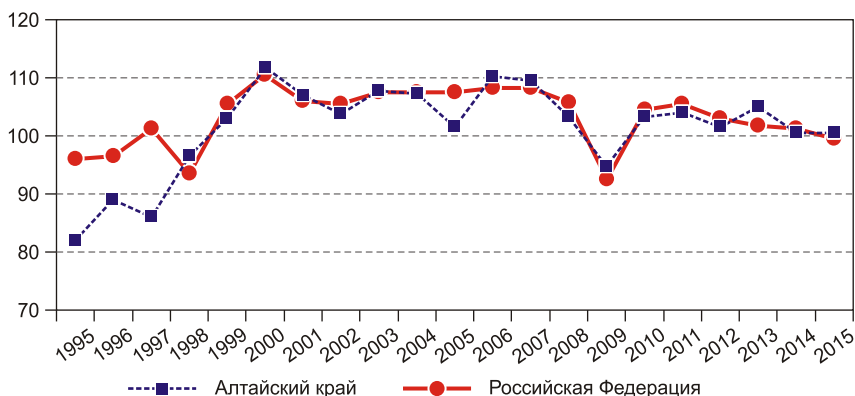
2013–2016 .. , -
-
2007–2008 .. , « , -
- , . . .

2012 年 1 月 1 日起，
(2012 年 1 月 1 日) 2013 年 1 月 1 日起，

() , 2013 .
 () ,
 () .

2013 . , -
114,5% (2012 . – 84,1%).

(2012 . – 101,1%,
2013 . – 105,5%) (100,9 103,7%



1995–2015 г., %

).

«

» (121,9 113,2%

).

2013 г. -

2013–2016 г.,

2013–2015 г.

101,9% (- 100,8%).

2013–2015 г.

25-

85

(7%

4,2%

),

-

(

),
 (. . 1).
 , 2013–2016 .
 ,
 -
 3 -
 ,
 .
 ,
 -
 -
 ,
 2010–2012 ., 2013 .
 2010–2012 .
 114%, 2013–2016 .– 94,5%.
 3

- , %

	2010–2012	2013–2016	2010–2012	2013–2016
	100,9	98,6	100,3	99,9
	78,9	107,6	86,9	100,2
-	103,7	102,3	103,6	98,5
	110,0	100,3	105,2	99,9
	95,6	107,0	101,3	104,2
	99,6	104,0	103,2	104,8
	105,7	101,6	104,4	100,6
	110,1	97,3	106,6	97,7
	114,0	94,5	107,9	97,4

: ; .

, (32,5%)¹⁵.
 , 2013 2015 .
 (,
) 18,7 .
 2013 . 10,5%.
 16.
 2014 . 1,9 ; 2015 .
 17.
 ,
 , .
 , 2016 .
 , 79%
 15 .: /
 , 2016.
 16 ,
 - 2013 .
 ; 60%
 17 .: - . 2013–2015 /
 , 2016.

2011–2016 . ()

	2011	2012	2013	2014	2015	2016
‘ , ‘	6624,5	9825,0	10794,9	22148,2	20809,3	14022,7
– , %	9,4	11,7	11,4	22,2	26,5	18,6

: . 2012–2016: . . / –
 , 2017. – . 218. –

–
 . –
 , –
 . –
 (166),
 40%
 , 56% –
 4% – 18.

–
 . –
 2016 . (. 4).
 2013–2015 . ,
 1000 . –
 . 2015 . 24
 , . –

1000 . ,
 18 .:
 . 2016 / –
 . – , 2016.

. . . , . .			
. 2011–2015 .	1,7	1,6	
1,4 1,3 ¹⁹ .			
2015 .			-
. , 2015 .			-
2014 . ()			
6,4%, 2016 .–	1,5		-
	-		-
			-
			20.
2016 . ,			
2,5%,			-
1,7%,			12,5%.
,			
. , 2016 .			-
(2016 . 0,3 0,1 . .) ²¹ .			-
?			-
2013–2015 . ²²			
,			
- ,			-
<hr/>			
¹⁹ .:	:		
. 2011–2015 . /			
20	. – , 2016.		-
	85%		-
, 13% –			-
,			
	2%.		
²¹ .:			.
– 2016 . /			-
	. – , 2016.		
²² .:	–		
	. 2013–2015.		

—

—

—

—

—

2

—

	.. , ..	
).	-
,	,	-
.		-
	,	-
2,4	.	-
2013–2016	.	-
		-
		-
24.	,	-
,	«	-
»	», : 2013	-
82%	, 2014 .–72%, 2015 .–68%.	-
		-
	²⁵ : 2012 .– 1%, 2013 .–	-
8%, 2014 .–	16%, 2015 .– 12%.	-
2016	.	-
	.	-
	2016	-
24		-
	85	-
,		-
,	41% (2016 .–57	-
30%).		-
25		-
	«	-
	,	-
	(-
)»	-

26 ∴
– 2016 . – . 17, 18.
27 « »
, 2016 .
,
,

(), %						
	2013	2014	2015	2013	2014	2015
	48,1	43,8	41,8	41,5	41,9	40,8
	50,1	54,5	56,6	56,9	56,5	57,7

: / . – URL:
<https://fedstat.ru> .

28.
 , : -
 (),
 , -
 .
 -
 , - ,
 , -
 , -
 ,
 (, 2015 . 2010 .
 10,7%,
 - 10,6%)²⁹.

28
2013 . , 50%, , « -
 » [7, . 12–13].
29
 . 2011–2015 /
 ;
 . – , 2016.

-		, %			
		2010–2012	2013–2016	2010–2012	2013–2016
		103,7	102,3	103,6	98,5
		107,0	98,1	105,4	99,2
, %	-	22,4	17,6	11,9	12,2

./ : – , 2016. – . 39–40; . 2012–2016: . 2016: . /

. – URL: <https://fedstat.ru> ; .

, -
 , -
 1,4 5,1 . . (. 6).
 ,
 . 6,
 ,
 ,
 .

« » -
 , -
 . ,
 , -
 , -

2030 .

, \vdots
 , \vdots
 , (20%).
 ,
 ([10].

(18-010-00710)

1. //
- : . – 2011. – 25 (208). – . 41–45.

2. . . . - :
// : .-2013.- 3 (79).-
. 111-120.
3. . . . -
// .-2011.- 3.- . 80-88.
4. . . . -
: // -
:-2007.- 14 (53).- . 14-23.
5. . . . - - -
 , //
 . . : .-2014.- 2.- . 121-127.
6. . . . // -
- , , .-2009.- 4.- . 95-103.
7. . : - -
2013 .// .-2014.- 2.- . 4-32.
8. - 2014 :
 ? // .-2015.- 2.- . 5-31.
9. 2010 : // -
-2011.- 2.- . 4-22.
10. - -
: , , // -
 : , ,
- , - : -
 , 2016.- . 329-358.
11. . . -
//
.-2011.- 1.- . 7-14.
12. . . , . . // .-2015.- 4.-
. 107-112.

(,)- -

, - -

(656015, ,

... , 66, e-mail: altailab@mail.ru); ... (656049, -
... , 61).
... (...) – -
-
-
(656015, ... , 66,
e-mail: perekarenkova@mail.ru).

DOI: 10.15372/REG20180104

Region: Economics & Sociology, 2018, No. 1 (97), p. 69–92

A.Ya. Trotskovsky, Yu.A. Perekarenkova

ALTAI KRAI UNDER ECONOMIC INSTABILITY: KEY TRENDS AND DEVELOPMENT PECULIARITIES

The article exposes the results of monitoring the socio-economic development of Altai Krai under economic instability. We reveal development peculiarities of a typical agro-industrial region. Along with the dynamics characteristics of the real economy, we consider movements in the region's investment sphere, changes in the living standard of the population, the labor market condition, etc. The conclusion drawn is that the economy of the region under structural crisis has turned out to be more adapted as compared to an «average Russian» region, with less a pronounced reaction to the deteriorating external economic environment. Altai Krai is characterized by lagging crisis manifestation combined with a more rapid economic recovery. As a special feature of the region's development, we also note a comparatively badly adapted labor market and too-slowly-growing standard of living indicators to overcome the historical development gap with the rest of Russia.

Keywords: Altai Krai; monitoring of socio-economic development; economic instability; stages of economic development; key trends; characteristic features and development peculiarities of a region

:

*The publication is prepared within the framework of the project
No. 18-010-00710 supported by funding from the Russian Foundation
for Basic Research*

References

1. Aliev, B.Kh. & M.G. Alimirzoeva. (2011). Sotsialno-ekonomicheskie parametry rossiyskikh regionov i perspektivy perekhoda k ustoychivomu razvitiyu [Social and economic parameters of the Russian regions and perspectives of transition to sustainable development]. *Regionalnaya ekonomika: teoriya i praktika* [Regional Economics: Theory and Practice], 25 (208), 41–45.
2. Bondarev, A.E. (2013). Monitoring sotsialno-ekonomicheskogo razvitiya regiona: vybor sistemy pokazateley [Monitoring the regional socio-economic development: Selecting a set of the indicators]. *Region: ekonomika i sotsiologiya* [Region: Economics and Sociology], 3 (79), 111–120.
3. Gadzhiev, Yu.A. & V.I. Akopov. (2011). Sotsialno-ekonomicheskoe razvitie severnykh regionov Rossii [Socio-economic development of northern regions of Russia]. *Ekonomika regiona* [Economy of Region], 3, 80–88.
4. Inshakov, O.V. & I.V. Mitrofanova. (2007). Sotsialno-ekonomicheskie indikatory razvitiya yuzhnykh regionov Rossii: tendentsii i prognozy [Social and economic development indicators of the southern Russian regions]. *Regionalnaya ekonomika: teoriya i praktika* [Regional Economics: Theory and Practice], 14 (53), 14–23.
5. Kopylova, Yu.V. (2014). Polozhenie sotsialno-ekonomicheskoy sfery Khandy-Mansiyskogo avtonomnogo okruga, ee problemy i perspektivy razvitiya [Status of the socio-economic sphere of the Khanty-Mansi Autonomous Okrug, its problems and development prospects]. *Vestnik Omskogo universiteta. Seriya «Ekonomika»* [Herald of Omsk University. Series «Economics»], 2, 121–127.
6. Kostyleva, L.V. & R.V. Dubinichev. (2009). Neravenstvo naseleniya i ego vliyanie na sotsialno-ekonomicheskoe razvitie regiona [Population inequality and its impact on the region's socio-economic development]. *Ekonomicheskie i sotsialnye peremeny: fakty, tendentsii, prognoz* [Economic and Social Changes: Facts, Trends, Forecast], 4, 95–103.
7. Mau, V. (2014). V ozhidanii novoy modeli rosta: sotsialno-ekonomicheskoe razvitie Rossii v 2013 g. [Waiting for a new model of growth: Russia's social and economic development in 2013]. *Voprosy ekonomiki* [Problems of Economics], 2, 4–32.
8. Mau, V. (2015). Sotsialno-ekonomicheskaya politika Rossii v 2014 godu: vykhod na novye rubezhi? [Russia's social and economic policy in 2014: Finding new frontiers]. *Voprosy ekonomiki* [Problems of Economics], 2, 5–31.

9. *Mau, V.* (2011). Ekonomicheskaya politika 2010 goda: v poiskakh innovatsiy [Economic policy in 2010: In search of innovations]. *Voprosy ekonomiki* [Problems of Economics], 2, 4–22.

10. *Suspitsyn, S.A.* (2016). Osobennosti sotsialno-ekonomicheskogo razvitiya regionov Sibiri: priority, pozitsionirovanie, potentsial samorazvitiya [Peculiarities of socio-economic development of Siberian regions: priorities, positioning, potential for self-improvement]. *Regionalnoe i munitsipalnoe upravlenie: diagnostika, planirovanie i monitoring sotsialno-ekonomicheskogo razvitiya regionov Sibiri* [Regional and Municipal Governance: Diagnostics, Planning, and Monitoring of Socio-Economic Development of Siberian Regions]. Novosibirsk, Institute of Economics and Industrial Engineering SB RAS Publ., 329–358.

11. *Shevyakov, A.Yu.* (2011). Perestroyka raspredelitelnykh otnosheniy kak neobkhodimoe uslovie sotsialno-ekonomicheskogo razvitiya regionov Rossii [The restructuring of the distributive relations as necessary condition of socio-economic development of Russian regions]. *Ekonomika regiona* [Economy of Region], 1, 7–14.

12. *Tsyrenova, E.D., D.G. Bordoiev & A.R. Tsyrenov.* (2015). Baykalskiy region v ekonomicheskom i sotsialnom razvitii Rossii [The Baikal region in the economic and social development of Russia]. *Vestnik VSGUTU* [ESSUTM Bulletin], 4, 107–112.

Information about the authors

Trotsky, Aleksandr Yakovlevich (Barnaul, Russia) – Doctor of Sciences (Sociology), Head of the Altai Krai Laboratory for Socio-Economic Research, the Institute of Economics and Industrial Engineering, Siberian Branch of the Russian Academy of Sciences (66, Dimitrov st., Barnaul, 656015, Russian, e-mail: altailab@mail.ru); Professor, Head of Chair at Altai State University (61, Lenin av., Barnaul, 656049, Russia).

Perekarenkova, Yulia Aleksandrovna (Barnaul, Russia) – Researcher at the Altai Krai Laboratory for Socio-Economic Research, the Institute of Economics and Industrial Engineering, Siberian Branch of the Russian Academy of Sciences (66, Dimitrov st., Barnaul, 656049, Russia, e-mail: perekarenkova@mail.ru).

20.11.2017 .

©

..

.., 2018

• • , • •

—
—
—
—
—
—
—

—
—
—

—
—

，
—
—
—

93

		· · · , · ·	
			-
«	»	,	-
			-
		·	
		·	
		· ; ;	-
		· ;	
		· ;	
		·	
		·	-
		· 1992 .	
		16,1%, 2015 . – 33%.	
		·	
		·	-
		· 1992 .	
		· 13,6%, 25%	-
		(35,3%) - (28,6%). 2015 .	-
		30%, . .	-
		· 1992 .	
		- ·	
		22,1%	
		·	-
		40%:	-
		47,8%, - - 42,6, - 42,8	-
		- - 42,1%.	
		·	
		-	-
		·	-
		·	-
		» [1]. , 1990 « 2008 .	-
		2,2 , - 2,7 ,	-

«
»
1999 . 10 . 2015 .
136 55,5.
1999 2015 .
10 . 68,1%
60,2%
62,5%
66,3%
2008 .

[illegible]

	
	,	,	-
	,		-
	,	,	-
		.	
	,		-
		,	,
			-
	
	[5; 6]		-
	-	-	[13].
	...	[6],	,
	1998–2003 ..,		[5] -
2005–2009	.		-
,	,	,	-
		,	-
,	.		-
,	[6] [5],		-
,			-
	,	.	
		...	[4; 7; 8].
			-
	-	,	
		-	-
	,		-
		(
).	
	,		-
	,	.	
	...	[2]	-
		.	-

$$\begin{aligned}
 & \ln (y_{i,t}) = b_0 + b_1 y_{i,t-1} + b_2 h_{i,t-1} + b_3 sv_{i,t-1} + b_4 pv_{i,t-1} + b_5 rf_{i,t-1} + \\
 & \quad + b_6 inv_{i,t-1} + b_7 inn_{i,t-1} + b_8 \ln (oil_t) + \mu_i + \varepsilon_{i,t}, \quad (1) \\
 & y_{i,t} - \left(\begin{aligned} & i \quad t; \ln (y_{i,t}) - \\ & i \quad t \\ & t-1; h_{i,t} - i \\ & t; sv_{i,t} - \\ & ; pv_{i,t} - \\ & ; rf_{i,t} - \\ & 10 \quad ; inv_{i,t} - \\ & ; inn_{i,t} - , \\ & ; \ln (oil_t) - \\ & \langle \text{Brent} \rangle \quad t \quad t-1; \mu_i - \\ & ; \varepsilon_{i,t} - \end{aligned} \right) , \\
 & \quad , - \\
 & \quad , - \\
 & \quad , - \\
 & \quad (\quad) - \\
 & \quad , \\
 & [11] \quad , [15], - \\
 & \quad \ln (oil_t) - \\
 & \quad \ln (y_{i,t}), - \\
 & \quad , 2009 \quad 2015 \quad . \\
 & \quad , \\
 & \quad . \\
 & 1. \quad h_{i,t-1}, sv_{i,t-1} \quad pv_{i,t-1} -
 \end{aligned}$$

	1.1	1.2
$y_{i,t-1}$	-5,169*** (0,206)	-5,167*** (0,206)
$h_{i,t-1}$	0,391 (0,430)	3,903* (2,057)
$h_{i,t-1}^2$		-0,062* (0,035)
$sv_{i,t-1}$	-0,552 (0,551)	-0,605 (0,550)
$pv_{i,t-1}$	0,517 (0,437)	0,501 (0,437)
$rf_{i,t-1}$	-0,028 (0,036)	-0,030 (0,036)
$inv_{i,t-1}$	0,164 (0,159)	0,158 (0,158)
$inn_{i,t-1}$	-0,053 (0,123)	-0,072 (0,123)
$\ln(oil_t)$	0,195*** (0,029)	0,181*** (0,029)
	-2,496 (25,779)	-48,530 (36,84)
R^2	0,638	0,641

1%- ; *, *** – 10%-

, 1.1 ,
 ,
 « »,
 (1.2), $h_{i,t-1}$ $h_{i,t-1}^2$ $h_{i,t-1}$
 10% , $h_{i,t-1}^2$.
 ,
 ,
 ,
 :
 ,
 $inv_{i,t-1}$ $inn_{i,t-1}$.
 ,
 ,
 5% . ,
 (,) ,
 ,
 ,
 ,
 $inn_{i,t-1}$.
 2015 .
 300 . , 300
 500 . ,

500 . .

. 2.

2

	-	-	-
$y_{i,t-1}$	-49,996*** (9,738)	-43,543*** (8,608)	-5,372*** (0,480)
$h_{i,t-1}$	3,434*** (0,849)	1,168*** (0,252)	0,683 (3,302)
$h_{i,t-1}^2$	-0,058*** (0,014)		
$sv_{i,t-1}$	0,076 (0,202)	0,435 (0,336)	-3,200 (3,183)
$pv_{i,t-1}$	-0,069 (0,200)	0,405* (0,209)	4,197 (2,903)
$rf_{i,t-1}$	-0,079 (0,031)	-0,017 (0,013)	-0,102 (0,217)
$inv_{i,t-1}$	-0,093 (0,069)	-0,311*** (0,101)	0,777 (0,611)
$inn_{i,t-1}$	0,027 (0,045)	-0,002 (0,063)	-0,798 (1,237)
$\ln(oil_t)$	0,143*** (0,012)	0,178*** (0,016)	0,170 (0,195)
	-23,793 (14,246)	-13,041 (15,613)	-20,691 (192,215)
R^2	0,591	0,589	0,669
-	35	33	15

1%- : ; *, *** - 10%-

	· · · , · · ·	-
		-
$LQ_{i,3} > 1,25$	· ,	$LQ_{i,1} > 1,5, LQ_{i,2} > 1,5$
	·	-
(· ,	-
)		,
	·	-
	· 3.	-
	· ,	-
	· ,	-
	,	-
	1%.	-
,		-
	,	-
	,	-
	—	-
		-
	·	-
	·	-
	,	-
	· · ·	-
	[3]	-
	·	-
	,	-
	·	-
,	,	-
,	,	-
·	,	-

-			-	
$y_{i,t-1}$	-38,800*** (11,262)	-5,250*** (0,416)	-58,109*** (10,767)	-37,719*** (9,513)
$h_{i,t-1}$	4,122*** (1,536)	-0,016 (1,791)	1,546*** (0,309)	-0,202 (0,299)
$h_{i,t-1}^2$	-0,064** (0,027)			
$sv_{i,t-1}$	-0,483* (0,279)	-2,251 (2,131)	1,243*** (0,373)	0,500 (0,421)
$pv_{i,t-1}$	0,087 (0,207)	0,595 (1,549)	0,766*** (0,257)	1,135*** (0,024)
$rf_{i,t-1}$	-0,033 (0,029)	-0,149 (0,270)	-0,016 (0,014)	-0,037 (0,106)
$inv_{i,t-1}$	-0,055 (0,110)	0,655 (0,504)	-0,299** (0,121)	-0,264** (0,112)
$inn_{i,t-1}$	0,089 (0,088)	-0,305 (0,659)	0,028 (0,047)	0,031 (0,112)
$\ln(oil_t)$	0,140*** (0,015)	0,235* (0,128)	0,163*** (0,017)	0,156*** (0,022)
	-31,647 (24,290)	45,710 (107,181)	-51,590*** (17,864)	8,264 (22,055)
R^2	0,567	0,655	0,641	0,590
-	24	20	24	18

10%- , 5%- , 1%- : ; *, **, *** —

$y_{i,t-1}$	-16,822*** (4,102)	-5,192*** (0,271)	-50,810*** (12,242)
$h_{i,t-1}$	0,423* (0,248)	0,371 (0,818)	1,376** (0,539)
$sv_{i,t-1}$	-0,440 (0,308)	-0,693 (1,134)	0,143 (0,440)
$pv_{i,t-1}$	-0,137 (0,226)	1,191 (0,924)	1,081*** (0,355)
$rf_{i,t-1}$	-0,126* (0,070)	-0,051 (0,076)	-0,018 (0,015)
$inv_{i,t-1}$	-0,039 (0,101)	0,216 (0,297)	-0,235 (0,227)
$inn_{i,t-1}$	-0,017 (0,064)	-0,130 (0,235)	0,432** (0,204)
$\ln(oil_t)$	0,148*** (0,018)	0,183*** (0,051)	0,200*** (0,031)
	22,134 (12,865)	-12,055 (56,758)	-22,085 (28,589)
R^2	0,440	0,647	0,793
-	28	46	9

10%- , 5%- : 1%- ; *, **, *** -

5.

$y_{i,t-1}$	-31,547*** (6,932)	-5,211*** (0,323)
$h_{i,t-1}$	0,387** (0,157)	0,442 (1,251)
$sv_{i,t-1}$	0,366* (0,209)	-1,414 (1,429)
$pv_{i,t-1}$	0,304** (0,161)	0,878 (1,150)
$rf_{i,t-1}$	-0,023 (0,012)	-0,069 (0,129)
$inv_{i,t-1}$	-0,259*** (0,080)	0,335 (0,306)
$inn_{i,t-1}$	0,040 (0,042)	-0,296 (0,399)
$\ln(oil_t)$	0,158*** (0,011)	0,194** (0,078)
	0,906 (9,265)	10,284 (70,950)
R^2	0,556	0,647
-	50	33

10%- , 5%- 1%-

·

-

-

-

[8].

,

,

-

,

-

-

—

·

,

-

,

-

,

·

-

,

-

,

-

,

-

,

·

-

,

-

,

-

,

·

-

»

«

»

·

1. // . – 2014. – 4. – . 111–140.
2. // - . – 2013. – 1. – . 90–99.
3. ? - // . – 2016. – 10. – . 129–143.
4. - // . – 2015. – 1. – . 102–113.
5. - // – 2012. – . 12, . 3. – . 5–14.
6. (- -) // : - . – 2007. – . 7, . 3. – . 191–201.
7. // . – : - , 2016. – . 214–218.
8. // : . – 2007. – 4. – . 109–125.
9. *Badinger H., Tondl G.* Trade, Human Capital and Innovation: The Engines of European Regional Growth in the 1990s / IEF Working Papers. – 2002. – No. 42. – 35 p.
10. *Barro R.* Education and economic growth // *Annals of Economics and Finance*. – 2013. – Vol. 14, No. 2. – P. 301–328.
11. *Cadil J., Petkovova L., Blatna D.* Human capital, economic structure and growth // *Procedia Economics and Finance*. – 2014. – Vol. 12. – P. 85–92.
12. *Lucas R.* On the mechanics of economic development // *Journal of Monetary Economics*. – 1988. – Vol. 22, No. 1. – P. 3–42.
13. *Mankiw G., Romer D., Weil D.* A contribution to the empirics of economic growth // *Quarterly Journal of Economics*. – 1992. – Vol. 107, No. 2. – P. 407–437.
14. *Pritchett L.* Where Has All the Education Gone / World Bank Working Papers. – 1996. – No. 1581. – 37 p.
15. *Ramos R., Surinach J., Artis M.* Regional Economic Growth and Human Capital: the Role of Overeducation / Research Institute of Applied Economics Working Papers. – 2009. – No. 4. – 24 p.
16. *Romer P.* Endogenous technical change // *Journal of Political Economy*. – 1990. – Vol. 98, No. 5, p. II. – P. 71–102.

17. Solow R. A contribution to the theory of economic growth // Quarterly Journal of Economics. –1956. – Vol. 70, No. 1. – P. 65–94.

(,) –
 ,
(119571, , 84, e-mail: rmmel@mail.ru).
(,) –
(119571, , -
, 84, e-mail: valentinateslenko@gmail.com).

DOI: 10.15372/REG20180105

Region: Economics & Sociology, 2018, No. 1 (97), p. 93–115

R.M. Melnikov, V.A. Teslenko

EVALUATING THE IMPACT OF HUMAN CAPITAL ON ECONOMIC DYNAMICS IN RUSSIAN REGIONS

The authors evaluate the impact of human capital on economic dynamics in Russian regions against significant shifts in the educational structure of the employed population, characterized by a dominant share of people with higher education in most regions. The main hypothesis of the study states that only specific groups of regions could obtain real benefits from a significant increase in the share of employed with higher education. The results of estimation of panel regressions with fixed effects demonstrate that human capital accumulation somewhat increases the rates of economic growth in regions with industrial specialization, high scientific potential, and those located in the western part of Russia. The human capital has no significant effect on economic growth in regions with specialization in services and mining. An increase in the share of employed with higher education increases growth rates in under-developed and agricultural regions with decreasing return to scale. The low

share of the gainfully employed population with basic vocational education constrains growth in regions specializing in industrial production and services. At the same time, the human capital concentrated in the research and development sector has no significant effect on growth even in the regions with high scientific potential due to the «disconnected» character of regional innovation systems and the low level of demand for innovations from the majority of Russian industrial enterprises.

Keywords: human capital; economic growth; regional development; educational structure of employed population; decreasing return on higher education; regression analysis of panel data

References

1. *Balatsky, E.V.* (2014). Sindrom aritmii reform v sisteme vysshego obrazovaniya [Syndrome of reforms' arrhythmia in the higher education]. *Zhurnal Novoy ekonomicheskoy assotsiatsii* [Journal of the New Economic Association], 4, 111–140.
2. *Bozhechkova, A.V.* (2013). Ekonometricheskoe modelirovanie vliyaniya chelovecheskogo kapitala na ekonomicheskii rost v regionakh Rossii [Econometric modeling of human capital impact on economic growth of Russian regions]. *Audit i finansovyy analiz* [Audit and Financial Analysis], 1, 90–99.
3. *Gimpelson, V.* (2016). Nuzhen li rossiyskoy ekonomike chelovecheskiy kapital? Desyat somneniy [Does the Russian economy need human capital? Ten doubts]. *Voprosy ekonomiki* [Problems of Economics], 10, 129–143.
4. *Karelin, I.N. & A.V. Koritsky.* (2015). Otsenka parametrov modeli Kholla-Dzhonsa s chelovecheskim kapitalom na rossiyskikh dannykh [Estimated parameters of Hall–Jones scale with human capital based on Russian data]. *Vestnik NGUEU* [Vestnik NSUEM], 1, 102–113.
5. *Komarova, A.V. & E.A. Kritsyna.* (2012). O vklade chelovecheskogo kapitala v rost VRP regionov Rossii [On the proportion human capital in GRP of Russian regions]. *Vestnik NGU. Seriya: sotsialno-ekonomicheskie nauki* [Bulletin of Novosibirsk State University. Series: Social and Economic Sciences], Vol. 12, No. 3, 5–14.
6. *Komarova, A.V. & O.V. Pavshok.* (2007). Otsenka vklada chelovecheskogo kapitala v ekonomicheskii rost regionov Rossii (na osnove modeli Menkyu-Romera-Ueyla) [The estimation of the human capital's impact into the economic growth of the regions of Russian Federation (using Mankiw–Romer–Wail's model)]. *Vestnik NGU. Seriya: sotsialno-ekonomicheskie nauki* [Bulletin of Novosibirsk State University. Series: Social and Economic Sciences], Vol. 7, No. 3, 191–201.
7. *Koritsky, A.V.* (2016). Dinamika proizvoditelnosti chelovecheskogo kapitala v Rossii [Human capital production dynamics in Russia]. *Innovatsionnoe razvitie ros-*

siyskoy ekonomiki [The Innovative Development of Russia's Economy]. Moscow, Plekhanov Russian University of Economics Publ., 214–218.

8. *Koritsky, A.V.* (2007). Otsenka vliyaniya chelovecheskogo kapitala na velichinu dokhodov naseleniya regionov Rossii [Human capital: assessing its impact on incomes of the population in Russian regions]. Region: ekonomika i sotsiologiya [Region: Economics and Sociology], 4, 109–125.

9. *Badinger, H. & G. Tondl.* (2002). Trade, Human Capital and Innovation: The Engines of European Regional Growth in the 1990s. IEF Working Papers, No. 42, 35.

10. *Barro, R.* (2013). Education and economic growth. Annals of Economics and Finance, Vol. 14, No. 2, 301–328.

11. *Cadil, J., L. Petkovova & D. Blatna.* (2014). Human capital, economic structure and growth. Procedia Economics and Finance, 12, 85–92.

12. *Lucas, R.* (1988). On the mechanics of economic development. Journal of Monetary Economics, Vol. 22, No. 1, 3–42.

13. *Mankiw, G., D. Romer & D. Weil.* (1992). A contribution to the empirics of economic growth. Quarterly Journal of Economics, Vol. 107, No. 2, 407–437.

14. *Pritchett, L.* (1996). Where Has All the Education Gone. World Bank Working Papers, No. 1581, 37.

15. *Ramos, R., J. Surinach & M. Artis.* (2009). Regional Economic Growth and Human Capital: the Role of Overeducation. Research Institute of Applied Economics Working Papers, No. 4, 24.

16. *Romer, P.* (1990). Endogenous technical change. Journal of Political Economy, Vol. 98, No. 5, part II, 71–102.

17. *Solow, R.* (1956). A contribution to the theory of economic growth. Quarterly Journal of Economics, Vol. 70, No. 1, 65–94.

Information about the authors

Melnikov, Roman Mikhaylovich (Moscow, Russia) – Doctor of Sciences (Economics), Professor at the Russian Presidential Academy of National Economy and Public Administration (84, Vernadsky av., Moscow, 119571, Russia, e-mail: rmmel@mail.ru).

Teslenko, Valentina Aleksandrovna (Moscow, Russia) – Postgraduate Student at the Russian Presidential Academy of National Economy and Public Administration (84, Vernadsky av., Moscow, 119571, Russia, e-mail: valentinateslenko@gmail.com).

05.12.2017 .

©, 2018

314.727.2

: , 2018, 1 (97), . 116–141

• • , • •

:

, -
, -
-

2000-

. -

-

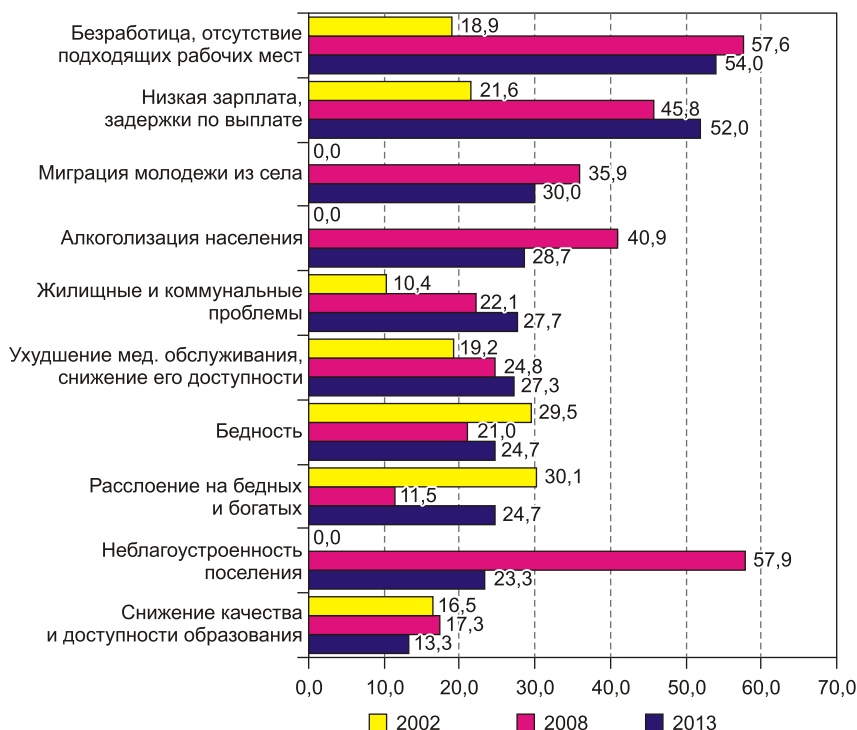
. - -
, -

, , , -
.

: ; ; ; -
; - ; ; ;

? , : -
. -
, , -
. ,

, , -
 [1], « » -
 . , ,
 , ,
 , -
 1. -
 , -
 , 2013 . -
 (2000-
), (.1). -
 (2013–2017 .) -
 , -
 2. -
 . , -
 . . -
 2017 . , «
 1 2013 .: «
 2 ...». -
 2015 .: « 5–10 ».



1.

, %

»,

«

».

, «

,

„

”

»,

3.

,

2002 2010 .
 ,
 2000- .
 (N = 606 2002 .; N = 1011 2008 .; N = 440 () 2011 .;
 N = 150 () 2013 .; N = 260 () 2016 .)⁵ -
 (N = 56 2002 .; N = 280 2008 .;
 N = 84 2011 .; N = 40 2013 .; N = 70 2014 .; N = 75 2017 .). -
 ,
 2013–2015 ., -
 2015–2017 .
 ,
 ,
 2000- ? -
 ,
 2000- , -
 , , , .
 .
 , .
 ,
 ,
 2002 2016 .
 ,
 1,7 , - 1,2 (. 1). -
 5 (,
) ,
 .

:

I

(2002 2010 .)			
	2002		2010	
, . .	7456,7	233,5	6293,6	140,5
, % -	19,2	32,8	17,0	25,2

(- 13%), -

- ,

. « »

,

, [3].

1990- « » -

,

(.2). 2000- ,

,

6%, - ,

12% (:

, 2%, -

). 2010-

: 3,3 4,7

(. .2).

-

.

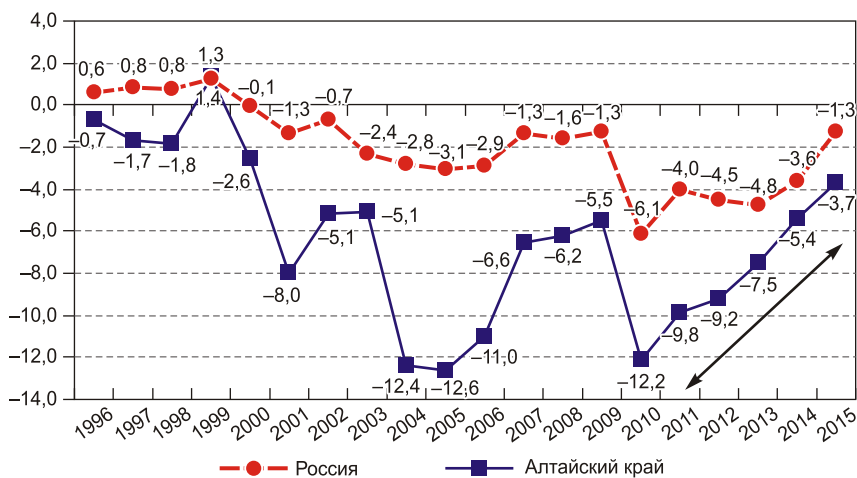
2015 .- (.3).

,

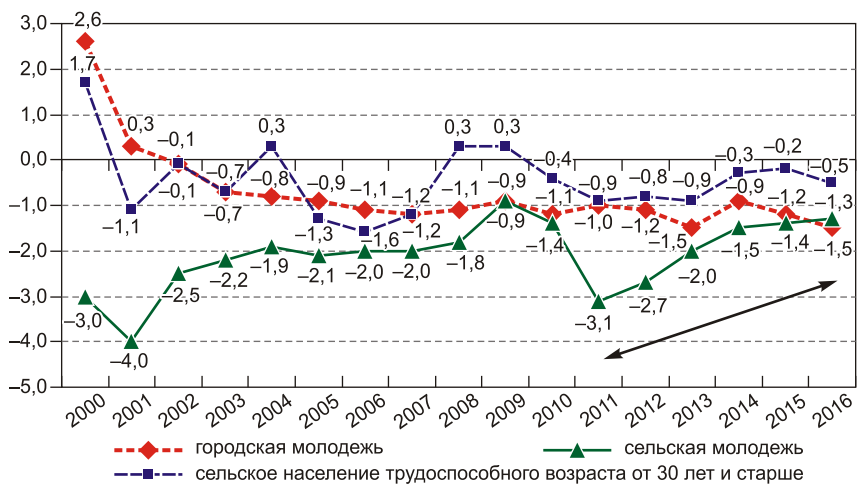
(). 2011

2016 .

, 1,5 , .

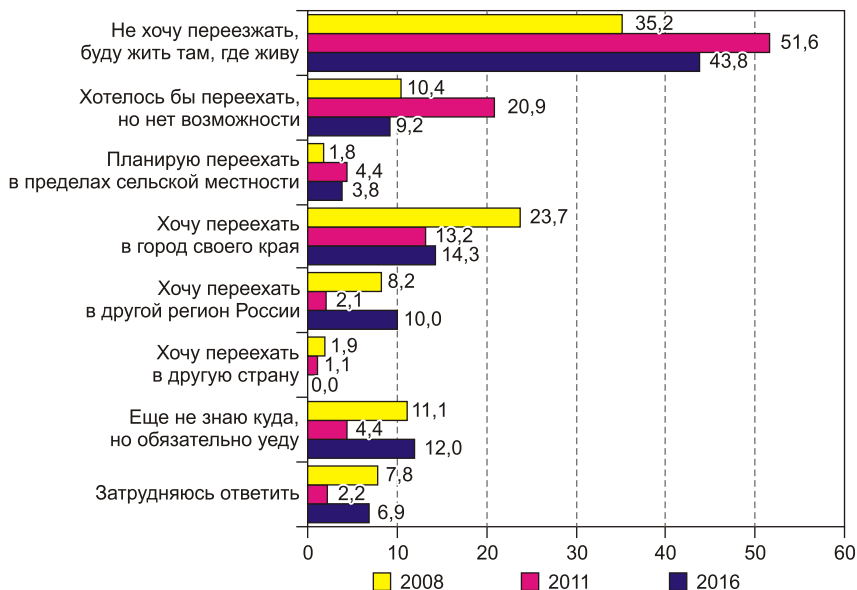


2. ()
1996–2015 .,
%



3. ()
2000–2016 .,
30

:
 ,)
 , 2008
 2016 .
 () 1,2 – 60 49% (. 4),
 2008
 2013 . 1,5 – 35 20%.
 : 40% 2008 . 57% 2011 ., . . 1,5 .
 2016 . (51%).



. 4.

, %

125

, - , -
 -
 : 90–95%
 .
 -
 , -
 , -
 ,
 .
 ,
 : ,
 , -
 -
 .
 «
 »
 « »
 .
 (,
 , ,)
 -
 , , (-
 , -
),
 1,5–3 .
 ,
 .
 - , 2000-
 .

()，，« -
 -
 »， -
 « 50
 ， »， -
 . -
 -
 : 10 -
 30%- .
 — 25 .

()
 10 ， 25 -
 ，
 :
 ， -
 . -
 ， ， ， -
 ，
 ，
 ，
 . -
 -

:

-

-

-

, ,

-

-

, , , ,

, 2008 .

, (. 3).

, 2015 .

3 , - 1,5 ,

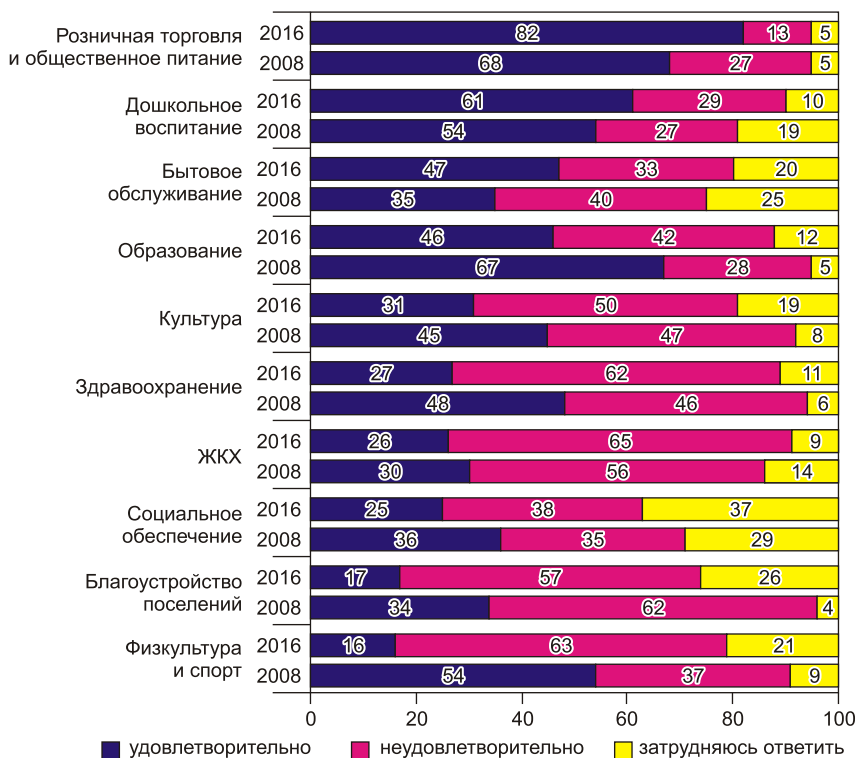
-

3

2005–2014 .

	2005	2008	2009	2010	2011	2012	2013	2014
- (.) , .	1255	1099 (82)	1031 (84)	992 (58)	971 (52)	943 (56)	903 (79)	874 (92)
- , .	137,9	120,0	118,0	116,3	115,9	114,7	112,9	113,6
- (.) , .	560	548 (14)	547 (16)	543 (11)	551 (9)	564 (10)	569 (11)	579 (3)
- , .	24,9	33,8	34,0	33,9	35,0	37,5	39,7	41,6
- , .	1037	941	939	932	928	909	903	896
- , .	1268	1261	1237	1204	1189	1185	1151	1130
- , .	1053	1044	1038	1026	759	707	741	760

. . . , . . .
 .
 .
 , 2016 .,
 , , , ,
 2008 .
 (1,5 3,5)
 (
 ,
). .5.
 ,
 ,
 ,
 .
 .
 2016 .
 (,).
 : 40%
 (2008 . –), 45% –
 – 13% (2008 . 61 15%).
 , ?
 «
 ».
 ,
 – . , «
 », ,
 , ,
 .



5.

2008 2016 .), %

(

, 2015 .: «

?».

, «

».

«

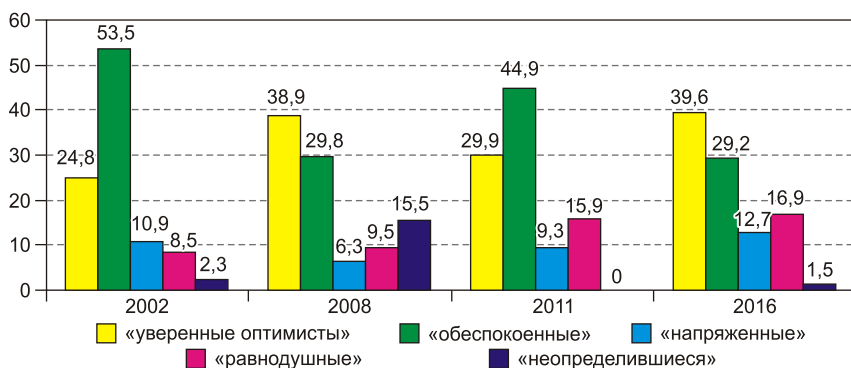
»

:

,

. . . , . . .

 :
 ,
 -
 ,
 -
 -
 -
 .
 -
 -
 ?
 -
 2000- , ,
 (2011 .) ((«
 40% 2016 .) »),
 (29%) («
 , ») (. 6),
 ,
 ,
 ,
 ,
 (2008 2016 .
 1,5
 10) («
 , - »).
 , —
 , «
 » (2008 .
 9% , 2016 . — 25%)
 , «
 ,



. б.

2002, 2008, 2011 2016 . (

«

%

?»),

» (

79 65%).

[10; 12].

. . . , . . .

 « »
 : «
 ... ,
 »,
 2016–2017 .
 - ,
 ,
 ,
 ()
 (,).
 ,
 .
 , ,
 , ,
 , ,
 . 2–5%,
 (30–50%)
 ,
 2 .).
 ,
 .
 ,
 :
 ➤ ,
 ;
 ➤ ,
 ,
 ;

- (17-13-22007)

- 137

7. () / , 2016. – . 231–250.
8. / . – : . – , 1982. – 192 .
9. / . – : , 1970. – 348 .
10. : . – : URSS, 2014. – 310 .
11. . – 2015. – 3. – . 41–56.
12. // . – : . – , 2010. – . 128–145.
13. : . – : . – 1992. – . 202–210.
14. „ . – : , 2010. – 116 .
15. . . 1960- – 1980- : // . – 2013. – 3-4. – . 180–190.
16. : . – / . – : . – , 2013. – 330 .
17. . – : . – , 2014. – 264 .
18. *Bednarikova Z., Bavorova M., Ponkina E.V.* Migration motivation of agriculturally educated rural youth: The case of Russian Siberia // *Journal of Rural Studies*. – 2016. – No. 45. – . 99–111.
19. *Cartmel F., Furlong A.* Youth Unemployment in Rural Areas. – York: York Publishing Services Ltd., 2000. – 46 .
20. *Pavis S., Platt S., Hubbard G.* Young People in Rural Scotland: Pathways to Social Inclusion and Exclusion. – York: York Publishing Services Ltd., 2000. – 50 .

(656015,

, . 66, e-mail: a.m.sergienko@mail.ru).

(,) –

-

,

(656056,

, . , 30, e-mail: ivanova_sociology@mail.ru).

DOI: 10.15372/REG20180106

*Region: Economics & Sociology, 2018, No. 1 (97), p. 116–141***A.M. Sergienko, O.A. Ivanova****RURAL YOUTH MIGRATION IN AN AGRARIAN REGION:
TRENDS AND REGULATING FACTORS**

The article analyzes the changes in the scale and structure of real and potential rural youth migration and the impact they suffer from the key regulators in Altai Krai since the early 2000s. The analysis is carried out by using statistics, results of quantitative and qualitative surveys among ordinary citizens and experts, government policy documents, and media materials. We describe the model of rural youth migratory flows regarding pendulum and seasonal migration and provide a quantitative estimation for migration magnitudes. The article uncovers an increasing influence of family and kin networks as a catalyst for youth migration to cities and a growing role of rural business as its inhibitor. We identify how effectively or poorly the state policy impacts the socio-economic development of the region's rural areas, the social situation of rural youth and, as a result, reducing migration. We propose state policy trends aimed at improving the social status of rural youth and decreasing their migration rate.

Keywords: migration; rural youth; education; employment; family and kin networks; rural business; support practices; state policy

The publication is prepared within the framework of the project No. 17-13-22007 supported by funding from the Russian Foundation for Basic Research

References

1. Goltsova, E.V.; O.A. Karmadonov & O.A. Polyushkevich (Eds.). (2015). Sotsialno-sredovaya motivatsiya migratsionnogo povedeniya molodezhi v usloviyakh globalizatsii: regionalnyy aspekt [Socio-environmental motivation of the migratory behaviour of young people in the context of globalization: regional aspect]. Kultura i vzryv: sotsialnye smysly v transformiruyushchemsya obshchestve [Culture and Boom: Social Implications in a Transforming Society]. Irkutsk, Irkutsk State University Publ., 197–202.
2. Nikulin, A. (Ed.). (2012). Vtoraya Rossiya: differentsiatsiya i samoorganizatsiya [Second Russia: Differentiation and Self-organization]. Moscow, Delo Publ., 288.
3. Eremin, A.A. & N.I. Bykov. (2011). Demograficheskaya situatsiya v Altayskom krae na sovremennom etape (1990–2010 gg.). [Demographic situation in Altai Krai at the present stage (1990–2010)]. Barnaul, AzBuka Publ., 272.
4. Zaslavskaya, T.I. (2007). Migratsiya selskogo naseleniya [Migration of the rural population]. Izbrannyye proizvedeniya. T. 1. Sotsialnaya ekonomika i ekonomicheskaya sotsiologiya [Selected Works. Vol. 1. Social Economics and Economic Sociology]. Moscow, Ekonomika Publ., 205–277.
5. Zaslavskaya, T.I. & L.V. Korel. (1981). Migratsiya naseleniya mezhdru gorodom i selom [Rural-urban migration]. Sotsiologicheskie issledovaniya [Sociological Studies], 3, 42–52.
6. Kalugina, Z.I. (2015). Rynochneya transformatsiya agrarnogo sektora Rossii: Sotsiologicheskii rakurs [Market Transformation of Russia's Agricultural Sector: Sociological Discourse]. Novosibirsk, Institute of Economics and Industrial Engineering SB RAS Publ., 342.
7. Kolosova, E.A. & Zh.T. Toshchenko (Ed.). (2016). Zhizneobrazuyushchie smysly selskoy molodezhi [Life-defining meanings for rural youth]. Smysly selskoy zhizni (opyt sotsiologicheskogo analiza) [Meanings of the Rural Life (Experience of Sociological Analysis)]. Moscow, Center of Social Forecasting and Marketing Publ., 231–250.
8. Korel, L.V. & T.I. Zaslavskaya (Ed.). (1982). Peremeshcheniya naseleniya mezhdru gorodom i selom v usloviyakh urbanizatsii [Population Transfer Between City and Village In an Urbanized Environment]. Novosibirsk, Nauka Publ., Siberian Department, 192.
9. Zaslavskaya, T.I. (Ed.). (1970). Migratsiya selskogo naseleniya [Migration of the Rural Population]. Moscow, Mysl Publ., 348.
10. Nefedova, T.G. (2014). Desyat aktualnykh voprosov o selskoy Rossii: Otvetny geograf [Ten Relevant Questions about Rural Russia: Answers of a Geographer]. Moscow, URSS Publ., 310.
11. Nefedova, T.G. (2015). Migratsionnaya podvizhnost naseleniya i otkhodnichestvo v sovremennoy Rossii [Migration activity of population and migrant workers in modern Russia]. Izvestiya RAN. Ser. Geograficheskaya [Bulletin of the Russian Academy of Sciences: Geography], 3, 41–56.
12. Nefedova, T.G. (2010). Szhatie vnegorodskogo osvoennogo prostranstva Rossii – realnost, a ne illyuziya [Compression of extra-urban space of Russia – a reality, not an illusion]. Szhatie sotsialno-ekonomicheskogo prostranstva: novoe v teorii regionalnogo razvitiya i praktike ego gosudarstvennogo regulirovaniya [Compression of the Socio-Economic Space: New Facts in the Theory of Regional Development and Practices of Its State Regulation]. Moscow, Institute of Geography, RAS, IARS, 128–145.

-
13. *Scott, J.* (1992). *Moralnaya ekonomika krestyanstva kak etika vyzhivaniya* [The moral economy of the peasant: rebellion and subsistence in Southeast Asia]. *Velikiy neznakomets: krestyane i fermery v sovremennom mire* [The Great Stranger. Peasants and Farmers in the Modern World]. Moscow, Progress-Akademiya Publ., 202–210.
14. *Starodubrovskaya, I. & N. Mironova.* (2010). *Problemy selskogo razvitiya v usloviyakh munitsipalnoy reform* [Problems of rural development in the wake of the municipal reform in Russia]. Moscow, The Gaidar Institute Publ., 116.
15. *Trotsuk, I.V.* (2013). *Migratsionnye protsessy v sovetskom obshchestve 1960-kh – 1980-kh godov: nablyudeniya i prognozy T.I. Zaslavskoy* [Migration in Soviet society in 1960s – 1980s: T. Zaslavskaya's observations and projections]. *Vestnik obshchestvennogo mneniya. Dannye. Analiz. Diskussii* [The Russian Public Opinion Herald. Data. Analysis. Discussions], 3-4, 180–190.
16. *Trotsky, A.Ya.* (Ed.). (2013). *Ustoychivoe razvitie selskikh territoriy Altayskogo kraia: sotsialno-ekonomicheskie i prostranstvennye aspekty* [Sustainable Development of Rural Areas in Altai Krai: Socio-Economic and Spatial Aspects]. Barnaul: Altai State University Publ., 330.
17. *Fadeeva, O.P.* (2014). *Selskie soobshchestva i khozyaystvennye układy: ot vyzhivaniya k razvitiyu* [Rural Communities and Economic Structures: From Survival to Development]. Novosibirsk, Institute of Economics and Industrial Engineering SB RAS Publ., 264.
18. *Bednarikova, Z., M. Bavorova & E.V. Ponkina.* (2016). Migration motivation of agriculturally educated rural youth: The case of Russian Siberia. *Journal of Rural Studies*, 45, 99–111.
19. *Cartmel, F. & A. Furlong.* (2000). *Youth Unemployment in Rural Areas*. York, York Publishing Services Ltd., 46.
20. *Pavis, S., S. Platt & G. Hubbard.* (2000). *Young People in Rural Scotland. Pathways to Social Inclusion and Exclusion*. York, York Publishing Services Ltd., 50.

Information about the authors

Sergienko, I. Mustafaevna (Barnaul, Russia) – Doctor of Sciences (Sociology), Leading Researcher at the Altai Krai Laboratory for Socio-Economic Research, Institute of Economics and Industrial Engineering, Siberian Branch of the Russian Academy of Sciences (66, Dimitrov st., Barnaul, 656015, Russia, e-mail: a.m.sergienko@mail.ru).

Ivanova, Oksana Andreevna (Barnaul, Russia) – MSc in Sociology, Sociologist at the Center for Special Relations and Information, Federal Guard Service of the Russian Federation in Altai Krai (30, Lenin av., Barnaul, 656056, Russia, e-mail: ivanova_sociology@mail.ru).

18.12.2017 .

: , 2018, 1 (97), . 142–166

• • , • •

◀▶

2014–2015 .

[3].

[6; 7; 10].

1998 2008 .

«OMD OM Group»,

2014–2015 .

2008 .

15–20%),

2014–2015 .

[8].

(

),

(

), . . [1; 2; 5; .].

. XXI .

«

»

«

»

. . . , . . .		
	,	-
	:	-
	,	-
	.	-
	,	-
	(-
) ,	,	-
,	.	-
.		-
		-
	—	-
,		-
.		-
,	,	-
.		-
35 ,		1998
2008 .		-
,	1998 .	-
18 ,		-
,	,	-
,		-
.		-
«	»	2016 .
.		-
,		23
—		-
(,	-
,	,	-
,	,	-
,	-	.),

149

· — , , ,
, » (, 48 , ,).

· , , -
,
, Excel
· « -
, , , · -
[].
, , ... : , , ,
, , : , -
, , , -
, 6500, [] .
, » (,
38 ,).

, -
, -
, -
,
,
, ·
,
,
- , -
- , -
·
,
2,
(
,
-

， — ，
 . ，
 ， (100)，
 ， ，
 .
 ， -
 ， -
 - : ， (-
) . . -
 ()， ， -
 ， -
 ， -
 . -
 ，
 : ，
 .

2014—2015 .

， -
 - ，
 ，
 . « ， ， -
 ， ，
 ， -
 ，
 . ，
 — “ ”.
 ， ，
 ，

... , ...

— , -

» (, 55 ,).

,

- . « , -

- ... , - ,

— , , , ,

.

» (, 35 ,).

,

« , , , []

, , , ,

, ,

» (, 54 , ,

).

, , -

. «

?

» (, 48 ,).

,

« » (

),

.

-

,

,

,

,

.

1998 2008 .

1998 2008 .

:

,

,

.

,

,

2008 .,

().

2008 .,

, -

, « , ?

[.] 2008 ... -

, , -

, » (, 33 ,).

- -

, -

- . « ,

(.— .)

2009- . - ,

, -

[], , -

, » (, 58 ,).

, -

2008 . , -

. « -

, ,

, » (, 54 ,).

, -

« », -

. ,

2008 . 2008 . -

, : «

, ,

, [] [] -

[] » (,

35 ,).

, ,

2008 ., ,

, ,

. . . , . . .
 —
 .
 ,
 ,
 ,
 1998 ., ,
 . ,
 : « , , , ,
 , 90- , , ,
 , , ,
 , , , 98- ,
 — 96- . . . ,
 , , . . .
 , ,
 , , , ,
 , —
 »
 (, 44 ,).
 ,
 1998 .
 1998 .,
 .
 , , , ,
 , , , . . .
 , , ,
 , « »
 . «... , ,
 , ,
 , ... ,
 — ,
 .
 , » (,
 88 ,).

， -
。 «... -
， ， -
， . -
， ， -
» (， -
33 ，)。 -
， -
， -
。 « — ， -
。 -
， » (， 44 ，)。 « -
， ， ， -
， ， -
， ， -
(， 48 ，)。 -
1998 。 -
， -
。 « ， -
... ， -
， ， ， ， ， -
， ， -
， -
» (， 56 ，)。 -
， -
， -
。 -
« »， -
。 « ， -
， -
。

1998 .

» (, 35 ,).

“ „ ,

» (, 44 ,).

» (, 72 , ,).

1998 .,

» ,

» ,

2014–2015 .

[illegible]

, , -
 . , -
 , -
 (,) ,
 , ().
 — (-
 , . .). , -
 -
 . -
 (), ,
 « » .
 . -
 , -
 . -
 - ,
 , —
 . , (-
 —) — -
 , , -
 -
 , .
 , -
 . , -
 , , -
 , , -
 . -
 ,

1998 2008 .

161

8. . – URL: <http://www.kom-dir.ru/article/135-issledovanie-povede-niya-potrebiteley> (: 12.03.2017).

9. . : / . . , . – . – . – . , 2013. – 332 .

10. Wallace C. Household strategies: their conceptual relevance and analytical scope in social research // *Sociology*. – 2002. – Vol. 36, No. 2. – P. 275–292. [

// « / „ „ . . . – ; , . – , 2006. – 94 .].

(,) –

(630090, , , 17, e-mail: o.echevskaya@nsu.ru);

(630090, , , 1).

(,) – (119571, , , 82, . 2, e-mail: s_chechikova@mail.ru).

DOI: 10.15372/REG20180107

Region: Economics & Sociology, 2018, No. 1 (97), p. 142–166

O.G. Echevskaya, S.V. Chechikova

ADAPTATION STRATEGIES AND «ANTI-CRISIS MEASURES» OF RUSSIANS UNDER ECONOMIC CRISIS

The article describes strategies for adaptation to the crisis conditions of 2014–2015 performed by urban and rural residents of Siberia, who have experience in overcoming earlier crises. We use the data collected from

semi-formalized interviews to analyze people's ways of adapting to the crisis, as well as conceptions about how their actions during previous crises hindered or helped to adapt to the crisis today. We design a typology of adaptation strategies that includes ones for minimizing risks, maximizing benefits, «temporary conservation» and combined strategies. The conclusion is drawn that the boundaries of crises are relatively blurred, which indicates that individuals «hit» crises unequally. Moreover, we show that crisis events, interpreted against individual and family biographies, are described as «personal crises» not always tied to formal crisis years in Russia, but rooted in regionally specific contexts and related to significant biographical developments. Both groups of urban and rural residents invent their own rules and anti-crisis measures; they rethink the experience of overcoming previous crises in the context of events that are relevant today.

Keywords: crisis; consumer behavior; practices; adaptation strategies; Novosibirsk Oblast

References

1. Abanokova, K. & M. Lokshin. (2014). Ukrupnenie razmera kak mekhanizm adaptatsii domokhozyaystv k krizisu [Growing size of a household as a mechanism of adaptation to crises]. Available at: <http://cyberleninka.ru/article/n/ukrupnenie-razmera-kak-mekhanizm-adaptatsii-domokhozyaystv-k-krizisu> (date of access: 10.10.2016).
2. Lukyanova, E.L. (2012). «Krizis gde-to i parallelno»: osobennosti izucheniya molodezhi v usloviyakh ekonomicheskogo spada [«The crisis is elsewhere, and we do not care a thing»: The patterns of studying young people under economic recession]. Available at: <http://www.hse.ru/pubs/share/direct/document/68184968> (date of access: 10.10.2015).
3. Mamaeva, L.N. (2011). Izmenenie potrebitelskogo sprosa v Rossii v period krizisa [Changing consumer demand in Russia during the crisis]. Available at: <http://cyberleninka.ru/article/n/izmenenie-potrebitelskogo-sprosa-v-rossii-v-period-krizisa> (date of access: 12.03.2017).
4. Melnikova, O.T., O.A. Gromova, Yu.E. Shirkov; G.M. Andreeva & A.I. Dontsova (Eds.). (2002). Potrebitelskoe povedenie: teoriya i deystvitel'nost' [Consumer behavior: theory and reality]. Sotsialnaya psikhologiya v sovremennom mire [Social Psychology in the Modern World]. Moscow, Aspekt-Press Publ., 260.
5. Nukunova, A.M. (2010). Dosugovoe povedenie rossiyan [The arc behavior in Russians]. Available at: <http://cyberleninka.ru/article/n/dosugovoe-povedenie-rossiyan> (date of access: 04.10.2015).

6. *Radaev, V.V.* (2002). Eshche raz o predmete ekonomicheskoy sotsiologii [Another take on the subject of economic sociology]. Available at: <http://ecsocman.hse.ru/data/952/617/1231/001.RADAEV.pdf> (date of access: 13.02.2017).

7. *Reznik, Yu.M. & E.A. Smirnov.* (2002). Zhiznennye strategii lichnosti (opyt kompleksnogo analiza) [Life Strategies of Personality (Experience of Complex Analysis)]. Moscow, Institute of Man RAS Publ., Independent Institute for Civil Society Publ., 260.

8. *Rukavishnikova, T.* (2014). Issledovanie povedeniya potrebiteley v period ekonomicheskoy stagnatsii [Study on consumer behavior during economic stagnation]. Available at: <http://www.kom-dir.ru/article/135-issledovanie-povedeniya-potrebiteley> (date of access: 12.03.2017).

9. *Certeau, M.* (2013). Izobretenie povsednevnosti. Iskusstvo delat [L'Invention du Quotidien. Arts de faire]. Transl. from French by D. Kalugin, N. Movnina. Saint-Petersburg, European University at St Petersburg Publ., 332.

10. *Wallace, C.* (2002). Household strategies: their conceptual relevance and analytical scope in social research. *Sociology*, Vol. 36, No. 2, 275–292. An abstract by S. Solovyev & T. Cherkashina. In: Cherkashina, T.Yu. (Comp., transl. and ed.). (2006). Educational material on the training course «Family Economic Relations». Novosibirsk, Novosibirsk State University Publ., Center of European Education, 94.

Information about the authors

Echevskaya, Olga Gennadyevna (Novosibirsk, Russia) – Candidate of Sciences (Sociology), Senior Researcher at the Institute of Economics and Industrial Engineering, Siberian Branch of the Russian Academy of Sciences (17, Ac. Lavrentiev av., Novosibirsk, 630090, Russia, e-mail: o.echevskaya@nsu.ru); Associate Professor at Novosibirsk National Research State University (1, Pirogov st., Novosibirsk, 630090, Russia).

Chechikova, Svetlana Vasilyevna (Moscow, Russia) – Master's Degree Student at the Moscow School of Social and Economic Sciences (bld. 2, 82, Vernadsky av., Moscow, 119571, Russia, e-mail: s_chechikova@mail.ru).

11.12.2017 .

© , 2018

: , 2018, 1 (97), . 167–190

167

	· · ·	· · ·	· · ·	· · ·	· · ·
	» (-
)					
	:		;	;	-
;	;		;	;	;
	,		«		-
»,			,		-
	«		»,		-
-,	-				-
			,		-
			,		-
	—				-
	«		»		-
			,		-
			—		-
	:				-
1)					-
	(«		», «		-
	»		.),		-
			;		-
2)			(-
»,			,		-
)		,		-
			,		-
(),	-	,		-
	,	-	,		-

<hr/>		
«	»:	,
,		.
	:)
	,	
	;)
	(,
	. .);)
	,	
	;)
-		
	.	.
	2015–2016	.
«		“
» ¹ .		194
	2015 .–	2016 .
16%		31
		,
,		.
,		
,		
	:	,
		,
1		
.	,	,
		—
		.

200 400, 1000 . 608 , 700 1000, — 70 100 .
—
, —,
—
, —
«»

2

2. „ 21.07.2011 254- «
-
.- 2011. - 30. . I. - . 460.

« ».

29% — (. 1).

« »

« 2015 [.]

».

: 71%

?

: «

l

: «

?, - (%)

		-			-	-
2-3	18 (58)	8 (26)	0 (0)	1 (3)	0 (0)	4 (13)
	9 (29)	10 (32)	6 (19)	2 (7)	0 (0)	4 (13)
1-2	10 (33)	12 (39)	3 (8)	2 (7)	0 (0)	4 (13)
3-5	22 (71)	2 (7)	2 (7)	2 (7)	0 (0)	3 (8)

...
»,	19%	?	» —
,		:	«
» (65%); «		,	
» (7%); «		» (9%).	
:	«	,	
,		,	
,		,	
»,			
?»,		(49%)	
:	«...	,	
,		,	
,		,	
».	, 9%	«	
».	27%		
(15%),		«	
», «			
,			
,		», «	
,			
»,			
(12%).			
:	«		
?» —			
((21%)	
,		:	«
,		,	
», «		,	
,		»;	«
»;	«		

(19%) , ?» . . -
: « , »; « -
, , -
»; « -
-
» . . (27%) -
: « -
, -
»; « -
» . . -
(15%) -
(«... -
, , -
. -
(,) », -
(« -
» – -
). -
(6%) -
, (« -
“ ”, -
, [] -
- »). 12% . -
: « -
- (-
)?» – -
: 13% -
, 36% – , 39% –
, 13% . , . . , -
, , -

. . . , . . . , . . . , . . .

.

.

—

.

« »

.

,

,

(

).

,

,

(

)

,

.

80%

,

(

).

(

)

(. 2).

,

,

(. 3).

—

,

,

«

,

.

“ ”

» [4].

,

,

,

: «

,

?» , - (%)

	, -	, -	, -	
/ -	2 (7)	2 (7)	27 (86)	0 (0)
	1 (3)	5 (16)	25 (81)	0 (0)
	1 (3)	1 (3)	29 (94)	0 (0)
	1 (3)	4 (13)	26 (84)	0 (0)
	0 (0)	0 (0)	31 (100)	0 (0)

: «

,

,

-

?» ,

- (%)

- -					
			-		
-	16 (64)	4 (16)	2 (8)	3 (12)	0 (0)
	15 (60)	5 (20)	3 (12)	1 (4)	1 (4)
	16 (64)	3 (12)	3 (12)	3 (12)	0 (0)
	16 (64)	2 (8)	3 (12)	4 (16)	0 (0)
	18 (72)	4 (16)	1 (4)	2 (8)	0 (0)
	8 (32)	0 (0)	1 (4)	1 (4)	15 (60)
	25 (100)	0 (0)	0 (0)	0 (0)	0 (0)

[illegible]

,
 , -
 .
 —
 .
 «
 ?»: «
 »; «
 »; «
 »; «
 , » . .
 :
 :
 «
 ,
 , - ,
 1) (; 2)):
 ; 3)
 ; 4)
 ((); 5)
 (, , ,).
 ».

,
 , ,
 -
 ,
 « , » ,
 ,
 ,
 ,
 ,
 (

),

, -

,

,

,

.

,

,

,

,

,

,

-

,

-

,

,

-

,

.

,

,

-

,

-

,

,

,

-

,

.

-

-

-

.

(15-06-99592)

1. · · · · ·, · · · · ·, · · · · · « · · · · · », 2011. – 143 .
2. · · · · · : · · · · · – · · · · · , 2007. – 567 .

3. . . . : , , - . – URL: http://obsfr.ru/fileadmin/Policy_paper/PP_12_RU_Dezhina.pdf (: 05.04.2017).
4. – 2015. – 10. – . 32–34. // .
5. *Damanpour F., Szabat K.A., Evan W.M.* The relationship between types of innovation and organizational performance // *Journal of Management Studies*. – 1989. – Vol. 26, No. 6. – P. 587–601.
6. *Evangelista R., Imammarino S., Mastrostefano V., Silvani A.* Measuring the regional dimension of innovation: Lessons from the Italian innovation survey // *Technovation*. – 2001. – Vol. 21, No. 11. – P. 733–755.
7. *Fritch M.* Measuring the quality of regional innovation systems: A knowledge production approach // *International Regional Science Review*. – 2002. – Vol. 25. – P. 86–101.
8. *Murphy L.M., Edwards P.L.* Bridging the Valley of Death: Transitioning from Public to Private Sector Financing. – Golden, CO: National Renewable Energy Laboratory, 2003. – URL: <https://www.nrel.gov/docs/gen/fy03/34036.pdf> (: 20.04.2017).
9. *Nager A., Hart D., Ezell S., Atkinson R.D.* The Demographics of Innovation in the United States. Information Technology & Innovation Foundation. February 2016. – URL: <http://www2.itif.org/2016-demographics-of-innovation.pdf> (: 12.04.2017).
10. *Nybakk E.* Learning orientation, innovativeness and financial performance in traditional manufacturing firms: a higher-order structural equation model // *International Journal of Innovation Management*. – 2012. – Vol. 16, Iss. 5. – 142 p.
11. *O'Berry D.* Small Business Cash Flow: Strategies for Making Your Business a Financial Success. – Hoboken, NJ: Wiley, 2007. – 224 p.
12. *Walsh J.P., Nagaoka S.* Who Invents?: Evidence from the Japan-US Inventor Survey / RIETI Discussion Paper Series 09-E-034. 2009. – URL: <https://www.rieti.go.jp/jp/publications/dp/09e034.pdf> (: 25.03.2017).
13. *Yoshitaka O., Miyazaki K.* An empirical analysis of the valley of death: Large-scale R&D project performance in a Japanese diversified company // *Asian Journal of Technology Innovation*. – 2006. – Vol. 14, No. 2. – P. 93–116.

(,) –
 – ,
 (630073,
 , 20, e-mail: ikorel@gmail.com).
 (,) –

(630090,
 , 17, e-mail: katerina.pavlyuk@gmail.com).
 (,) –
 (630090,
 , 17, e-mail: korell@mail.ru).
 (,) –
 (630073,
 , 20, e-mail:
 nataly@ftf.nstu.ru).

DOI: 10.15372/REG20180108

Region: Economics & Sociology, 2018, No. 1 (97), p. 167–190

I.I. Korel, E.A. Pavlyuk, L.V. Korel, N.E. Kafidova

INNOVATIVE DEVELOPMENT IN THE INTERIOR OF REINDUSTRIALIZATION OF THE REGIONAL SPACE OF RUSSIA

The article analyzes features of how industrial elites visualize those problems (collisions) of manufacturing enterprises which are objectively connected with technological innovations: available resources including human capital, social barriers and catalyst factors for innovation, technological innovation networks, etc. As an information base for research, we use an expert sociological survey held among chief executives of manufacturing enterprises in Novosibirsk. We draw several conclusions. The industrial policy pursued by the Russian federal government deeply frustrates experts in terms of innovative development challenges. Technological innovation networks at enterprises under study are formed de facto within a compressed local socio-economic space, and infringed at that, since the years of market reform saw destructive deindustrialization processes which prompted the degeneration of the regional and interregional innovation networks that had developed in the Soviet era, the system of former technological interactions collapsed and disintegrated whereas new networks and interactions shape up slowly and hesitantly. The

subject of human capital in industry, when put within a dynamically changing technological and innovative reality, comes out as ambiguous: on the one hand, it is claimed that employees are highly proficient; on the other hand, it is recognized that the innovative capacity is not yet unlocked for objective reasons. Inflamed tensions among key agents in the field of technological innovation (manufacturing enterprises and federal agencies) create additional obstructions for Russia to the path of innovative development, so they must be deescalated.

Keywords: manufacturing enterprises; innovation; obstructions; human capital; technological innovation networks; experts; questionnaire survey

*The publication is prepared within the framework of the project
No. 15-06-99592 supported by funding from the Russian Foundation
for Basic Research*

References

1. Agarkov, S.A., E.S. Kuznetsova & M.O. Gryaznova. (2011). Innovatsionnyy menedzhment i gosudarstvennaya innovatsionnaya politika [Innovation management and state innovation policy]. Moscow, Russian Academy of Natural History Publ., 143.
2. Bourdieu, P. (2007). Sotsialnoe prostranstvo: polya i praktiki [Espace social: Champs et pratiques]. Moscow, Aleteia Publ., 567.
3. Dezhina, I. (2016). Innovatsionnaya politika v Rossii: tendentsii, slozhnosti, perspektivy [Innovative policy in Russia: Trends, complexities, and prospects]. Available at: http://obsfr.ru/fileadmin/Policy_paper/PP_12_RU_Dezhina.pdf (date of access: 05.04.2017).
4. Khegay, Yu.A. & A.A. Klimin. (2015). Modernizatsiya promyshlennosti na osnove innovatsiy [The modernization of the industry through innovation]. Teoriya i praktika obshchestvennogo razvitiya [Theory and Practice of Social Development], 10, 32–34.
5. Damanpour, F., K.A. Szabat & W.M. Evan. (1989). The relationship between types of innovation and organizational performance. Journal of Management Studies, Vol. 26, No. 6, 587–601.
6. Evangelista, R., S. Imammarino, V. Mastrostefano & A. Silvani. (2001). Measuring the regional dimension of innovation: Lessons from the Italian innovation survey. Technovation, Vol. 21, No 11, 733–755
7. Fritch, M. (2002). Measuring the quality of regional innovation systems: A knowledge production approach. International Regional Science Review, Vol. 25, 86–101.
8. Murphy, L.M. & P.L. Edwards. (2003). Bridging the valley of death. Transitioning from Public to Private Sector Financing. Golden, CO: National Renewable Energy Laboratory, 3. Available at: <https://www.nrel.gov/docs/gen/fy03/34036.pdf> (date of access: 20.04.2017)

-
9. *Nager, A., D. Hart, S. Ezell & R.D. Atkinson.* (2016). The Demographics of innovation in the United States. Information Technology & Innovation Foundation. Available at: <http://www2.itif.org/2016-demographics-of-innovation.pdf> (date access: 12.04.2017)
10. *Nybakk, E.* (2012). Learning orientation, innovativeness and financial performance in traditional manufacturing firms: a higher-order structural equation model. International Journal of innovation management, Vol. 16, Is. 5, 142.
11. *O'Berry, D.* (2007). Small Business Cash Flow: Strategies for Making Your Business a Financial Success. Hoboken, NJ, Wiley, 224.
12. *Walsh, J.P. & S. Nagaoka.* (2009). Who Invents?: Evidence from the Japan-US Inventor Survey. RIETI Discussion Paper Series 09-E-034. Available at: <https://www.rieti.go.jp/jp/publications/dp/09e034.pdf> (date of access: 25.03.2017)
13. *Yoshitaka, O. & K. Miyazaki.* (2006). An empirical analysis of the valley of death: Large-scale R&D project performance in a Japanese diversified company. Asian Journal of Technology Innovation, Vol. 14, No. 2, 93–116.

Information about the authors

Korel, Igor Igorevich (Novosibirsk, Russia) – Candidate of Sciences (Physics and Mathematics), Associate Professor, Dean at Novosibirsk State Technical University (20, Carl Marx av., Novosibirsk, 630073, Russia, e-mail: ikorel@gmail.com).

Pavlyuk, Ekaterina Aleksandrovna (Novosibirsk, Russia) – Junior Researcher at the Institute of Economics and Industrial Engineering, Siberian Branch of the Russian Academy of Sciences (17, Ac. Lavrentiev av., Novosibirsk, 630090, Russia, e-mail: katerina.pavlyuk@gmail.com).

Korel, Lyudmila Vasilievna (Novosibirsk, Russia) – Doctor of Sciences (Sociology), Chief Researcher at the Institute of Economics and Industrial Engineering, Siberian Branch of the Russian Academy of Sciences (17, Ac. Lavrentiev av., Novosibirsk, 630090, Russia, e-mail: korell@mail.ru).

Kafidova, Natalya Evgenievna (Novosibirsk, Russia) – Senior Professor at Novosibirsk State Technical University (20, Carl Marx av., Novosibirsk, 630073, Russia, e-mail: nataly@ftf.nstu.ru).

25.12.2017 .

: , 2018, 1 (97), . 191–216

• • , • •

⋮

2002–2013 . -

• , -

•

[illegible]

• ; • ;

:

(, -
 , -
). -
 .

-

-

2: ; () -
 ; , -
 , -
 ; , -
 . , -
 :

-

-

-

,

-

-

[24; 29].

² .: *Measuring the Non-Observed Economy: A Handbook* / OECD, ILO, IMF, International Statistical Committee of the Commonwealth of Independent States. – Paris: OECD Publ., 2002. – URL: http://www.oecd-ilibrary.org/economics/measuring-the-non-observed-economy-a-handbook_9789264175358-en . -
 Eurostat (URL: http://ec.europa.eu/eurostat/statistics-explained/index.php/Building_the_System_of_National_Accounts_-_non-observed_sector).

		-	[23; 26]
			[5; 19]
		-	[23]
			[25]
		-	[27; 28]
-		-	[7; 15; 22]
		-	[6; 25]
-	-	» «	[23]
	-		[8]

-	-	, -	[14]
	- -	-	[9; 11]
	- - -	, -	[17]

, -

. -

, -

, -

.

,

[10], -

U- ().

-

-

-

[18], -

, -

, -

, -

, -

, -

.

(5-), 5.
 , . 2.
 – 79 (,
 -
 -
 , .)
 ,
 2002–2013
 1, 3 4, 2005–2013
 1, 3, 4 5, 2010–2012
 .
 SPSS 16.0.
 [1].
 SPSS 16.0
 ,
 (log10)
 , [21].
 .
 (.)
 , . .):
 • ,
 MIMIC- ;
 • , %
 , ;
 • , %;

⁵ URL: <http://www.nalog.ru> .

:

2

	-	-	

		:		
1.	(-		
)			
		, %		
	MIMIC-		<i>sh_mimic</i>	2002–2013*
2.		, %		
		-	<i>sh_tax</i>	2010–2012*
3.				
%		-	<i>inf_empl</i>	2005–2013**
	,			-
		:		
4.	(-	<i>urban</i>	2002–2013
), %***			
5.		-	<i>agr_grp</i>	2002–2013
	, %			

*

**

»

, 100%.

•

•

«

,

, %;

, %

-

-

-

. . . , . . .
 (-
) , -
 (. 3). -
 3

	<i>sh_mimic</i>	<i>sh_tax</i>	<i>urban</i>	<i>agr_grp</i>	<i>inf_empl</i>
<i>2002–2013</i>					
urban	–0,630				
agr_grp	0,463		–0,778		
<i>2005–2013</i>					
urban	–0,642				
agr_grp	0,426		–0,762		
inf_empl	0,653		–0,760	0,688	
<i>2010–2012</i>					
sh_tax	0,337				
urban	–0,680	–0,414			
agr_grp	0,393	0,497	–0,729		
inf_empl	0,671	0,635	–0,783	0,670	

: 0,01 ().

«

	2002	2003	2004	2005	2006	2007
sh_tax						
urban	–0,544	–0,577	–0,579	–0,586	–0,578	–0,581
agr_grp	0,480	0,505	0,530	0,503	0,473	0,375
inf_empl				0,623	0,536	0,544

:
 ,
 ,
 (. 4).
 ,
 ,
 ,
 «
 MIMIC- » «
 »
 0,53–0,67, . .
 60% (
 2010–2012 . – 67,1%).
 36%
 – 45%.
 ,
 ,
 MIMIC-
 F-
 (0,3 < R² < 0,5).
 ,
 (. 5, . 1).

4

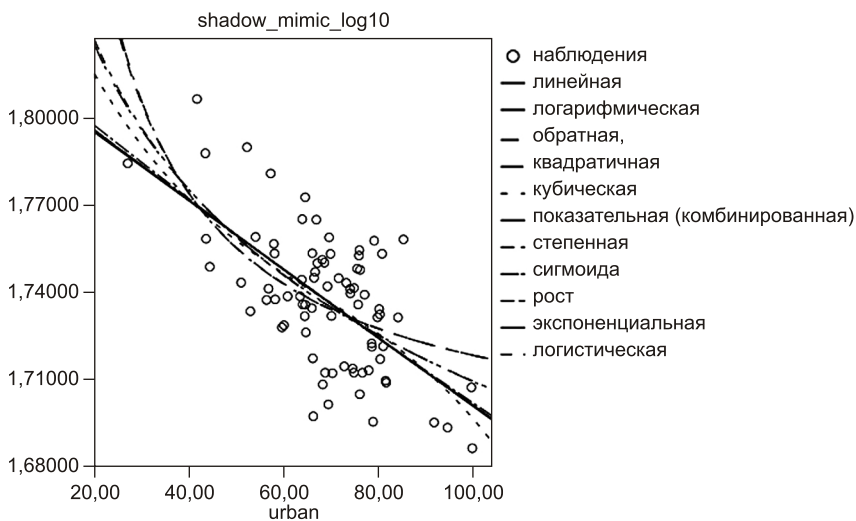
, MIMIC- »

2008	2009	2010	2011	2012	2013
		0,302	0,325	0,347	
–0,594	–0,609	–0,667	–0,687	–0,675	–0,675
0,383	0,356	0,407	0,392	0,354	0,382
0,578	0,601	0,647	0,675	0,645	0,565

MIMIC-

	R ²	R ²	F-	df1	df2	-	-	b1	b2	b3
	0,395	0,387	50,295	1	77	0,000	1,819	-0,001		
	0,386	0,378	48,470	1	77	0,000	2,040	-0,072		
	0,343	0,335	40,255	1	77	0,000	1,681	3,707		
	0,395	0,379	24,840	2	76	0,000	1,824	-0,001	1,170E-6	
	0,400	0,376	16,691	3	75	0,000	1,889	-0,005	5,452E-5	-2,704E-7
(-)	0,394	0,387	50,167	1	77	0,000	1,820	0,999		
	0,385	0,377	48,113	1	77	0,000	2,067	-0,041		
	0,341	0,332	39,795	1	77	0,000	0,520	2,123		
	0,394	0,387	50,167	1	77	0,000	0,599	0,000		
	0,394	0,387	50,167	1	77	0,000	1,820	0,000		
	0,394	0,387	50,167	1	77	0,000	0,549	1,001		

shadow_mimic_log10 (log10 (- urban (- MIMIC-););

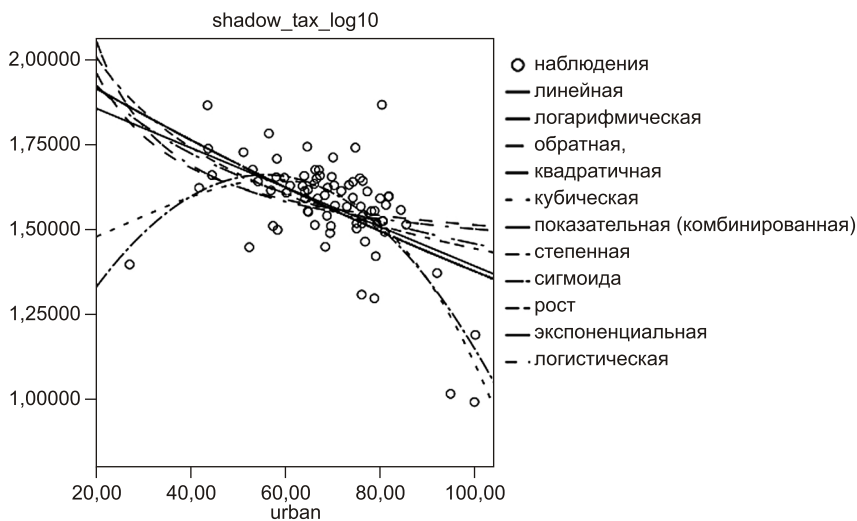


. 1. ; MIMIC-)
 ,
 ,
 F- .
 (0,5 < R² < 0,7).
 (R² = 0,517).
 (. 6, . 2).
 (AIC,
)
 AICc BIC.
 AIC = 8,932; AICc = 9,106; BIC = 3,807.
 : AIC = 10,838; AICc = 11,195; BIC = 8,271.

,

	R ²	R ²	F-	df1	df2	-	-	b1	b2	b3
	0,260	0,250	26,713	1	76	0,000	1,975	-0,006		
	0,170	0,159	15,551	1	76	0,000	2,800	-0,291		
	0,084	0,072	7,012	1	76	0,010	1,402	11,242		
	0,507	0,494	38,559	2	75	0,000	0,854	0,029	0,000	
	0,517	0,497	26,360	3	74	0,000	1,404	0,001	0,000	-2,281E-6
(-)	0,263	0,254	27,182	1	76	0,000	2,084	0,996		
	0,169	0,158	15,489	1	76	0,000	3,719	-0,205		
	0,083	0,071	6,895	1	76	0,010	0,328	7,879		
	0,263	0,254	27,182	1	76	0,000	0,734	-0,004		
	0,263	0,254	27,182	1	76	0,000	2,084	-0,004		
	0,263	0,254	27,182	1	76	0,000	0,480	1,004		

(log10 : - urban (- shadow_tax_log10);).



. 2.

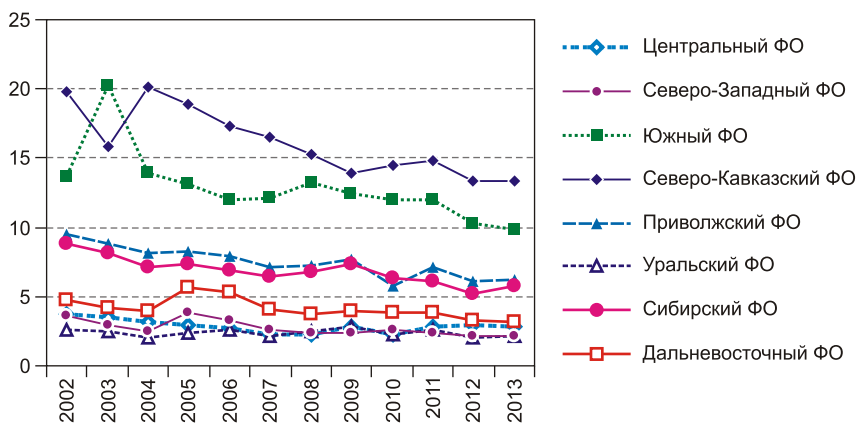
(;) ,
 .
 -
 (-
) ,
 t-
 (0,05) :
 - 1,992, - 1,993.
 t-
 , t > t
 (t b1 = 5,039; t b2 = -6,128;
 t const = 4,397).

U-

. . . , . . .

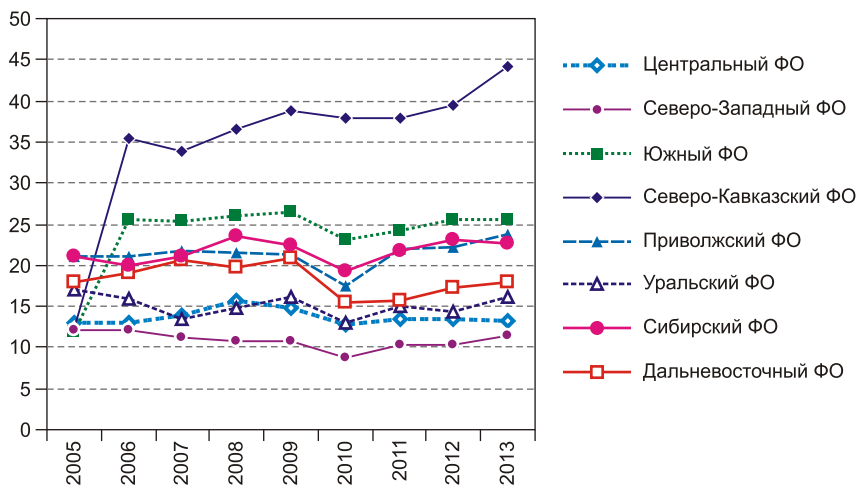
 ,
 ,
 MIMIC- .
 -
 , ,
 .
 -
 ,
 .
 -0,778 , -0,729
 ,
 -
 -
 -
 ,
 -
 (,
 , (),
 ,
 ,).
 , (.3 4).
 , (,
).
 (.5⁶).

⁶ 2005–2008 .
 , 2009 .–
 2005–2009 .



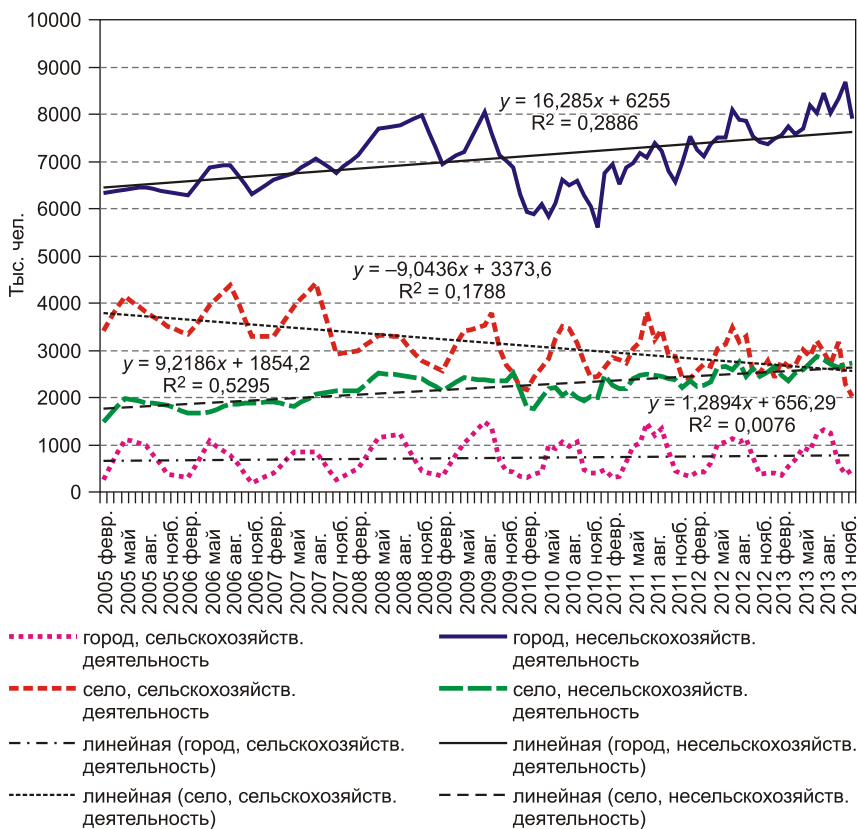
. 3.

, %



. 4.

, %

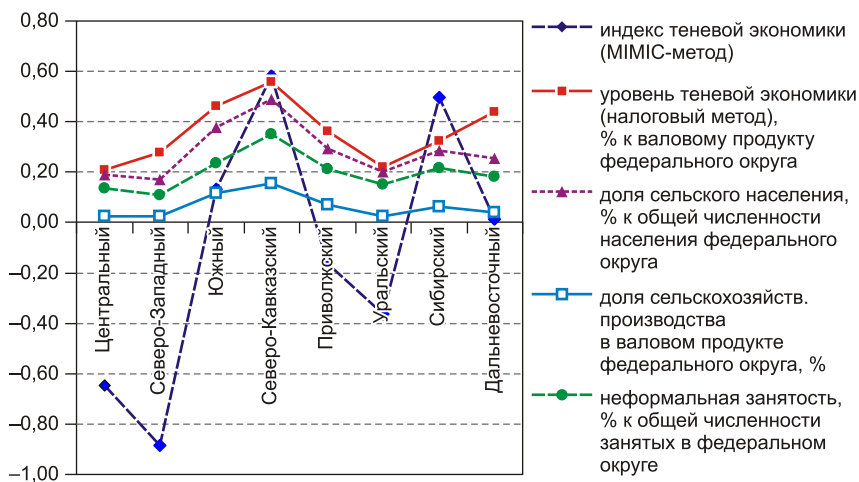


. 5.

2005–2013 .

13,1 . . . ,
2007 .

2005 .



. б.

U-

MIMIC-

U-

() .

, , , .

.

, ,

, ,

« ».

,

(17-22-21001)

1. . , . // : . . , 15 2015 . – : , 2015. – . 3. – . 41–43.
2. . // . – 2017. – 4-2. – . 374–378. – URL: <https://fundamental-research.ru/ru/article/view?id=41490> (: 25.10.2017).
3. . – URL: <https://www.vedomosti.ru/economics/characters/2017/03/29/683265-aleksandr-surinov-rukovoditel> (: 25.10.2017).
4. . , . // . – 2016. – 15. – . 20–33.

-
5. *Aruoba S.B.* Informal Sector, Government Policy and Institutions / Society for Economic Dynamics. Meeting Papers. – 2010. – Vol. 324. – 59 p.
 6. *Buehn A., Farzanegan M.R.* Impact of education on the shadow economy: institutions matter // *Economics Bulletin*. – 2013. – Vol. 33, No. 3. – P. 2052–2063.
 7. *Chong A., Gradstein M.* Inequality and informality // *Journal of Public Economics*. – 2007. – Vol. 91, No. 1-2. – P. 159–179.
 8. *Dell'Anno R.* The shadow economy in Portugal: an analysis with the MIMIC approach // *Journal of Applied Economics*. – 2007. – Vol. 10, No. 2. – P. 253–277.
 9. *Djankov S., La Porta R., Lopez-de-Silanes F., Shleifer A.* The regulation of entry // *The Quarterly Journal of Economics*. – 2002. – Vol. 117, No. 1. – P. 1–37.
 10. *Elgin C., Oyvatt C.* Lurking in the cities: urbanization and the informal economy // *Structural Change and Economic Dynamics*. – 2013. – Vol. 27. – P. 36–47.
 11. *Friedman E., Johnson S., Kaufmann D., Zoido-Lobaton P.* Dodging the grabbing hand: the determinants of unofficial activity in 69 countries // *Journal of Public Economics*. – 2000. – Vol. 76, No. 3. – P. 459–493.
 12. *Gallup J.L.* Is There a Kuznets Curve. – Portland: Portland State University, 2012. – 34 p.
 13. *Handbook on the Shadow Economy* / Ed. by F. Schneider. – Edward Elgar Publishing, 2011. – 522 p.
 14. *Johnson S., Kaufmann D., Shleifer A. et al.* The unofficial economy in transition // *Brookings Papers on Economic Activity*. – 1997. – No. 2. – P. 159–239.
 15. *Kar S., Saha S.* Corruption, shadow economy and income inequality: evidence from Asia / *Forschungsinstitut zur Zukunft der Arbeit. Discussion Paper Series*. – 2012. – No. 7106. – 28 p.
 16. *Kireenko A., Ivanov Yu., Nevzorova E., Polyakova O.* Shadow economy in the regions of the Russian Federation and the Ukraine // *New Trends in Finance and Accounting*. – Cham: Springer, 2017. – P. 301–312.
 17. *Kucera D., Roncolato L.* Informal employment: two contested policy issues // *International Labour Review*. – 2008. – Vol. 147, No. 4. – P. 321–348.
 18. *Kuznets S.* Economic growth and income inequality // *The American Economic Review*. – 1955. – Vol. 45, No. 1. – P. 1–28.
 19. *Maddah M., Sobhani B.* The effective factors on informal economy in developing countries (panel data model) // *International Journal of Regional Development*. – 2014. – Vol. 1, No. 1. – P. 12–25.
 20. *Rauch J.E.* Economic development, urban underemployment, and income inequality // *National Bureau of Economic Research*. – 1991. – No. 3758. – 28 p.
 21. *Robinson S.* A note on the U hypothesis relating income inequality and economic development // *The American Economic Review*. – 1976. – Vol. 66, No. 3. – P. 437–440.
 22. *Rosser J.B., Rosser M.V.* Another failure of the Washington consensus on transition countries: inequality and underground economies // *Challenge*. – 2001. – Vol. 44, No. 2. – P. 39–50.
 23. *Schneider F.* Out of the shadows: measuring informal economic activity // 2016 Index of Economic Freedom / Ed. by T. Miller & A.B. Kim. – Washington, DC: The Heritage Foundation, 2016. – P. 35–49.

24. *Schneider F.* The Shadow Economy: An Essay. – Department of Economics, Johannes Kepler University of Linz. – 2014. – 23 p.

25. *Schneider F., Buehn A.* Shadow economies in highly developed OECD countries: what are the driving forces? / IZA Discussion Paper. – 2012. – No. 6891. – 32 p.

26. *Schneider F., Buehn A., Montenegro C.E.* Shadow Economics All Over the World: New Estimates for 162 Countries from 1999 to 2007 / World Bank Policy Research Working Paper Series. – 2010. – No. 5356. – 52 p.

27. *Schneider F., Williams C.C.* The Shadow Economy. – London: Institute of Economic Affairs, 2013. – 184 p.

28. *Tanzi V.* The underground economy in the United States: annual estimates, 1930-80 // Staff Papers. – 1983. – Vol. 30, No. 2. – P. 283–305.

29. *Vuletin G.J.* Measuring the informal economy in Latin America and the Caribbean / IMF Working Paper. – 2008. – No. 102. – 29 p.

30. *Yuki K.* Urbanization, informal sector, and development // Journal of Development Economics. – 2007. – Vol. 84, No. 1. – P. 76–103.

(,) –
 ,
 (664003, , .
 , 11, e-mail: kireenko-ap@isea.ru);

(,) –
 ,
 (664003, , . , 11, e-mail:
 nevzorova_kat@mail.ru).

DOI: 10.15372/REG20180109

Region: Economics & Sociology, 2018, No. 1 (97), p. 191–216

A.P. Kireenko, E.N. Nevzorova

SHADOW ECONOMY IN RUSSIAN REGIONS: URBAN AND RURAL AREAS CONTRIBUTIONS

The article explores the relationship between the sizes of the shadow economy and agriculture, and verifies the statement that the growing agricultural share in GDP leads to an increase in the shadow economy. We present

the results of testing the statistical interrelation between the size of the shadow economy in Russian regions and the indicators reflecting the size of agriculture (distribution of the rural and urban population over the total population, the share of agricultural production in the GRP). The research method involves analyzing the approximation curves constructed from scatter plots using the urban population ratio and the logarithm of the shadow sector indicators. We incorporate the Rosstat data and authors' calculations measuring the size of the shadow economy in Russian regions for 2002–2013. The article confirms a hypothesis that there is a direct relationship between the size of the shadow sector and the share of agriculture in the economy. In regions, the size of the shadow economy is notably interrelated with the proportion of the rural population and moderately interrelated with the share of agriculture, hunting, and forestry in GRP. We observe gradually increasing informal employment in non-agricultural activities. The conclusion is as follows: further rural–urban migration and urban population growth will increase the size of the shadow economy in the least urbanized regions and decrease it in semi-urbanized regions.

Keywords: regions; agricultural production; shadow economy; measurement techniques; size; growth factors of the shadow economy

The research is prepared within the framework of the project No. 17-22-21001 supported by funding from the Russian Foundation for Humanities

References

1. Ziganshin, Sh.G., T.O. Politova & R.R. Salyakhova. (2015). Proverka modeley nadezhnosti metodom korrelyatsionnogo analiza [Testing reliability models with correlation analysis]. Instrumenty sovremennoy nauchnoy deyatel'nosti: sb. st. mezhdunar. nauch.-prakt. konf., g. Samara, 15 noya. 2015 g., Ch. 3 [Means of Contemporary Scientific Research: proceedings of international research conference in Samara, 15 Nov, 2015, Part 3]. Samara, AETERNA Publ., 41–43.
2. Peskova, D.R. (2017). Osobennosti kolichestvennoy i kachestvennoy otsenki tenevoy zanyatosti v selskom khozyaystve [Peculiarities of quantitative and qualitative evaluation of shadow employment in agriculture]. Fundamentalnye issledovaniya [Fundamental Research], 4-2, 374–378.
3. Surinov, A. (2017). My za bortom ostavlyali milliony naemnykh rabotnikov [We were leaving millions of employees out of the equation]. Available at:

<https://www.vedomosti.ru/economics/characters/2017/03/29/683265-aleksandr-surinov-rukovoditel> (date of access: 25.10.2017).

4. *Fedotov, D.Yu., E.N. Nevzorova & E.N. Orlova.* (2016). Nalogovyy metod rascheta velichiny tenevoy ekonomiki rossiyskikh regionov [A tax method to calculate the value of the shadow economy of Russian regions]. *Finansy i kredit [Finance and Credit]*, 15, 20–33.

5. *Aruoba, S.B.* (2010). Informal Sector, Government Policy and Institutions. *Society for Economic Dynamics. 2010 Meeting Papers*, Vol. 324, 59.

6. *Buehn, A. & M.R. Farzanegan.* (2013). Impact of education on the shadow economy: institutions matter. *Economics Bulletin*, Vol. 33, No. 3, 2052–2063.

7. *Chong, A. & M. Gradstein.* (2007). Inequality and informality. *Journal of Public Economics*, Vol. 91, No. 1-2, 159–179.

8. *Dell'Anno, R.* (2007). The shadow economy in Portugal: an analysis with the MIMIC approach. *Journal of Applied Economics*, Vol. 10, No. 2, 253–277.

9. *Djankov, S., R. La Porta, F. Lopez-de-Silanes & A. Shleifer.* (2002). The regulation of entry. *The Quarterly Journal of Economics*, Vol. 117, No. 1, 1–37.

10. *Elgin, C. & C. Oyvatt.* (2013). Lurking in the cities: urbanization and the informal economy. *Structural Change and Economic Dynamics*, Vol. 27, 36–47.

11. *Friedman, E., S. Johnson, D. Kaufmann & P. Zoido-Lobaton.* (2000). Dodging the grabbing hand: the determinants of unofficial activity in 69 countries. *Journal of Public Economics*, Vol. 76, No. 3, 459–493.

12. *Gallup, J.L.* (2012). Is there a Kuznets curve. Portland, Portland State University, 34.

13. *Schneider, F.* (Ed.). (2011). *Handbook on the Shadow Economy*. Edward Elgar Publishing, 522.

14. *Johnson, S., D. Kaufmann, A. Shleifer, M. Goldman & M. Weitzman.* (1997). The unofficial economy in transition. *Brookings Papers on Economic Activity*, 2, 159–239.

15. *Kar, S. & S. Saha.* (2012). Corruption, shadow economy and income inequality: evidence from Asia. *Forschungsinstitut zur Zukunft der Arbeit. Discussion Paper Series*, 7106, 28.

16. *Kireenko, A., Yu. Ivanov, E. Nevzorova & O. Polyakova.* (2017). Shadow economy in the regions of the Russian Federation and the Ukraine. *New Trends in Finance and Accounting*. Cham, Springer, 301–312.

17. *Kucera, D. & L. Roncolato.* (2008). Informal employment: two contested policy issues. *International Labour Review*, Vol. 147, No. 4, 321–348.

18. *Kuznets, S.* (1955). Economic growth and income inequality. *The American Economic Review*, Vol. 45, No. 1, 1–28.

19. *Maddah, M. & B. Sobhani.* (2014). The effective factors on informal economy in developing countries (panel data model). *International Journal of Regional Development*, Vol. 1, No. 1, 12–25.

-
20. *Rauch, J.E.* (1991). Economic development, urban underemployment, and income inequality. National Bureau of Economic Research, No. 3758, 28.
 21. *Robinson, S.* (1976). A note on the U hypothesis relating income inequality and economic development. The American Economic Review, Vol. 66, No. 3, 437–440.
 22. *Rosser, J.B. & M.V. Rosser.* (2001). Another failure of the Washington consensus on transition countries: inequality and underground economies. Challenge, Vol. 44, No. 2, 39–50.
 23. *Schneider, F.; T. Miller & A.B. Kim* (Eds.). (2016). Out of the shadows: measuring informal economic activity. 2016 Index of Economic Freedom. Washington DC, The Heritage Foundation, 35–49.
 24. *Schneider, F.* (2014). The Shadow Economy: An Essay. Department of Economics, Johannes Kepler University of Linz, 23.
 25. *Schneider, F. & A. Buehn* (Ed.). (2012). Shadow economies in highly developed OECD countries: what are the driving forces? IZA Discussion Paper, No. 6891, 32.
 26. *Schneider, F., A. Buehn & C.E. Montenegro.* (2010). Shadow economies all over the world: new estimates for 162 countries from 1999 to 2007. World Bank Policy Research Working Paper Series, No. 5356, 52.
 27. *Schneider, F. & C.C. Williams.* (2013). The Shadow Economy. London, Institute of Economic Affairs, 184.
 28. *Tanzi, V.* (1983). The underground economy in the United States: annual estimates, 1930–80. Staff Papers, Vol. 30, No. 2, 283–305.
 29. *Vuletin, G.J.* (2008). Measuring the informal economy in Latin America and the Caribbean. IMF Working Paper, No. 102, 29.
 30. *Yuki, K.* (2007). Urbanization, informal sector, and development. Journal of Development Economics, Vol. 84, No. 1, 76–103.

Information about the authors

Kireenko, Anna Pavlovna (Irkutsk, Russia) – Doctor of Sciences (Economics), Professor, Head of Chair at Baikal State University of Economics and Law (11, Lenin st., Irkutsk, 664003, Russia, e-mail: kireenko-ap@isea.ru); Professor at Far Eastern Federal University.

Nevzorova, Ekaterina Nikolaevna (Irkutsk, Russia) – Candidate of Sciences (Economics), Associate Professor at Baikal State University of Economics and Law (11, Lenin st., Irkutsk, 664003, Russia, e-mail: nevzorova_kat@mail.ru).

18.12.2017 .

© , 2018

• • • • •

1.

«

»:

«

»

[5]

«

»

»

«

»

—

» (

).

2.

[7].

[9].

2002.

2

(

)

[6].

219

3. , -

,

(,)

« » .

,

-

.

-

,

,

.

,

-

-

().

-

(

)

.

« »

(

)

,

,

:

-

(

),

3 .. : « » . – URL: <http://ru.euronews.com/2017/10/30/silk-road-but-not-in-russia> . [4].

	:	
	,	
	.	
	- ?	-
		-
	,	
,	..	
	« »,	-
,		-
		-
.	, ,	-
	,	
	.	,
	.	-
	.	
	4	-
	,	-
	.	
	:	-
(-
),	.	-
	,	
	.	-
,		-
	,	
	, « ».	
,	,	-
		-
	-	-
	.	-
	,	-
		-
4	()	-
	,	-
	[3].	

100%

. . .
 —
 , , — , , , ,
 — , —
 —
 , , , ,
 .
 —
 —
 .
 —
 —
 5.
 ,
 « » .
 .
 ,
 —
 ,
 —
 ,
 —
 ,
 .
 (, ,)
 ,
 « »
 .
 ,
 ,
 ,
 —
 .
 —

5 . [8].

: , 2018, 1 (97) 225

[illegible]

1. , -
 2. - -
 3. , -

(16-02-00221)

1. :
 , // : -
 1996. – 2. – . 34–58.
2. - -
 : - , 1995. – 70 . (). -
3. . , . , . :
 // : . – 2017. – 2 (94). –
 . 269–286.
4. . , . :
 // . – 2016. – 1. – . 5–25. -
5. . , . :
 / . . . -
 : - , 2017. – 160 . -
6. . :
 // : . – 2006. – 2. – . 82–92.
7. /
 : - , 2011. – 244 . -
8. :
 . . , . . . – : - , 2005. – 386 .
9. . , . :
 // - -
 2005. – 1. – . 191–196. -

(,) – -
 , -
 (630090, -
 , 17, e-mail: malov@ieie.nsc.ru); -

DOI: 10.15372/REG20180110

Region: Economics & Sociology, 2018, No. 1 (97), p. 217–230

V.Yu. Malov

MONGOLIAN TRANSIT: TACTICAL STEPS TO SOLVE STRATEGIC GOALS

The article explores the issues of assessing the prospects of a transport corridor along the Asia–Europe route through Mongolia as an addition to various direct links between China and Russia. The results of model experiments with fuzzy sets show that transit through Mongolia’s territory will only intensify providing that there is an active state policy to regulate rail and road transport fares and that a logistics center will be built in Ulaanbaatar.

Keywords: China–Mongolia–Russia Road Corridor; fare policy; logistics center; alignment of interests

*The publication is prepared within the framework of the project
No. 16-02-00221 supported by funding from the Russian Foundation
for Humanities*

References

1. *Bandman, M.K.* (1996). Gosudarstvennaya regionalnaya ekonomicheskaya politika: vekhi, zadachi i puti ee realizatsii v Sibiri [State regional economic policy: milestones, tasks and ways for its realization in Siberia]. *Region: ekonomika i sotsiologiya* [Region: Economics and Sociology], 2, 34–58.
2. *Bandman, M.K.* (1995). Mesto Transsiba v ekonomike Rossii posle raspada SSSR [The Place of the Trans-Siberian Railway in Russia’s Economy after the Dissolution of the Soviet Union]. Preprint. Novosibirsk, Institute of Economics and Industrial Engineering SB RAS Publ., 70.

3. *Bychkov, I.V., V.M. Nikitin & I.I. Maksimova.* (2017). *Gidroenergeticheskie proekty v mongolskoy chasti transgranichnogo basseyna reki Selenga: vozmozhnye riski dlya Rossiyskoy Federatsii* [Hydropower projects in the Mongolian part of the Selenga River transboundary basin: Possible risks for the Russian Federation]. *Region: ekonomika i sotsiologiya* [Region: Economics and Sociology], 2 (94), 269–286.

4. *Kibalov, E.B. & S.A. Bykadorov.* (2016). *Transsib i BAM: sistemnyy vzglyad na problemu povysheniya konkurentosposobnosti* [Trans-Siberian railway and BAM: the system view on the problem of competitiveness increase]. *EKO*, 1, 5–25.

5. *Kibalov, E.B., A.A. Kin & V.A. Kryukov* (Ed.). (2017). *Reforma zheleznodorozhnogo transporta: kriticheskiy analiz i problema otsenki effektivnosti* [Railway Reform: Critical Analysis and Problem of Performance Assessment]. Novosibirsk, Institute of Economics and Industrial Engineering SB RAS Publ., 160.

6. *Kovaleva, G.D.* (2006). *Kontseptsiya razvitiya vneshneekonomicheskoy deyatelnosti Sibiri* [A concept of the Siberian foreign economic activity]. *Region: ekonomika i sotsiologiya* [Region: Economics and Sociology], 2, 82–92.

7. *Blam, Yu.Sh. & V.V. Radchenko* (Eds.). (2011). *Modelirovanie proizvodstvennykh i regionalnykh sistem na osnove GIS i informatsionnykh tekhnologiy* [Modelling of the Industrial and Regional Systems Based on GIS and IT]. Novosibirsk, Institute of Economics and Industrial Engineering SB RAS Publ., 244.

8. *Lamin, V.A. & V.Yu. Malov* (Eds.). (2005). *Problemnnye regiony resursnogo tipa: Aziatskaya chast Rossii* [Problematic Resource Regions: Asian Russia]. Novosibirsk, SB RAS Publ., 386.

9. *Tkachenko, V.Ya. & V.Yu. Malov.* (2005). *Severo-Sibirskaya magistral kak natsionalnyy transportnyy prioritet* [The North Siberian mainline as a national transport prime objective]. *Vestnik Evroaziatskogo transportnogo soyuza* [Bulletin of the Euro-Asian Transport Union], 1, 191–196.

Information about the author

Malov, Vladimir Yuryevich (Novosibirsk, Russia) – Doctor of Sciences (Economics), Head of Sector at the Institute of Economics and Industrial Engineering, Siberian Branch of the Russian Academy of Sciences (17, Ac. Lavrentiev av., Novosibirsk, 630090, Russia, e-mail: malov@ieie.nsc.ru); Professor, Head of Chair at Novosibirsk National Research State University (2, Pirogov st., Novosibirsk, 630090, Russia).

09.01.2018 .

© . ., 2018

330.15

: , 2018, 1 (97), . 231–249

• • , • • , • • ,
• • , • •

:

«

»

-

-

-

-

• ,

,

,

-

-

•

«

-

,

»

•

,

9

,

-

,

2000 ., -

-

•

-

,

«

-

»

•

:

;

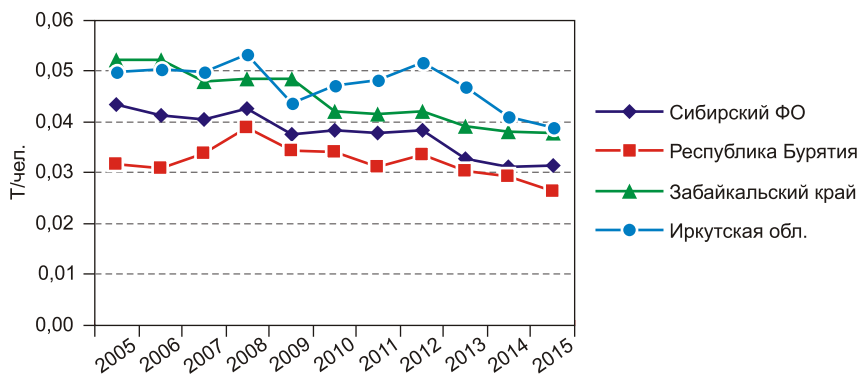
-

;

-

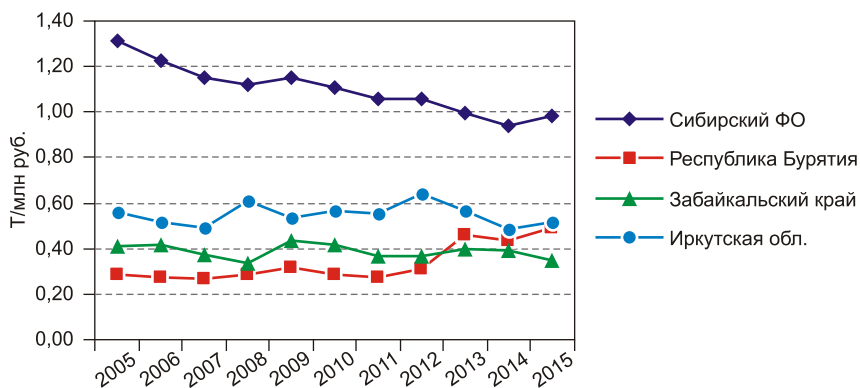
. .) , (,
 , . .). , -
 , , -
 , , -
 . . () , -
 , , -
 , , -
 , , -
 [4; 8], -
 [2; 3].
 2005 2015 . (-
 , , -
). , -
 : SO_2 , N_xO_y , , -
 , . -
 , (-
 ,). -
 (), -
 - - . -
 . , -
 , , -
 . , -

2



. 2.

2009 . , . ,
 ,
 , .
 , , - -
 : ,
 ,
 - .
 ,
 (, ,)
 .
 : - 1,5 , SO₂ - 2 ,
 - 16%.
 SO₂
 ,
 2 (. 3). ,
 ,
 SO₂, , .
 .
 (N_xO_y)
 () NO₂,
 ().
 -
 , ,
 , ,



. 3.

1

1.

3,5%.

(. 4, 5).

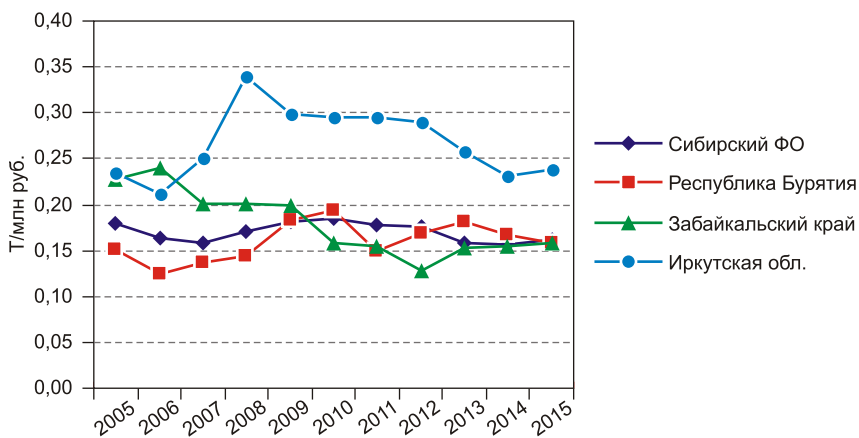
(. 6, 7).

80%

10

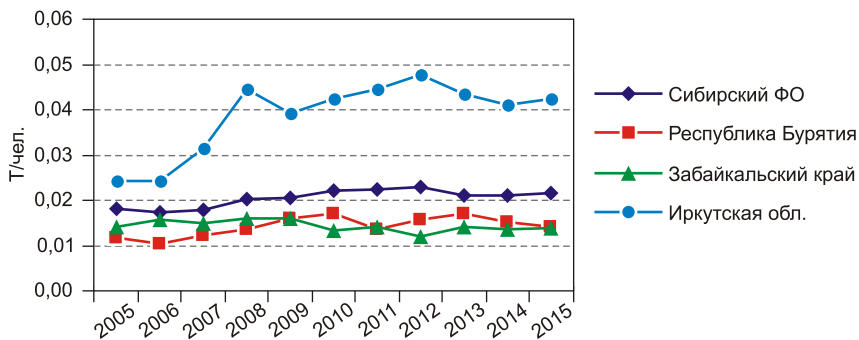
— 5

¹ URL: https://www.syl.ru/article/172799/new_dioksid-azota-vliyanie-na-cheloveka-dioksid-azota-klass-opasnosti.

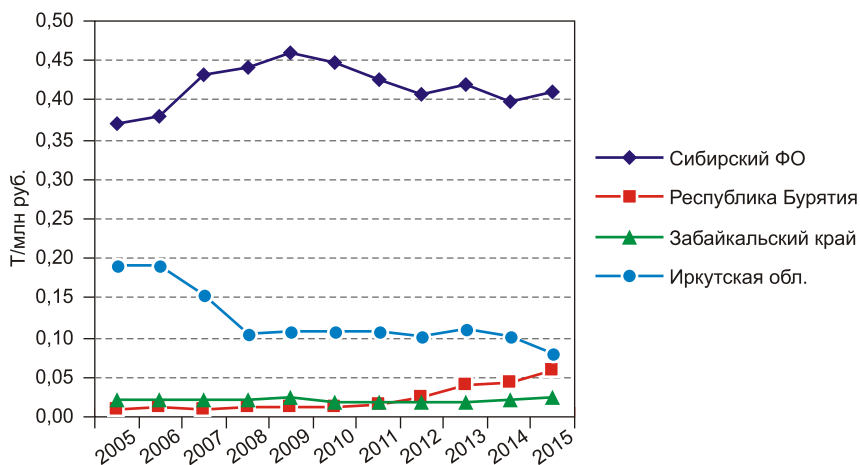


. 4.

1



. 5.



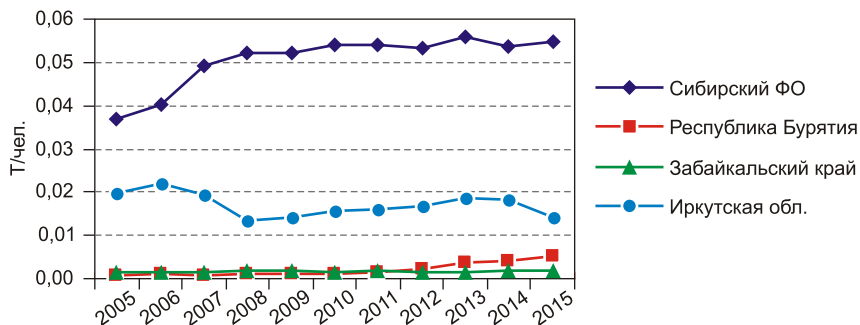
. 6.

()

1

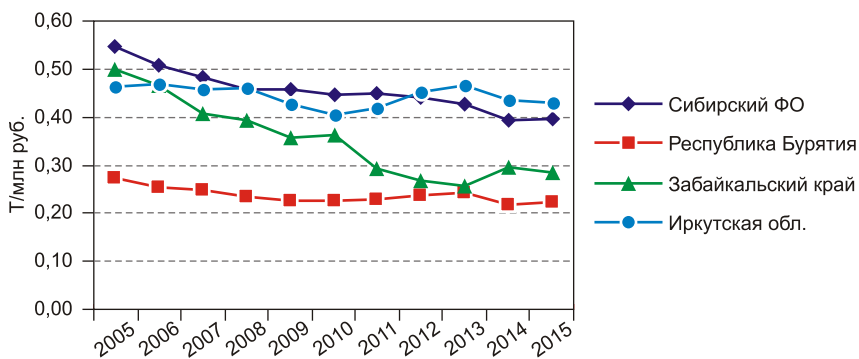
2015 . 9 , 7

54%,
3 22,8%, . 10 -



. 7.

()



. 8.

1

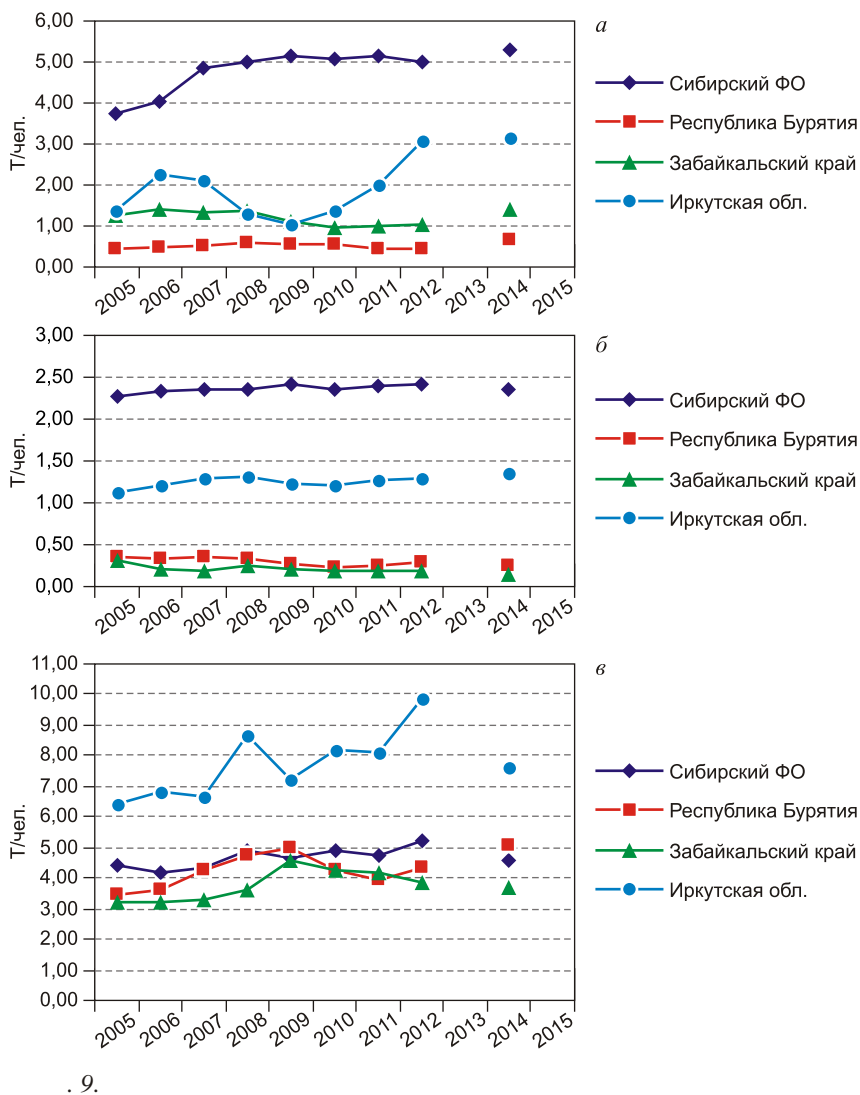
(. 8).

58%.

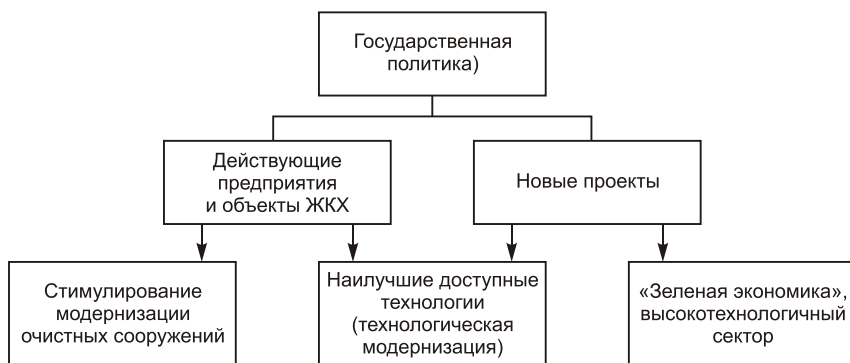
2

().

. 9.



— « »; — « »;



. 10.

，

，

；

• ()。

，

。

，

，

。

—

，

，

；

• « »

。

，

。

，

，

，

。

，

2017 。

1. . . . « »: -
-
//
 2. . . . 6: . – 2015. – 1. – . 3–17. -
2. . . . „ „ -
: // . –
2014. – 6. – . 5–24. -
3. -
//
. – 2016. – 8 (506). – . 67–82. -
4. :
// : . – 2012. – 3 (75). –
. 203–213. -
5. . . . – // Journal of Institutional
Studies. – 2010. – . 2, 2. – . 7–26. -
6. /
. . . . , – .: – , 2005. – 306 с.
7. *De Haan M.* Accounting for Goods and Bads. – Voorburg: Statistics Netherlands, 2004. – 216 p.
8. *Glazyrina I.* The environmental quality of growth indicators // Sustainability Analysis: An Interdisciplinary Approach. – Palgrave Macmillan, Great Britain, 2012. – P. 279–299.
9. *Glazyrina I.P., Zabelina I.A.* The Silk Road Economic Belt and green growth in the east of Russia // Journal of Resources and Ecology. – 2016. – Vol. 7 (5). – P. 342–351.
- (,) – -
 , -
 , (672014, , , 16 ,
e-mail: iglazyrina@bk.ru);
- (,) – -
 , . (125993, -3, , -
., 49, e-mail: fattakhov@mail.ru).

(672014, , , 16, e-mail: n.delyuga@gmail.com).
 (,) –
 ,
 (125993, -3, , ,
 49, e-mail: stroevpavel@gmail.com).
 (,) –
 (103274, , , 2,
 e-mail: info@grigorov.ru).

DOI: 10.15372/REG20180111

Region: Economics & Sociology, 2018, No. 1 (97), p. 231–249

**I.P. Glazyrina, R.V. Fattakhov, A.V. Delyuga,
 P.V. Stroeve, A.A. Grigorov**

**THE BAIKAL REGION:
 «ENVIRONMENTAL COST»
 OF ECONOMIC GROWTH**

The article analyzes eco-economic processes taking place in the Russian federal subjects of the Baikal region. We assess eco-intensity according to a system of indicators that characterize the specific values of the negative environmental impact per unit of economic result. The article shows that the specific negative impact on the environment with respect to different types of pollutants may vary rather significantly across regions; therefore, it is hardly advisable to develop environmental policy measures based on consolidated figures, and it is essential to find more subtle tools of eco-economic regulation. We recognize growing eco-intensity in the international commerce for the «Production and distribution of electricity, gas, and water» across all the three federal

subjects of the Baikal region. It indicates that this sector has not seen practically any environmental advancements for almost 9 years, despite the post-2000 reforms in the power economy and housing services, and that it should still be in focus of eco-economic policy. The most important tasks in Baikal region development are to draft measures that would facilitate transitioning to the best available technologies and to create new green and high-tech economic sectors with minimal negative impact on the environment.

Keywords: eco-intensity; negative human impact; eco-economic regulation

The publication is prepared after research conducted out of budgetary funds under the Finance University government order in 2017.

Basic analysis tools were developed by the INREC SB RAS while working on the government order

References

1. Auzan, A.A. (2015). «Effekt kolei»: Problema zavisimosti ot traektorii predshestvuyushchego razvitiya – evolyutsiya gipotezy [Path dependence problem: The evolution of approaches]. Vestnik Moskovskogo universiteta. Ser. 6: Ekonomika [Moscow University Bulletin. Ser. 6: Economics], 1, 3–17.
2. Glazyrina, I.P., I.A. Zabelina & E.A. Klevakina. (2014). Ekologicheskaya sostavlyayushchaya ekonomicheskogo razvitiya: prigranichnye regiony Rossii i Kitaya [Environmental component of economic development: Transboundary regions of Russian Federation and China]. EKO, 6, 5–24.
3. Zabelina, I.A. & E.A. Klevakina. (2016). Ekonomicheskoe razvitie i negativnoe vozdeystvie na okruzhayushchuyu sredu v regionakh transgranichnogo vzaimodeystviya [Economic development and environmental impact in the border regions]. EKO, 8 (506), 67–82.
4. Klevakina, E.A. & I.A. Zabelina. (2012). Mezhtseionalnoe neravenstvo v Rossii: ekologicheskii aspekt [Regional disparities in Russia: ecological aspect]. Region: ekonomika i sotsiologiya [Region: Economics and Sociology], 3 (75), 203–213.
5. Nureev, R.M. (2010). Rossiya posle krizisa – effekt kolei [Russia after crisis – gauge effect]. Journal of institutional studies, Vol. 2, No. 2, 7–26
6. Glazyrina, I.P. & I.M. Potravny (Eds.). (2005). Ekologicheskie indikatory kachestva rosta regionalnoy ekonomiki [Ecological Indicators of Regional Economy Growth Quality]. Moscow, NIA-Priroda, Publ., 306.

7. *De Haan, M.* (2004). Accounting for goods and bads. Voorburg, Statistics Netherlands, 216.
8. *Glazyrina, I.* (2012). The environmental quality of growth indicators. Sustainability analysis: An interdisciplinary approach. Palgrave Macmillan, Great Britain, 279–299.
9. *Glazyrina, I.P. & I.A. Zabelina.* (2016). The Silk Road Economic Belt and green growth in the east of Russia. Journal of Resources and Ecology, 7 (5), 342–351.

Information about the authors

Glazyrina, Irina Petrovna (Chita, Russia) – Doctor of Sciences (Economics), Chief Researcher at the Institute of Natural Resources, Ecology and Cryology, Siberian Branch of the Russian Academy of Sciences (16a, Nedorezov st., Chita, 672014, Russia, e-mail: iglazyrina@bk.ru); Professor at Transbaikal State University.

Fattakhov, Raphael Valiakhmetovich (Moscow, Russia) – Doctor of Sciences (Economics), Professor at the Financial University under the Government of the Russian Federation (49, Leningrad av., Moscow, GSP-3, 125993, Russia, e-mail: fattakhov@mail.ru).

Delyuga, Anastasiya Vasilievna (Chita, Russia) – Intern Researcher at the Institute of Natural Resources, Ecology and Cryology, Siberian Branch of the Russian Academy of Sciences (16a, Nedorezov st., Chita, 672014, Russia, e-mail: n.delyuga@gmail.com).

Stroev, Pavel Viktorovich (Moscow, Russia) – Candidate of Sciences (Economics), Director of the Center for Regional Economics and Interbudgetary Relations at the Financial University under the Government of the Russian Federation (49, Leningrad av., Moscow, GSP-3, 125993, Russia, e-mail: stroevpavel@gmail.com).

Grigorov, Anton Aleksandrovich (Moscow, Russia) – Deputy Director of the Department for Economics and Finance at the Government of the Russian Federation (2, Kransnopresnenskaya emb., Moscow, 103274, Russia, e-mail: info@grigorov.ru).

25.12.2017 .

[332.1+91] 621.311.2

： ， 2018， 1 (97)， . 250–270

• •

：

-

-

-

-

-

-

-

-

-

-

-

-

-

-

-

-

-

-

-

-

-

-

-

-

-

-

-

-

(55%)

()，

15–18%

43–50% (. 1).

3

:

1

2014–2016 .*

	2014	2015	2016
– 23737 , : 1064 1068 1091			
211 213 217			
175 170 187			
97 93 103			
, %: 16 16 17			
46 44 47			

*

(URL: <https://fedstat.ru/indicator>).

– 23737 , – 100 .

– 662 86): –

480 – –

0,4 : 1 , 0,63 –

5,4 –

– 0,3 .

:

,

736 ;

12000 , « »

7440 , -

;

1320 -

2020 ., ;

1100 -

« »;

150 , -

2012 ., 2020 ., -

« »;

1200 -

(- 2010) -

210 2020 ., -

2030 .

;

-

·

➤ 300 ;

➤ () 8,1 –

;

➤ , , -

140 1600 -

· , ,

, ,

·

-

, , -

· -

, , -

1, -

, ,

· , ,

·

-

·

, -

-

-

24 · ,

10 · ,

12 · - · -

2021 .

1 .: . -

// - -

. – 2011. – . 3, 1.

	:	
	:	-
,		.
		-
		.
28	2013 . 449 «	-
		» ²
		-
,		-
,		-
		-
		,
		-
		,
		-
		.
		-
23	2015 . 47 «	-
		-
		-
		» ³
		-
,		-
		-
		,
()		-
		,
		,
		,
		.
		-
		-

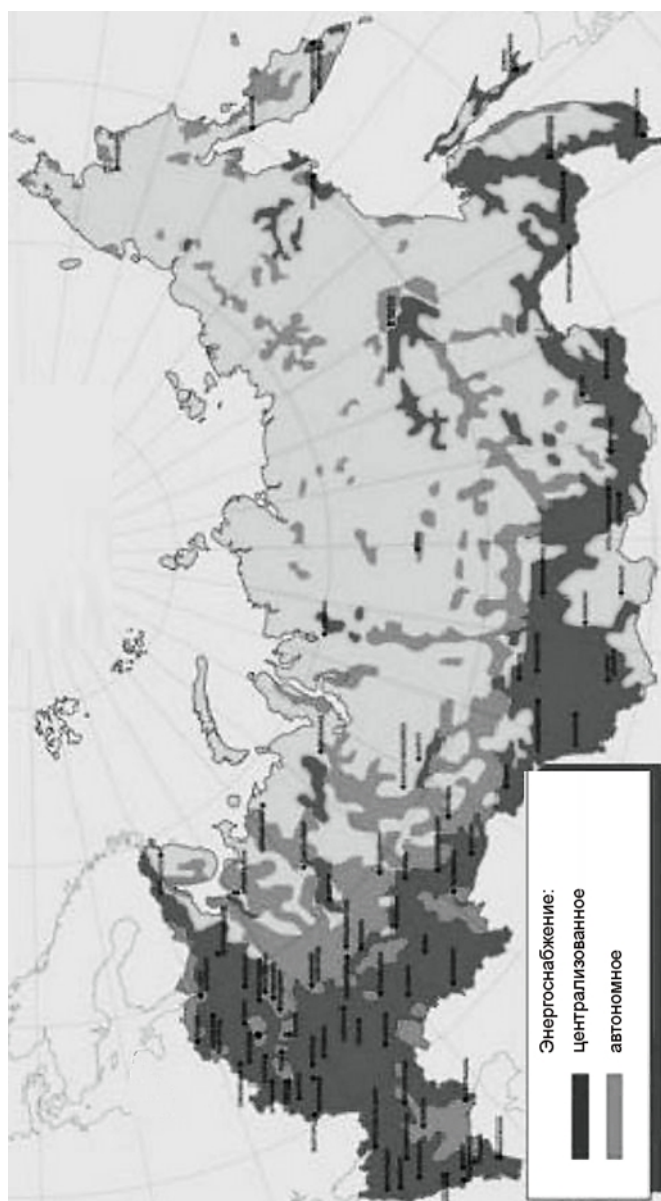
² ∴ . – 2013. – 23. –

. 2909.

³ ∴ . – 2015. – 5. –

. 827.

4. 2009. 43. 5073.



: [7]

1 . -

0,2-0,4 . . -

1 . -

(, , . -

), , . -

: -

« — », « — », « — », « — », « -

— », « — » « — », « — ». -

, . . -

, . -

() -

, -

. -

, -

2,5-50 , -

. -

— IV 140 . -

. -

, , -

, . -

(): -

, , , , -

, . -

1-1,6 , -

. , -

22 (, -

1 () . -

	· ·		
	·	,	-
	·	30	-
1	550	,	-
		·	
	:		
•	·	90%	-
		,	
		10–45%	·
		45%	-
		,	-
		,	-
	·		-
	—	25%	·
«	»	·	
		17–18%;	
•	·		
		,	
		·	-
		15%	-
	21%;		
•	-	-	c
	-	·	20%.
	;		
•	-	·	,
		,	,
	,	·	-
		(-
	,)	·
		,	-
		,	-
		,	-
		·	

Topaz Solar Farm

2

10

0,1 50 15

(13),

2009 . « » –

« » « »

,

,

–

–

« » ()

,

–

5 2014 .

« » –

(5,2 , 2015 .)

« »⁵,

« »

()

«

5 « » –

15 19,5 , 100%

«En+ Group».

:

5
105 . 2022 .

, 70

-

:

30%

-

-

2. 1

()

-

,

2

2013–2017 . *

		- -	-
	3	60	« »
	5	75	« », »
	1	15	« »
	6	90	« », »
	4	20	« »
	7	100	« », »
	1	5,2	« »

* : <http://www.atsenergo.ru/vie> .

		2017 .	-
0,12	,	200	-
	300		-
-		« » « ».	-
		,	-
	«		-
		»,	-
	2021 .	100	-
2017 . – 10		,	-
		,	-
	2018–2022 .,	,	-
	3 10	,	-
20		. 2018 .	-
15		15 , 2021 . –	-
20	,	15 .	-
2017 .			-
5		20 ,	-
		« ».	-
		,	-
		.	-
	40	.	-
		,	-
120	.		-
	,		-
	.	2019 .	-
	70		-
(5) ,	.	(25) , . (40)	-
	2016 .		-

« ».		2022 .			
			25	-	
		2017 .	« »	-	
10			—	-	
		2018 .	15	—	-
		, 30 .	, 2021 .	-	
		2017 .		-	
« »				-	
			150	-	
			2,5	-	
			,	-	
		:		-	
•		2018 .;	—	0,021	
•			—	-	
		20 - 2022 .;	15	2019 .,	-
•			—		
15		2018 .;			
•			10	2019 .,	—
		25 2020 .	15	2022 .	
		« »	2017 .	-	
				-	
				-	
		1,6	18	-	
2009 .				-	
				-	

	2020	8,	-
			-
	4,5%	2020 .	-
		,	
28	2015 .	1472- 9.	-
		—	-
			-
		2024	-
		(-
		25)	-
4,5%	2024 .	,	-
	.	,	-
	,	,	-
	,	,	-
	,	.	-
	,	,	-
	.	.	-
	—	,	-
,		.	-
		—	-
,		.	-
		.	-
➤			-
			-
	«	».	-
		,	-
			-
8	:	.–2009.– 4.–	.515.
9	:	. – 2015. –	31. –
. 4741.			

[4].

XI.172. (XI.172.1.1).
0325-2016-0010

1. // . – 2015. – 5 (97). – . 108–111.
2. : , , / „ „ . ; , 2010. – 211 .
3. // . – 2012. – 4. – . 164–172.
4. - // : - 2 (78). – . 251–265.
5. , , . //
6. XXI : . REENCON-XXI 2016 . / . . , 2016. – . 136–142.
7. « » / „ , 2016. – 48 .
8. *Cañete M.A.* The European Union leading in renewable. Math. COP21. Le Bourge, 2015. 28 . – URL: <https://ec.europa.eu/energy/sites/ener/files/documents/cop21-brochure-web.pdf> (: 09.03.2016).
9. *Jacobson M.Z., Delucchi M.A.* How to get all energy from wind, water and solar power by 2030 // Scientific American. – 2009. – Nov. – P. 58–65.
10. *Twidell J., Weir A.* Renewable Energy Resources. – 3d rev. ed. – Taylor & Francis, 2015. – 696 p.

(,) – -
 , .
 (630090,
 , 17, e-mail: kat@ieie.nsc.ru).

DOI: 10.15372/REG20180112

Region: Economics & Sociology, 2018, No. 1 (97), p. 250–270

E.V. Lyubimova

RENEWABLE POWER SOURCES OF SIBERIA: THE REACHED AND PROSPECTS

In a dynamically changing situation with the use of renewables in regional economy, a need arises to research the current state of this process and the developing tendencies. The article presents the main results of the research. We reveal prerequisites for an increase in renewable power generation capacities, show technologic innovations and restrictions to the use of certain renewables in various territories of the Siberian Federal District. The article gives results of the analysis of the current state and construction plans of power stations based on renewable power sources in district regions. In the medium term, water and sun are the largest power sources in scale in Siberia.

Keywords: renewable power sources; technologies; types of power stations; input of capacities; regions

The publication is prepared within the priority XI.172 (project No. XI.172.1.1) according to the research plan of the IEIE SB RAS

References

1. Buchnev, A.O. (2015). Regulirovanie i stimulirovanie razvitiya vozobnovlyayemykh istochnikov energii [Regulation and stimulation of renewable energy sources development]. Gosudarstvennaya sluzhba [Public Administration], 5 (97), 108–111.
2. Wenge, K., M. Heske, P. Lombardi et al.; Z.A. Stychinsky & N.I. Voropay (Eds.). (2010). Vozobnovlyayemye istochniki energii: teoreticheskie osnovy, tekhnologii, tekhnicheskie kharakteristiki, ekonomika [Renewable energy sources. Theoretical Foundations of technology, performance, economy]. Magdeburg, Otto von Guericke University Publ., 211.

-
3. *Popel, O.S.* (2012). Perspektivnye nishi i tekhnologii ispolzovaniya vobnovlyaemykh istochnikov energii v Rossii [Prospective niches and technologies for the use of renewable]. *Polzunovsky vestnik* [Polzunovsky Bulletin], 4, 164–172.
 4. *Saneev, B.G.* (2013). Toplivno-energeticheskiy kompleks Vostoka Rossii: sovremennoe sostoyanie i perspektivy [Fuel and energy complex of the Eastern Russia: current state and prospects]. *Region: ekonomika i sotsiologiya* [Region: Economics and Sociology], 2 (78), 251–265.
 5. *Saneev, B.G., I.Yu. Ivanova, T.F. Tuguzova; D.O. Dunikov & O.S. Popel* (Eds.). (2016). Ispolzovanie vobnovlyaemykh istochnikov energii kak odno iz prioritetnykh napravleniy sovershenstvovaniya sistem energosnabzheniya trudnodostupnykh territoriy vostochnykh regionov [The use of renewable energy sources as one of the priority trends for improving power supply systems in hard-to-reach areas of eastern regions]. *Vobnovlyaemaya energetika XXI vek: Energeticheskaya i ekonomicheskaya effektivnost. Mat. Mezhdunar. kongr. REENCON-XXI 2016 g.* [2016 International Congress REENCON-XXI «Renewable Energy XXI century: energy and economic efficiency»]. Moscow, JIHT RAS, 136–142.
 6. *Safonov, G.V., A.V. Stetsenko, A.L. Dorina et al.* (2016). Strategiya nizkouglerodnogo razvitiya Rossii: vozmozhnosti i vygody zameshcheniya iskopaemogo topliva «zelenymi» istochnikami energii [Strategy of Low-Carbon Development of Russia. Opportunities and Benefits of Replacement of Fossil Fuel with «Green» Power Sources]. Moscow, Teis Publ., 48.
 7. *Fortov, V.E. & O.S. Popel.* (2011). *Energetika v sovremenном mire* [Energy Sector in the Modern World]. Moscow, Intellect Publ., 167.
 8. *Cañete, M.A.* (2015). The European Union leading in renewables. *Math. COP21. Le Bourge*, 28. Available at: <https://ec.europa.eu/energy/sites/ener/files/documents/cop21-brochure-web.pdf> (date of access: 09.03.2016).
 9. *Jacobson, M.Z. & M.A. Delucchi.* (2009). How to get all energy from wind, water and solar power by 2030. *Scientific American*, November, 58–65.
 10. *Twidell, J. & A. Weir.* (2015). *Renewable Energy Resources*. 3d rev. ed. Taylor & Francis, 696.

Information about the author

Lyubimova, Ekaterina Vladimirovna (Novosibirsk, Russia) – Candidate of Sciences (Economics), Leading Researcher at the Institute of Economics and Industrial Engineering, Siberian Branch of the Russian Academy of Sciences (17, Ac. Lavrentiev av., Novosibirsk, 630090, Russia, e-mail: kat@ieie.nsc.ru).

27.11.2017 .

©

.., 2018

[1] , -
 , -
 [3] , -
 « » « » -
 « -
 » -
 -
 , -
 , -
 -
 -
 , -
 , -
 -
 : , -
 , -
 [2; 4], -
 , -
 , -
 - , -
 , -
 (, -
), -
 , ,
 [5], (-
), -
 , -
 , -

2 29.07.2014 709 «

«
cons_doc_LAW_166540/ .».



. 1.

-

),

-

,

,

25 20%.

—

,

-

),

(-

.

,

,

,

,

.

-

.

-

-

()

4,

, , •

2

,

•

,

,

.

(1) (2)

21

•

2

(

) 2014 2015 .,

()

•

,

,

2

2

2

•

: 2014–2015, 2013–2014, 2011–2015

2010–2014 .

4

•

• •

URL: <http://www.gks.ru/dbscripts/munst/munst32/DBInet.cgi>.

2015	2014	· (0,9177)	-
	2015	2014 · (0,9771);	-
(,		-
)	,	2014–2015	·
			-
	21		-
(· 1)		
,	,		-
			-
		(I	-
		II –	-
, II)	-
		(· ·	-
)			-
	III		-
	-		-
	,	-	-
-	,		-
			-
«	»	«	-
»	,	-	-
	,		-

2014-2015 .

-			() -	
I			-	- - - -
II				- - - -
III	- - - -	- -	- - - -	- - -
IV		- -		- -

	2008	2009	2010	2011	2012	2013	2014	2015
()	0,43	0,38	0,37	0,61	0,53	0,53	0,45	0,56
(- -)	0,65	0,36	0,56	0,61	0,32	0,13	0,39	0,39
()	0,98	0,98	0,99	0,98	0,98	0,96	0,95	0,96

(y) ()

«

, ».

, 0,5851,

.

$y_t = a_0 + a_1 y_{t-1} + b_0 x_t + \epsilon_t,$ (3)

$y_t -$ «

, » $t; y_{t-1} -$

«

» $(t-1); x_t -$ «

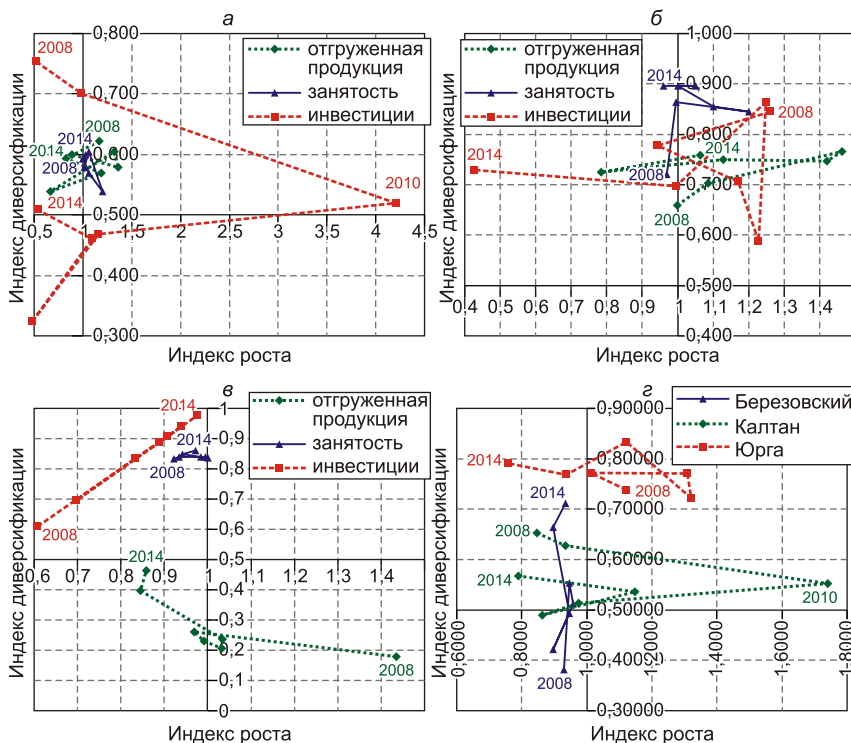
, » $t; \epsilon_t -$

,

.

$: a_0 = -0,0103; a_1 = 0,9105; b_0 = 0,2286.$

,



. 2.

(), ()

()

2008–2014 .,

()

(. . 2) ,

2008–2014 .

I

«

»

,

,

.

,

,

,

,

,

-

,

(

,

)

,

,

.

(16-36-00294)

1. . .

():

//

. . .

. - 2014. - . 14, 4. - . 5-8.

5

..

//

. . .

. - 2016. - . 17, 4.

2. // . – 2013. – 3. – . 25–29.
3. // . – 2013. – 1 (45). – . 126–131.
4. : // . – 2016. – 4 (97). – . 54–65.
5. : . – : , 2014. – 151 .
6. *Allen J.B.* The Company Town in the American West. – University of Oklahoma Press, 1966. – 120 p.
7. *Bebbington A., Hinojosa L., Bebbington D.H. et al.* Contention and ambiguity: Mining and the possibilities of development // *Development and Change*. – 2008. – No. 39 (6). – P. 887–914.
8. *Innis H.A.* Settlement and the mining frontier // *Settlement and the Forest Frontier in Eastern Canada* / Ed. by A.R.M. Lower. – Toronto: Macmillan of Canada, 1936. – P. 170–407.
9. *Landis P.H.* Three Iron Mining Towns: A Study in Cultural Change. – Edwards Brothers, Inc., 1938. – 210 p.
10. *Littlewood D.* «Cursed» communities? Corporate Social Responsibility (CSR), company towns and the mining industry in Namibia // *Journal of Business Ethics*. – 2014. – No. 120 (1). – P. 39–63.
11. *Tonts M., Plummer P., Lawrie, M.* Socio-economic wellbeing in Australian mining towns: A comparative analysis // *Journal of Rural Studies*. – 2012. – No. 28 (3). – P. 288–301.

(,) – - , . (634050, , . - , 30, e-mail: antonovais@tpu.ru).

(,) – - , . (634050, , , 36, e-mail: evgen-pch@yandex.ru).

Region: Economics & Sociology, 2018, No. 1 (97), p. 271–287

I.S. Antonova, E.A. Pchelintsev

**DYNAMIC EVALUATION OF THE EFFICIENCY
OF MONOTOWN'S ECONOMIC DIVERSIFICATION
(CASE STUDY OF KEMEROVO OBLAST)**

The article studies complex investment plans to modernize monotowns in Kemerovo Oblast and analyzes financing of pilot diversification projects. We develop a toolkit for analyzing and assessing the efficiency of monotowns' diversification. Using 21 municipal formations in the region as an example, we discover a correlation between diversification indices. The article plots a matrix of diversification efficiency upon which the municipal formations are grouped. We design an autoregressive efficiency model with evidence from Berezhovsky monotown.

Keywords: monotown; diversification efficiency; dynamic assessment; model; Kemerovo Oblast

*The publication is prepared within the framework of the project
No. 16-36-00294 supported by funding from the Russian Foundation
for Basic Research*

References

1. Gusev, V.V. (2014). Monoprofilnye poseleniya (monogoroda): zarubezhnyy opyt resheniya sotsialnykh problem [Monoprofile settlements (monocities): Foreign experience solving social problems]. Izvestiya Saratovskogo universiteta. Novaya seriya. Ser. Sotsiologiya. Politologiya [Izvestiya of Saratov University. New Series. Series: Sociology. Polityology], Vol. 14, No. 4, 5–8.
2. Roshchina, I.V. & N.A. Dyatlova. (2013). Vliyanie gradoobrazuyushchego predpriyatiya na sotsialno-trudovuyu sferu monopofilnogo munitsipalnogo obrazovaniya [The influence of town-forming enterprise on social and labor sphere of single-industry municipality]. Izvestiya Irkutskoy gosudarstvennoy ekonomicheskoy akademii [Bulletin of Irkutsk State Economic Academy], 3, 25–29.
3. Ryakhovskaya, A.N., S.E. Kovan, O.G. Kryukova & E.A. Arsenova. (2013). Otsenka effektivnosti gosudarstvennykh programm, realizuemykh v monogorodakh

[Evaluation of efficacy of state programs realized in mono-cities]. *Problemy sovremennoy ekonomiki* [Problems of Modern Economics], 1 (45), 126–131.

4. *Ryakhovskaya, A.N. & A.G. Polyakova.* (2016). Modernizatsiya rossiyskikh monogorodov: strategicheskie orientiry institutsionalnogo reformirovaniya [Modernization of Russian mono-production towns: strategic goals of institutional reforms]. *Effektivnoe antikrizisnoe upravlenie* [Effective Crisis Management], 4 (97), 54–65.

5. *Spitsyn, V.V. & E.A. Monastyrnyy.* (2014). Otsenka effektivnosti innovatsionnogo razvitiya na makro- i mezourovnyakh: metodologiya i praktika [Assessing the Efficiency of Innovative Development on Macro- and Meso-Levels: Methodology and Practice]. Tomsk, Tomsk Polytechnic University Publ., 151.

6. *Allen, J.B.* (1966). *The Company Town in the American West.* University of Oklahoma Press, 120.

7. *Bebbington, A., L. Hinojosa, D.H. Bebbington et al.* (2008). Contention and ambiguity: Mining and the possibilities of development. *Development and Change*, 39 (6), 887–914.

8. *Innis, H.A. & A.R.M. Lower* (Ed.). (1936). *Settlement and the mining frontier. Settlement and the Forest Frontier in Eastern Canada.* Toronto, Macmillan of Canada, 170–407.

9. *Landis, P.H.* (1938). *Three iron mining towns: A study in cultural change.* Edwards brothers, Incorporated, 210.

10. *Littlewood, D.* (2014). «Cursed» communities? Corporate Social Responsibility (CSR), company towns and the mining industry in Namibia. *Journal of Business Ethics*, 120 (1), 39–63.

11. *Tonts, M., P. Plummer & M. Lawrie.* (2012). Socio-economic wellbeing in Australian mining towns: A comparative analysis. *Journal of Rural Studies*, 28 (3), 288–301.

Information about the authors

Antonova, Irina Sergeevna (Tomsk, Russia) – Candidate of Sciences (Economics), Associate Professor at the Institute of Humanities, Social Sciences & Technologies, Tomsk Polytechnic University (30, Lenin av., Tomsk, 634050, Russia, e-mail: antonovais@tpu.ru).

Pchelintsev, Evgeniy Anatolievich (Tomsk, Russia) – Candidate of Sciences (Physics and Mathematics), Associate Professor at the Institute of Economics and Management, Tomsk State University (36, Lenin av., Tomsk, 634050, Russia, 36, e-mail: evgen-pch@yandex.ru).

09.01.2018 .

©, 2018



« : »

,

,

.

.

<http://elibrary.ru/issues.asp?id=7623> ,

<http://sibran.ru/journals> .

,

,

<http://recis.ru/> ,

<http://sibran.ru/> ,

<http://elibrary.ru/issues.asp?id=7623>

<http://ecsocman.hse.ru/region> .

Ulrich's Periodicals Directory.

:

630090, .

,

.

, 17,

E-mail: region@ieie.nsc.ru

«

»,

«

-

»,

«

-

»

.

<http://sibran.ru/journals> .

. .

. .

. .

17.06.1993 . 0110809.

19

2018 .

60×84 1/16.

Times New Roman.

. . 18.

.- . . 17,6.

520

31.

.

630090,

,

.

.

, 17

,

The journal was first issued in 1963. It was published under the title of Bulletin of Siberian Branch of AS USSR: Social Sciences. In 1993, it was registered as an independent scientific publication, Region: Economics and Sociology. The journal is issued on a quarterly basis.

Publisher: Federal State Budgetary Scientific Institution
Institute of Economics and Industrial
Engineering (IEIE), Siberian Branch of the
Russian Academy of Sciences (SB RAS)

Founders: Siberian Branch RAS,
IEIE SB RAS,
Executive Office of the Interregional
Association «Siberian Accord»

Editor-in-Chief

V.E. Seliverstov, Doctor of Economics, e-mail: sel@ieie.nsc.ru

Deputy Editors-in-Chief

T.Yu. Bogomolova, Candidate of Sociology, e-mail: bogtan@rambler.ru

A.A. Kin, Candidate of Economics, e-mail: region@ieie.nsc.ru

V.I. Suslov, Corresponding Member of the RAS, e-mail: suslov@ieie.nsc.ru

Executive Editor

E.S. Unzhakova, e-mail: yes@ieie.nsc.ru

Members of Editorial Board

J. Bachtler, Professor (UK), *N.D. Vavilina*, Doctor of Sociology (Russia), *V.M. Heyets*, Member of the National Academy of Sciences (Ukraine), *B.S. Zhi-kharevich*, Doctor of Economics (Russia), *V.I. Ivanov*, Candidate of Philosophy (Russia), *S.V. Kazantsev*, Doctor of Economics (Russia), *Z.I. Kalugina*, Doctor of Sociology (Russia), *E.A. Kolomak*, Doctor of Economics (Russia), *N.A. Kravchenko*, Doctor of Economics (Russia), *V.V. Kuleshov*, Member of the RAS (Russia), *O.D. Kutsenko*, Doctor of Sociology (Ukraine), *V.N. Leksin*, Doctor of Economics (Russia), *P.A. Minakir*, Member of the RAS (Russia), *N.N. Mikheeva*, Doctor of Economics (Russia), *A.S. Novoselov*, Doctor of Economics (Russia), *I. Pálné-Kovács*, Corresponding Member of the Hungarian Academy of Sciences (Hungary), *A.N. Pelyasov*, Doctor of Geography (Russia), *B.N. Porfiriev*, Member of the RAS (Russia), *B.G. Saneev*, Doctor of Engineering (Russia), *S.V. Soboleva*, Doctor of Economics (Russia), *S.A. Suspitsyn*, Doctor of Economics (Russia), *S. Tabata*, Professor (Japan), *G.A. Untura*, Doctor of Economics (Russia)

Publisher's address: 17, Ac. Lavrentiev av., Novosibirsk, 630090, Russia
E-mail: region@ieie.nsc.ru, yes@ieie.nsc.ru

В следующем номере журнала будут опубликованы статьи:

- Эволюция региональных исследований в ИЭОПП
- Системный взгляд на развитие Сибири
- Межуровневые финансовые потоки в Российской Федерации
- Проблемы аргументации в региональной экономике
- Количественная оценка неравенства (на примере доходов от оплаты труда в субъектах Российской Федерации)
- Сибирь в ракурсе человеческого развития
- Региональный анализ динамики демографического благополучия в контексте модернизационного развития России
- Лидеры и аутсайдеры дожития в экономически активном возрасте: региональный демографический анализ
- Развитие высокотехнологичного бизнеса в Сибири: реалии и возможности
- Влияние международных выставок на развитие внешнеэкономических связей региона
- Региональные аспекты здоровья и загрязнения окружающей среды
- Функциональная связь производства электроэнергии с ростом валового внутреннего продукта

УВАЖАЕМЫЕ ЧИТАТЕЛИ!

С *правилами для авторов и требованиями к оформлению статей* можно ознакомиться на официальном сайте журнала «Регион: экономика и социология» <http://recis.ru>.

Полнотекстовая версия журнала в Интернете публикуется на сайтах Научной электронной библиотеки <http://elibrary.ru/issues.asp?id=7623> и Издательства СО РАН <http://sibran.ru/journals>.

Условия подписки на бумажную версию журнала или полнотекстовую сетевую версию в Интернете публикуются на сайте <http://sibran.ru/journals>.

Подписку на журнал также можно оформить во всех почтовых отделениях России, стран СНГ и Балтии по Каталогам газет и журналов агентств «Пресса России» и «Урал-Пресс» (индекс 43708).

Журнал издается ежеквартально на английском языке с названием «Regional Research of Russia» и включает переводы статей по региональной экономике, социологии и другим направлениям региональных исследований. Журнал включен в Международную базу данных Scopus. Для подписки на журнал «RRR» следует обращаться в издательство Springer (www.springer.com, e-mail: journals-ny@springer.com).

Журнал включен в Перечень ведущих рецензируемых периодических научных изданий, в которых ВАК рекомендует публикации работ, отражающих основное научное содержание кандидатских и докторских диссертаций.