# TOOLS TO ENSURE THE ECONOMIC SECURITY OF THE OLD INDUSTRIAL REGIONS

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**Abstract.** The purpose of the work is to base the selection of adequate tools of state support for the development of old industrial regions - the territories on which the industries related to the "outgoing" technological structures are concentrated. It is shown that the complexity of the tools selection aimed at ensuring the economic security of old industrial regions is reasoned by the heterogeneity of their composition. With the application of key postulates of synergetics it is justified that the tools of state support for regional development are most effective if they are used at the bifurcation point. It is argued that the bifurcation state is characterized by an increase in threats to the sustainable functioning and development of the regional socio-economic system and a decrease in the level of economic security in the region. A system of indicators for assessing the economic security state of old industrial territories was proposed, by using of which the nature of their development was diagnosed and it was argued that the regions are instable and objectively need government support in order to reach the trajectory of sustainable socio-economic dynamics. The importance of such selection is proved and as a condition to ensure the success of the transition process carried out by the region the toolkit of differentiated state policy for the development of old industrial regions is proposed.

**Keywords:** old industrial region, economic security of the region, differentiated regional policies, synergetics, countries of the Eurasian Economic Union (EAEU).

## 1. Introduction

The priorities of the state economic security policy are proclaimed in the Strategy of Economic Security of the Russian Federation for the period until 2030, one of the key areas of which is to achieve a balanced spatial and regional development of the country, strengthen the unity of its economic space (Presidential Decree, 2017). The implementation of this aim requires the implementation of a set of measures to ensure sustainable, safe socio-economic development at the level of specific territories - regions and municipalities.

In modern conditions, it is of particular interest to substantiate the selection of adequate instruments for the development of old industrial regions - territories where highly specialized industries are concentrated, related to the "outgoing" technological patterns (Sorokina, & Latov, 2018). The dominance of "old" industries in the structure of the regional economy worsens the conditions for their sustainable development, creates difficulties in the competitive struggle for investment, labor resources, new technologies. In the scientific literature (for example, in (Hu, & Hassink, 2017)), this development of the region is called the QWERTY effect.

Recognition of the objective reasons for the slowdown in the economic dynamics of the old industrial regions led to the adjustment of the priorities for regional socio-economic policy in Europe, as well as developing countries in Asia, primarily in China.

Foreign researchers of the problems faced by the European old industrial regions, in particular, M. Steiner (1985), R. Hamm & H. Wienert (1990) and others (Naydenova, 2007), drew the attention of politicians to the difficulty of adapting this class of territories to new economic conditions, relying only on regional potential and internal resources.

That is why in the second half of the twentieth century in leading European countries, in particular, France, Germany and the UK, government programs have been initiated to support old industrial areas. It should be noted that these programs took into account the historical features of the specific territory development, as well as specifics of the measures for state regional and industrial policy already implemented before. As a result, in France and Germany, government support for the old industrial regions was aimed at encouraging related diversification through the development of related industries; in the UK by unrelated diversification through support for industries unrelated to the main industry specialization of the regional economy, as well as the services sector.

In PRC the stagnation of old industrial territories was caused by the change in the country's foreign economic course at the end of the 1970s of the twentieth century, which turned industrial regions into centers of backwardness and concentration of social problems (Ostrovsky, 2015). High risks of social instability prompted the Chinese leadership to implement special support programs for oldindustrial areas, and in 2003 to develop a strategy for reviving the Northeast and other old industrial bases of the country (Law-Lib, n. d.), which included, in particular, measures to reform the economy of resource-type cities, construction of infrastructure, assistance in enhancing interregional relations and other measures. The currently implemented Thirteenth Five-Year Plan for the Socio-Economic Development of China (2016–2020) provides the measures to improve the efficiency of enterprises located in old industrial areas, improve the business environment and develop human capital (The State Council of the People's Republic of China, n. d.). The need to encourage the participation of old industrial regions in the project "One Belt - One Way" (Ivanov, 2013) was particularly noted.

World experience shows that sustainable, safe social and economic development of old industrial regions is ensured by "embedding" new industries that produce high-tech output into the established "industrial frame" of the regional economy (Birch et al., 2010; Raszkowski, Bartniczak, 2018; Mariotti et al., 2018, Tvaronavičienė,

2019). Thus, the positive dynamics of the old industrial regions become a significant factor in reducing the "gaps" in the socio-economic development of the regions and smoothing the quite substantial inter-regional differentiation, which is a traditional characteristic of the Russian Federation. This problem is relevant not only for Russia, but also for a number of countries of the Eurasian Economic Union (EAEU), in particular, the Republic of Kazakhstan.

Research hypothesis: the tools for ensuring the economic security of the old industrial regions provide the highest efficiency if they are used at the bifurcation point - a state in which the regional system gets the opportunity to reach a new higher level of development.

## 2. Methods

The specificity of the research approach lies in the fact that it reflects the dynamic view of economic security as a socio-economic system that develops in space and time. This allows you to use a comparative method (Bondaletov, 1983) to study the problems of economic security of old industrial regions and implement their typologization by identifying common stages in their specific socio-economic development. The official statistical reporting for the 5-year period acted as the information basis for the study to ensure the comparability for which the period 2013-2017 was chosen. In accordance with the comparative analysis methodology (Smelser, 1976), a sequential series of operations for grouping and summarizing empirical data was implemented, which made it possible to specify old industrial regions from the wider system of Russian regions, differentiate them in the structure of the administrative-territorial division of the Russian Federation (by federal districts) and thereby ensure comparability of used statistical indicators and analytical information. For the purposes of comparative analysis, indicators of the Russian economic were chosen as basic parameters. This made it possible to provide a comparative description of different old industrial types of territories, to identify similarities and differences in the dynamics of their socio-economic development and to classify them in order to justify the priorities of the differentiated support for the old industrial regions of the Russian Federation.

## 3. Research results

Analysis of the historical features of the formation and specificity of the modern socio-economic development of old industrial regions of Russia allows us to distinguish the following classes (Table 1).

**Table 1.** Classification of old industrial regions of Russia

| Class of regions | Key features |
|---|---|
| Highly promising old industrial region with the potential to diversify the economy | Areas where traditional industries, which form the basis of the regional economy, and new high-tech industries are developing in a comprehensive manner, reinforcing each other and creating an internal impetus to the development of the region |
| Promising old industrial region with the potential to expand the composition of the "sectoral core" of the economy | Areasin which high-tech industries are developing, oriented towards the industrially developed "sectoral core" of the regional economy, which contributes to its diversification on the basis of the inclusion of high-tech industries and activities into the regional specialization sectors |
| A promising old industrial region with a development potential based on the inclusion of the service sector in the "sectoral core" of the economy | Areas with a developed industrial infrastructure, which ensure a positive impact of the infrastructure on the industrial-oriented "sectoral core" and the economy of the region as a whole |

| | |
|---|---|
| Moderately promising old industrial region with growth potential in the framework of the "sectoral core" of the economy | Areas in which the basis of regional economy is formed by traditional industries (branches of the outgoing industrial structures) that do not provide sufficient levels of employment and incomes of the population. Prospects for regional development associated with the production of products for the domestic market |
| Insufficiently promising old industrial region with potential for the development of the service sector | Areas characterized by insufficient production and investment activity and the lack of high-tech industries, which determines the orientation of the region to the development of the service sector |
| Unpromising old industrial region with a high need for federal support | Areas characterized by lagging behind the majority of industrialized regions of the country in terms of key indicators of regional development and requiring direct government regulation and support |

*Source:* authors

Thus, the complexity of the tools selection to ensure the economic security of the Russian old industrial regions is limited by their heterogeneity, which consists in the fact that they also include highly promising areas in terms of industrial development with the potential to diversify regional economy, and unpromising regions that lag behind indicators of regional development and experiencing a high need for federal support. That is why the substantiation of the optimal composition of tools that ensure sustainable socio-economic development of a specific variety (class) of old industrial regions, and determining the appropriate moment of their use is the most important task facing regional authorities, whose competence includes the issues of ensuring the economic security of the territory's development.

In methodological terms, the most problematic is the solution of the second component of the problem - the justification of an adequate moment of specific tool (toolkit) use. It seems that it can be formulated using synergetic ideas, according to which economic security tools can provide the best efficiency if they are used at the bifurcation point - the state where the regional economy as a dynamic system acquires a new quality what is based by the "branching" of the systemic development trajectory into competitive attractors (Prigogine, & Stengers, 1986) (Figure 1):
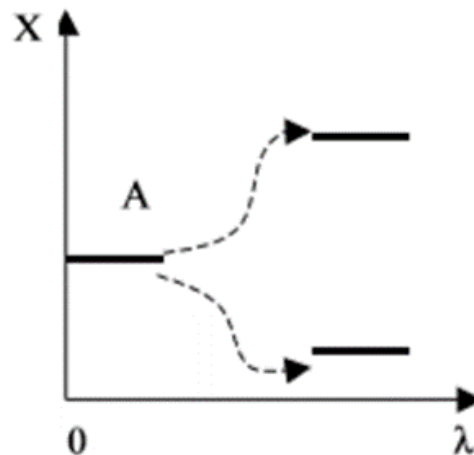


**Fig.1.** Variants of the regional system bifurcation development
*Source:* Latov, 2003, p. 102.

The bifurcation state is characterized by an increase in threats to the sustainable functioning and development of the regional socio-economic system - this statement allows us to make two fundamentally important conclusions:

1) at the bifurcation point, the economic security (the territory's ability to withstand "crisis situations caused by external and internal factors affecting the research, production and resource potential and their structure, institutional infrastructure, social sphere, level and quality of life of people) of the region decreases (Grishin, & Gagarina, 2013);

2) the increase in the level of economic security of the region indicates the "progressiveness" of the transition and is indirect evidence of the adequacy of the attractor selection. Therefore, to assess the results of transitional processes, it is advised to use a system of indicators of old industrial region's economic security state.

In our opinion, the system of indicators for the economic security of an old industrial region should be based on a system of indicators defined by the Economic Security Strategy of the Russian Federation, having, due to the calculation methodology, a "projection" to the regional level and reflecting the specific problems of the old industrial areas development.

These indicators may include: investment in fixed assets per capita; the degree of depreciation of fixed assets; the proportion of organizations engaged in technological innovation. Also, the human development index, an indicator of international statistics that allows you to track one of the key problems of the old industrial regions — obsolescence of human capital, insufficient conditions for its effective use in the regional economy sectors should be included in the system of indicators for assessing the nature of old industrial territories development. In total the proposed indicators make it possible to track the specific problems of the old industrial regions development, such as the lack of physical and human capital to ensure the conditions for long-term sustainable socio-economic development of the territories.

Since the old industrial regions are characterized by an excess of production capacities concentrated on large and medium-sized enterprises with outdated equipment and technologies (Glonti, 2008; Economy of old industrial regions, n. d.; Komarov, & Gerko, n. d.), it is the volume and dynamics of investments in fixed assets that determines the prospects for economic development of production, the potential for producing innovative competitive products which can conquer new markets (Demidova, 2017). The dynamics of investment in fixed capital per capita by the old industrial regions of Russia is presented in Figure 2.
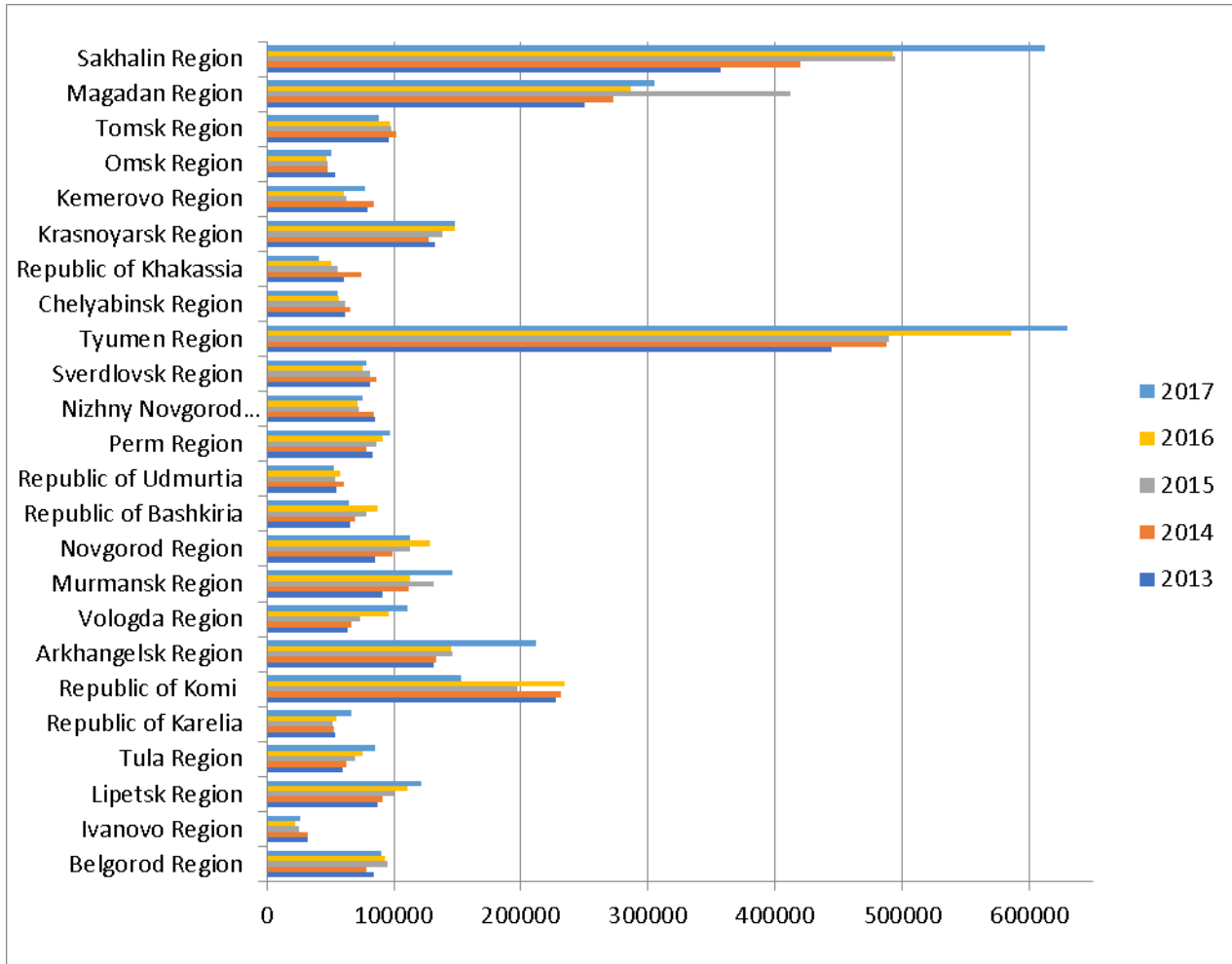
**Fig.2.** Investments in fixed capital per capita, rub.
*Note.* Hereinafter, the composition of the old industrial regions of Russia is defined according to: (Smirnova, & Lukin, 2013)
*Source:* Developed basing on: (Russian Federal State Statistics Service, n. d.)

According to the statistics Figure 2, a significant investment decline is observed in most of the old industrial regions of the Volga, Ural and Siberian federal districts. The fall in investment is caused by the decrease in investment activity in the sectors of regions' specialization, a lack of enterprises' own financial resources, an overestimated loan rate (Zubarevich, 2018). One of the objective reasons for the reduction of the regions' investment portfolio is the completion of a number of investment projects. Thus, in Bashkiria, many large projects (for example, hotels built for the SCO and BRICS summits) are being completed, and new ones are just being worked out (Nekrasova, 2018).

However, despite the increase in absolute values of investments, the share of investments in fixed assets in the gross regional product in most of the old industrial regions of Russia during 2013-2017 decreases (Figure 3).
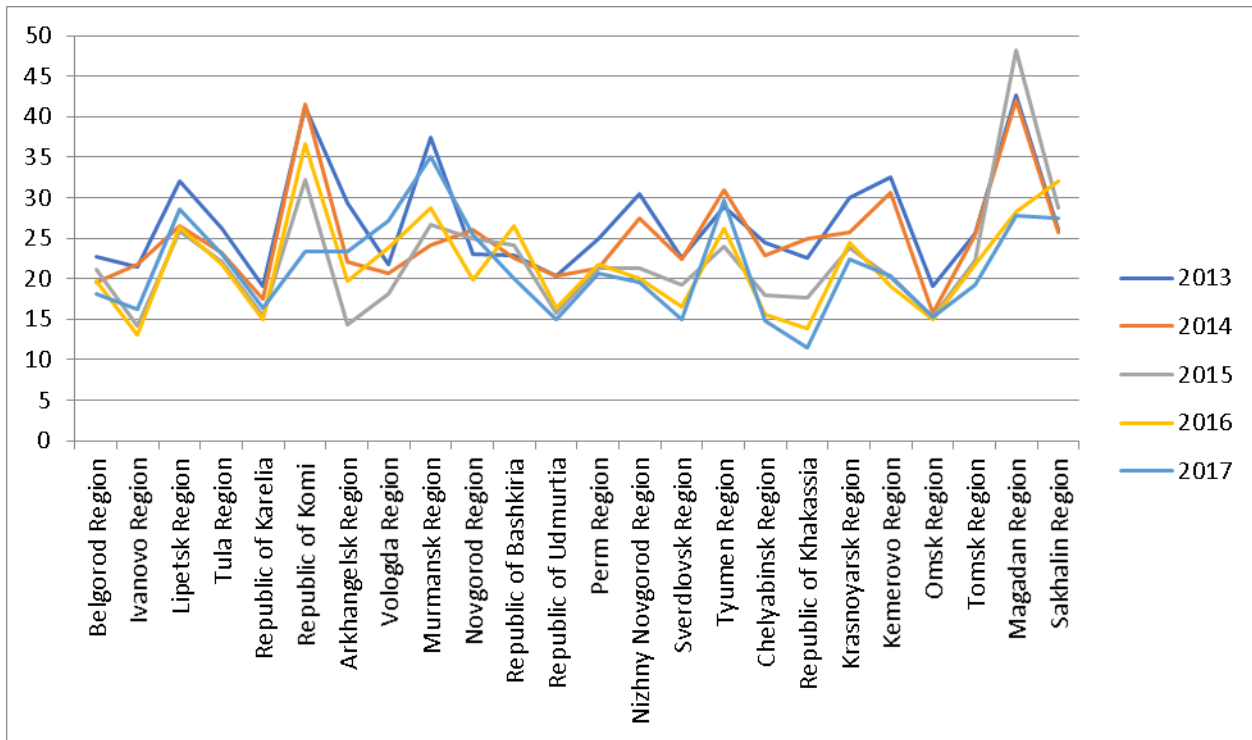
**Fig.3.** Share of investment in fixed assets in the gross regional product of the regions of Russia, rub
*Source:* Developed basing on: (Russian Federal State Statistics Service, n. d.)

According to the statistics presented in Table 3, the largest decline in the share of investments in fixed capital in the GRP is observed in the Republic of Komi, the Magadan Region, the Republic of Khakassia and the Nizhny Novgorod Region (by 17.9 percentage points, 12.3 pp., 11.1 pp, 10.9 pp). However, there is a positive dynamics of the analyzed indicator. Thus, in the Vologda Region (+5.4 pp), the Novgorod Region (+2.4 pp), Sakhalin Region (+1.4 pp) and Tyumen Region (+0.8 pp) the share of investments in fixed capital in the GRP in the period 2013-2017 increased.

The main role in the economy of the old industrial regions belongs to industries that are capital-intensive, because of what they are characterized by the presence of significant fixed assets needed for production (Bukina, 2011). In this regard, it is particularly important to study the dynamics of the indicator of the degree of depreciation of fixed assets (Figure 4):
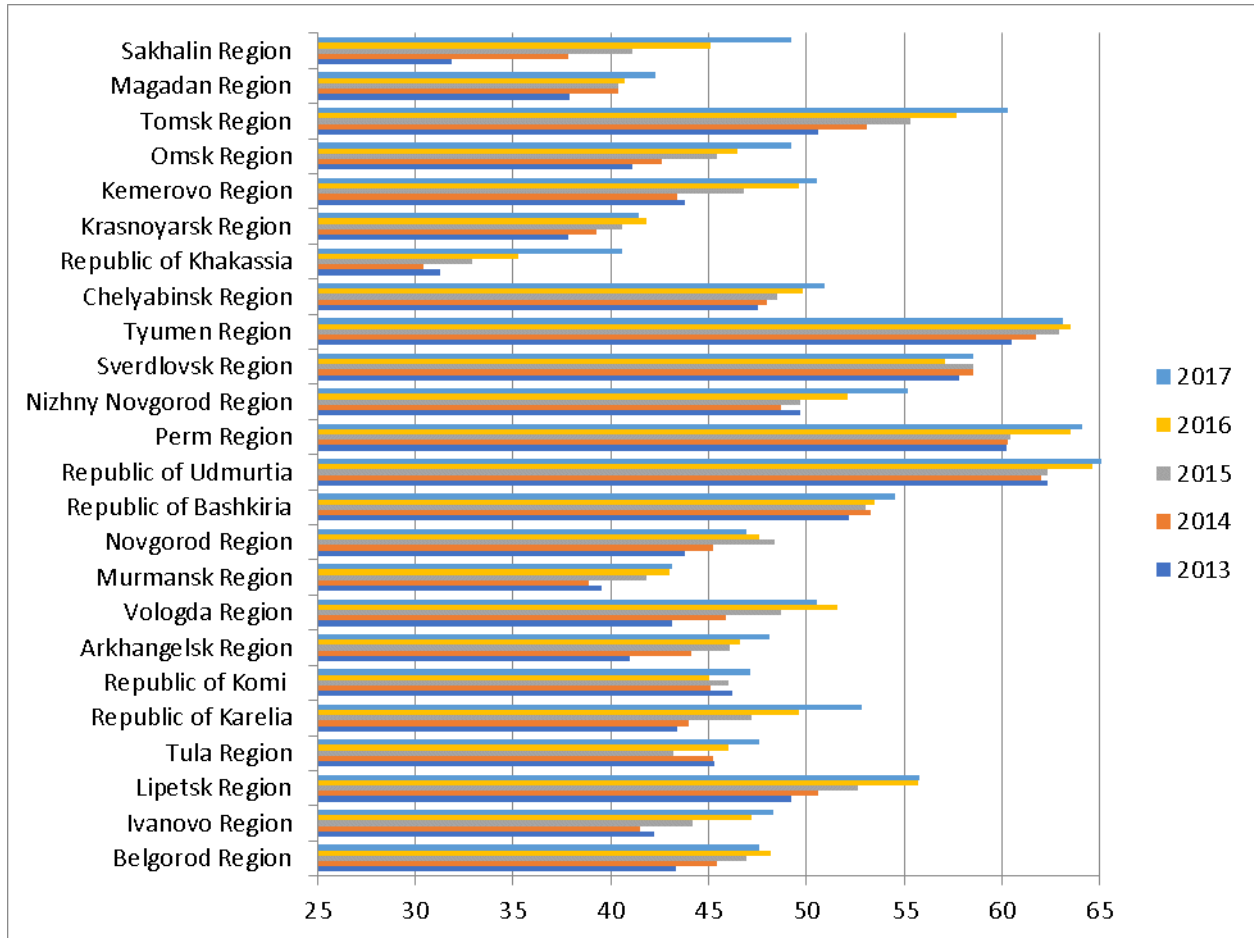
**Fig.4.** Degree of depreciation of fixed assets, %
*Source:* Developed basing on: (Russian Federal State Statistics Service, n. d.)

Analysis of the statistical data given in table. 3 shows that the degree of fixed assets depreciation of the studied regions is extremely high and the trend is negative: the figure is growing, and in some regions the growth is quite impressive. E.g. in Tomsk region the depreciation of fixed assets for the period 2013-2017. increased by 9.7 percentage points, and in Sakhalin region by 17.3 percentage points. The increase in the degree of depreciation of fixed assets is due to the reduction in the share of investments in fixed capital in the GRP of the old industrial regions (Figure 3).

At present, it is necessary to build the Russian economy into global innovation chains of technological transformations, together with the advanced countries to enter the knowledge economy associated with innovation shifts (Depreciation of fixed assets of the Russian economy exceeded 50%, 2016). These transformations are impossible without technological innovations. The dynamics of the share of organizations implementing technological innovations in old industrial regions is presented in Figure 5.
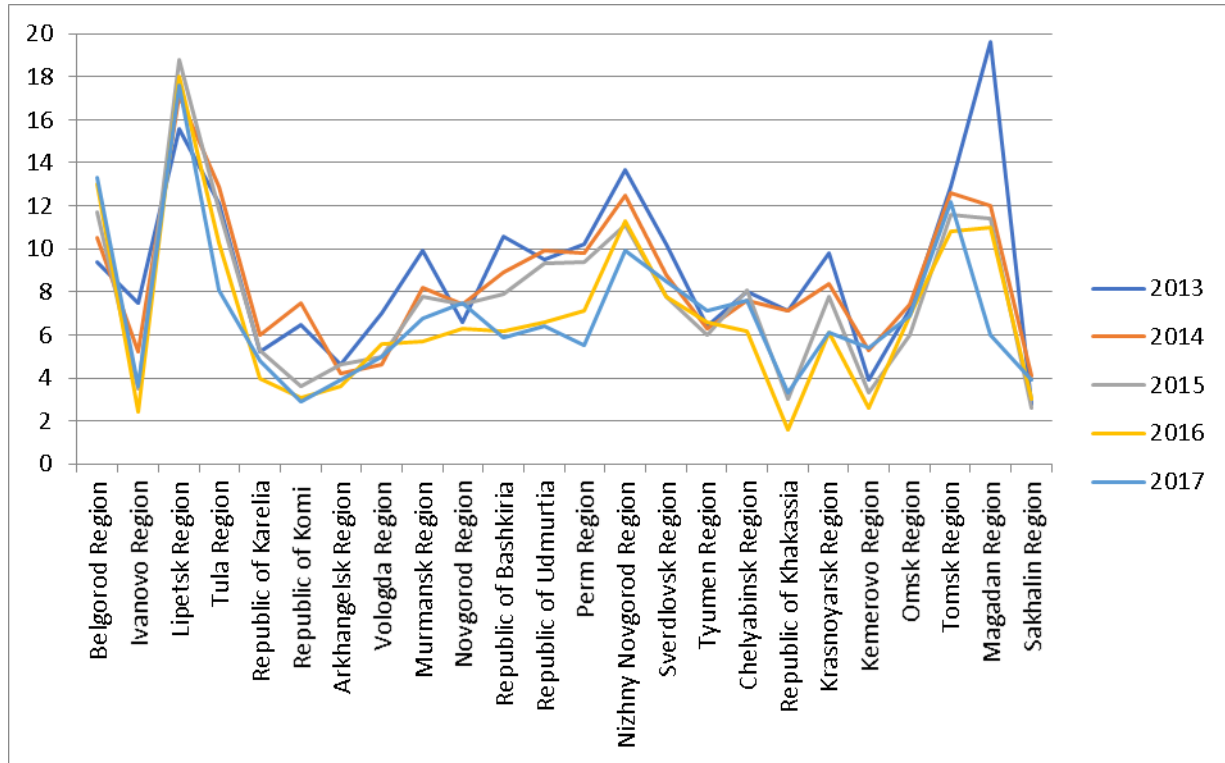
**Fig.5.** The proportion of organizations engaged in technological innovation, %
*Source:* Developed basing on: (Russian Federal State Statistics Service, n. d.)

It should be noted that in all the old industrial regions of Russia, with the exception of the regions of the Central Federal District, in the period under study there was a significant reduction in the weight of organizations implementing technological innovations. The current situation is caused by insufficient investment in modernization and reconstruction, as well as in innovative renewal of production (Terms of innovative development of old industrial regions, 2016). The lack of technological innovations is one of the key sources of threats to the economic security of the old industrial regions, complicating the process of "embedding" new industries in the established "industrial frame" of the regional economy (Prospects for the strategic development of the old industrial regions of Russia, 2012).

The human capital is the key factor in the development of science and technological innovation, the failure of which is chronically experienced in the old-industry type of regions (Figure 6), while its condition and quality determine the level of scientific and technological projects and the possibility of their implementation in the region's economy.
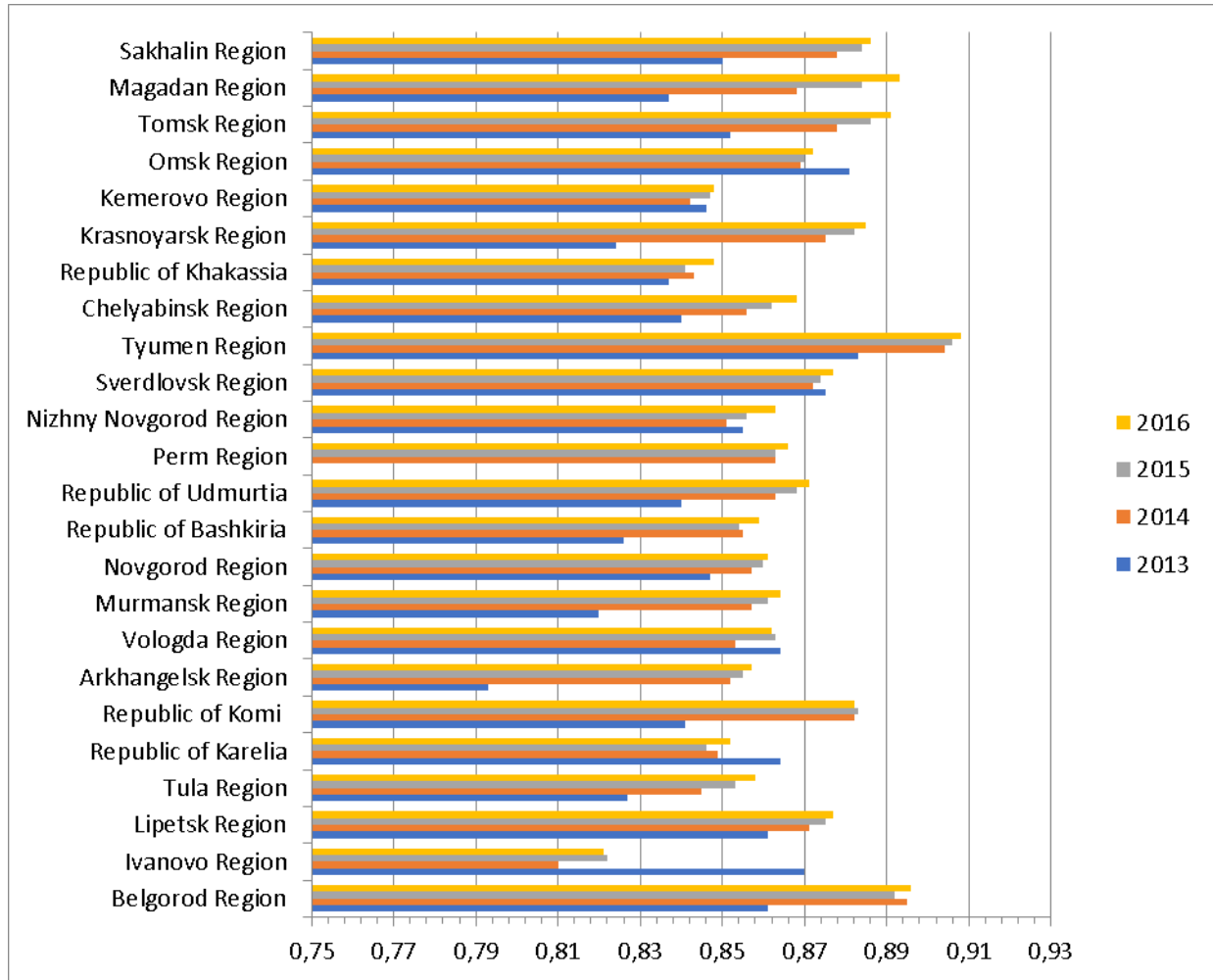
**Fig.6.** Human Development Index
*Source:* Developed basing on: (Bobylev, & Grigoriev, 2017; 2019)
*Note:* The calculation of the Human Development Index for the Russian regions was carried out according to the UN Development
Program methodology used until 2010, due to the lack of the necessary data for the calculation by region (Bobylev, & Grigoriev, 2019)

According to the UN classification, countries with a human development index value of at least 0.8 belong to a group of countries with a very high level of human development. The statistical data presented in table 5 indicate that in most of the old industrial regions, the human development index exceeds 0.8 and during 2013-2016 its positive dynamics was noted.

Thus, the overwhelming majority of indicators of the old industrial regions economic security show negative dynamics, demonstrating that the transition process in these regions is either not yet completed, or as a result of the transition, the territory has chosen to move along a negative attractor. In both cases, it should be stated that the region is in a situation of instability and is experiencing an objective need for government support in order to enter the trajectory of sustainable socio-economic dynamics.

From the point of view of regional development state management, the authors of the synergy theory say that the selection of an attractor can occur randomly, as a result of evolutionary changes in the object, and under the influence, sometimes insignificant, from the external environment. The latter allows arguing the importance of

choosing an adequate instrument of state support as a condition to ensure the success of the transition process carried out by a specific old industrial region (Table 2).

**Table 2.** The toolkit of the differentiated policy for development of Russian old industrial regions

| Class of regions | Attractor | Priorities for region's state support |
|---|---|---|
| Highly promising old industrial region with the potential to diversify the economy | Development | Region's promotion as a participant in the national and world economy, promoting the formation of a region's positive image |
| Promising old industrial region with the potential to expand the composition of the "sectoral core" of the economy | Development | Support for high-tech industries of the regional economy in the framework of state macroeconomic, industrial and innovation policy programs |
| A promising old industrial region with a development potential based on the inclusion of the service sector in the "sectoral core" of the economy | Growth | State support for the development of transport, housing and utilities, energy regional infrastructure |
| Moderately promising old industrial region with growth potential in the framework of the "sectoral core" of the economy | Growth | Stimulation of production modernization in the framework of the state scientific, technical, foreign trade and macroeconomic policies |
| Insufficiently promising old industrial region with potential for the development of the service sector | Recession | State support for the development of the service sector in the region, promotion the improvement of human resources, infrastructure and social services |
| Unpromising old industrial region with a high need for federal support | Decay | Direct state support of social infrastructure, assistance to the population |

*Source:* authors

"Development" attractor is characterized by the emergence of positive qualitative changes in the regional socio-economic system as a result of the progressive transition from one class of old industrial regions to another. The result could be the formation of a new territory type - a new industrial region, the development of which is based on the capitalization of knowledge and the effective realization of human potential in the economy's industrial sector. The most important condition for the selection of this attractor is government support for high-tech industries of the regional economy as part of state macroeconomic, industrial and innovation policy programs, as well as promoting the region as a participant in the national and global economy, promoting its positive image and implementing other institutional measures aimed at promoting the region nationally and internationally.

"Growth" attractor is characterized by a predominance of quantitative changes, while their presence implies (although not guarantees) improvement over time of the regional economy's qualitative parameters and an increase in the welfare of the population. Prospects for regional dynamics are associated with the transformation of the old industrial region into a dynamically developing industrial center with a diversified sectoral structure which ensures an increase in the production knowledge intensity and, on this basis, the transition to new, more promising technological structures. The implementation of this scenario requires state support for transport, housing and utilities, regional energy infrastructure and the promotion of "traditional" industries modernization within the framework of state scientific and technical, foreign trade and macroeconomic policies. Of particular importance is the role of the state in preventing the degradation of socio-and economic potential of the old industrial region at the beginning of the transition period.

"Recession" attractor is characterized by negative dynamics of old industrial region's industries development. An analysis of the historical experience of old industrial type of Russian and foreign regions shows that this transition trajectory is usually followed by regions which development priorities lie not in the production sector, but in the service sector. Insufficient production and investment activity, the lack of high-tech industries in the structure of the regional economy cause the weakness of the industrial sector in the area. If this does not contradict the national interests of the state, then the support for this transition trajectory consists in creating conditions for the development of the regional services sector and the formation of the service specialization of the region.

"Decay" attractor is a feature of old industrial regions, which demonstrates a chronic lag behind most industrial areas of the country in terms of regional development key indicators. These regions, which have all the signs of depression, need direct state regulation, which consists in maintaining jobs at the city-forming enterprises in the region; assistance in the implementation of industrial policy, as well as programs to support small and medium-sized businesses; social support of the population in order to prevent mass poverty and poverty, etc.

The situation in the Republic of Kazakhstan is in many respects similar to the Russian one, with the only difference that the old industrial regions in the republic are few and the regional policy in their relation is mainly mediated by the large influence of external factors, including geopolitical ones. Old industrial regions include Eastern and Central Kazakhstan. Thus, the territory of the region, referred to in the past as the Ore-Altai Territorial Production Complex (TPC), fits well into the classification of old industrial regions of Russia and belongs to the high-prospective class of old industrial regions with the potential to diversify the economy. Prospects for the regional dynamics of the region are connected with its transformation into a dynamically developing industrial center with a diversified industry structure ensuring an increase in the output of intelligent products and on this basis a transition to new, higher technological structures. Construction of a full-cycle automobile complex for the production of Lada cars in Ust-Kamenogorsk can be considered the beginning of this project, contributing to the gradual accumulation of positive qualitative changes in the socio-economic system of the region and the country as a whole. The results of the coming changes in Kazakhstan can be formation a new type of territories – a newly production region, development of which shall be performed on the base of statues and principles, proposed by Russian scientists. Unfortunately, the Republic was not able to perform a wide diversification of the economy and cannot rely on economy's new growth points, based on modernization. Kazakhstan is under threat of technological dependence of the more developed countries, that is why the scientists face the necessity to search the new models of state development, increase the effectiveness of tools to secure the economic security of old-industrial regions, which, despite the small number, stay the key components of Kazakh economy.

Here can be remembered the Ore-Altai region, territory of former Karaganda-Timertau territorial productive cluster, which lost most part of production potential during the years of independence. The base of technological and economical base of state are still the industrial and technologic complexes and production points in the Kazakhstan Republic located along the border with Russian, which formed in the Soviet time and border the old-industrial regions of South Ural and other Russian production regions. To include the Republic not only into new innovative productions but also the world innovative and technological chain the Kazakhstan economy needs a qualitative jump in the development of production forces, in which the management forms and methods are being improved, thus the necessity of technologic pattern shall be transformed. Kazakhstan's lie back in the innovative development is also connected with the lack of system normative and law base which regulated science sector. The comparison analysis of science-technological activities of Kazakhstan and other developed countries showed that the development of national system to support and implement the innovation in the Republic is at a very initial stage.

## 4. Discussion of the results

A good example of the region that selected the "development" trajectory is the Kaluga Region, which is currently making the transition from a predominantly traditional-industrial model to an innovative, "new industrial" type of development based on the capitalization of knowledge and the effective realization of the human potential of the territory. Meanwhile, a significant number of old industrial regions of Russia follow the "stagnation" attractor, in particular, we are talking about the Voronezh Region, the industrial complex of which is characterized by low competitiveness due to the dominance of traditional industries based on the outgoing (fourth) technological structure.

Similar results were obtained in the study of the dynamics of industrial regions in the Republic of Kazakhstan (Nugerbekova et al., 2008). At present, Kazakhstan is experiencing the initial stage of transition of the economy from the raw material to the innovative type of development, while the republic has not formed a nation-wide multi-level model of the spatial organization of the country's territory. Kazakhstan, similarly to Russia, needs the formation of a toolkit of a differentiated state policy for the development of old-industrial regions as a condition of ensuring the success of the transition process. This will make it possible to develop programs for the transformation of old industrial regions, including border regions with Russia, in the direction of enhancing innovation potential and effectiveness of economic security instruments, taking into account the special features of the territories. Such an approach, in our opinion, will enhance the role of the state in preventing the degradation of the social and economic potential of the old industrial regions of Kazakhstan in the foreseeable future within the framework of the EAEU.

**Conclusions**

In the article, based on the analysis of empirical material, the hypothesis is argued that the most effectiveness of tools to ensure the economic security of old industrial regions is provided at the bifurcation point - a state in which the regional system gets the opportunity to reach a new, higher level of development.

It has been substantiated that threats to the economic security of the region sharply increase at the bifurcation point, because of what it is feasible to use a system of indicators of the state of economic security of the region to assess the results of the transition processes. The problem is that, until now, there has not been formed a unified system of indicators for assessing the state of the region's economic security, either at the legislative level or by an authoritative scientific community. To assess the state of economic security of old industrial territories, a system of indicators has been proposed, based on a system of indicators from the Economic Security Strategy reflecting the specific development problems of old industrial type territories. These indicators include: fixed capital investment per capita; the degree of fixed assets depreciation; the proportion of organizations implementing technological innovations, as well as the human development index - an indicator of international statistics that makes it possible to track the dynamics of human capital, one of the most important sources of development of the region of the old industrial type.

Analysis of the dynamics of economic security indicators in the old industrial regions of Russia showed that the overwhelming majority of them show negative dynamics, indicating that the regions are in a situation of instability and experience an objective need for government support in order to enter the trajectory of sustainable socio-economic dynamics.

In the system of regional management, the choice of regional development attractor is largely determined by the choice of an adequate instrument of state support as a condition ensuring the success of the transition process carried out by a specific old industrial region. This statement is true both in relation to the old industrial regions of Russia, and a number of other countries, in particular - the Republic of Kazakhstan.

The proposed approach makes it possible to substantiate the optimal composition of state support measures ensuring the sustainable socio-economic development of old industrial regions and to specify the appropriate moment for their use, which will contribute to the formation of an efficient state regional policy considering the special features of the territories in the interests of Russian national economy development.

# References

Birch, K., MacKinnon, D., & Cumbers, A. (2010). Old industrial regions in Europe: a comparative assessment of economic performance. Regional Studies, 44(1), 35-53.

Bobylev, S.N., & Grigoriev, L.M. (Eds.). (2019). Human Development Report in the Russian Federation for 2018. Moscow: Analytical Center under the Government of the Russian Federation. Retrieved from: http://ac.gov.ru/files/publication/a/19663.pdf

Bobylev, S.N., & Grigoriev, L.M. (Eds.). (2017). Human Development Report in the Russian Federation for 2017. Moscow: Analytical Center under the Government of the Russian Federation. Retrieved from: http://ac.gov.ru/files/publication/a/15600.pdf

Bondaletov, V. (1983). Comparative method. In Russian Onomastics: Textbook. Moscow: Enlightenment, 653p.

Bukina, T.V. (2011). The specifics of the economic development of the old industrial region (on the example of the Perm region). Retrieved from: http://ars-administrandi.com/article/Bukina_2011_2.pdf

Demidova, M. (2017). Investment dynamics is a significant economic category. Its change and characteristics. Retrieved from: https://moneymakerfactory.ru/biznes-plan/dinamika-investitsiy/

Depreciation of fixed assets of the Russian economy exceeded 50%. (2016). Retrieved from: http://kemerovo.bezformata.com/listnews/osnovnih-fondov-rossijskoj-ekonomiki/52941189/

Economy of old industrial regions. (n. d.). https://economics.studio/ekonomika-regionov/ekonomika-staropromyishlennyih-regionov.html

Glonti, K.M. (2008). Old industrial regions: problems and development prospects. The problems of federalism. Russian Journal of Regional Studies, 4. Retrieved from: https://regionsar.ru/ru/node/197

Grishin, V.I., & Gagarina, G.Y. (Eds.). (2013). Russian economic space: problems and prospects for restructuring. Moscow: INFRA-M.

Hamm, R., & Wienert, H. (1990). Strukturelle Anpassungaltindustrieller Regioneniminternationalen Vergleich. Schriftenreihe des Rheinisch-West fälischen Instituts für Wirt schafts forschung. Berlin: Essen.

Hu, X., & Hassink, R. (2017). New perspectives on restructuring of old industrial areas in China: a critical review and research agenda. Chinese Geographical Science, 27(1), 110-122.

Ivanov, S.A. (2013). Northeastern provinces in the regional policy of the central government. At the map of the Pacific Ocean: inform.-analyt. bullet, 30(228), 4-7.

Komarov, I., & Gerko, A. (n. d.). Old industrial areas of Russia. Retrieved from: http://old.nasledie.ru/oboz/N13_94/13_10.HTM

Latov, Y.V. (2003). Russia of the 1990s: underdevelopment through decline or development through recession? Economic Bulletin of Rostov State University, 1(1), 100-115.

Law-Lib. (n. d.). Opinions of the CPC Central Committee and the State Council regarding the implementation of the strategy of reviving the Northeast and other old industrial bases (Document of the CPC Central Committee 2003, No. 11). Retrieved from: http://www.law-lib.com/law/law_%20view.asp?Id=87054

Mariotti, S., Nicolini, M., Piscitello, L. (2018). The Role of the Heterogeneity of Services in the Transmission of Spillovers to Domestic Manufacturing Companies. Transformations in Business & Economics, 17, (2-44), 194 -209

Naydenova, R.I. (2007). State regulation of the economy in the old industrial areas of Germany. Retrieved from: http://jurnal.org/articles/2007/ekon7.html

Nekrasova, E. (2018). Bashkiria in the investment peak. Retrieved from: https://regnum.ru/news/2400066.html

Nugerbekova, S.N., Temirkhanova, E.U., Bapiyeva, J.K., Kasymova, & Nadyrova, Sh.M. (Eds.). (2008). Spatial organization of the territory and resettlement of the population of the Republic of Kazakhstan until 2030 (Vol. 1: The concept of spatial development and resettlement of the population of the Republic of Kazakhstan). Astana: Economic Research Institute JSC.

Ostrovsky, A.V. (2015). China: the economy of the regions. Moscow: LLC Publisher IBA, 345p.

Petrenko, Y., Vechkinzova, E., Antonov, V. (2019). Transition from the industrial clusters to the smart specialization of the regions in Kazakhstan. Insights into Regional Development, 1(2), 118-128. https://doi.org/10.9770/ird.2019.1.2(3)

Presidential Decree of 13.05.2017 N 208 "On the Strategy of Economic Security of the Russian Federation for the Period up to 2030". (2017). Retrieved from: http://www.consultant.ru/document/cons_doc_LAW_216629/.

Prigogine, I., & Stengers, I. (1986). Order from chaos. A new dialogue of man with nature. Moscow: Progress.

Prospects for the strategic development of the old industrial regions of Russia. (2012). Retrieved from: http://bujet.ru/article/212308.php

Raszkowski, A., Bartniczak, B. (2018). Towards Sustainable Regional Development: Economy, Society, Environment, Good Governance Based on the Example of Polish Regions, Transformations in Business & Economics, 17, (2-44), 225-245

Russian Federal State Statistics Service. (n. d.). Russian regions: Socio-economic indicators 2018. Retrieved from: http://www.gks.ru/bgd/regl/b18_14p/Main.htm.

Smelser, N. (1976). Comparative Methods in the Social Sciences. Englewood Cliffs, 365 p.

Smirnova, T.G., & Lukin, E.V. (2013). Problems of recovery growth of the manufacturing industry of the export-oriented region. Economy and Entrepreneurship, 4, 162-173.

Sorokina, N.Y., & Latov, Y.V. (2018). The evolution of old industrial regions in the Russian economy. Journal of Economic Regulation, 9(1), 6-22.

Steiner, M. (1985). Old Industrial Areas: A Theoretical Approach. Urban Studies, 22(5), 387-398.

Terms of innovative development of old industrial regions. (2016). Retrieved from: https://bizboss.ru/biznes/usloviya-innovatsionnogo-razvitiya-staropromyshlennykh-regionov/

The State Council of the People's Republic of China (n. d.).The 13th five-year plan for the social and economic development of the PRC. Retrieved from: http://www.gov.cn/xinwen/2016-03/17/content_5054992.htm

Tvaronavičienė, M. (2019). Insights into global trends of capital flows' peculiarities: emerging leadership of China. Administratie si Management Public, (32), 6-17. https://doi.org/10.24818/amp/2019.32-01

Zubarevich, N. (2018). Where the financial rain fell. Retrieved from: https://rg.ru/2018/03/12/kakie-regiony-poluchili-bolshe-vsego-investicij-v-2017-godu.html

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