

“Governance of factors for the regional insurance market development (evidence from Russia)”

Nataliya P. Kuznetsova  <https://orcid.org/0000-0002-3612-9127>

 <https://publons.com/researcher/2455281/natalia-p-kuznetsova/>

Galina Chernova  <https://orcid.org/0000-0003-4050-4046>

 <https://publons.com/researcher/2355356/galina-v-chernova/>

Evgenija Prokopjeva  <https://orcid.org/0000-0002-6818-5780>

 <https://publons.com/researcher/2146950/>

Natalja Boldyreva  <https://orcid.org/0000-0002-1610-6075>

 <http://www.researcherid.com/rid/W-1939-2018>

AUTHORS

ARTICLE INFO

Nataliya P. Kuznetsova, Galina Chernova, Evgenija Prokopjeva and Natalja Boldyreva (2019). Governance of factors for the regional insurance market development (evidence from Russia). *Problems and Perspectives in Management*, 17(3), 492-507. doi:10.21511/ppm.17(3).2019.39

DOI [http://dx.doi.org/10.21511/ppm.17\(3\).2019.39](http://dx.doi.org/10.21511/ppm.17(3).2019.39)

RELEASED ON Tuesday, 01 October 2019

RECEIVED ON Tuesday, 30 July 2019

ACCEPTED ON Wednesday, 04 September 2019

LICENSE



This work is licensed under a [Creative Commons Attribution 4.0 International License](https://creativecommons.org/licenses/by/4.0/)

JOURNAL

"Problems and Perspectives in Management"

ISSN PRINT

1727-7051

ISSN ONLINE

1810-5467

PUBLISHER

LLC “Consulting Publishing Company “Business Perspectives”

FOUNDER

LLC “Consulting Publishing Company “Business Perspectives”



NUMBER OF REFERENCES

40



NUMBER OF FIGURES

3



NUMBER OF TABLES

7

© The author(s) 2025. This publication is an open access article.



BUSINESS PERSPECTIVES



LLC "CPC "Business Perspectives"
Hryhorii Skovoroda lane, 10,
Sumy, 40022, Ukraine

www.businessperspectives.org

Received on: 30th of July, 2019

Accepted on: 4th of September, 2019

© Natalia Kuznetsova, Galina Chernova, Evgenija Prokopjeva, Natalja Boldyreva, 2019

Natalia Kuznetsova, Doctor of Economics, Professor, St Petersburg University, the Russian Federation.

Galina Chernova, Doctor of Economics, Professor, St Petersburg University, the Russian Federation.

Evgenija Prokopjeva, Ph.D. in Economics, Associate Professor, Khakass Technical Institute of the Siberian Federal University, the Russian Federation.

Natalja Boldyreva, Doctor of Economics, Professor, Tyumen State University, the Russian Federation.



This is an Open Access article, distributed under the terms of the [Creative Commons Attribution 4.0 International license](https://creativecommons.org/licenses/by/4.0/), which permits unrestricted re-use, distribution, and reproduction in any medium, provided the original work is properly cited.

Natalia Kuznetsova (Russian Federation), Galina Chernova (Russian Federation), Evgenija Prokopjeva (Russian Federation), Natalja Boldyreva (Russian Federation)

GOVERNANCE OF FACTORS FOR THE REGIONAL INSURANCE MARKET DEVELOPMENT (EVIDENCE FROM RUSSIA)

Abstract

Insurance is the most important institution for social and financial protection. Therefore, the development level of the regional insurance market not only determines the volume and quality of this protection, but also influences the social and economic development of the region through the coverage of risks and the provision of additional jobs. In turn, many factors have a significant impact on the development of the regional insurance market itself. This study is aimed at developing a model for governing the development factors of the regional insurance market, which (governance) focuses on improving the development efficiency of not only the regional insurance market itself, but also the socio-economic development of the relevant region. In this regard, the model for governing the factors of development of the regional insurance market involves solving the following scientific problems: identifying national factors for the functioning and development of the Russian insurance market that influence the development of the regional insurance market; determining regional development factors affecting the regional insurance market; identifying the impact of the regional insurance market on the socio-economic development of the region; developing recommendations on the effective impact of national and regional factors on the regional insurance market development and, through it, on the socio-economic development of the region. Implementation of the proposed model for governing the factors for the regional insurance market development will increase its efficiency and strengthen the socio-economic development of the region.

Keywords

national factors, regional factors, constraints, stimulants, factor influence scheme, scheme implementation algorithm, management decisions, development plan

JEL Classification J18, J22

INTRODUCTION

The importance of the insurance institution for the development of the economy, social sphere of the country and its individual regions cannot be overestimated. Insurance increases the financial protection of all its participants by reducing losses due to possible implementation of various risks and contributes to economic development by providing jobs.

The implementation problem of the insurance potential is largely due to the fact that there is still no clear idea of what factors affect the insurance market development, and how they affect, and whether it is possible to govern these factors in order to increase the insurance market effectiveness. Another challenge in realizing the insurance potential is the lack of effective mechanisms to ensure the interconnection and mutual influence of the insurance system and other components of the entire socio-economic system.

Particularly acute problems are shown at the level of individual regions of Russia. This is explained by the fact that the regions them-

selves are developing in different ways. Their economy is differentiated, and the content of insurance protection and the need for it for the regions are, therefore, also different.

All national insurance development factors, to one degree or another, have a stimulating or restraining effect on any regional insurance market (hereinafter referred to as RIM). However, regional development factors impact the RIM development in different ways. Due to the differences in the economy by region, the list of regional factors affecting the development of insurance in the region, the direction and strength of their impact are differentiated. The latter determines the feasibility of developing and implementing recommendations and managerial decisions on the RIM development, taking into account the specifics of the region. The same can be said about the development of relevant programs for the RIM influence on the socio-economic development of the region.

The article addresses the above problems in the RIM development, and it is this fact that determines its relevance.

1. THEORETICAL BASIS

1.1. Literature review

The world and Russian scientific community pays great attention to general issues of the functioning of world and national insurance markets such as changing the welfare state concept; globalization of the insurance market; the insurance market digitalization; emerging commercial insurance markets; expanding market potential, taking into account current trends in the insurance market; competition in the insurance market, etc. (Burmaa, 2018; Hong & Hun Seog, 2018; Mnykh, 2017; Sholoiko, 2018). Much attention is paid to specific contemporary problems, namely, the information transparency in the insurance market (Porrini, 2017), the development of a modern branched infrastructure (Sholoiko, 2018), the presence of shadow insurance (Koijen & Yogo, 2016), the interaction of insurance and banking institutions (Chang, 2018), the development of agricultural and environmental insurance (Russell Toth et al., 2019), the interaction of insured and insurers (Gaganis et al., 2019), health insurance of citizens (Geng et al., 2018), etc.

Scientific research should be emphasized that contain problematic issues of the functioning of insurance markets and their segments in different countries (Blake, 2013; Balewski & Janowski, 2013; Chalmers et al., 2012; Laux & Muermann, 2010; Lobo-Guerro, 2014; Outreville, 2013). These works are of interest in studying the problems of the RF

insurance market in order to formulate the conceptual foundations of its development. Analytical studies of global insurance markets that help determine the country's rating in international comparison (Swiss Re Group, 2017, 2018) are also useful.

It should be noted that little research is being carried out on the problems of in-country regional markets, including the problems of the RIM impact on the region development. This is, first, due to the small territorial extent of other countries (when compared to Russia), which in economically developed countries is reflected in insurance coverage almost immediately throughout the country. The regional peculiarities of insurance manifest themselves mainly in the development of those types of insurance that are in demand for this region specifically. Nevertheless, it is worth noting the works addressing the impact of insurance on economic growth in the country and individual regions (Njegomir & Stojić, 2010). A comparative analysis of countries and regions of the world at different stages of the development of insurance and economic growth (Mohyuldin et al., 2017) and the relationship of life insurance and its impact on financial and economic indicators of economic growth (Ouédraogo et al., 2016) is also carried out.

Of particular interest for the development of state policy in insurance is analyzing the regional characteristics of developing countries, including through economic and mathematical methods. This makes it possible to establish the dependence of territorial development on insurance markets

(Zheng Hui & Zhao Xin, 2017). Such studies are especially relevant for Russia, since the country has a significant territorial expanse, which in itself creates difficulties in management. Given the values of economic indicators, the Russian insurance market should be considered as a developing one. Therefore, the experience of other countries is very important to use to determine the strategic directions for developing both the national and regional insurance markets of Russia.

The above areas of foreign and Russian insurance research also help to identify factors that are common to the development of any national insurance market, including Russia.

The researchers (for example, Prokopjeva, 2018) identify the following key factors that are characteristic primarily for Russia and that affect RIM:

- territorial uneven development of regional economies. Given the fact that the specificity and the level of the region's economy make the basis for insurance as an institution of financial protection, the uneven economic development of the regions is the most important reason for the different levels of the RIM development;
- imperfect Russian insurance regulation, including in relation to RIM;
- inadequate investment activities of insurers in the regions;
- regional imbalance in the number of insurers;
- large differentiation of people's income level in the regions;
- low insurance culture;
- lack of qualified personnel, etc.

RIM as a segment of the regional economy. The level of socio-economic development of the region determines both the presence of risks for which insurance is applied, and the ability of individuals and legal entities to acquire insurance protection, largely determined by the level of development of the region itself.

While analyzing the relationship between the development of the region and the insurance market, scientists emphasize, firstly, a stable relationship between the socio-economic indicators of regional development and the RIM indicators (Kuznetsov, 2014) and, secondly, differentiation in the RIM development (Tarasova & Voskovskaya, 2018). Thus, in regions with inadequate socio-economic development, insufficient use of insurance is observed, in particular, the lowest is the development level of the insurance market in the Siberian, Ural, Volga and North Caucasian districts.

Given the importance of the insurance market for the development of both national and regional economies, it should be noted that the intensification of insurance activities in the region contributes to the efficient regional economy in all spheres and sectors. This happens not only through the reduction of damage caused by the risk implementation, but also through the provision of new jobs, the opportunity to develop new types of industries, etc. (Orlanyuk-Malitskaya, 2017). Therefore, specialists consider the creation, development and promotion of insurance services, the development of local insurers as an extremely necessary condition for the development of the regions themselves (Yefimov & Kochubey, 2017).

Among the important issues of the RIM functioning, the importance of its regulation, as well as the need to capitalize insurance companies and attract additional sources of financing the development of regional insurance (Rybin & Skobeleva, 2015) are also considered. It is also suggested that a differentiated system of regional insurance regulation is needed that would allow effective management of regional insurance factors (Vorontsov, 2014).

When analyzing regional insurance, it is also necessary to take into account studies dealing with regional development problems, the generalization of which is important for understanding the mechanisms for solving them, including using insurance tools. Significant results of such studies, from the perspective of the relationship between the RIM and the region's economy, are well-grounded conclusions that the stability of the region's economy is achieved through effective budget, financial, credit, tax and pricing policies aimed at developing financial markets, including

insurance (Kuzmenkova, 2016); that especially well-observed is the absence of a connection between the RIM and the economy in subsidized regions with a weak economic base, low financial security for the regional policies implementation, and with the mandatory need for the region to comply with federal legislation that does not take into account the specific socio-economic development of the region (Osadchaya et al., 2015).

The analysis of articles on the research topic showed the following. RIM is considered as part of the Russian insurance market and as a segment of the region's economy. Although the connection between the RIM and the region's economy is recognized, the directions and possibilities of their mutual influence have almost not been explored.

Increasing the effectiveness of the RIM development and strengthening its positive impact on the socio-economic development of the region are possible on the basis of the development and implementation of a model for governing the RIM development factors, which is implemented in two stages.

STAGE 1. *Emphasizing factors for the RIM development.* RIM is part of the Russian insurance market. Therefore, it is influenced by factors of national insurance (national factors) development. Moreover, they can have both a stimulating and a restraining impact on the RIM development. Being a part of the region's economy, RIM is influenced by regional factors, which are specific to the region in question and which affect the development of RIM in different ways. Regional factors can stimulate and inhibit the RIM development. The identification of both national and regional stimulants and constraints of the RIM development is necessary for the development and implementation of managerial decisions aimed at increasing the efficiency of the RIM development and strengthening the socio-economic development of the region itself.

STAGE 2. *Forming a mechanism to increase the RIM effectiveness and improving the socio-economic development of the region.* The mechanism is based on governing the RIM development factors identified at the first stage. It involves constructing a scheme for the possible influence of stimulants and

constraints at the national and regional level on the development of RIM and the region, as well as developing, based on this scheme, an algorithm for taking managerial decisions aimed at strengthening the stimulants and weakening the constraints for the RIM development, as well as contributing to socio-economic development of a region.

1.2. RIM development factors

The need to highlight national and regional factors of the RIM development (stage 1 of the model for governing the RIM development factors) is due to the fact that, on the one hand, the RIM is part of the national insurance market, and, on the other hand, it is a segment of the region's economy.

National and regional factors can influence the development of RIM in different ways.

Below are the national restraining factors, or constraints, for the insurance development that affect the development of RIM.

The imbalance in the structure of the Russian insurance portfolio by type of insurance is understood as a mismatch between the real structure of the Russian insurance portfolio and the one that best meets the needs of the RF population for insurance protection and to a certain extent meets world practice. The imbalance in the Russian insurance portfolio is manifested in the predominance of risky types of insurance and in the presence of a very small share of long-term accumulative types of insurance (Figure 1) (The Central Bank of the Russian Federation, 2018).

In 2018, property insurance amounted to 24%, risky types of personal insurance were 22%, and compulsory motor vehicle liability insurance (CMVLI) accounted for 15%. A significant share of CMVLI is explained by the compulsory nature of this type of insurance, as well as the low market capitalization of other types. Despite the fact that the share of life insurance in the dynamics is growing and amounts to 31% in 2018, 65% of this volume is medium-term investment life insurance (ILI), and accumulative life insurance amounts to only 15.6%.

At the same time, as the experience of highly developed countries shows, the highest need for insur-

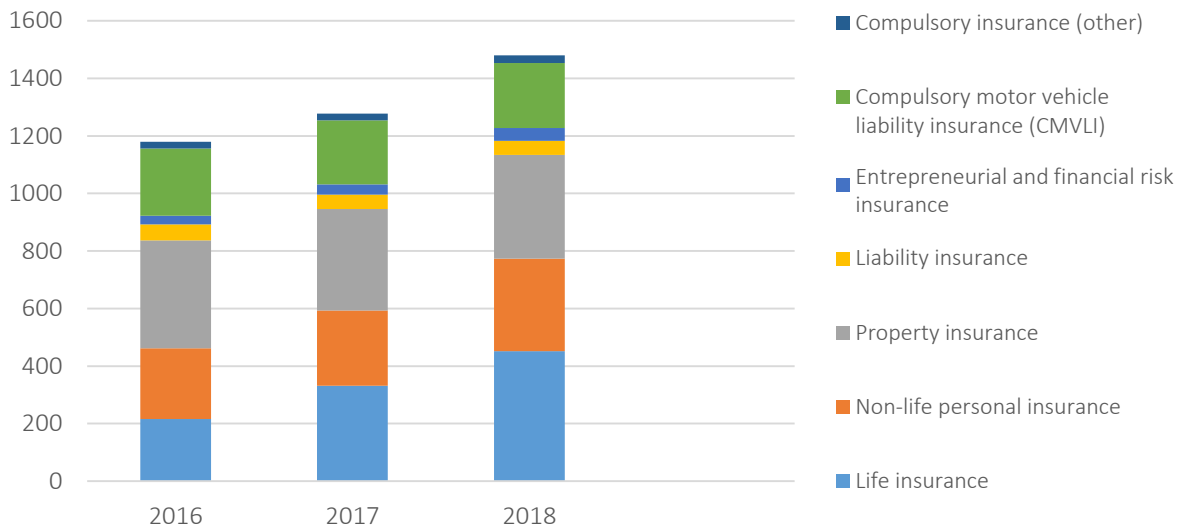


Figure 1. Dynamics of the Russian insurance portfolio structure, billion rubles

ance protection is manifested in the development of medical and all types of personal insurance. In the United States, life and health insurance accounts for 55% of the insurance premium of the entire insurance market, including endowment insurance (13%), annuities (28%), accident and illness insurance (13.7%) (Insurance Information Institute, 2019). In Japan, life insurance premiums account for 78% of all insurance premiums.

The data presented confirm the Russian insurance market imbalance, primarily in terms of mastering and the share of all types of personal insurance.

At the RIM level, the imbalance in the structure of the regional insurance market is even more pronounced, since, in addition to the influence of the general trend in the insurance portfolio imbalance that is characteristic of the entire national insurance market, it is determined by the lack of a proper connection between development of RIM and the region itself.

Financial and market volatility in the insurance sector of the Russian economy manifests itself in the instable dynamics of the size of insurance premiums throughout the Russian insurance market (see Table 1) (The Central Bank of the Russian Federation, 2018) and is clearly confirmed by the structure of expenses and financial results of several Russian insurers holding leading positions in the rating (see Figure 2) (Rosgosstrakh, 2017; Ingosstrakh, 2017; SOGAZ Insurance Group, 2017; RESO-Garantiya, 2017; Alfa-Strahkovaniye, 2017; VTB Strahkovaniye, 2017).

The steady dynamics of changes in the growth rate of insurance premiums is not observed for almost all types of insurance. At the same time, there are almost no identical trends in the growth rates for different types of insurance, in particular, the rates grow for some types of insurance and fall for others. The exception is 2015, when the growth rate of insurance premiums fell for all types of insurance, albeit to varying degrees.

Table 1. The growth rate of insurance premiums for the main types of insurance, %

Types of insurance	2012/2011	2013/2012	2014/2013	2015/2014	2016/2015	2017/2016	2018/2017
Life insurance	151.85	160.52	127.85	119.52	166.32	153.67	136.14
Accident insurance	153.7	124.98	101.85	84.7	133.51	112.28	122.99
Voluntary health insurance	111.91	105.52	107.92	103.93	106.87	101.59	108.45
Motor vehicle insurance	119.03	108.31	102.94	85.67	91.15	95.21	103.81
Agricultural insurance	82.22	107.09	116.9	47.02	125.09	39.93	95.13
Voluntary liability insurance	109.16	99.06	127.25	108.43	133.75	90.92	97.45
Compulsory motor vehicle liability insurance	117.41	110.55	117.37	138.79	107.17	94.75	101.8

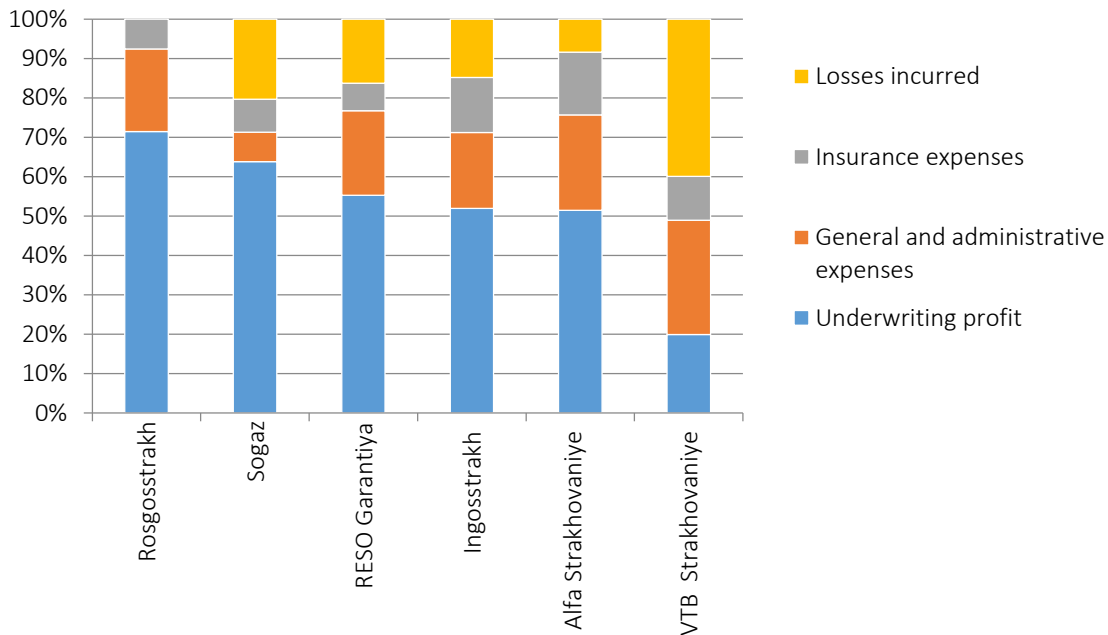


Figure 2. The structure of insurers' expenses and financial results of insurance activities in 2017

Figure 2 shows that the expense structure for different insurers differs significantly, which confirms their different financial situation in the insurance market and the instability of the insurance market itself. The losses incurred by different companies vary in the range from about 18% (VTB Strakhovaniye) to almost 68% (Rosgosstrakh), business expenses range from about 8% (Sogaz) to almost 30% (VTB Strakhovaniye), general and administrative expenses range from about 7% (Sogaz) to almost 16% (RESO Garantiya). With that, underwriting profit also varies from about 12% (Alfa Strakhovaniye) to almost 40% (VTB Strakhovaniye)¹. In addition, the existing structure of expenses and financial results of insurance activity demonstrates an overpricing of insurance services (a high share of administrative expenses and profits), and a significant dispersion of the values of expenses and profits among different insurers confirms the financial flow instability in insurance activities.

The financial and market volatility of the entire Russian insurance market naturally hinders the development of regional insurance markets.

The factors (given as an example) hindering the development of the entire national insurance market remain significant for the RIM. Therefore, their

governance, aimed at eliminating or reducing their influence, will contribute to the development of both the entire Russian insurance and its regional insurance markets.

Among the stimulating national factors for the insurance development that affect the development of RIM, one can distinguish the following.

Clearing the market from financially unsustainable companies. Reducing the number of insurance entities occurs due to the liquidation of unscrupulous and small financially unstable companies.

In 2010–2018, the number of insurers decreased almost three times (see Table 2), including due to the fact that a significant number of companies lost their licenses. Reorganization of the insurance companies' activities helps to increase the transparency and financial stability of insurers, increases the confidence of existing and potential insurers, and thereby meets the effective development of both the entire Russian insurance market and its regional segments.

Strengthening government regulation. Since regulation is the main mechanism for managing insurance as an institution of financial and social

¹ Rosgosstrakh didn't gain almost any profit in 2017 due to the planned restructuring procedure.

Table 2. Dynamics of the number of insurers registered in the Russian Federation for the 2010–2018 period

Period	Number of insurers registered (end of the year) (The Central Bank of the Russian Federation, 2018)	The rate of decline, % to the previous period	Number of companies with the license revoked (Insurance Today, 2018)	The share of revoked licenses, % of the total number of companies
2010	625	89.03	89	4.68
2011	579	92.64	40	8.97
2012	469	81	103	18.56
2013	432	92.11	39	6.57
2014	416	96.3	19	12.90
2015	364	87.5	70	20.35
2016	297	81.59	73	27.76
2017	226	76.09	30	13.27
2018	190	84.07	20	10.52

protection, state regulation is one of the most powerful factors in terms of impact. It can be noted, however, that regulation can have different effects on the insurance market: the effect can be restraining when it comes to the imperfection of certain issues of legal regulation, in particular, this refers to insufficient coverage of the problems of regulation of regional insurance markets, and stimulating, contributing to an increase in the functioning of both the entire Russian insurance market and its segments – regional insurance markets.

The above factors that stimulate the development of the entire national insurance market, although to varying degrees, remain significant for RIM. Therefore, governing them to strengthen their influence will contribute to the development of both the entire Russian insurance and its regional segments.

RIM is part of the region's economy, that is why the level of socio-economic development of the region also affects the RIM's position.

It is known that the level of socio-economic development of the region itself is determined in fact by the influence of many factors. The most important of them are the geographical position of the region, its climatic or demographic characteristics, availability or lack of natural resources, national and political features, etc. Among all the factors of development of a particular region for research purposes, those that are significant for the development of insurance in the region are of interest.

Since the list and content of development factors are generally different for all regions, it is important

for each of them to identify specific regional factors, namely, those influencing RIM in this region.

Naturally, they, like national factors, can have different effects on the functioning and development of RIM – stimulating, i.e. contributing to the RIM development, and restraining, i.e. not meeting, or possibly hindering its development.

Thus, a large differentiation of sectors of the region's economy meets a wide variety of risks, which becomes a prerequisite for using insurance as a method of financial protection from these risks; and a high level of fiscal capacity of the population and business creates opportunities for the acquisition of insurance products, etc., i.e. contributes to the regional insurance development. With that, active labor migration, which requires insurance protection and in this sense contributes to the RIM development, due to the low level of remuneration of migrants and their temporary stay in the considered region (district), does not favor the use of insurance protection.

Regional factors for the RIM development were selected as follows. For each of the identified regions, significant factors of their development were selected. To determine the influence of these factors on the RIM development, the dynamics and density of the relationship between the regional development indicators corresponding to the identified development factors and the dynamics of regional insurance statistics were compared. If, using the correlation analysis, a close relationship was found between the development indicators of the region and its insurance segment, the factors corresponding to these indicators were considered

significant not only for the region's development, but also for the functioning and development of regional insurance².

The most important prerequisite for the insurance development is the presence of risks requiring protection from them. Therefore, all factors of the region's development, accompanied by the emergence of new or strengthening of already known risks, indirectly stimulate the development of insurance as an institution of financial and social protection against risks.

The results of the analysis conducted for different regions of the Russian Federation, represented by federal districts, confirm the variety of regional development factors that have a restraining or stimulating effect on the RIM. These results are partially given in Table 3.

The result of the influence of both the geographical location and the developed sectoral structure of the Central and North-Western districts of the Russian Federation (high level of industrial development and urbanization, activity in all markets, including financial) is that the influence of factors stimulating the RIM development predominates in these regions. According to the analysis in the Volga Federal District, there is also a predominance of regional development factors that have a stimulating effect on the RIM development. For regions with a low level of socio-economic development, the most significant are the factors of

their development that hamper the functioning and development of the RIM – the Southern and North Caucasian federal districts. For the Ural, Siberian and Far Eastern federal districts, regional development factors have both stimulating and restraining effects on the RIM development.

The identified national and regional factors that have different effects on the RIM development require governance aimed at improving the development efficiency of both the RIM and the socio-economic development of the region.

1.3. The mechanism to increase the RIM effectiveness and improve the socio-economic development of the region

Increasing the RIM effectiveness and, through it, improving the socio-economic development of the region necessitate a mechanism for governing the identified factors at the national and regional levels that initially have a stimulating and restraining effect on RIM (stage 2 of the model for governing the RIM development factors).

The analysis showed that such a mechanism should provide a consistent solution to the following tasks:

- identification of national constraints and stimulants in the development of the Russian insurance market that affect RIM;

Table 3. Regional development factors affecting the RIM in the Central Federal District (CFD), the Northwest Federal District (NWFD), and the Southern Federal District (SFD) and Ural Federal district (UFD)

Federal districts of the RF	Regional factors that have a stimulating effect on the RIM development (the RIM development stimulants)	Regional factors that have a restraining effect on the RIM development (the RIM development constraints)
CFD and NWFD	High economic diversification Developed small and medium business Prevalence of manufacturing, food processing, trade and services, etc.	Low mineral and natural resource reserves Active migration processes (labor migration)
SFD	A sufficiently high level of economic diversification Average level of budgetary security Moderate development of foreign economic relations and openness of the economy, etc.	Active migration processes Restricted functioning of the financial markets Seasonal nature of the economy Below average income of citizens Low mineral and natural resource reserves, etc.
UFD	Investment attractiveness of the region Developed banking sector Stocks of various types of minerals (metals, mineral raw materials, wood), etc.	Weak diversification of the economy Prevalence of extractive industries (ferrous and non-ferrous metallurgy, forestry, oil production) Foreign economic closure of the region, etc.

2 This approach was confirmed using the Republic of Khakassia as an example.

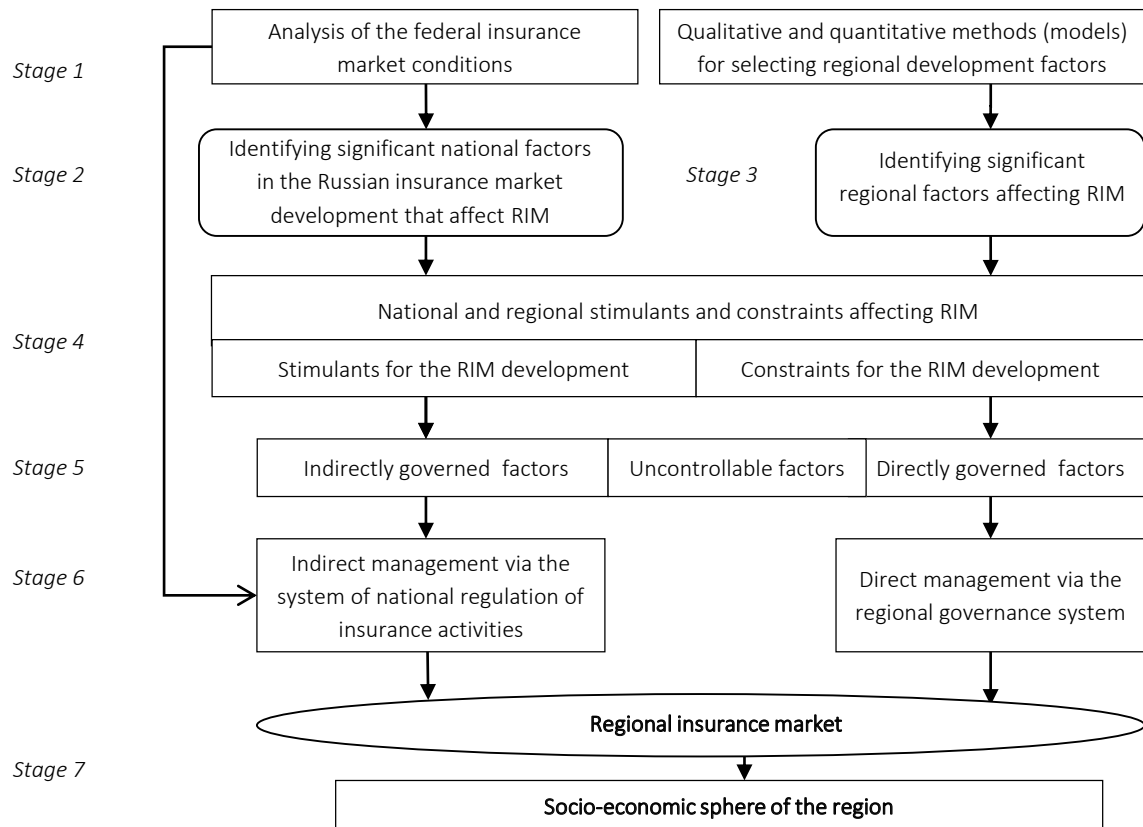


Figure 3. Scheme of the influence of national and regional stimulants and constraints on the development of RIM and the region

- identification of constraints and stimulants in the development of the region that affect RIM;
- identification of the joint influence of all the constraints and stimulants in the RIM development;
- factors classified based on their controllability;
- development of management decisions to enhance the influence of stimulants and reduce the influence of constraints on the RIM development, i.e. management decisions to increase the RIM effectiveness;
- developing measures to increase the RIM effectiveness and to strengthen the positive impact of the RIM on the socio-economic development of the region.

The scheme (see Figure 3) only reflects the possible impact of stimulating and restraining factors on the RIM development and, as a result, only the possible influence of RIM on the region's economy. Thus, it is not necessary that even on the basis of this scheme decisions are made that meet the challenges of increasing the RIM efficiency and improving the economy of the region.

To increase the RIM effectiveness and improve the socio-economic development of the region, a mechanism is needed that meets the following terms. It should strengthen the stimulants for the development of RIM and the regional economy, as well as weaken the restraining factors. Such a mechanism may be an algorithm based on this scheme application, but taking into account the named requirement.

2. RESULTS

The proposed algorithm and the management decisions developed on its basis will represent the results of applying the presented model.

The algorithm includes the following stages.

STAGE 1. *Analysis of the federal insurance market conditions.*

The regional insurance market is incorporated into the national insurance market. Therefore, at this stage, a comprehensive analysis of the economic indicators of the RF insurance market, its strengths and weaknesses, as well as its growth dynamics is carried out. Russia has adopted uniform rules for the development of legal and economic approaches to the insurance system. Figure 3 shows that the influence of the federal insurance market on the regional market is realized mainly through a system of regulation and supervision, which is centralized in Russia.

STAGE 2. *Identifying significant national factors in the Russian insurance market development that affect RIM and identifying constraints and stimulants in the RIM development among them.*

At this stage, the problems and opportunities of the RF insurance market are summarized, which provides a basis for highlighting the stimulants and constraints in the development of the Russian insurance market and regional insurance markets. With that, all the identified insurance factors, taking into account the uniformity of the insurance regulation and supervision system in the country, should be considered common for the RIM development, i.e. national factors in the development of the Russian insurance market, which are significant for all the RIMs of the country.

STAGE 3. *Identifying significant regional factors affecting RIM.*

This stage includes selecting both regional factors significantly impacting the insurance development and relevant indicators.

Among all possible factors for the region under consideration, those that are essential for the insurance market development in this particular region are selected.

To conduct a qualitative analysis and confirm the correct choice of factors, various quantitative methods can be used. When studying a large

amount of information, it is advisable to use economic and mathematical models, for example, a correlation and regression analysis model, since they are based on objective and universal estimates. Among the identified regional factors in the functioning of insurance, those that may be restraining or stimulating are emphasized. It must be understood that the same factors can have the opposite effect for different regions.

STAGE 4. *National and regional stimulants and constraints affecting RIM.*

This stage combines stimulants and constraints in the RIM development, i.e. systematizes them in order to determine the most significant of them.

STAGE 5. *Classification of the RIM development factors based on their controllability.*

Since not all factors of the RIM development are directly governed, it is advisable to divide them into three groups.

1. *RIM development factors governed directly through the regional governance system.* This primarily refers to the most important factors in the region development that have an impact on the RIM. These include, for example, the sectoral structure of the regional economy, its diversification level, tourism potential, investment attractiveness and innovative activity in the region, etc. The implementation of the most important RIM factors for the region's development will lead, on the one hand, to the emergence of new risks and, as a consequence, to the need to use insurance protection, and, on the other hand, it can result in an increase in the standard of living of the region's population and, thereby, in increasing its ability to take advantage of this insurance coverage.
2. *Factors that are governed indirectly for the RIM development, through amendments to the system of state regulation of insurance activities.* This will include mainly general factors of the national insurance market development, the management of which is possible by adjusting the insurance regulation system at the country level. This group of factors, for example, includes regulating the cost of voluntary in-

insurance services, ensuring the professionalism of insurance intermediaries, developing rules for the participation of bank capital in insurance activities, etc.

3. *Uncontrollable factors of the RIM development.* They should be distinguished and excluded from consideration, since although they exist as a fact of life, they can and should be taken into account in insurance activities, but it is impossible to change them. This group will include both national and regional factors, but, first of all, these are non-insurance factors that are macroeconomic or characteristic of the entire Russian insurance market. Thus, the uncontrollable factor should be considered the unstable loss-making of types of insurance and the decrease in the insurance activity profitability, which are due to the fact that the financial results of insurance are determined by many other factors of a non-insurance nature (for example, a large differentiation of the population's income). It is very difficult to influence them across a country or a region.

Among regional unmanageable factors are those associated with natural and geographical conditions.

Identifying three groups of factors based on their controllability will allow for making a more informed choice of methods for managing the RIM development factors and will determine the level of managerial decision-making.

STAGE 6. *Managing national and regional constraints and stimulants affecting the RIM development.*

It should be aimed at developing managerial decisions on such an impact on the identified factors, which ensures the strengthening the stimulants and weakening (or elimination) the constraints of the RIM development.

In accordance with stage 5, all factors based on controllability are divided into:

- uncontrollable, and, therefore, not considered as controllable objects;
- managed indirectly through the insurance regulatory system at the national level; and
- managed directly, and therefore implemented through a regional governance system.

Tables 4 and 5 provide examples of managing the national stimulants and constraints of the insurance market that affect the development of any RIM.

A full list of similar management decisions is the same for all RIMs, and it can be taken as a basis for improving insurance regulation aimed at increasing the efficiency of regional insurance markets.

Further, the issue of forming a list of managerial decisions on managing the RIM development regional factors should be discussed.

Table 4. Example of managing the national constraints of the insurance market affecting the RIM development

National level constraints	Management decisions (MD) on the national level constraints	
	MD implemented directly through the regional governance system	MD implemented indirectly through the system of national regulation of insurance activities
The imbalance in the structure of the Russian insurance portfolio by type of insurance	Identifying significant types of insurance for the region and stimulating their development	<ul style="list-style-type: none"> • Developing legal framework for certain types of insurance • Improving legal standards for certain types of insurance
Financial and market volatility in the insurance sector	Region's participation in the capital of regional insurance companies to maintain their competitiveness	Regulating the minimum size of insurers' own capital
Overpriced voluntary insurance services	–	Setting limits on the cost of insurance services
Lack of incentives for long-term insurance	Establishing benefits for insured and providing them with guaranteed profitability	<ul style="list-style-type: none"> • Guaranteeing the repayment of insurance premiums • Specifying legal norms in life insurance • Reforming pension legislation aimed at including life insurance companies

Table 5. Example of managing national stimulants of the insurance market that affect the RIM development

National level stimulants	Management decisions (MD) on stimulants at the national level	
	MD implemented directly through the regional governance system	MD implemented indirectly through the system of national regulation of insurance activities
Market clearing from financially unsustainable companies	–	Increasing the transparency of supervision and regulation of insurance activities
Strengthening government regulation	–	Transferring most regulatory functions to the self-regulation, as well as to the level of regional governance
Opportunities for insurers to participate in pension and other types of endowment life insurance	–	The extension of the bank deposit insurance system to pension and endowment insurance
Expected growth in manufacturing insurance	Subsidies and tax incentives for insurance of industries that are significant for the region (construction, agriculture, etc.)	–

The possibilities of governing regional development factors affecting the RIM should be considered separately for each specific region (constituent entity of the Russian Federation) or for a set of regions with similar geographical and socio-economic conditions under which they operate.

It is not possible to formulate a single list of managerial decisions on strengthening stimulants and weakening constraints of the regional development that affect the RIM. This is due to the differentiation of these factors by region determined by the specificity and diversity of the economic development of the regions themselves.

Tables 6 and 7 illustrate the development of managerial decisions with regard to strengthening the stimulating and weakening restraining factors of

the regional level that affect the development of RIM in Khakassia.

Note that when developing management decisions, it is possible to transform the restraining factors of insurance development in the region into stimulants.

STAGE 7. *Developing a program for the RIM development, contributing to the socio-economic development of the region.*

This stage provides for the development of a program to improve the functioning and development of the RIM, which is aimed at the socio-economic development of the region itself.

The typical structure of such a program may be as follows:

Table 6. Managing regional constraints affecting the RIM development in Khakassia

Regional level constraints	Management decisions (MD) on regional constraints	
	MD implemented directly through the regional governance system	MD implemented indirectly through the system of national regulation of insurance activities
Sector-specific structure of the economy and the predominance of extractive industries	Implementing industrial support programs in the region	–
Limited financial capacity of the regional budget	Using tax mechanisms at the regional level to stimulate mass risk insurance	Developing national programs of voluntary insurance of housing, life and health, etc., reducing the financial burden on the budget
Low investment attractiveness of the region	<ul style="list-style-type: none"> Creation of regional investment instruments Applying benefits for insurers investing in the region 	Introducing amendments to insurance legislation that encourage insurers to invest in the region
Untapped tourism potential	Financial and organizational support for tourism and the construction of tourist facilities	–

Table 7. Managing regional stimulants affecting the RIM development in Khakassia

Regional level stimulants	Management decisions (MD) on regional stimulants	
	MD implemented directly through the regional governance system	MD implemented indirectly through the system of national regulation of insurance activities
The presence of technological, natural and environmental risks	Stimulating liability insurance and employee health insurance at the expense of organizations that take into account man-made, natural and environmental risks	–
Favorable conditions for agricultural development	Developing a regional program to support agriculture and agribusiness	Developing a legal framework for agricultural insurance in the Russian Federation
Opportunities for developing economic relations with neighboring countries, including labor migration	Developing economic ties (production, trade, financial) with other countries	Control of the legality of migrants' labor activity and supporting their insurance
Impairment of population health and demographic indicators	Developing regional health support programs and VHI	Creating guarantees in life insurance

1. The purpose and objectives.
2. Directions for the regional insurance market development.
3. Activities aimed at the socio-economic development.
4. Bodies and organizations responsible for the activity implementation.
5. The program execution period.
6. Evaluation of the program effectiveness.

The program details the selected management decisions of stage 6, aimed at strengthening stimulants and weakening constraints of the national and regional levels that affect the RIM development.

Below is an example of the content of one of the main points of the RIM development program of Khakassia related to the stage 6 managerial decision development, “Activities aimed at the socio-economic development of the region”.

Measures to optimize the insurers’ pricing policy include:

- *Setting limits for certain components of insurance tariffs in voluntary types of insurance.* Limits must be determined in terms of managerial expenses, commissions to agents and brokers in popular types of insurance, primarily socially important. The loss-making of insurance pre-

miums is also advisable to regulate more flexibly, for example, within the corridor, and also to monitor the dynamics for 5 years in order to prevent the decline in loss.

- *Regulating the insurance intermediaries’ remuneration.* Compensation to intermediaries should be limited, first of all, in popular types of insurance of citizens’ risks, such as car insurance, real estate and other property insurance, life insurance, accident insurance, as well as in the types of insurance priority for the region. Agent commission should not be charged if the insurance contract is concluded directly at the insurer’s office, or via the Internet without the intermediary involvement.
- *Ensuring pricing transparency in voluntary insurance.* Insurance rates and their adjustment coefficients should be posted on the website of the insurance company and the Bank of Russia. The average size of insurance premiums, payments and other indicators of insurance for the region should be publicly available in the insurance counseling center. This will enable the insured to approach the choice of the insurer objectively.

Taking these measures will not only contribute to the RIM development, but also increase the socio-economic development of the region.

DISCUSSION AND CONCLUSION

RIM is part of the entire national Russian insurance market. At the same time, it is a sector of the region’s economy and, therefore, may have an impact on its socio-economic development.

RIM operates effectively if it has a stimulating effect on various spheres of the region's development.

The results of the RIM operation are determined by the impact of both general national factors for the development of the Russian insurance market, and factors for the region's development. Since the list and content of regional development factors affecting RIM are generally different for different regions, it is necessary to identify regional insurance development specific factors for each region.

The factors identified can affect RIM in different ways. Therefore, their analysis is needed to identify those having a stimulating or restraining effect on the development of insurance in the region.

The effectiveness of regional insurance will be determined by the governance of national and regional factors, aimed at enhancing the impact of stimulants and reducing or eliminating constraints affecting the RIM.

To identify the possible directions of influence of the identified factors, a scheme of their influence on the RIM and, through it, on the socio-economic development of the region was built.

In order to ensure the effective development of the RIM and the region, an action plan was developed. It is based on the content of the constructed scheme and aimed specifically at enhancing stimulants and weakening constraints of the RIM development and, therefore, representing a mechanism of effective influence on the RIM and the socio-economic development of the region.

In order to contribute to effective functioning and development of regional insurance markets and the regions themselves, in accordance with the content of the stages of the proposed algorithm, it is necessary:

- to identify common national factors for the entire Russian insurance market, its development factors that have a stimulating or restraining effect on regional insurance markets;
- to improve regulation of insurance activities at the national level, aimed at increasing the efficiency of regional insurance markets by strengthening the influence of stimulants and reducing the influence of constraints at the national level that affect RIM;
- to identify factors specific to regions of the country that have a stimulating or restraining effect on regional insurance markets;
- to classify identified national and regional factors of the RIM development based on their controllability in order to develop managerial decisions aimed at increasing the effectiveness of RIM and implemented either through centralized regulation of the entire Russian insurance market or via the regional governance system;
- in order to increase the RIM effectiveness and improve the socio-economic development of the region – to form managerial decisions that take into account the controllability of the RIM development factors and aimed at strengthening stimulants and weakening constraints of the national and regional level;
- to develop programs for the effective RIM development, providing for the implementation of formed management decisions that contribute to the effective RIM development and the socio-economic development of the region.

Taking these measures will not only contribute to the effective development of the RIM and the entire Russian insurance market, but also to the socio-economic development of the respective regions.

In general, the study confirms that the targeted governance of the stimulating and restraining factors of the RIM functioning and development leads to the fact that the RIM can develop efficiently and will have a positive impact on the development of the region itself.

REFERENCES

- Alfa-Strahkovaniye. (2017). *Финансовая и годовая отчетность [Finansovaya i godovaya otchetnost]*. Retrieved from https://www.alfastrah.ru/company/investors/files.php?SECTION_ID=253
- Balewski, B., & Janowski, A. (2013). The Agent's personality versus effectiveness of life insurance companies. *Ekonomichnyi chasopys-XXI, 1*, 84-87. Retrieved from <https://web.a.ebscohost.com/abstract?direct=true&profile=ehost&scope=site&authtype=crawler&jrnl=17286220&AN=86661165&h=PF8KFByNC%2bM8w9XqdRpOjK5PEuaXlfpIY2qeLLzY6uRbZ-RcLcJ49IFHIGTollTxfnARE97DtfisPUX3dxw%3d%3d&crl=c&resultNs=AdminWebAuth&resultLocaL=ErrCrlNotAuth&crlhashurl=log in.aspx%3fdirect%3dtrue%26profile%3dehost%26scope%3dsite%26authtype%3dcrawler%26jrnl%3d17286220%26AN%3d86661165>
- Blake, D. (2013). Longevity risk and capital markets: The 2011–2012 Update. *Journal of Risk and Insurance, 80*(3), 495-500. Retrieved from <https://www.researchgate.net/publication/48376448>
- Burmaa, G. (2018). The Potential and prospects of Mongolian insurance market. *Wschodnioeuropejskie Czasopismo Naukowe, 4-3*(32), 23-26. Retrieved from <https://elibrary.ru/item.asp?id=35051044>
- Chalmers, J., & Reuter, J. (2012). How Do Retirees Value Life Annuities? Evidence from Public Employees. *Review of Financial Studies, 25*(8), 2601-2634. Retrieved from <https://www.nber.org/papers/w15608>
- Chang, C. (2018). The dynamic linkage between insurance and banking activities: An analysis on insurance sector assets. *Journal of Multinational Financial Management, 46*(9), 36-50. <https://doi.org/10.1016/j.mulfin.2018.07.001>
- Gaganis, C., Hasan, I., Papadimitri, P., & Tasiou, M. (2019). National culture and risk-taking: Evidence from the insurance industry. *Journal of Business Research, 97*(4), 104-116. Retrieved from <https://doi.org/10.1016/j.jbusres.2018.12.037>
- Geng, X., Janssens, W., Kramer, B., & List, M. (2018). Health insurance, a friend in need? Impacts of formal insurance and crowding out of informal insurance. *World Development, 111*(11), 196-210. Retrieved from <https://www.ifpri.org/publication>
- Hong, J., & Hun Seog, S. (2018). Life insurance settlement and the monopolistic insurance market. *Insurance: Mathematics and Economics, 81*, 36-50. <https://doi.org/10.1016/j.insmatheco.2017.12.003>
- Ingosstrakh. (2017). *Финансовая отчетность [Finansovaya otchetnost]*. Retrieved from https://www.ingos.ru/company/disclosure_info/about_finance/
- Insurance Information Institute. (2018). *Facts + Statistics: Insurance Company Rankings*. Retrieved from <https://www.iii.org/node/32064>
- Insurance Today. (2018). *Состояние лицензий [Sostoyanie litsenziy]*. Retrieved from <http://www.insur-info.ru/licence/?page=1&order=date&search=%EE>
- Koijen, R. S. J., & Yogo, M. (2016). Shadow Insurance. *Econometrica, 84*(3), 1265-1287. Retrieved from <https://www.econometricsociety.org/publications/econometrica/2016/05/01/shadow-insurance>
- Kuzmenkova, V. D. (2016). Устойчивое развитие регионов России [Ustoychivoye razvitiye regionov Rossii]. *Vestnik Voronezhskogo gosudarstvennogo universiteta inzhenernykh tekhnologii, 2*, 257-261. Retrieved from <https://elibrary.ru/item.asp?id=26774473>
- Kuznetsov, Yu. V. (2014). *Государственное стратегическое управление [Gosudarstvennoe strategicheskoe upravlenie]* (320 p.). St. Petersburg. Retrieved from <https://publications.hse.ru/books/77741973>
- Laux, C., & Muermann, A. (2010). Financing risk transfer under management problems: mutual versus stock insurers. *Journal of Financial Intermediation, 19*(3), 333-354. Retrieved from https://papers.ssrn.com/sol3/papers.cfm?abstract_id=908860
- Lobo-Guerro, L. (2014). The capitalization of "excess life" through life insurance. *Global society, 3*, 300-316. Retrieved from https://www.researchgate.net/profile/Luis_Lobo-Guerrero
- Mnykh, M. V. (2017). Competition in the insurance market of Ukraine and the peculiarities of its control. *Priority research areas Collection of scientific articles, 79-94*. Retrieved from <https://elibrary.ru/item.asp?id=30768321>
- Mohy Ul Din, S., Regupathi, A., & Abu-Bakar, A. (2017). Insurance effect on economic growth—among economies in various phases of development. *Review of International Business and Strategy, 27*(4), 501-519. Retrieved from <https://www.scilit.net/article/445201d7be491dfb7b392c94887f26c8>
- Njegomir, V., & Stojić, D. (2010). Does insurance promote economic growth: The evidence from ex-Yugoslavia region. *Ekonomiska misao i praksa, 31-48*. Retrieved from https://www.researchgate.net/publication/229024117_Does_insurance_promote_economic_growth_the_evidence_from_ex-Yugoslavia_region

21. Orłaniuk-Malitskaya, L. A. (2017). Региональное страхование: теоретический аспект [Regionalnoye strakhovaniye: teoreticheskiy aspekt]. *Strakhovoye delo*, 9, 49-55. Retrieved from <https://elibrary.ru/item.asp?id=30054702>
22. Osadchaya, T. G., Meshkova, L. L., & Kulakova, A. E. (2015). К вопросу о проблемах развития дотационных регионов в современной России [К вопросу о problemakh razvitiya dotatsionnykh regionov v sovremennoy Rossii. *Sotsialno-ekonomicheskiye yavleniya i protsessy*, 10(9), 107-112. Retrieved from <https://cyberleninka.ru/article/n/k-voprosu-o-problemah-razvitiya-dotatsionnyh-regionov-v-sovremennoy-rossii>
23. Ouédraogo, I., Guérineau, S., & Sawadogo, R. (2016). Life Insurance Development and Economic Growth: Evidence from Developing Countries. *Études et Documents*, 16, CERDI. Retrieved from <https://halshs.archives-ouvertes.fr/halshs-01385002/>
24. Outreville, J. F. (2013). The Relationship between insurance and economic development: 85 empirical papers for a review of the literature. *Risk Management & Insurance Review*, 16(1), 71-122. Retrieved from <https://doi.org/10.1111/j.1540-6296.2012.01219.x>
25. Porrini, D. (2017). Regulating big data effects in the European insurance market. *Insurance Markets and Companies*, 8(1-16), 6-15. Retrieved from <https://businessperspectives.org/journals/insurance-markets-and-companies/issue-1-contents-4>
26. Prokopjeva, Ye. L. (2018). Источники и механизмы повышения региональной эффективности страхования [Istochniki i mekhanizmy povysheniya regionalnoy effektivnosti strakhovaniya] (208 p.). Novosibirsk.
27. RESO-Garantiya. (2017). Retrieved from the official websites of insurance company RESO-Garantiya <https://www.reso.ru/>
28. Rosgosstrakh. (2017). Раскрытие информации ПАО СК "Росгосстрах" [Raskrytiye informatsii PAO SK Rosgosstrakh]. Retrieved from <https://www.rsgs.ru/about/investors/oao/index.wbp/>
29. Russell Toth, F. J., Frank, K., Groeneveld, J., & Müller, B. (2019). Ecological Vulnerability Through Insurance? Potential Unintended Consequences of Livestock Drought Insurance. *Ecological Economics*, 157, 357-368. <https://doi.org/10.1016/j.ecolecon.2018.11.021>
30. Rybin, V. N., & Skobeleva, I. P. (2015). Государственное регулирование страховой деятельности в регионах Российской Федерации на основе целевых показателей и индикаторов [Gosudarstvennoye regulirovaniye strakhovoy deyatel'nosti v regionakh Rossiyskoy Federatsii na osnove tselevykh pokazateley i indikatorov]. *Ekonomika i upravleniye v XXI veke: nauka i praktika*, 2, 113-125.
31. Sholoiko, A. S. (2018). Characteristic of American insurance market infrastructure. *Sciences of Europe*, 23-2(23), 16-18. Retrieved from <https://elibrary.ru/item.asp?id=32452239>
32. SOGAZ Insurance Group. (2017). Отчетность по российским стандартам [Otchetnost po rosiyskim standartam]. Retrieved from <https://www.sogaz.ru/investor/reporting/>
33. Swiss Re Group. (2017). World insurance in 2016: The China growth engine steams ahead. *Sigma. Ltd.*, 3, 57. Retrieved from <https://www.swissre.com/> (accessed on June 2018).
34. Swiss Re Group. (2018, June). World insurance in 2017: solid, but mature life markets weigh on growth (2018). *Sigma. Swiss Re Ltd.*, 3, 48. Retrieved from <https://www.swissre.com/>
35. Tarasova, Yu. A., & Voskovskaya, E. S. (2018). Оценка региональных рынков страхования и их влияние на российский страховой рынок [Otsenka regionalnykh rynkov strakhovaniya i ikh vliyanie na rossiyskiy strakhovoy rynek]. *Strakhovoye delo*, 10, 36-53. Retrieved from <https://publications.hse.ru/articles/226751731>
36. The Central Bank of the Russian Federation. (2018). Статистические показатели и информация об отдельных субъектах страхового дела [Statisticheskiye pokazateli i informatsiya ob otdelnykh subyektakh strakhovogo dela]. Retrieved from https://www.cbr.ru/finmarket/supervision/sv_insurance/
37. Vorontsov, P. G. (2014). Влияние страховых компаний на развитие региональной экономики в РФ [Vliyanie strakhovyykh kompaniy na razvitie regionalnoy ekonomiki v RF]. *Ekonomika i predprinimatel'stvo*, 7, 279-285. Retrieved from <https://elibrary.ru/item.asp?id=21802781>
38. VTB Strakhovaniye. (2017). Отчётность [Otchetnost]. Retrieved from https://www.vtbins.ru/about/compani_reporting/osbu
39. Yefimov, O. N., & Kochubey, I. A. (2017). Страховой рынок и страховой бизнес: проблема региональной дифференциации [Strakhovoy rynek i strakhovoy biznes: problema regionalnoy differentsiatsii]. *Strakhovoye delo*, 5, 13-19. Retrieved from <https://elibrary.ru/item.asp?id=29256975>
40. Zheng, Hui, & Zhao, Xin (2017). The dynamic relationship between insurance development and economic growth. *New evidence from China's coastal areas*, 11(5), 102-109. Retrieved from <https://academicjournals.org/journal/AJBM/article-references/7AA1C4D63368>