


# “Insurance instruments in risk management of the manufacturing sector of a region: the case of the Republic of Khakassia (Russia)”

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# INSURANCE INSTRUMENTS IN RISK MANAGEMENT OF THE MANUFACTURING SECTOR OF A REGION: THE CASE OF THE REPUBLIC OF KHAKASSIA (RUSSIA)

## Abstract

Socio-economic development of a region is based on its production capacity. However, most regions in Russia are characterized by financial instability of local enterprises and the lack of a balanced structure of the regional economy. Insurance is an instrument of financial protection against risks, and its effective functioning is important for the development of the manufacturing sector, especially in depressed regions.

This paper aims to highlight the mechanisms for increasing the production capacity of a region and reducing business risks with the help of insurance instruments and to provide appropriate recommendations for the development of the insurance market. This is planned to be achieved on the basis of analysis and processing of existing scientific research in this field and statistical materials.

For this, a typology of regions was developed, which reflects the level of production in the region and is important in terms of developing the regional insurance market. This allows assessing the impact of insurance coverage in the region on the development of its production capacity. The proposed typology allows determining the causes of production inefficiency. The conformity of the development of the regional insurance market to the needs for insurance coverage of the production sector in the region was assessed. The identified imbalance between the provision of insurance coverage and the need for it allowed demonstrating an additional need for insurance, as well as working out a program for its development.

The obtained results are illustrated using the example of the Republic of Khakassia, a constituent entity of the Siberian Federal District of the Russian Federation. To implement risk management in the manufacturing sector, schemes of interaction between insurance market participants using commercial and non-commercial insurance are proposed.

## Keywords

insurance, regional economy, typology, manufacturing sector, risk management

## JEL Classification

G22, R11

## INTRODUCTION

Socio-economic conditions of the functioning and development of countries and regions differ significantly from each other. In many regions of the Russian Federation, the extractive industry is the basis of the real sector of the economy, due to the geographic, climatic and natural resource characteristics of the country. The current situation causes many economic problems, such as poor diversification of the production structure of the economy in most Russian regions, limited investment and tax opportunities, and lack of financial infrastructure, including insurance. The vast majority of RF entities depend on subsidies from the federal budget. For such regions, the importance of the

development of the insurance market is unquestionable, since it not only ensures the financial security for economic entities, but also intensifies their financial and investment activities in remote regions of the country. In the meantime, it should be combined with the existing regional needs, contributing to the further effective development of the region.

The purpose of the paper is to highlight the mechanisms of strengthening the production capacity of the region and reducing business risks through insurance instruments and provide appropriate recommendations on the development of the insurance market.

It is assumed that insurance is a concept of financial protection against economic risks. Therefore, to develop the regional insurance market aimed at revealing and strengthening the production capacity of the region, it is necessary:

- to assess the real level of development of the manufacturing sector in the region. To this end, it is proposed to consider the region typologies used in practice, reflecting the level of production in the region, on the one hand, and significant in terms of the development of the regional insurance market, on the other;
- to use the typologies to describe the real level of production in the region and identify problems;
- to link the real level of production in the region with the risks posed by the manufacturing sector of the region;
- to analyze the level of development of the regional insurance market in order to assess the real situation with the use of insurance types.

These tasks are considered using the Republic of Khakassia as an example.

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## 1. LITERATURE REVIEW

Since the role of the insurance sector and its contribution to economic development is one of the paramount issues, the importance of studying the relationship between financial development and economic growth is emphasized (Outreville, 2013; Prokopjeva, 2020). Njegomir and Stojić (2010) focus on the impact of insurance on the indicators of economic growth, which is more effective in interaction with the banking sector. In developing economies, insurance growth rates are significant, and its impact on economic processes is more pronounced. Mohy et al. (2017) illustrated this relationship by the cases of China, India, Pakistan and Malaysia. In particular, they confirm the existence of a significant causal relationship between the development of insurance and economic growth indicators in the country and regions. However, these connections manifest themselves differently due to different income levels and locations. It is also noted that the impact of insurance devel-

opment on a country's economic growth significantly depends on the efficiency of investments by insurers (Lee et al., 2018).

Insurance improves financial stability, thereby facilitating trade and business development (Mdanat et al., 2019). However, there are opinions that the impact of long-term insurance on economic growth is non-uniform. Econometric results show that, on the one hand, the development of insurance has a positive effect on GDP per capita, and on the other hand, this effect varies depending on the economy's structural characteristics (Ouédraogo et al., 2016).

In the last decade, the processes of financial convergence, characteristic of both European and Asian countries of different levels and dynamics of development, have intensified (Kuznetsova & Pisarenko, 2017).

It is worth noting the research on the interaction of the insurance market and the national econo-

my. Thus, Mnykh (2017) notes that the effective development and growth of the insurance market in modern conditions is determined by two factors, such as competition and competitiveness of insurance companies.

The efficiency of the insurance market at the regional level is determined by the existing state regulation mechanism in a country (Efimov & Kochubey, 2017; Orlanyuk-Malitskaya, 2017; Belozyorov, 2018).

Chalmers and Reuter (2012), Laux and Muermann (2010), and Lobo-Guerro (2014) discuss the problematic issues of the functioning of regional insurance markets and their impact on economic development in different countries.

Some authors agree on the uneven development of regional insurance markets, due to the influence of different factors in the regions and the presence of various risks (Belozyorov et al., 2018; Porrini, 2017).

Alyakina et al. (2018), Tarasova and Voskovskaya (2018) considered the risks of the functioning and development of regions, their specificity and causes of occurrence. Blake (2013), Kalaida and Chernova (2016), and Shkolnyk et al. (2019) studied the risks arising in financial markets and the risks inherent in financial convergence processes. Yakymchuk et al. (2017) focus on the possibilities of insurance protection of a region with significant nature reserves.

Gaganis et al. (2016) indicate that national characteristics and organizational and legal factors of the insurance market in a particular country affect the level of internal regional risks.

Different classifications of development factors of regions and their insurance markets are also offered (Kuzmenkova, 2016; Pchela, 2016). Vorontsov (2014), Kuznetsova et al. (2019), Tarasova and Voskovskaya (2018) agree that the sustainable development of individual regions depends on all-Russian and regional factors.

There is little research on regional in-country insurance problems, faced primarily by geographically enlarged countries. Studies show that the

impact of insurance on economic growth in such countries is determined by production efficiency and marginal income in specific regions (Zheng & Zhao, 2017), that is, the dynamics of insurance premiums is largely determined by the situation in the labor market. Thus, the growth of the personal insurance market, including life insurance, is determined by the dynamics of employment and wages, as an increase in income entails an increase in insurance premiums. That is why the fast-growing economies of Asia and Latin America show the highest growth rates of their insurance markets. An example is the rapidly growing Chinese market, which is also characterized by a fairly high concentration (Sigma, 2019).

Arkhipov (2017) studies the development risks of the Russian insurance market. Belozyorov et al. (2018) and Chernova et al. (2017) analyze the factors influencing the development of insurance at both the federal and regional levels of government, while Prokopjeva (2019) and Rusetskaya (2013) consider problems and promising directions of the insurance market development in the Russian Federation and regions.

Alyakina (2018) and Domnina (2018) consider the risks of regional insurers in Volga Federal District companies. Keneshova (2018) and Prokopjeva (2018) use economic and mathematical methods to assess regional insurance markets.

Tsvetova and Stemkovskaya (2018) emphasize the importance of regional insurance markets as one of the main factors of regional economic development, growth in investment activity, increase in social and economic stability in society and confirm this using the insurance market of the Far Eastern Federal District as an example.

An important component of regional insurance is life insurance, the development of which will contribute to a greater coverage of potential policyholders, ensure the availability of insurance services for all categories of citizens and legal entities (Chernyavskaya & Izyumova, 2018).

Kirillova (2018) pays special attention to regional insurance policy. Tarasova et al. (2018) and Tsyganov and Kirillova (2018) assess the impact of the regional insurance market on the insurance

market of the Russian Federation, and Vorontsov (2014) – on the development of the regional economy.

It is proposed to consider the example of the Republic of Khakassia, which is a subject of the Siberian Federal District (SFD). SFD includes 10 constituent entities of the Russian Federation, including republics, territories and regions. Its territory is about 30% of Russia. The area of the Republic of Khakassia is 61,569 km<sup>2</sup> (this is 1.2% of the territory of the Siberian Federal District and 0.4% of the territory of the Russian Federation). It includes five cities and eight districts. The regional economy is based on hydropower and aluminum production. Coal mining, which has been growing rapidly in recent years, also accounts for a significant share of the region’s manufacturing sector. There are conditions for the development of agriculture, both crop and animal production. At the same time, Khakassia is an area of risky agriculture, where severe weather conditions are regularly observed, so there are natural and climatic risks.

In Russia, the typology of regions can be determined by the *spatial concentration of a particular economic sector*; that is, they can be mono-industry (metallurgical, agricultural, etc.) and multi-industry (with a diversified structure of the regional economy).

Figure 1 shows the production structure of the economy of Russia, the Siberian Federal District

and the Republic of Khakassia (RKh) (Federal State Statistics Service, 2019).

The main industries of the Republic of Khakassia, in addition to manufacturing and extractive industries (20% and 12.5%, respectively), are the energy industry (15%) and trade (12.4%). However, the region’s economy is still based on the extractive industry, as it provides GRP growth.

Figure 2 shows the structure of the extractive industry (Federal State Statistics Service, 2019).

All of these industries are harmful and dangerous, which indicates the existence of many regional risks that require organizational, technical, technological and financial protection. Risks inherent in coal mining are the most significant for the region, they are: environmental risk, the risk involved in the operation of hazardous industrial facilities (explosive production), and health risks for both coal workers and all residents.

The manufacturing industry is also of great importance for the region’s economy. Figure 3 shows the structure of the manufacturing sector (Federal State Statistics Service, 2019).

Russia’s manufacturing industry as a whole is characterized by an even distribution of production by industry. In the Siberian Federal District, there is already an imbalance, and in Khakassia,

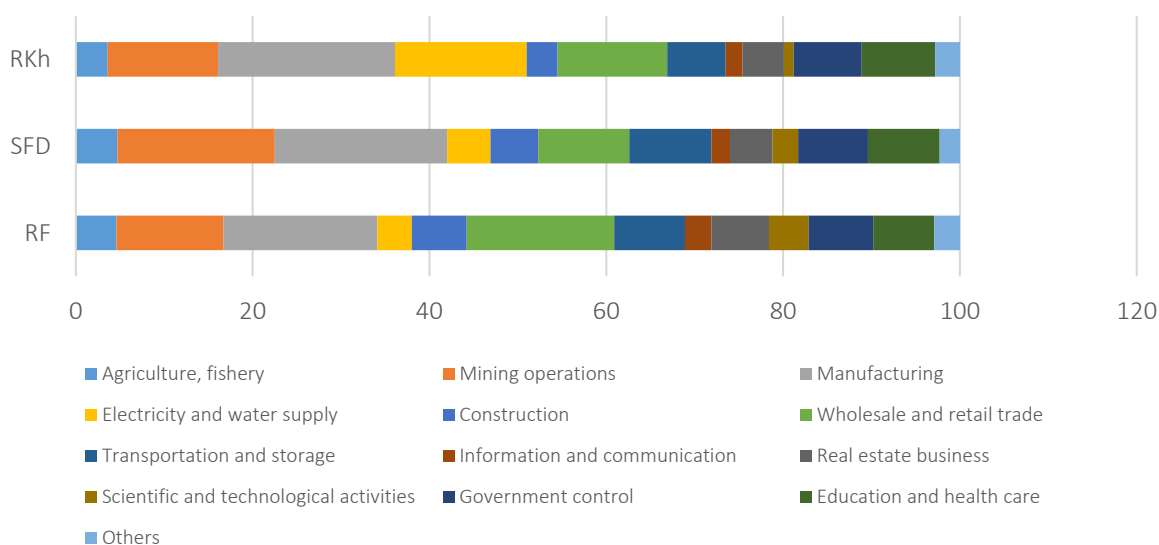
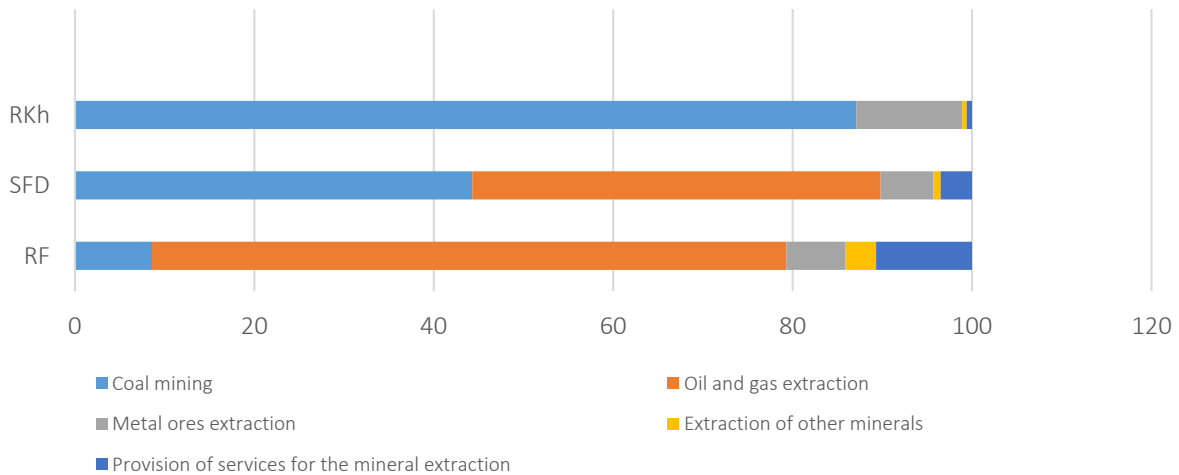


Figure 1. GDP/GRP structure by value added in 2018, %



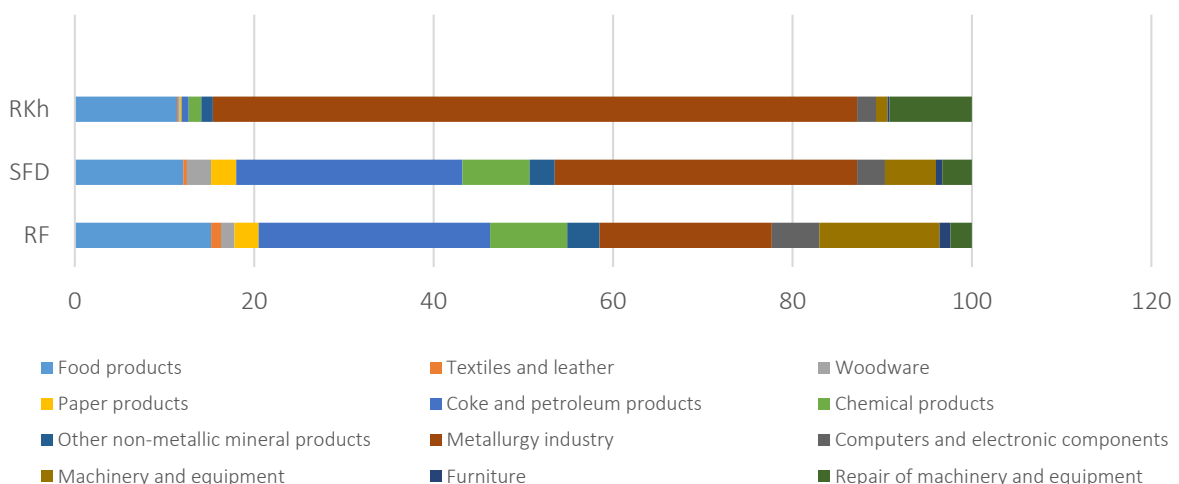
**Figure 2.** The structure of the extractive industry by production volumes in 2018, %

the metallurgical industry absolutely prevails (over 70%). Food industry (11%) and the repair of machinery and equipment (9.2%) rank second. Metallurgical production in Khakassia is represented by the production of aluminum and aluminum products. Low diversification of manufacturing in the region is a problem of balanced sustainable economic development and is associated with underdevelopment of small and medium-sized businesses, as well as low investment activity. One of the main industries in Khakassia is the production of electricity, which is produced by the most powerful hydroelectric power plant located here.

As one can see, the economy of Khakassia is characterized by a mono-industry orientation, which is also characteristic of most constituent entities of the Siberian Federal District.

The problem of such cities is weak innovation and investment activity due to the limited financial capabilities of the enterprises themselves and the lack of other investors (Zainutdinov, 2015). The concentration of mono-industry cities in the Siberian Federal District is typical of the Kemerovo region, where there are 24 of them. The main cities' specializations are coal mining, non-ferrous metallurgy, power engineering, and woodworking. There are six mono-industry settlements in Khakassia. These are the cities of Abaza, Sayanogorsk, Sorsk, Chernogorsk, Vershina Tyoi, and Tuim. The total share of industrial production of these municipalities is over 77% of the total industrial production of the region.

The mono-industry structure of the economy entails the following features of the region's devel-



**Figure 3.** The structure of the manufacturing industry by production volumes in 2018, %

opment: high environmental risk associated with the predominance of metallurgical, coal and other industries; dependence of citizens' incomes on the activities of city-forming enterprises; monopoly pricing of mining products; a small share of small and medium-sized businesses due to the lack of a competitive environment.

According to the typology of the country's regions by *regional economic climate*, all regions are divided into those characterized by economic growth, stagnant, and depressive. Such a classification is possible on the basis of the "rate of change in gross regional product (GRP)" (Federal State Statistics Service, 2019a), although it does not always give an objective picture, since regions often increase economic growth due to the raw materials sector.

Over the past seven years, the regions of the Siberian Federal District have seen a marked decline in the GRP rates in Khakassia, Tyva and the Tomsk region, where the average annual GRP growth is less than 100%. Given that the average annual GDP growth in Russia during the period under review was 101.5%, regions with similar GRP growth rates can be classified as stagnant.

According to the typology of the country's regions, based on the *geographic location and the effect of agglomeration*, the regions are divided into growing megalopolises, agricultural regions and depressed regions.

There are 15 megacities in Russia, or as they are called, "cities with a million-plus population". They are concentrated in central Russia or are the capitals of administrative-territorial units. Agricultural regions usually do not exist in their pure form, as a rule, the agro-industrial complex simply occupies a large share in the GRP structure. These include mainly the constituent entities of the Central, Volga and Southern Federal Districts.

The most depressed are the regions where the extractive structure of the economy prevails. The region's depressiveness has a negative impact on all its socio-economic processes. Factors that determine it are some features of the geographical location of the region (for example, distance from the center); historical features and administrative-territorial division; natural and climatic conditions

that determine the settlement of inhabitants, etc.

The depressed regions of the Siberian Federal District include the Republic of Khakassia, Altai, Tyva and the Trans-Baikal Territory (Comments on the State and Business, 2016).

There is a typology of the country's regions based on their *problematic nature*. Factors that significantly affect the rates and volumes of development of individual regions are the availability of potential in the region to realize the country's strategic interests and the adequacy of financial and other resources for its implementation. The different ratio of these two factors leads to the fact that, in addition to the regions in which both factors are present (primarily the regions of the European part of Russia), there are also problem regions with a potential for the realization of the country's strategic interests (the first factor is present), but financial and other resources are not enough for its implementation (the second factor is missing).

Problem regions are divided into national-territorial formations (Caucasus and Southern Siberia) and regions of new development (North, Far East).

The territory of Siberia is of strategic importance; the most significant are the fuel and energy resources located here, which confirms the existence of potential in its territory to realize the strategic interests of the country. However, given the financial capacity of the region and the level of its budget support, it becomes clear that most regions of the Siberian Federal District are problematic.

The biggest problems in integrated development are characteristic of the regions of new development and national-territorial entities. The former require significant financial investments that are not immediately profitable, the latter are usually inert to innovations. The second group includes Khakassia, where the budget provision index is 0.65. At the same time, there is an increase in the budget deficit and public debt. Thus, as of December 1, 2019, the total amount of public debt of the Republic of Khakassia amounted to 20,734 million rubles, of which 65% were budget loans, 28.5% were government securities, and 8% commercial debt. For comparison, in 2017, the budget revenues of the Republic of Khakassia amounted

to 18 billion rubles, and for 2018 and 2019 they are planned at 19 billion rubles (Ministry of Finance of the Republic of Khakassia, 2019). If a region's debt is comparable to its revenue, this characterizes the region as close to default.

Despite the difficult economic situation, Khakassia remains a strategically important region for the country, as it employs non-ferrous metallurgy, coal mining, energy production and other enterprises, many of which are export-oriented.

Typology of the country's regions based on the *level of environmental risk* – regions with high, medium and low environmental risks. This classification is important for the study of regions with an economic structure with a predominance of the industrial sector, which includes, in particular, the Republic of Khakassia.

The level of environmental risk is growing steadily across the country. This is due to the extensive path of economic development. The latter causes significant damage to natural resources and the environment.

However, many constituent entities of the Russian Federation are now paying close attention to environmental safety, which can significantly reduce environmental risks. Nevertheless, a number of Siberian regions are the most environmentally polluted. These include cities where metallurgical, oil and energy industrial enterprises are located – Norilsk, Novokuznetsk, Omsk, Krasnoyarsk, Novosibirsk, Angarsk, Bratsk (All-Russian Public Organization Green Patrol. National environmental rating of regions, 2018).

Among the regions of the Siberian Federal District are both environmentally friendly and polluted, the latter predominate. The Siberian Federal District itself ranks 7th among eight federal districts, which indicates serious environmental problems. In terms of environmental risk, Khakassia ranks 30th out of all constituent entities of the Russian Federation. However, environmental hazards in the region are increasing in influence – this includes a large-scale increase in the volume of production by coal industry and non-ferrous metallurgy enterprises, as well as the use of mineral fertilizers in agriculture. Industrial enterprises in neighboring regions,

whose emissions are carried by the wind, also cause environmental damage. But the main source of environmental danger is the Sayano-Shushenskaya hydroelectric power station. Its risks are as follows – the likelihood of flooding the territory; the rise of groundwater leads to waterlogging; due to humidity the climate changes.

These typologies of regions make it possible to identify significant factors in their development and, as a consequence, the factors of their production capacity and the associated risks.

Solving the problem of reducing risks and protecting the region from them determines the study of the regional insurance market as an institution of social and financial protection against risks, as well as the need to develop recommendations (using the example of Khakassia) aimed at supporting and developing the manufacturing sector and ensuring the integrated development of the region's economy.

According to the considered typology, the Republic of Khakassia is presented as a region with economic potential, characterized by the predominance of the coal mining, metallurgy and energy industries. All this provokes an increase in man-made, industrial and environmental risks in the region, protection from which is currently extremely weak.

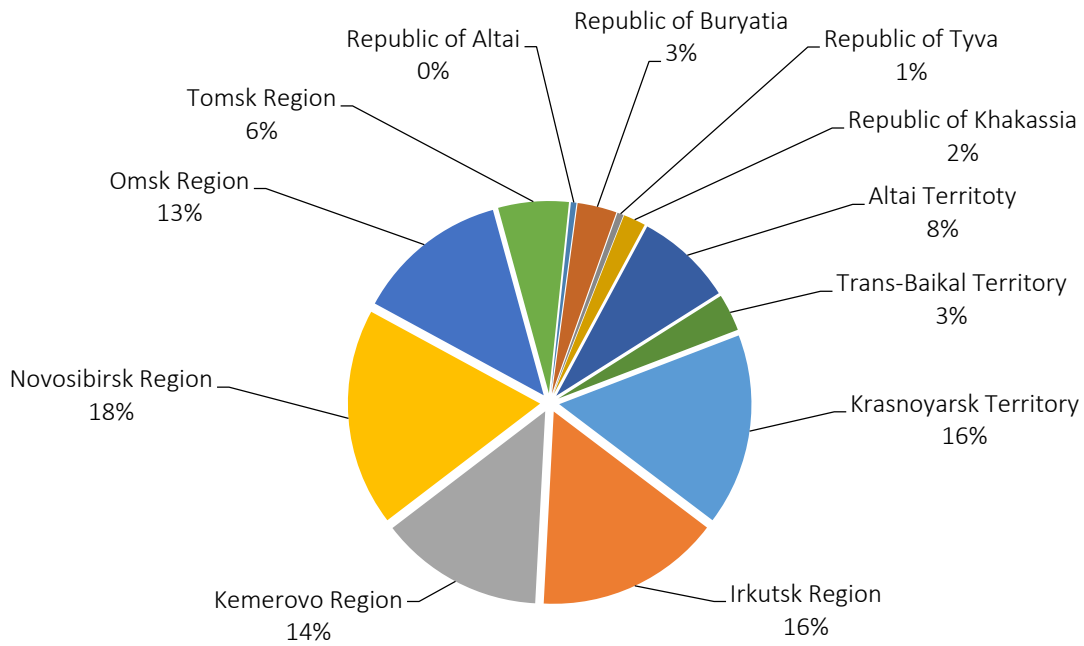
Therefore, to ensure comprehensive protection of the region from risks, it is necessary to consider the already used and possible insurance mechanisms.

## 2. GENERALIZATION OF THE MAIN STATEMENTS

The structure of the insurance market is formed subject to the needs of the region in certain insurance products. Figure 4 shows the structure of the insurance market of the Siberian Federal District, which is determined by the amount of insurance premiums raised in 2018 (The Central Bank of the Russian Federation, 2019).

The largest insurance markets in the Siberian Federal District are the Novosibirsk, Irkutsk,



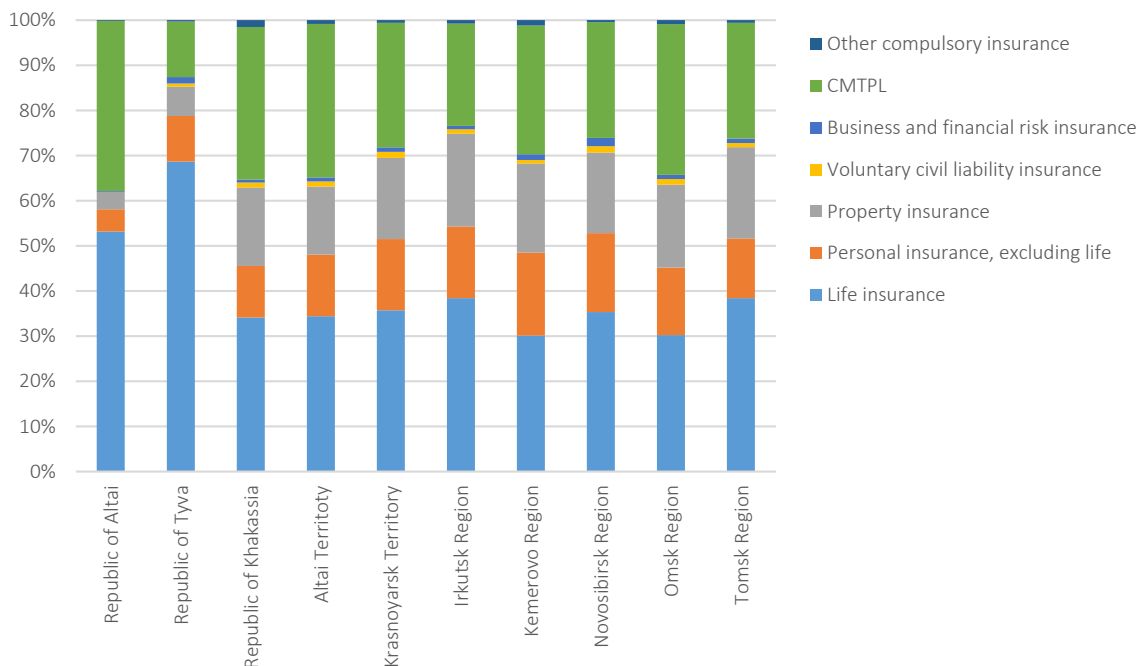


**Figure 4.** Insurance premium structure of the Siberian Federal District by the constituent entities of the Russian Federation in 2018

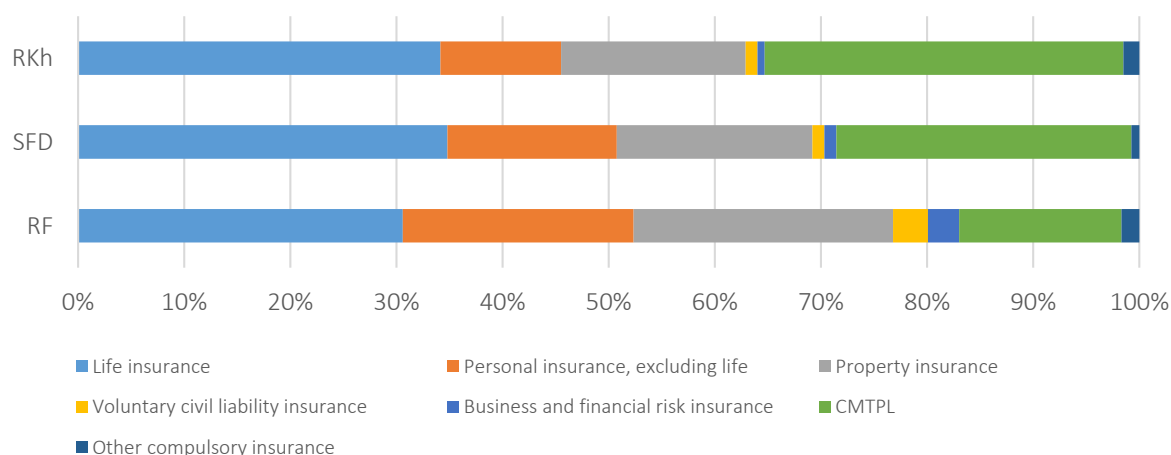
Kemerovo, Omsk regions and the Krasnoyarsk Territory. The remaining regions occupy less than 10% of this structure. The Republic of Khakassia accumulates only 2% of the total premium for the federal district. However, the structure reflects only the total amount of insurance premiums. Figure 5 shows the structure of premiums in the constitu-

ent regions of the Siberian Federal District by type of insurance (The Central Bank of the Russian Federation, 2019).

Life insurance and Compulsory Motor Third Party Liability (CMTPL) prevail in economically backward regions. Such regions include the Republic



**Figure 5.** Insurance premium structure by constituent entities of the Siberian Federal District in 2018



**Figure 6.** Distribution of insurance premiums by type of insurance in 2018

of Tyva, the Republic of Altai and the Republic of Khakassia. This allows one to conclude that in regions with low economic activity and the absence of a diversified manufacturing industry, insurance funds are formed mainly by insuring risks of individuals and by compulsory insurance.

Figure 6 shows the structure of insurance premiums in Russia, the Siberian Federal District and the Republic of Khakassia by main types of insurance (The Central Bank of the Russian Federation, 2019).

In Khakassia, personal insurance (health and accident insurance), property insurance of enterprises and citizens account for a small share. In Khakassia and in the Siberian Federal District, business and financial risk insurance and voluntary liability insurance are limited. It is the types of risks that are important for the sustainable development of the region's economic potential that are not adequately covered by insurance.

In general, the insurance market of the Republic of Khakassia has the following development features:

- the market is represented exclusively by branches of nonresident insurers, which leads to the lack of regional orientation of insurers' policy (Table 1) (The Central Bank of the Russian Federation, 2019);

- there is a high concentration of the insurance market, in which large insurers determine market policy, including pricing policy;
- the development of compulsory types of insurance and standard types of voluntary insurance prevails; and
- there is no investment activity of insurers in the region.

The existing structure of the insurance market in the Republic of Khakassia is determined by the following two groups of factors:

1. *Primary factors:*

- availability of various natural resources and minerals;
- the absolute predominance of several industries, primarily mining;
- features of the development of the national republic, including low receptivity to innovation;

**Table 1.** Dynamics of the number of insurance companies

Number of insurers	1.01.13	1.01.14	1.01.15	1.01.16	1.01.17	1.01.18	1.01.19
Russian Federation	469	432	416	364	297	226	199
Republic of Khakassia (branches)	43	47	48	45	44	53	51

- presence of man-made and natural risks;
  - limited foreign economic relations of the region, mainly represented by exports of raw materials.
2. *Secondary factors:*
- low budget support for the region;
  - low investment attractiveness and innovative activity;
  - stressful environmental situation due to the expansion of coal production;
  - favorable conditions for the development of agriculture;
  - poorly diversified (mono-industry) structure of the economy;
  - a small proportion of small and medium enterprises;
  - low income of citizens and outflow of labor from the region.

These factors determine the negative impact on the development of the regional economy and the regional insurance market. Given the structure of the regional economy, its development potential, as well as the existing structure of the insurance market and the need for insurance services, a number of measures are needed to ensure insurance coverage in the region in such a quality and volume that would give impetus to effective production, financial, investment, and social potential of the region.

The main direction of the regional economic policy in Khakassia should be the diversification of the economy, including the implementation of vertical integration in industry (extractive and processing industries). The competitive advantage of the region may be its agrarian potential, which currently makes a small contribution to the region's production. Sources of available investment resources are needed to intensify these areas of regional development. One of such sources may be the development of the insurance market, which accumu-

lates large investment resources, which implies the presence of regional insurance companies.

The insurance market significantly contributes to solving these problems. It supports the financial sustainability of insured companies in the implementation of various risks associated with production activities. Therefore, the creation of regional insurance organizations with the assistance of regional authorities or large enterprises of the regional level is the most important direction of insurance development in the region.

In Russia, regional insurance companies are scattered. Table 2 shows the distribution of registered insurance entities (IE) by federal district (The Central Bank of the Russian Federation, 2019).

**Table 2.** Distribution of insurance entities by federal district in 2018

Regions	Number of registered IE	Share, %
Central Federal District	183	69.3
Including Moscow	170	64.4
Northwestern Federal District	20	7.6
Including St. Petersburg	18	6.8
Southern Federal District	6	2.3
North Caucasian Federal District	0	0
Volga Federal District	20	7.6
Ural Federal District	13	4.9
Siberian Federal District	14	5.3
Far Eastern Federal District	8	3

70% of entities are registered in the Central Federal District, while in the Siberian Federal District only 5.3%. In Khakassia, as in many Russian regions, there are no insurers at the regional level – as of January 1, 2019, there were 46 such entities of the Russian Federation (The Central Bank of the Russian Federation, 2019). This leads to a lack of interest of branches in expanding the coverage of insurance objects and optimizing the pricing policy set by the parent company. Branches of insurers in the regions often provide compulsory insurance services, and to keep profitability, in addition to them, they try to sell voluntary insurance policies. Such sales and follow-up schemes are of low quality. Therefore, the development of its own competitive insurance market is an urgent problem for any region of the Russian Federation.

A regional insurance organization may be established by the authorities of a constituent entity of the RF to provide types of insurance that are important for the region, in cases where the relevant insurance services are either not provided by non-resident insurers, or are sold by them in a limited amount, while the cost of these services for this region is overstated (the latter parameters are estimated by the ratio of insurance payments to premiums or by inter-regional comparison).

A regional company should be focused, first of all, on the prospects for development of insurance in the region by implementing priority directions of insurance and providing the following services:

- 3) insurance of property of enterprises, covering production, business, investment and agricultural risks;
- 4) insurance of property of citizens, first of all, housing;
- 5) voluntary insurance against accidents at work, voluntary health insurance, primarily at the expense of large enterprises that are dangerous

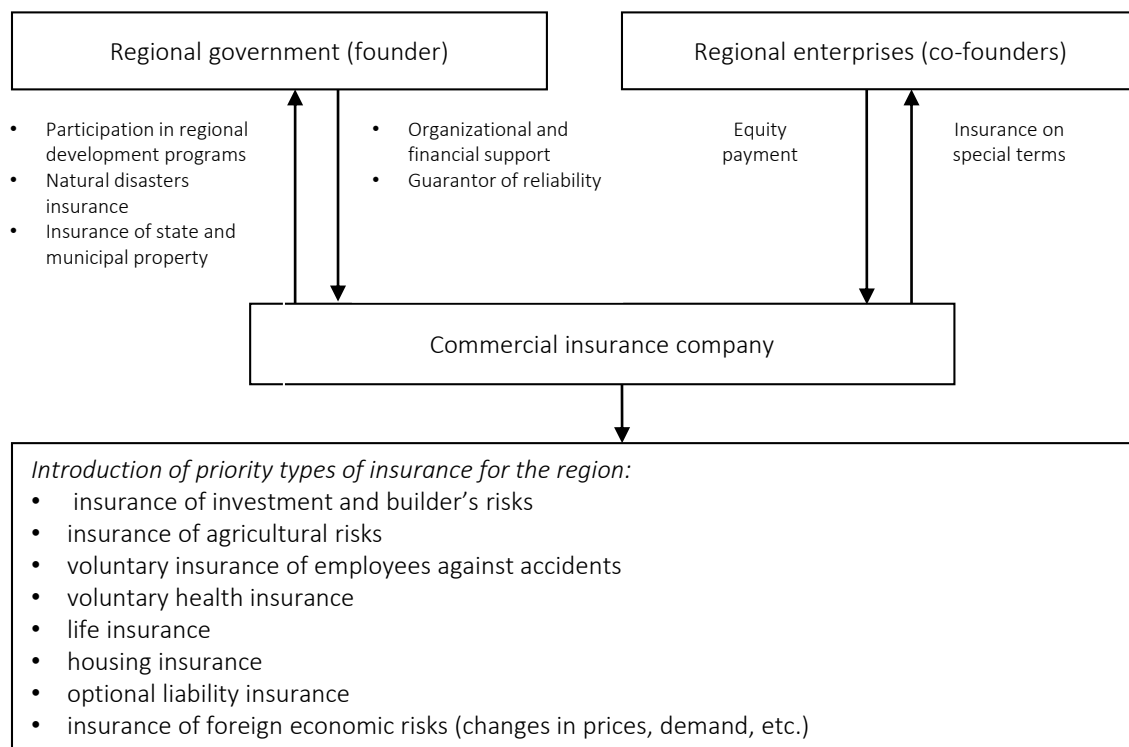
objects and pollute the environment. Voluntary health insurance (VHI) should be aimed at early diagnosis of cancer and other diseases associated with harmful working and living conditions;

- 6) environmental risk insurance and other types of liability insurance.

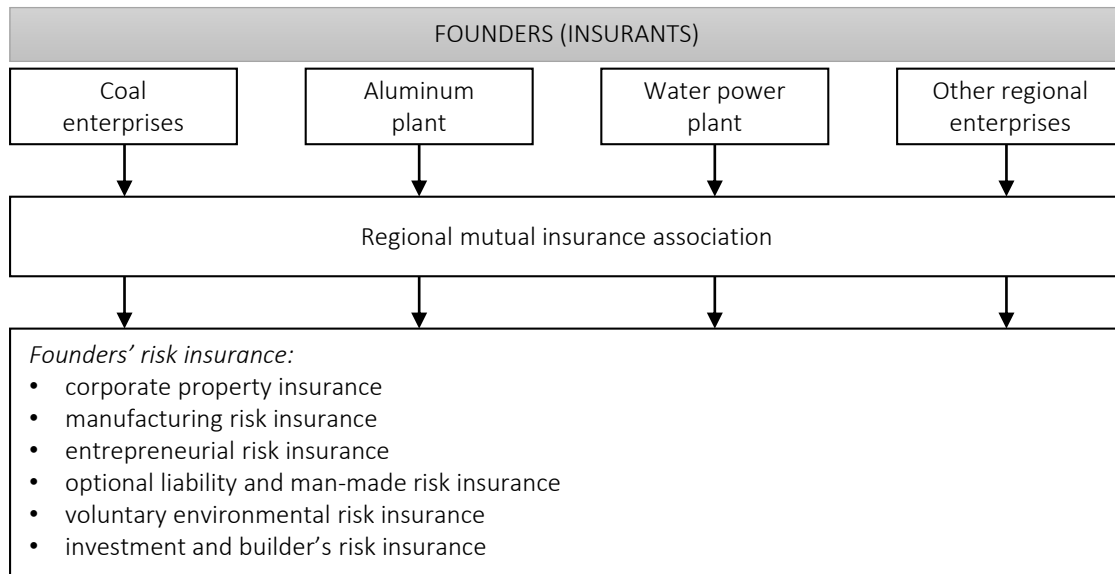
Regional insurers can be created in two forms: a commercial insurance company and a mutual insurance society (MIS).

The cost of insurance through MIS can be much lower. Its scope usually includes the highest or specific risks that commercial insurance companies are reluctant to accept. As a non-profit organization, MIS has tax benefits. However, the problem of organizing an MIS in a small region is high organizational costs that must be borne by stakeholders. There are also legal restrictions on the activities of MIS: they can only insure property risks and cannot engage in compulsory insurance (Law of the Russian Federation On Mutual Insurance, 2007).

The scope of activity of commercial insurance companies is quite wide with the appropriate li-



**Figure 7.** Scheme of interaction between participants when creating a regional commercial insurance company



**Figure 8.** Scheme of interaction between participants when creating a regional MIS

cense. However, the cost of their insurance services will be slightly higher, and market entry is more difficult due to competition. Therefore, in the case of organizing a commercial company, the participation of regional authorities as a co-founder and guarantor of reliability is important.

Schemes of interaction between participants in creating a regional insurance company, using the Republic of Khakassia as an example, are shown in Figures 7 and 8.

First of all, the founders of a regional insurance company should be large enterprises operating in the region, as they have: sufficient financial capabilities; the opportunity to insure their risks and employees in full with one insurer and on more favorable terms; the opportunity to receive additional preferences from regional authorities in the form of preferential working conditions in the regional market for their contribution to the development of the regional economy.

Figure 8 lists the largest manufacturing enterprises operating in the Republic of Khakassia (without giving full names), which could theoretically become the founders of an insurer.

The proposed models of interaction between interested participants in insurance relations can increase the competitiveness of insurance companies in the region and improve the quality of insurance services. As a result, the main task of the regional policy will be solved, namely to increase the efficiency of the region's production potential by protecting against risks, as well as through the emergence of investment resources in the regional insurance market.

The development of the social potential of the industrial region is of particular importance, as it is about improving the health and working capacity of the population in the region. Such experience can be useful for other regions with a similar economic situation, where several large enterprises of the extractive industry form the basis, and that have no their own insurance market.

## CONCLUSION

To highlight the relationship and impact of the regional insurance market on the industrial sector of the region, the paper systematizes the typology of regions, the main parameters of which were the indicators of the region's industry related to risks. Based on the results, an analysis of the Republic of Khakassia was conducted.

The current structure of the Republic's economy is characterized by high production and man-made risks. To achieve sustainable socio-economic development of the region and, above all, the effective functioning of its manufacturing sector, effective, socially responsible insurance protection against risks is required, which is not fully implemented in the Republic of Khakassia.

Analysis of the insurance market in Khakassia showed that the region does not have its own insurance companies, and the market is represented by nonresident insurers. Mostly standard insurance services are sold, such as life insurance, accident insurance, corporate property insurance and compulsory types of insurance. The cost of voluntary insurance is overvalued, and the level of insurance coverage is limited compared to other regions of the Siberian Federal District and to average figures in Russia.

Factors in the development of the insurance market in the Republic of Khakassia are the mono-industry structure of the economy, the presence of man-made and natural risks, insufficient budget provision of the region, weak investment attractiveness and innovation activity, low income of citizens. These factors determine the limited demand for insurance services, primarily in the field of voluntary insurance. To form a diversified structure of the economy in the region and, above all, to develop its manufacturing segment, it is important to stimulate insurance that reduces industrial and population risks. This, in addition to providing insurance coverage, will promote insurance investment in the regional economy, job creation, and additional implementation of other activities in the region. Priority types of insurance should be industrial risk insurance, investment insurance, health insurance, and home insurance. The specific effect of the regional insurance market should be realized based on the development and implementation of insurance programs, the content of which should be related to the needs of the regional manufacturing sector in insurance coverage.

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