

Strategic Capital Management in Insurance Organizations

Olga Alekseevna Okorokova¹; Yuliya Makhdievna Makhdieva²; Mikhail Gennad'evich Rusetskiy³;
Evgenia Nikolaevna Kovtun⁴; Olga Nikolaevna Korotun⁵

¹Kuban State Agrarian University (Kuban SAU), Krasnodar, Russia.

²Dagestan State University, Makhachkala, Russia.

³North Caucasus Federal University (NCFU), Stavropol, Russia.

⁴North Caucasus Federal University (NCFU), Stavropol, Russia.

⁵Moscow Polytechnic University (MPU), Moscow, Russia.

Abstract

The actualization of the study is due to the need for a critical understanding of the capital management of insurance organizations at the present stage. The authors consider the mechanism of state regulation of the formation and strategy of capital management in insurance organizations in Russia, identifies the key parameters of financial stability, and evaluates the dynamics and structure of insurance reserves, as well as the profitability of their investment. The purpose of this study is to identify and analyze the development of the insurance market and its investment potential. The original approach of the mechanism for justifying the optimization of the capital of an insurance organization has been proposed. The authors prove that the expansion of the investment potential of insurers will increase the profitability of the use of capital. The authors rely on the regulatory framework. The empirical basis for the study has been presented from official sources and financial statements of insurance organizations. The article is debatable; the provisions and conclusions require further research.

Key-words: Capital, Insurance Reserves, Investment, Placement, Profitability.

1. Introduction

The current state of the ecosystem of the Russian Federation is determined by instability and political disagreements related to international sanctions by the United States, the European Union, and several other countries. The insurance business found itself in a tight corner in such a nationwide situation. External threats in the form of sanctions measures for the entire economy of the country have led to a decrease in the financial potential of insurers and their financial stability. International

financial and economic sanctions have made their negative adjustments to the activities of insurance companies, limiting their capital inflow from outside and increasing the costs of its formation.

One of the indicators that affect the performance of insurance organizations in particular, and, consequently, the insurance market as a whole, is a rational capital structure. Russian insurers need to form an effective system of tools to increase their financial potential for successful competition, high is possible only if there is an effective mechanism for capital formation [1, 2, 9].

The main feature of the financial aspects of insurers is the allocation of insurance reserves as part of the attracted capital. The need for the formation of insurance reserves is due to the probabilistic nature of insurance events and the uncertainty of the moment of occurrence and the amount of damage. The current development of the economy of the Russian Federation makes it necessary to further develop the insurance market. The indicator that affects the performance of insurance organizations is the rational structure of the formed capital (Figures 1 and 2).

Figure 1 – The Mechanism for Justifying the Optimization of the Capital of an Insurance Company

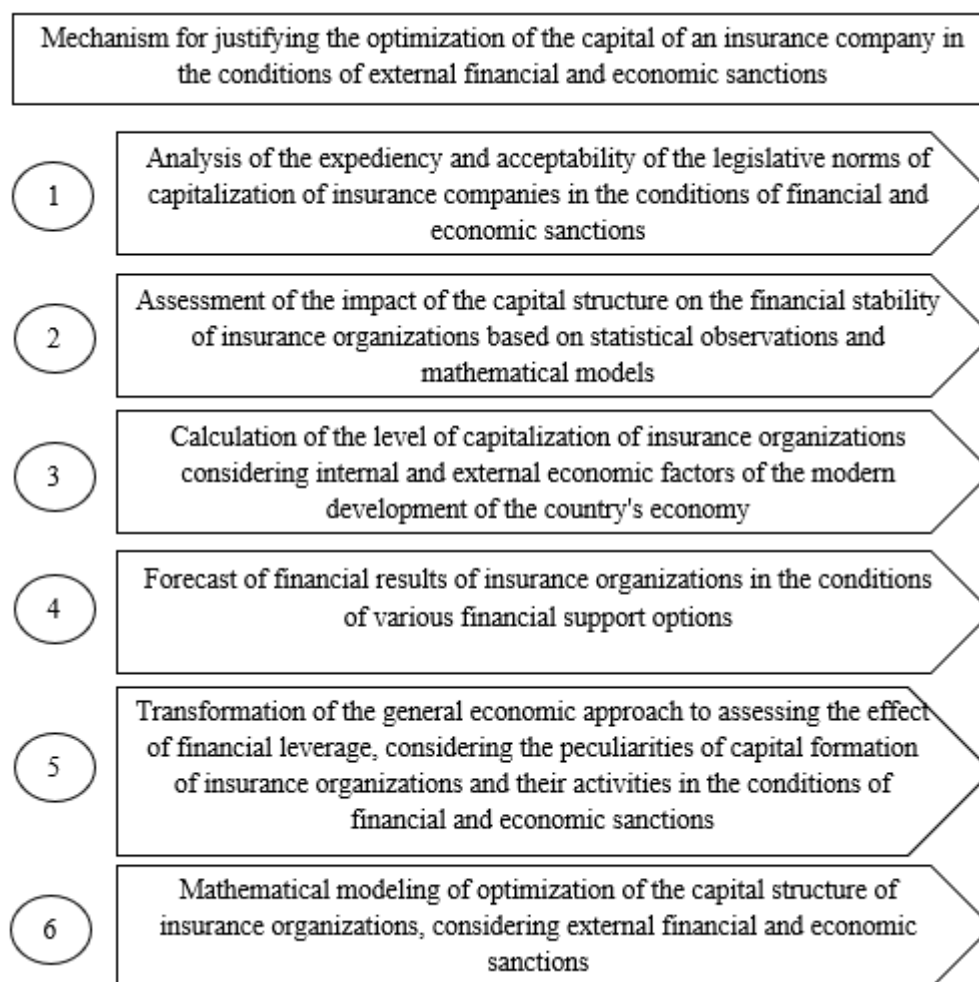
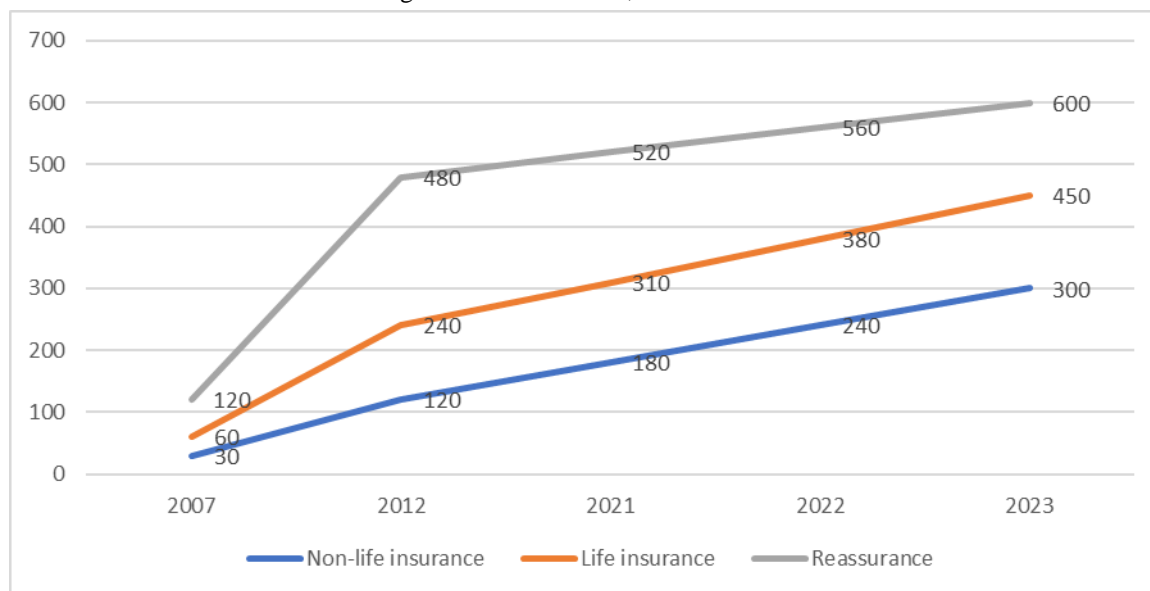


Figure 2 – Statics of Adjustments to the Legislative Increase in the Minimum Size of the Authorized Capital of Insurance Organizations in Russia, Million Rubles



2. Methods

Methods of analysis and synthesis, induction and deduction, generalization of financial and economic processes were used in the course of the research in the implementation of the conceptual provisions of capital management based on an evolutionary approach to the formation of a strategy for sustainable development of insurance institutions under sanctions, integration of the interests of the mega-regulator, insurers, customers, investors, the state in insurance and investment activities to achieve the formation of an adequate eco-environment of financial behavior, increase information and analytical support.

3. Results

The category of capital is defined as the most important tool for the functioning of insurance organizations in the financial market, considering the regulations of the mega-regulator. The mechanism of capital optimization, significant factors of the conditions of financial stability, and solvency of insurance organizations have been identified.

The cumulative impact of risks on the insurer's capital will be assessed as the impact of concentration risk, credit spread risk, interest rate risk, share price risk, exchange rate risk, real estate price risk, credit risk, and price risk for other assets. Therewith, the size of the impact of risks on the solvency of the insurer directly depends on all the assets of the insurer, including the credit quality of

individual assets and the degree of diversification of the credit risk of the portfolio as a whole, the ratio of the duration of assets and liabilities, the size of the open currency position.

Table 1 – Dynamics of Capitalization of Insurance Organizations in Russia for 2010-2019

Indicator	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Number of insurance organizations, units	600	514	436	409	395	360	297	226	199	178
Number of insurance organizations owned by foreign legal entities, units.	19	19	19	18	20	20	19	16	14	14
Authorized capital, billion rubles.	185.1	177.9	198.6	224.1	217.0	204.3	228.3	204.8	200.0	218.9
The volume of deposits of foreign participants, billion rubles.	23.0	23.0	23.1	23.0	27.2	20.0	13.1	14.0	14.4	323.9
Capital, billion rubles.	220.0	222.4	218.4	212.0	223.3	395.4	462.0	605.4	667.3	810.3
Capital return in insurance organizations, USD.	3.6	3.7	4.1	4.0	4.5	5.1	5.2	6.0	7.0	2.8
Profit, billion rubles.	42.1	45.2	80.7	61.4	79.8	141.7	149.7	120.6	204.3	207.4

The authorized capital in 2019 amounted to 218.9 billion rubles, which is 33.8 billion rubles more than in 2010. The growth points were observed in 2013 (224.1 billion rubles), in 2016 (228.3 billion rubles) (Table 1). The amount of foreign capital participation calculated by the Bank of Russia in the total authorized capital of insurance organizations licensed to carry out insurance activities as of January 1, 2020, was 10.83% (as of January 1, 2019 – 11.99%). The decrease in the amount of foreign capital participation in the authorized capitals of insurance organizations is since in 2019, insurance organizations conducted procedures to increase the amount of authorized capital following the requirements of Federal Law No. 251-FL For the first time, following the Instruction of the Bank of Russia No. 3386-U, when determining the amount of foreign capital participation as of January 1, 2020, foreign investments amounting to 51% or more of the shares of the authorized capital carried out after January 1, 2007, were not included in the calculation, provided that these shares (shares) were owned by the investor for 12 years or more.

The reserves of insurance organizations following the requirements of the insurance legislation are divided into:

- Life insurance reserves;
- Reserves for types of non-life insurance (risky types of insurance).

This division is caused by the different content, functions, and tasks of insurance protection, the nature of risks, and, finally, the methodology for calculating tariffs. Life insurance reserves are intended to fulfill obligations under life insurance contracts. They are formed from two parts in Russia: mathematical reserves intended for future payments, and a reserve of an enhanced risk factor intended for current payments.

Most Russian insurance companies mainly form and place reserves for risky types of insurance. Investments made at the expense of this source are short-term. This is since contracts for risky types of insurance, as a rule, do not exceed one year. However, an insurance company engaged in risky types of insurance can also form long-term investment resources. To do this, it needs to track those insurance contracts that will be prolonged by the policyholders in the normal course of events. The premiums received under such contracts will serve as a source of long-term investment resources. The formation of long-term investment resources is one of the principles of the insurer's investment policy.

Insurance reserves of insurance organizations in Russia in 2019 amounted to 2,514.3 billion rubles, an increase of 5.2 times compared to 2010. Life insurance reserves for the study period increased from 42.1 billion rubles in 2010 to 1,183.4 billion rubles in 2019. Reserves for non-life insurance in 2019 amounted to 1,380.9 billion rubles, which is 935.4 billion rubles more than in 2010 (Table 2).

Table 2 – Dynamics of Insurance Reserves of Insurance Organizations in Russia [5,12]

Years	Insurance reserves, billion rubles		
	Total	Life insurance reserves	Reserves for non-life insurance
2010	487.6	42.1	445.5
2011	454.9	45.5	409.4
2012	647.7	70.2	577.5
2013	779.4	99.7	679.7
2014	889.5	161.9	727.6
2015	972.9	232.9	740.0
2016	1,136.1	354.1	782.0
2017	1,448.4	583.8	864.6
2018	1,831.1	884.6	946.4
2019	2,514.3	1,183.4	1,380.9

There is an increase in the reserve of unearned premiums from 220.0 billion rubles in 2019 to 621.2 billion rubles in the structure of insurance reserves of insurance organizations (Table 3).

Table 3 – Dynamics of the Structure of Non-life Insurance Reserves of Russian Insurers, Billion Rubles [5, 12]

Indicator	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
reserve of unearned premium	220.0	202.0	284.0	334.9	359.0	370.5	388.5	537.1	677.1	621.2
reserve for declared but unsettled losses	133.0	123.0	173.0	204.0	220.0	183.5	206.3	210.2	199.2	267.1
reserve for past but undeclared losses	70.3	65.0	92.4	108.0	115.0	143.1	133.0	107.0	95.1	103.4

The investment activity of insurance organizations is based on the use of temporarily available funds of insurance reserves and own funds as investment resources and making a profit. Let us consider some hypothetical variants of the investment strategy for managing insurance reserves (Table 4) [3, 6, 7, 12].

Table 4 – Visualization of the Real Profitability of Financial Instruments in Russia
[compiled by the authors based on data © 2021, Activeinvestor.pro]

Year	Moex Index	S and P 500 in rubles	Dollar	Euro	Realty	Deposit RUB	Deposit USD	Deposit EUR	Gold	Silver	State bonds	Corporate bonds
2010	15.2	6.6	-7.4	-14.5	7.6	0.3			19.7	61.9	2.2	3.1
2011	-19.4	1.7	-0.4	-2.6	9.3	-0.5	2.8	0.4	11.1	-14.4	-0.3	0.0
2012	2.1	2.7	-11.5	-9.4	-5.8	0.9	-8.3	-6.4	-6.8	2.0	7.6	2.4
2013	-0.1	34.0	1.2	5.0	-3.0	1.9	4.4	8.1	-26.6	-33.1	-2.5	2.3
2014	11.9	75.5	54.4	36.5	5.3	-3.6	57.4	39.4	52.4	24.0	-23.1	-9.4
2015	17.2	16.3	14.7	3.3	-16.8	0.3	19.6	7.8	3.3	-0.1	14.7	3.4
2016	26.0	-11.6	-21.0	-24.0	-9.2	3.9	-15.8	-19.1	-14.3	-8.9	9.0	6.9
2017	-2.6	12.9	-7.4	5.3	-4.1	5.2	-5.8	6.0	3.6	-3.4	10.0	9.4
2018	14.2	10.6	15.7	10.7	-0.8	2.4	17.2	11.2	14.1	5.7	-2.1	0.1
2019	34.4	13.7	-13.5	-15.3	0.5	3.8	-10.7	-14.8	2.2	0.8	16.4	11.6
2020	9.5	34.7	13.8	24.7	10.8	0.6	14.8	24.9	41.3	66.9	3.5	4.6

Investments in debt securities (a strategy for obtaining maximum income within a conservative portfolio). The purpose of such investments is to achieve a yield higher than the rates on medium-term deposits of leading Russian banks. The investment idea is to receive interest income

and income from the growth in the value of securities as a result of lower interest rates in Russia, increased stability of the economy, and the market's review of the creditworthiness of issuers.

The strategy is based on the selection of the most attractive instruments based on the analysis of the credit quality of issuers, trends in interest rates and exchange rates on the domestic and global capital markets, as well as liquidity flows [12].

Part of the strategy is to diversify the portfolio between issuers and industries. The inclusion of a small part of the shares in a conservative portfolio allows improving the overall risk/return ratio. An additional advantage of including shares in the portfolio is maintaining the liquidity of the portfolio.

The "fixed income" strategy. Investment idea: obtaining a fixed income that exceeds the rates on bank deposits by forming a portfolio of bonds with a maturity corresponding to the investment period.

The yield is fixed at the time of investment; market risk is excluded since the bonds are held to maturity. The strategy has several advantages concerning bank deposits: reducing credit risk by diversifying the portfolio between issuers, the possibility of early repayment within a few days, no penalty for early repayment, drawing up an individual portfolio according to the terms of investment. The standard Fixed Income portfolio consists of bonds of various issuers to diversify credit risk. The bonds of companies focused on the growth of the economy as a whole look the most attractive in terms of the risk/return ratio in the current market conditions [3, 4, 8, 10].

The evaluation of investment strategies showed that the result of the investment activity of insurers increased to 207.5 billion rubles in 2019, billion rubles, which is 2.42 times more than in 2010 (Table 5).

Table 5 – Structure of Income from Investment Activities in Insurance Organizations in Russia [5, 10, 12, 13]

Years	Income of insurance organizations from investment operations, billion rubles.		
	Total by investment activities	including	
		at the expense of insurance reserves	at the expense of the funds of the insurance reserves for life insurance
2010	85.6	58.3	3.7
2011	72.8	49.6	3.1
2012	34.1	23.3	5.9
2013	36.7	25.2	5.7
2014	37.6	33.3	4.1
2015	83.0	75.4	23.3
2016	75.5	49.4	10.9
2017	74.1	28.2	12.9
2018	124.3	59.5	26.0
2019	207.5	105.9	32.5

The result for investing insurance reserves for non-life insurance amounted to 105.9 billion rubles, for investing insurance reserves for life insurance amounted to 32.5 billion rubles.

Based on the conducted research, it was revealed that the distribution of insurance organizations in Russia, depending on the value of the return on invested capital, significantly decreased in 2016, the share of extreme options in 2015 (less than 5% or more than 15%) was about 40%, in 2016 – 25%.

The distribution of insurance organizations in Russia, depending on the value of the return on invested capital, thus the volume of the investment portfolio amounted to 108.5 billion rubles in the joint venture "Ingosstrakh" in 2019. The structure of the investment portfolio includes banking instruments (38%) and non-banking instruments (62%). The yield on banking instruments was at the level of 7.4% per annum, or 2.9 billion rubles in absolute terms.

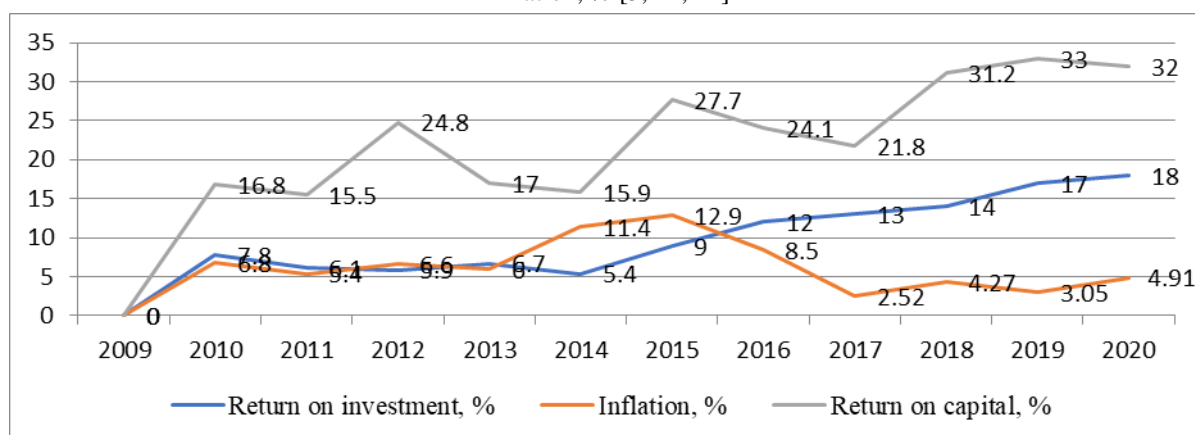
Placements in stock market instruments are mainly represented by debt financial instruments with low volatility. The share of stocks, as the riskiest assets, averaged 5%, or 5.6 billion rubles, in the total portfolio of short-term financial investments in 2019. The yield on stock market instruments in 2019 was 12.0%, which in absolute terms amounted to 4.4 billion rubles. The profitability of the entire portfolio for the year was at the level of 10.4% per annum and amounted to 10.2 billion rubles.

JSC "SOGAZ" adhered to a conservative investment strategy, placing funds mainly in reliable fixed income instruments – deposits of the largest banks and highly rated bonds. Qualified management companies are involved to manage part of the investment portfolio. The company has received a profit from investment operations of 44.9 billion rubles (for 2018 – RUB 15.7 billion) for 2019, including other investments (dividends from subsidiaries and associated companies).

In general, the investment portfolio increased to 54.0 billion rubles. The structure was dominated by securities (the yield on bonds was higher than on deposits) up to 35%, deposit investments up to 31.0%.

The assessment of the indicators of the return on investment of insurance companies and the inflation rate is shown in Figure 3.

Figure 3 – The Ratio of Return on Capital, Investment Activity of Insurance Organizations in Russia, and the Level of Inflation, % [5, 11, 12]



The return on capital is in the range from 15.5 to 33.3 % (Figure 3), the profit received increased by 5.9 times in 2019 and amounted to 207.4 billion rubles compared to 2010.

The assessment of the solvency margin of insurance organizations shows that there is an increase in the actual solvency margin by 1.9 times over the study period (Table 6).

Table 6 – Dynamics of the Solvency Margin of Insurance Organizations in Russia [5, 11, 12]

Indicator	Years									
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
The actual size of the margin, billion rubles.	248.8	255.0	290.0	359.0	385.5	383.9	447.7	501.1	552.4	663.6
The standard margin size, billion rubles.	98.2	105.0	136.0	202.0	183.7	190.4	194.7	201.3	223.4	239.5
Margin deviation, billion rubles.	150.6	150.0	154.0	157.9	201.7	193.5	253.0	299.8	328.9	185.0

Thus, the introduction of several tightening measures concerning the banking sector by the current legislation of the Russian Federation necessitates the placement of insurance reserves and own funds and is carried out following the Instructions "On the procedure for investing insurance reserves and the list of assets allowed for investment" and the Instructions "On the procedure for investing their funds (capital) of the insurer "(No. 3444-U and 3445-U, respectively). The mega-regulator of the financial market, represented by the Central Bank, has begun an active policy of introducing a risk-based approach to the management of insurance companies (Regulation of the Bank of Russia No. 710-P dated January 10, 2020 "On certain requirements for the financial stability

and solvency of insurers”) to achieve the goals economic stability of society, increasing the financial stability of the financial sector and increasing the transparency and reliability of the reporting data of the insurance sector.

Based on the data studied, in 2020, the return on investment of Russian insurers remains at the level of 2019. Therewith, the spread of return on investment indicators may increase, as insurers have increased their share of investments in a more volatile stock market.

Given the strategic initiatives on capital management of insurance organizations, the mega regulator has proposed a mechanism for calculating insurance reserves, solvency, and financial stability for 2021-2023.

Elaboration of a joint position on the development of agricultural insurance with state support. "Scripts" were approved in the process of settlement of losses on the insurance of agricultural crops, planting of perennial plantings. To improve the mechanism of supervision by the Bank of Russia over the professional association of insurers in the agro-industrial complex and to improve the efficiency of control over the formation and use of the compensation fund.

4. Conclusion

The expected results of the study are the mechanism of capital formation of insurance organizations, the evolutionary growth of the authorized capital, the assessment of the financial potential of the insurance market, the financial result of insurance and investment activities. We substantiated the direction of the expediency and acceptability of legislative norms for the capitalization of insurance companies in the context of financial and economic sanctions, the mandatory conditions for ensuring their financial stability, and guaranteed solvency. Strategic capital management allows predicting the financial indicators of the activities of insurance organizations in the conditions of different variations of their financial and investment support. Harmonization of the interests of interaction actors to solve the problems of priority economic growth.

References

Dolgikh Yu. A. Methodological approaches to assessing the financial stability of an enterprise: traditions and innovations. Yu. A. Dolgikh, Yu. E. Slepukhina. *Insurance business*. – 2015. – No. 11 (272). – 18-27.

Kirillova N. V. Risk management systems in insurance organizations. N.V. Kirillova. *The world of the new economy*. 2016. 3, 116-123.

Okorokova O. A. Features of the investment policy of insurance organizations in a recession. O.A. Okorokova. *Economic Sciences*, 2016, 140, 101-107.

Okorokova O.A. Management of insurance reserves of insurance organizations. O.A. Okorokova. *Financial analytics: problems and solutions* – 2012. 2, 48-51.

Okorokova O. A. Insurance company financial strategy. O. A. Okorokova. *Bulletin of the Adyghe State University. Series 5: Economics.*–2011. – No. 3. – p. 29-36.

Slepukhina Yu. E. Transformation of the concepts of solvency and financial stability of insurance companies in conditions of destabilization of the national economy. Yu. E. Slepukhina. *Sustainable development of Russian regions: economic policy in conditions of external and internal shocks: collection of materials of the 12th international scientific and practical conference*., g. Ekaterinburg, April 17-18, 2015 – Ekaterinburg : [UrFU], 2015. – p. 417-420.

Slepukhina Yu. E. *Risk management in financial markets: textbook. manual for students enrolled in the master's program in the direction of preparation 080300 "Finance and Credit"*. Yu. E. Slepukhina; science editor A. Yu. Kazak]; The Ural Federal University named after the first President of Russia B. N. Yeltsin, [Higher School of Economics and Management]. – Yekaterinburg: Ural University Publishing House, 2015. – p. 216.

Slepukhina Yu. E. Financial risk management of an insurance organization: innovative methods of assessment and analysis. Yu. E. Slepukhina. *Insurance business*. 2011, 2, 24-32.

Ulybina L.K. Methodological aspects of the equity capital adequacy strategy of an insurance organization in the context of market transformation and globalization. L.K. Ulybina. *Financial analytics: problems and solutions*. 2012. 17, 26–29.

Ulybina L.K. Investment activity of insurance institutions in conditions of risk and uncertainty. L.K. Ulybina, O.A. Okorokova. *Economic sciences*. – 2015.– No. 128. – p. 75-84.

Tsyganov A. A. *The development of the insurance market as a function of the development of the national economy*. A.A. Tsyganov. In the book: Insurance and risk management: problems and prospects. M: 2017. – 140-152.

Global Risks 2019. Insight report. World Economic Forum. Geneva Switzerland.

Overview of key indicators [www. cbr.ru/finmarket/common_inf/legals_insurance/](http://www.cbr.ru/finmarket/common_inf/legals_insurance/)