

## ARTICLE

# THE ROLE OF THE REINSURANCE SYSTEM IN ENSURING STABILITY OF THE INSURANCE MARKET OF RUSSIA UNDER ECONOMIC SANCTIONS

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## ABSTRACT

The macroeconomic conditions of Russian insurance market functioning under Western economic sanctions predetermine the appearance of a number of problems. Not the least of which is the growing number of unprofitable insurance companies, as well as the revocation of licenses of a number of insurers. One of the factors is the reduction of volume of risk transfer to reinsurance. Insufficient capacity of the domestic reinsurance market, high level of a number of risks transferred in insurance are the problem that have a rather long history. The present article is concerned with the search for the ways that allow reinsurance to fulfill its role in respect of ensuring the stability of the insurance market. We have analyzed a number of indicators in dynamics. The correlation analysis showed a high correlation between premiums transferred in reinsurance and the total authorized capital of the reinsurance company. During the crisis, to maintain the stability of the insurance market the involvement of the state in the face of a national reinsurer is advisable.

## INTRODUCTION

Sustainable functioning of the insurance market implies recording and managing specific risks of the insurance activity, in particular, the risk of non-fulfilment by the insurer of obligations to the client upon the insured event occurrence.

From this perspective, the need for a developed system of reinsurance which ensures the financial stability of insurance companies is obvious.

The reinsurance market accumulates a number of issues, wherein the centre of responsibility for many of them is in the realities of the insurance market. The main ones are:

- extremely low capacity of the reinsurance market, small number of reinsurance companies, a stable trend to their reduction with simultaneously low level of capitalization both in relation to the Russian insurers, having a license for reinsurance, and to foreign reinsurers;
- a comparison of the leading universal large companies with their diversified portfolios, investments with reinsurance companies shows that the latter are much inferior in all positions;
- distrust of the partners in the reinsurance business because the reinsurer gains access to commercial information and provides the insured more advantageous insurance conditions;
- increase by the insurance companies of the size of their own deductions in order to reduce the cost of reinsurance;
- providing the reinsurance protection on the basis of reciprocity, often the equivalence of the relations on the transferred premium volumes is not accompanied by a similar process on the transferred risks quality;
- high capacity and security of risk distribution abroad, qualitatively the worst risks remain to the Russian reinsurers;
- the growing number of large losses (high degree of depreciation of fixed industry assets, the low level of control and security industries systems), this leads to an increase in rates for reinsurance.

From 2014, the financial market of Russia functions under economic sanctions. In general, economic sanctions are actions taken by one country or group of countries aimed against the economic interests of another country or group of countries, usually with the aim to achieve social or political changes in this country [1].

Therefore, despite the fact that the goals of the anti-Russian sanctions are political, first and foremost, they affected the economy of our state. Accordingly, this is reflected in the reinsurance system [2]. At that two sets of problems are revealed. The first occurs indirectly, through the macro economy: economy contraction, capital outflow, drop in the exchange rate of national currency, declining living standards of Russians, reduction in lending – all this leads to a reduction in fees in the insurance market. The second set of problems arises directly from the sanctions policy of the West. It should be noted that sectoral sanctions did not affect directly the insurance and reinsurance business. However, the presence of the sanction risks leads to the increase in the cost of reinsurance protection [3].

In financial literature of Russia and other countries there are plenty of studies related to the influence of reinsurance on the stability of the economic system: relationship between capital, risk and reinsurance [4],

### KEY WORDS

reinsurance, economic sanctions, financial stability, state reinsurer, insurance premiums.

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reasons why national insurers utilize program composed foreign reinsurers [5], the likelihood of primary insurer's downgrade increases with its reinsurance default risk exposure from downgraded reinsurers [6], indicators of systemic risk insurer [7], the traditional model of reinsurance and its exposure to risks [8], the impact of mega-regulator in the Russian financial market [9], reinsurance in Islamic finance [10]. Determine the factors related to reinsurers' net financial positions vary based on the characteristics of the countries, the reinsurers, and the industry [11]. Offer a model of equilibrium in reinsurance and capital markets in which professional reinsurers arise endogenously [12].

## MATERIALS AND METHODS

In order to study the impact of such ratio as a total authorized capital of the reinsurers, as well as the country's GDP per the reinsurance relationships we used the method proposed by Prof. M.R. Safiullin [13]. The conceptual bases of the system functional model of the market economy reflects the main markets and intermarket interactions.

To identify the relationships between the individual macroeconomic indicators and the indicators characterizing the system of reinsurance, the correlation analysis method is used.

The general economic and mathematical model of the graph in quadrant of [Fig. 1], is as follows:

$$Pret = F (Kret) \quad (1),$$

where

Pret is the premiums transferred in reinsurance;  
Kret is a value of the total authorized capital of the companies engaged in reinsurance.

The hypothesis of our study. A number of factors affect the reinsurance. This GDP, a total authorized capital of the reinsurers, insurance premiums, capital outflows. Their change will improve the state of the reinsurance market.

## RESULTS AND DISCUSSION

It should be understood that the capacity of the Russian reinsurance market is small, the financial stability of Russian insurers in the current environment is variable, that is why the placement of risks abroad is a vital necessity. Table 1 summarizes the institutional characteristics of the Russian reinsurance market [14]. There is a clear trend of reducing the number of companies engaged in reinsurance, and in the period of the sanctions measures, these rates increased. The effect of currency risk implementation resulted in a sharp fall in total authorized capital of Russian reinsurers that is denominated in foreign currency.

**Table 1:** Institutional characteristics of the Russian reinsurance market

Years	Insurance companies licensed for reinsurance			Reinsurance companies		
	Quality	Total authorized capital		Quality	Total authorized capital	
		bln. rubles	mln. U.S. dollars		bln. rubles	mln. U.S. dollars
2006	121	61.81	2349.8	26	5.65	214.8
2007	195	91.33	3766.9	30	8.70	358.7
2008	184	98.15	2853.7	25	6.74	196.1
2009	172	97.97	3323.8	22	5.44	184.4
2010	147	105.08	3603.2	21	7.10	243.5
2011	128	122.43	3918.9	19	10.87	348.0
2012	101	131.27	4355.0	14	9.22	305.9
2013	98	146.32	4496.2	13	8.72	267.8
2014	86	155.87	2470.8	13	8.88	140.7
2015	72	136.38	1820.6	7	4.91	65.6
2016	57	134.84	2140.8	5	2.99	47.4
2017	53	140.66	2410.6	4	23.68	40.58
2018	46	133.64	2131.0	3	22.58	36.01

Compiled by the authors

The crisis phenomena in the economy, caused, in particular, by the sanctions led to the decline of the insurance market. This decline is shown in the [Table 2] [15]. After the imposition of sanctions there has been a dramatic reduction in the number of insurance contracts in force. There is a decrease in the average insured amount under one insurance contract.

**Table 2:** The individual characteristics of insurance contracts

Years	Number of insurance contracts in force at the end of the reporting period, units	Total insurance sum under all insurance contracts, trn. rubles	Average insured sum per one insurance contract, mln. rubles
2013	103381801	38934.3	376.6
2014	124333011	35251.5	283.5
2015	111172642	34975.6	314.6
2016	115955018	38466.2	331.7
2017	128823888	34523.8	268.0
2018	135031259	35153.4	260.3

Compiled by the authors

In general, we can note the following.

First, the reinsurance system ensures the financial stability of the insurance market because it is used to manage the risk of non-fulfilment of obligations by the insurer to the client upon the occurrence of the insured event.

Secondly, the system of reinsurance in Russia should be developed at a higher rate than the insurance market, as there is its backlog.

Thirdly, the level of net retention of risk by insurance companies is high in recent years, leading to a decrease in their financial stability [16].

Fourth, the low capacity of the Russian reinsurance market determines the need to reinsure the risks abroad.

The purpose of this article – to investigate the impact of the current situation on the Russian reinsurance market.

To be sure, the reinsurance is an effective mechanism that ensures the financial stability of the insurance company. However, in a crisis caused by falling in oil prices and Western sanctions, Russian insurers have tended to neglect this mechanism [17]. The share of premiums, transferred in reinsurance, decreases [Table 3]. And the greatest decline occurs during the large-scale introduction of sanctions. The proportion of net retention of insurance companies becomes high.

**Table 3:** The share of insurance premiums transferred in reinsurance

Years	Premiums under the contracts transferred in reinsurance, bln. rubles	Insurance premiums, bln. rubles	Share of insurance premiums transferred in reinsurance, %
2010	87.54	557.2	15.71
2011	97.50	664.4	14.67
2012	114.79	809.1	14.19
2013	120.16	904.9	13.28
2014	138.45	987.8	14.02
2015	120.63	1023.8	11.78
2016	132.12	1180.6	11.19
2017	108.90	1278.8	8.52
2018	115.49	1479.5	7.81

Compiled by the authors

We believe that the decline in risk transfer to reinsurance, summed with the negative impact of a number of macroeconomic factors, leads to an increase in the number of unprofitable insurance companies [Table 4]. At the end of 2014 the share of unprofitable companies has grown more than twice.

**Table 4:** The share of unprofitable companies in the Russian insurance market [18]

Years	The total loss of unprofitable organizations, bln. rubles	The share of unprofitable enterprises in the total number of insurance and reinsurance companies, %	The rate of change in the share of unprofitable enterprises, %
2010	4	14.2	–
2011	3	14.4	101.41
2012	12	11.1	77.083
2013	16.2	7.2	64.865
2014	17.1	14.8	205.56
2015	12.3	16.3	110.14
2016	34.5	21.1	129.45
2017	59.4	22.5	106.64

Compiled by the authors

Still, a significant share of the risks is transferred in reinsurance abroad. As shown in [Table 5], more than two-thirds of premiums for reinsurance, and in 2015-2016 and more than 80% of premiums is transferred outside the Russian Federation. That stands to objective reasons. The main one is a low capacity of the Russian reinsurance market. The problem arising from this aspect is an exit of the financial resources from the Russian financial market. That is, the cash flows of about 100 billion rubles could be traded each year on the Russian financial market as investment assets. In addition, in terms of anti-Russian sanctions action a number of problems arose: the growth of tariffs for reinsurance coverage abroad, refusal of the foreign reinsurers to accept a number of risks. Also the risks of the Russian sanctioned companies are not accepted for reinsurance abroad. In addition, if the sector sanctions will be introduced, it would lead to the suspension of insurance payments under the insured events [19].

**Table 5:** Indicators of the reinsurance market

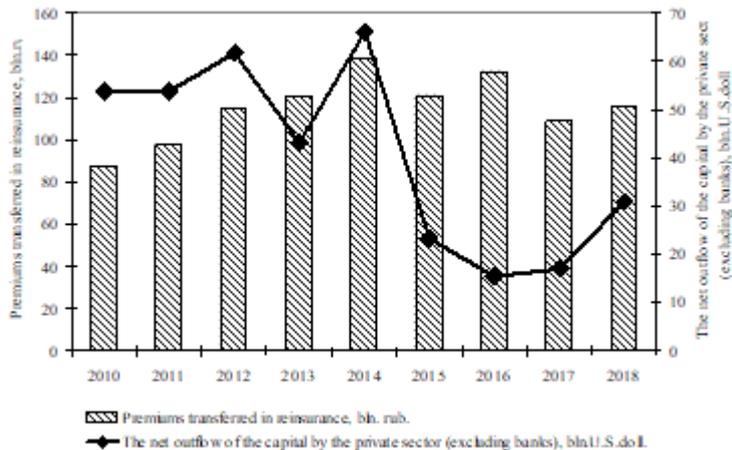
Years	Premiums under contracts transferred in reinsurance, bln. rubles		Share of premiums transferred outside the Russian Federation, %
	Total	Transferred outside the Russian Federation	
2010	87.54	53.81	61.47
2011	97.50	65.82	67.51
2012	114.79	79.41	69.18
2013	120.16	83.17	69.22
2014	138.45	101.40	73.24
2015	120.63	98.45	81.61
2016	132.12	112.55	85.19
2017	108.90	87.00	79.89
2018	115.49	88.47	76.60

Compiled by the authors

In autumn of 2016 the Russian National Reinsurance Company with paid authorized capital of 21.3 billion rubles was created. 100% of the Company's shares belong to the Central Bank of the Russian Federation. The state reinsurer is obliged to accept for reinsurance risks in respect of the objects which are under the international sanctions in the amount of not less than 10% of their placement. For other risks, the insurers will be required to place 10% of the risks transferred in reinsurance. According to preliminary estimates, the company's business in 2017 will be 500 mln. rubles by the sanction objects and about 12 bln. rubles by other risks.

Thus, 12.5 bln. rubles of 100 bln. rubles exiting to the international reinsurance premiums market hypothetically could stay on the Russian financial market. That is the problem of the Russian reinsurance market positions strengthening is not removed.

Fig. 1 shows the relationship between premiums transferred in reinsurance and the net outflow of the capital by the private sector (excluding banks).



Compiled by the authors

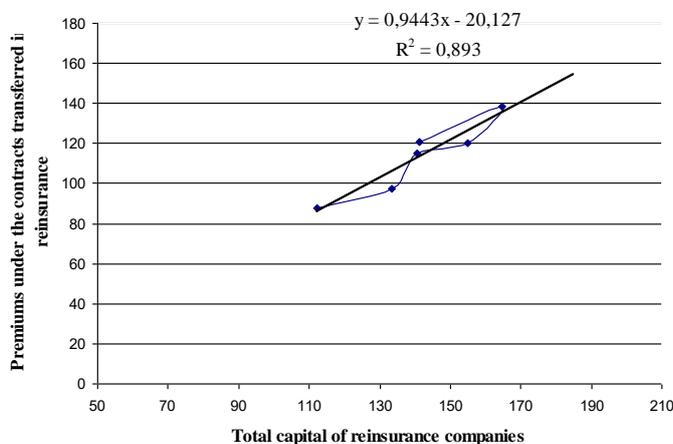
**Fig. 1:** The relationship between premiums transferred in reinsurance and the net outflow of the capital by the private sector (excluding banks).

Reducing the outflow of the capital leads to a reduction of premiums, transferred in reinsurance. Perhaps, there is a transfer of premiums, related only to the withdrawal of funds abroad.

We believe that it is necessary to increase the stability of the Russian reinsurance system through a series of measures aimed at increasing equity of the reinsurance companies. This will allow, based on market mechanisms, to place the risks inside the country.

We have analyzed a number of indicators in dynamics: the Russian GDP, the net outflow of the capital by the private sector (excluding banks), the average weighted exchange rate of the US dollar, insurance premiums, total authorized capital of the reinsurance companies, as well as premiums transferred in reinsurance. The correlation analysis showed a high correlation between premiums transferred in reinsurance and the total authorized capital of the reinsurance company (0.945). Also the correlation coefficient of premiums transferred in reinsurance, with insurance premiums across the insurance market is high (0.926). This relationship is evident. There are two aspects. First, the increase in the insurance premiums collection shall be ensured by the solution of macroeconomic problems and problems of the insurance market. Secondly, it is not beyond argument that the increase in the insurance premiums collection will provide a similar increase in reinsurance premiums. Thirdly, even if this assumption is realized, the reinsurance companies still will not have enough capacity for taking reinsurance risks. The relationship between premiums, transferred in reinsurance and the Russian GDP is 0.906, but even here the solutions have macroeconomic nature and direction.

Therefore, we analyzed the relationship between premiums, transferred in reinsurance, and the authorized capital of the reinsurance company (both reinsurance companies and insurance companies that are licensed for reinsurance). The regression analysis carried out on the basis of statistical data of Tables 1 and 3, allowed us to obtain the results summarized in [Fig. 2].



Compiled by the authors

**Fig. 2:** The relationship of the volume of premiums transferred in reinsurance and the total authorized capital of the reinsurance company in the Russian Federation.

For the period of 2010-2018 the regression equation of the relationship of premiums transferred in reinsurance and the total authorized capital of the reinsurance companies has the form:  $Y = 0.9443X - 20.127$ . With the increase of the authorized capital of the reinsurance companies, the premiums transferred in reinsurance grow too. However, the regression equation shows that not any capital growth will ensure an increase in premiums. The positive effect will come when the increase of capital will be more than 21.3 bln. rubles. It is merely a coincidence or not, but the paid authorized capital of the Russian national reinsurance company amounted to 21.3 bln. rubles. It means that now at least a minimal increase in total authorized capital of the reinsurance companies will increase the cash flow for the reinsurance.

During the crisis, to maintain the stability of the insurance market and preserving the cash flows for operations in the domestic financial market, the involvement of the state in the face of a national reinsurer is advisable. At the same time it is necessary to take measures to increase the capacity of the reinsurance market by further purification of the market from unfair participants, as well as introducing measures of the state regulation, in particular, the mandatory transfer of all risks accepted on insurance in reinsurance. With the improvement of the macroeconomic situation the reduction in the share of the state participation in reinsurance companies is advisable.

## CONCLUSIONS

The indicators of the performance of the insurance companies worsen under the economic sanctions. One of the factors is a high net retention of insurers and lack of capacity of the Russian reinsurance market. We conducted a study of the reinsurance role in the insurance market sustainability. It was determined that the amount of reinsurance coverage reduces due to a number of reasons. The conducted analysis showed that the direction of the situation change is the increase of the capacities of the Russian reinsurance market, as well as certain measures of the state influence on the reinsurance system.

### CONFLICT OF INTEREST

There is no conflict of interest.

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### FINANCIAL DISCLOSURE

None.

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