

## THE IMPACT OF THE ECONOMIC CRISIS ON CREDIT INSURANCE

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*The insurance domain is one of the most complex and extensive areas of the market. However this field is very risk exposed especially in this period of economic instability. One of the most non-performant insurance products at this time is the credit insurance. Due to inability to pay and increasing bad loans, insurance companies have decided to remove these products from their portfolio. We believe that the signs that led to this situation have been very visible for a long time, but the insurance market players refused to give too much importance to them because they based their operations on the artificial strength of the whole system. In this paper we want to show how things have evolved on the credit insurance market as compared to the general insurance market, and if the present situation could have been anticipated and avoided.*

*Keywords: crisis, inflation, hazard, credits, performance, panel data.*

*JEL Code: G22, G21, C23*

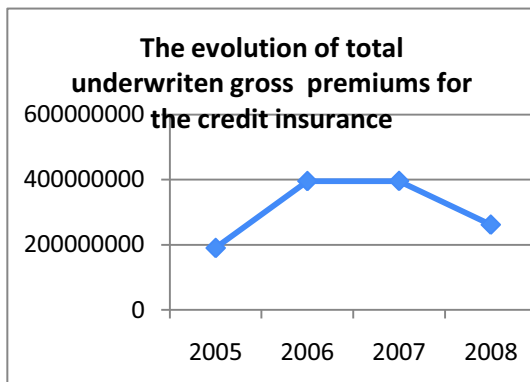
In these times of economic instability the players belonging to both the national and international financial market attempt to protect themselves as effectively as they can against the risks. Thus, an important help should arise from the insurance companies, which should offer viable products for covering the credit risk. Credit insurance should protect financial institutions from the possible occurrence of bad loans. Increasingly more people are late in paying bank lending rates, so that, in June 2009, the total amount of rates paid with a delay of less than 30 days was of 817 million lei. Meanwhile, according to the National Bank of Romania, the delays of more than 30 days had accumulated to 4.98 million lei. Compared with the same month of the last year, 2008, the rates of late payments rose almost 4 times. Simultaneously with these payment delays, the share of overdue debts in the total balance of loans rose to 2.58% in June. All these after in June 2009 the level was of 1.17% and at the end of the year it reached 1.47%. In addition, the number of debtors is still growing. According to the data centralized by the Credit Bureau in late June, more than 600,000 individual clients had more than 30 days delays on payments. At the same moment the total amount of the population's debts of loans smaller than 20,000 lei was of 1.8 billion lei. A recent study carried out by Deutsche Bank warned that the rate of bad loans might get to 15-20% by midyear, in Romania and Bulgaria. In addition to increasing bad debts, banks continue to face a decreased demand for loans. According to a study released by GfK Romania this year, Romanians fear that they would no longer be able to pay their debts.

In Romania, most insurance companies provide specialized products to cover the credit risk. However, as it would be proved by the following analysis, these products have a relatively low

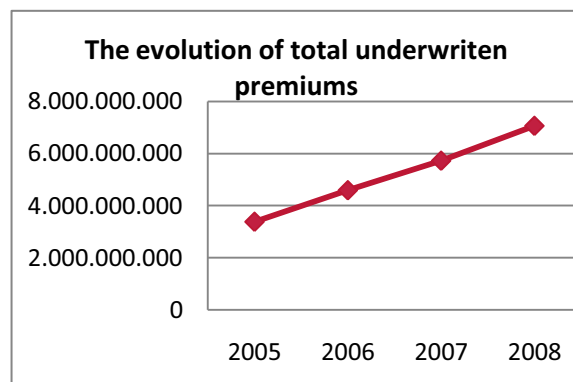
weight in the total subscribed insurances and their share in the total insurance subscriptions is in a continuous decline. It is interesting to see how these types of insurance have evolved in recent years, and most important we have to analyze how the insurance companies have acted before the start of the economic crisis. During the reported period (2005-2008) a steady decline in the share of the credit insurance in the total gross subscribed premiums for the general insurances may be observed. On the other hand, the total gross premiums subscribed for generale insurances by insurance companies have been continually increasing. From the graphs below we may see that the total underwritten gross premiums have a much higher growth rhythm, while the credit insurance underwritten premiums in the first phase, 2005-2006, have sharply increased then showed a constant trend, 2006-2007, and then have fallen, 2007-2008. These premiums have decreased mainly due to the economic conjuncture especially because insurers have made a more careful selection of risks. Furthermore, the credit insurance premiums have decreased by 51.79% as compared to the 2007, so this trend diminished their share in the total written gross premiums of general insurance by 2.7% in 2008 compared to 6.9% in 2007, respectively 8.6% in 2006.

Fig.1 The evolution of total gross underwritten premiums for the credit insurance.

Fig. 2 The evolution of total underwritten premiums



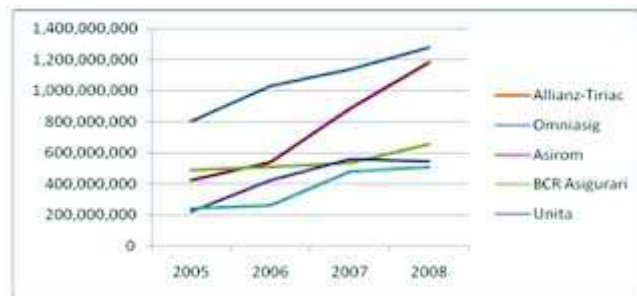
Source: Authors' processing



Source: Authors' processing

Throughout the examined period the market leader, having a share of 18.09% from the total written gross premiums of 2008 was the Alliant Tiriac Company, its premiums summing up to 1,278,805,131 lei. It is followed by companies like Omnisig, Asiom, Astra Insurance, as it may be seen from the following chart:

Fig. 3 The evolution of total gross underwritten premiums for 2005-2008(lei)

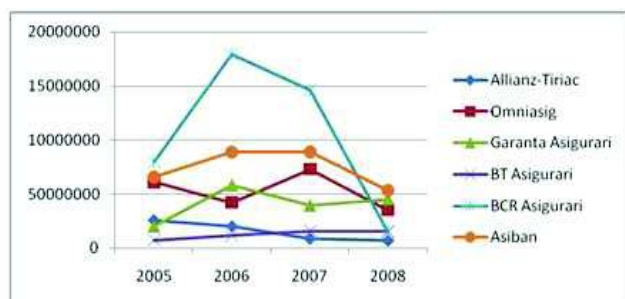


Source: Authors analysis

Despite the fact that the global economic situation is in a precarious situation, insurance companies still manage to increase the amount of gross written premiums. As is may be seen, Omnisig recorded by far the most impressive growth during 2006-2008. This can be put mainly on the account of two considerents. A first hypothesis is that the company would offer a wide range of products for all categories of customers at a lower price than its competitors. However we do not think this strategy could have such a big impact on the gross written premiums. In

addition, we tend to believe that Omniasig reduced the level of risk analysis so they could give insurance policies much easier. This policy may prove to be detrimental, because the insurance premium does not cover the intensity of the risk. Cristian Constantinescu, general manager of Allianz-Tiriac Insurance and chairman of the National Association of Insurance and Reinsurance Companies from Romania (UNSAR) said in mid-2007 "competition, as it is in Romania, is not linked to the consumer insurance, because there is no culture for insurance. Beside the price, nobody looks at anything. It is absolutely absurd to have large price differences both at the same insurance product. Nobody can understand some of these prices. At this time the competition is absolutely unfair. There is competition, but it subscribes only for the sake of subscribing whiteout considering the consequences. That's what happens now, according to the results from the market companies".

Next we will present the way that these market leader companies have addressed the problem of providing credit insurance:



Source: Author analysis

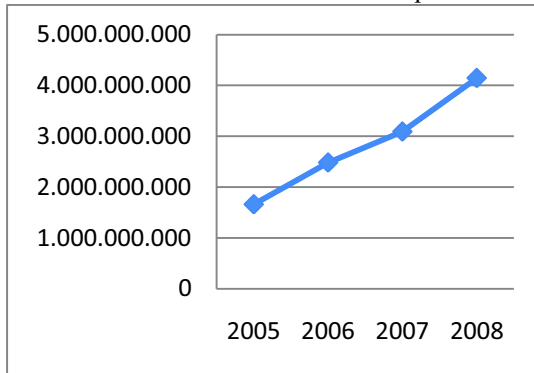
Fig. 4 The evolution of the gross premiums for the credit insurance for 2005-2008(lei)

It may be noted that although Allianz-Tiriac is the insurance market leader, the gross written premiums for credit insurance are rather reduced. The market leader of this area, accounting for 28.13% of the market, is Asiban which is not even located in the top 5 companies of the insurance market. This graph points out that among companies to offer credit

insurance products there are included insurance companies which are components of financial groups. The sharpest decrease in revenues from credit insurance premiums is recorded by BCR Insurance. This sinuous evolution is based also on the company's management. While the banks were willing to give credits to anyone, the credit insurance market was seen as a great opportunity to get profits. Excluding the risks assumed, once with the increasing outstanding loans, insurance companies began to record significant losses. Thus, many companies have reduced the activity of the insurance sector. The strongest example is BCR Insurances, which currently does not offer credit insurance products. Oscillations in the evolution of gross premiums for credit insurance have been registered by all the companies of the market, the exception being BT Insurances which managed to attain a sustained and constant evolution. Mainly the financial groups are currently trying to quit unprofitable products and one of the first products to be waived were the credit insurances. This may be a consequence of two things. Primarily due to the economic context, the number of loans fell sharply and this insurance has not been needed on the market. A second factor could be a psychological one, caused by the panic from the banking sector. So the insurance company has not given insurance policies as easily as before, quantifying more carefully the risks that the company is exposed to.

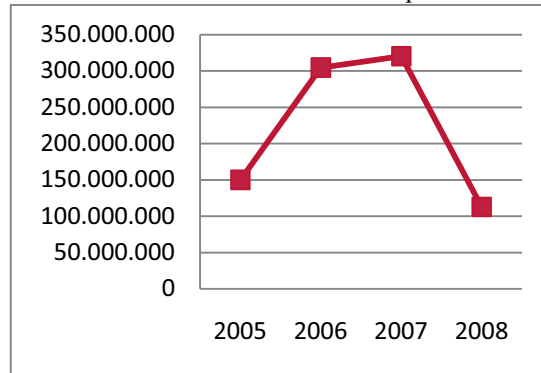
To relate how these insurance policies are covering the insured risks we must analyze the level of indemnities paid by insurance companies..

Fig. 5 Gross paid indemnities for the credit insurance in the 2005-2008 period



Source: Authors' processing

Fig. 6 Total gross paid indemnities in the 2005-2008 period



Source: Authors' processing

A sharp decrease of 2008 gross paid indemnities for the credit insurances may be noticed while the total indemnities are constantly increasing. But the insurance field has always been an atypical industry. In the current economic context, insurances are still the field that manages to attract the most money from the economy. Total gross underwritten premiums in 2008 increased by 23.42% compared to 2007 while the level of indemnities rose by 34.05%. The trend for insurers is to pull out the non-performant products from their portfolio. Thus the gross written premiums for credit insurance fell by 40% in 2008 compared to 2007 and indemnities fell by more than 65% during the same period, after in 2007 they recorded a growth of 5%.

Another important indicator to be assessed is the rate of damage. This indicator can be determined for each type of insurance, with particular importance in assessing the financial and economic results of the insurance company. When this indicator records high values, the financial situation is unfavorable for the insurer.

Next we will present how the damage rate for general insurances evolved by comparison with the credit insurances. The damage rate for general insurance records a constant trend during the period under review, recording a growth from 49.16% to 58.62%. Not the same thing may be observed about the damage rate for de credit insurances which recorded much higher values. Thus the highest rate was recorded in 2007 with a value of 80.96%, and then it decreased to a value of 59.21%.

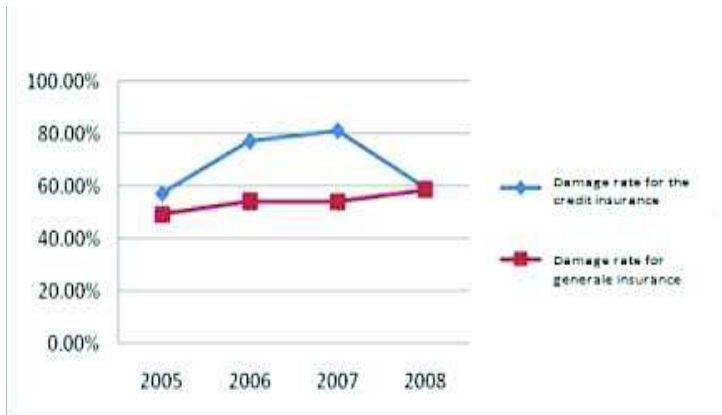


Fig. 7 Evolution of the damage rate in 2005-2008

Source: Author analysis

By analyzing the indexes with a fixed base it is observed that, in 2008 as compared to 2005 General Insurance damage rate grew with 19.24%. Unlike this, we can see that on the analyzed period, at the credit insurance, in 2008 as compared to 2005, it registered an increase of only 3.39%. Even if the damage rate on general insurance grew a lot more, it shows a certain constant trend from year to year, while not the same thing may be said about the damage rate on credit insurance, which records a much higher fluctuation from one year to another.

In the case of the formerly presented indicators we'd also verify the hypothesis of an existing correlation between the volume of gross written premiums in credit insurance and the total volume of gross written premiums in general insurances, by using panel data<sup>319</sup>. For this purpose, we created a database containing data corresponding to the six insurance societies who managed to maintain their top position on the credit insurance market, i.e. Alliantz-Tiriatic, Asiban, BCR Insurance, BT Insurance Garanta and Omniasig, with respect to the gross written premiums on credit insurances and the total volume of gross written premiums for general insurances, during the 2005-2008 years, information that were taken from the annual reports of the Insurance Supervisory Commission in Romania. These models were at first estimated with the method of least squares for panel data (Pooled OLS), then with a model with constant effects (Fixed Effect Model FEM) and a random effects model (Random Effect Model - REM). In order to estimate the parameters of the built models the Gretl<sup>320</sup> software package was used.

For this purpose, the following notations were used:

$V_1$  = gross written premiums in credit insurance, the endogenous variable, in lei;

$V_2$  = gross written premiums in credit insurance, the exogenous variable, in lei;

$u$  = residual variable.

The following econometrical linear model was built:

$$V_1 = f(V_2) + u \Rightarrow V_1 = a_0 + b_0 * V_2 + u$$

Analyzing the results obtained with these three models, using data for these six societies, we see that they are significant. In order to choose between the estimator obtained with the Pooled OLS model for panel data and the one obtained with the constant effect model, an  $F^{321}$  test was performed, based on the hypothesis that all free terms are constant and we could see that the best estimator is the one obtained in the case of the fixed effects model. The Random effect model assumes that the medium individual effect is framed in the constant term, and the error term includes the unobserved individual effect<sup>322</sup>. Still, an optimum answer must be given to the *what panel method should be used?* question. In order to test these last two models, with fixed and random effects, we use the Hausman test<sup>323</sup>. Through this test the existence of the efficiency and inconsistency of estimators (for the models) is verified.

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<sup>319</sup> Panel data models allow a single coefficient to summarize the impact of a variable upon a group of time series dependent variables (a group of companies, countries, regions) and the estimation of specific coefficients (constant or independent variables coefficients) for each time series considered as dependent variable - fixed effects.

<sup>320</sup> Gnu Regression, Econometrics and Time-series Library is a platform software for econometrical analysis.

<sup>321</sup> If the calculated value of F statistics is higher than the table value, then the null hypothesis of free terms equality is rejected. In this condition we may say that fixed-effect model is preferable to the common constant model.

<sup>322</sup> In the case of this model we consider that the societies differ in relation to the linear relationship between the two data sets, by random error series.

<sup>323</sup> If the statistical value is higher than a table value, then the null hypothesis is rejected, considering that, in this case, the second model is more suitable for analyzing the relationship between the two variables. Hausman, J. (1978), Specific Tests in Econometrics, 46.

After the simulations on the panel with fixed effects method, the free term  $a_0$  obtained had the value 33782900 (0.0310\*\*<sup>324</sup>) and  $b_0$  had the value 0.0259427 (0.4137). So, we may say that, at a  $V_2$  increase of 1 lei,  $V_1$  will increase with approximately 0.026 lei.  $R^2$  has the value 0.527216, so the exogenous variable considered explains only 53% of the endogenous variable, and definitely there are other factors which influence  $V_1$ . Also, the graphics for the experimental and theoretical values of  $V_1$ , the volumes of the gross written premiums for credit insurance, are as follows:

Fig.8. Experimental values of  $V_1$  and the ones ajusted through the model

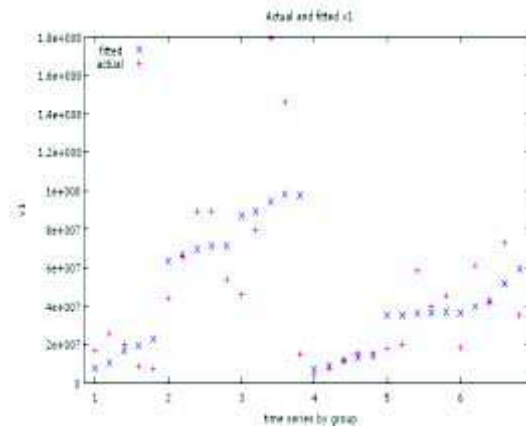
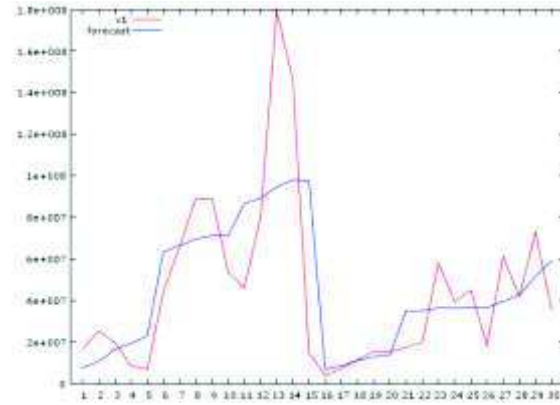


Fig.9 Experimental values of  $V_1$  and the ones ajusted through model



Source: Authors' processing in Gretl

## Conclusions

It is a certainty that insurances represent a necessarily "evil". Their main mission is to protect its customers from any risks that may arise from their activities. But as in any other field, there must be a clearly defined limit. This limit is placed between the insured risk and insurance premium. There must be a close connection between them, so that insurance companies could still be interested in continuing their activity on the market, and the clients to continue to rely on these types of services.

In this field, the management of the insurance companies is essential. According to the manager aversion towards risk, the company may have different objectives. Thus, if the manager wants to obtain a high market share he will decrease the risk assessment requirements in order to attract more customers, which will lead to a too much exposure of the company. You may see this in these times of crisis, when insurance companies are forced to compensate the recipients of the credit insurance. Due to the large number of debtors, many insurance companies are in a difficult situation. In order to get rid of these portfolios, insurers turn to reinsurance companies, to minimize the risks.

We think that this difficult period for the global economy and the national one should lead the insurance companies to a more mature, professional and responsible analysis before they offer an insurance policy subscription. We don't think that the insurance companies should give up covering certain insurance products, like the credit insurance, just because bank loans undergo through difficult times. This is not a solution. A new correct system of risk coverage correlated tariffs should be created, and also should be better correlated with the different coverage risk situations so that the customer won't have to suffer when the insurers decide that their profit rates are too low and they should withdraw from the market.

<sup>324</sup> p-values in between brackets. \*\* assings the 5% significant coefficients.

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